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Author(s): Barry M. Staw and Lisa D. Epstein

Reviewed work(s):

Source: *Administrative Science Quarterly*, Vol. 45, No. 3 (Sep., 2000), pp. 523-556

Published by: [Sage Publications, Inc.](#) on behalf of the [Johnson Graduate School of Management, Cornell University](#)

Stable URL: <http://www.jstor.org/stable/2667108>

Accessed: 23/01/2013 05:50

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What Bandwagons
Bring: Effects of Popular
Management
Techniques on
Corporate Performance,
Reputation, and CEO
Pay

Barry M. Staw
Lisa D. Epstein

*University of California,
Berkeley*

This paper examines some of the important organizational consequences of popular management techniques. Using informational reports on quality, empowerment, and teams, as well as a measure of the implementation of total quality management programs, we found that companies associated with popular management techniques did not have higher economic performance. Nevertheless, these same companies were more admired, perceived to be more innovative, and rated higher in management quality. Higher pay was also given to chief executives when their companies were associated with these management trends. These results provide strong support for institutional theory, demonstrating how both internal and external legitimacy can be gained by using popular management techniques. They also extend institutional theory from its usual emphasis on organization-environment relations to new within-firm dynamics. ●

It is hard to get a sense of scientific progress by reading a chronology of popular management techniques: Management by Objectives, Zero-based Budgeting, T Groups, Theory Y, Theory Z, Diversification, Matrix Organization, Participative Management, Management by Walking Around, Job Enlargement, Quality Circles, Downsizing, Re-engineering, Total Quality Management, Teams, and Empowerment. There is not a steady progression of ideas based on systematic knowledge of people and organizations, nor are there clear-cut discoveries of principles for motivating and coordinating the work of others. Instead, the chronology of management techniques reads more like a list of claims not quite substantiated and promises not quite fulfilled. Though many techniques once enjoyed the enthusiastic support of consultants, journalists, and management scholars, all but the most recent have fallen from favor, replaced by newer philosophies and procedures.

Abrahamson (1996) described the ebb and flow of management techniques as similar to that of a fashion cycle. At any particular time, practitioners and researchers are likely to agree that older management techniques were deficient, that their popularity was not justified by gains in efficiency or economic performance. But, as with any fashion trend, discussions of contemporary techniques tend to be much more positive. Today's business writers and consultants, for example, extol the virtues of techniques such as total quality management (TQM), teams, and empowerment, pointing to their widespread use by high-prestige organizations and their role in corporate success stories. Many academics have also jumped on the bandwagon. Lawler (1992) has called employee involvement the "ultimate competitive advantage." Pfeffer (1994) has described a broader set of human relations procedures as a source of "competitive advantage through people." And Pfeffer and Sutton (2000) have gone so far as to argue that the main problem of modern management is not knowing what the right set of techniques is (this is presumably clear) but reducing what they call the "knowing-doing gap."

If the merits of current management techniques are as obvious as Pfeffer and Sutton claim them to be, then it makes

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0001-8392/00/4503-0523/\$3.00.

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We thank Jan Beyer, Robert Cole, Glenn Carroll, John Freeman, David Levine, and John Meyer for their many helpful comments and suggestions during this project. The resulting paper also benefited greatly from the comments of Daniel Brass and three anonymous reviews for ASQ. The research was funded, in part, by a faculty research grant from the Institute of Industrial Relations at the University of California, Berkeley. Please send correspondence regarding this article to Barry M. Staw, Haas School of Business, Berkeley, CA 94720-19000, or to staw@haas.berkeley.edu.

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sense to shift our attention from the identification of effective procedures to their implementation. We should, as they suggest, start to specify norms, incentives, and strategies to help organizations implement the most popular or best practices. If effectiveness cannot easily be attributed to these contemporary techniques, however, then there may not be as much of a knowing-doing gap as a simple deficiency in our understanding of organizational behavior, requiring continued search for effective procedures rather than shortcuts for their implementation. In this article, therefore, we take a critical look at some of the most popular management techniques and their consequences. We assess whether these procedures really are associated with the performance of firms. We also ask if there are social and material outcomes that may drive organizations and their management toward popular programs, even when economic or technical benefits are hard to find. To begin such an inquiry, we turn to the literature of institutional theory.

AN INSTITUTIONAL VIEW OF POPULAR MANAGEMENT TECHNIQUES

Institutional theorists have long dealt with the issue of why many organizational forms and procedures can exist without obvious technical or economic value (Meyer and Rowan, 1977; Scott, 1995). Early qualitative and descriptive studies illustrated how organizations structure themselves not so much to execute their tasks more efficiently but to gain legitimacy or cultural support (e.g., Selznick, 1949; Zald and Denton, 1963; Meyer and Rowan, 1983; DiMaggio, 1991). Some quantitative research also showed that, while technical or functional criteria may be important determinants of the early adoption of an innovation, these factors become weaker predictors over time (e.g., Tolbert and Zucker, 1983). Although most institutional theorists have argued that late adopters use legitimacy rather than technical rationality as the basis of their actions, Scott (1995) noted that most of the evidence has been indirect, providing more support for the absence of technical or economic determinants of adoption than for institutional processes.

Somewhat more direct tests of institutional theory have involved social networks of organizations and their executives. Organizational practices and forms have been found to migrate between organizations that are linked in social networks, such that executives have the opportunity to share information and perspectives (e.g., Davis, 1991; Haunschild, 1993; Palmer, Jennings, and Zhou, 1993; Haunschild and Miner, 1997). While these studies have illustrated the importance of modeling and social learning by organizations (Levitt and March, 1988), they have not yet provided definitive evidence on key processes underlying institutional theory. We still do not know whether firms copy other organizations to gain legitimacy rather than technological or economic advantage. And, conceptually, it has been difficult to separate actions based on shared, taken-for-granted values and assumptions (DiMaggio and Powell, 1983) from those based on more familiar cognitive shortcuts (e.g., Nisbett and Ross, 1980). As March and Olsen (1976) noted, when technologies are poorly understood and organizations face problems with

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ambiguous causes and unclear solutions, copying other organizations (and their executives) may simply be a low-cost heuristic for finding useful solutions.

Since a core assumption of institutional theory is that organizations act to enhance or protect their legitimacy (Scott, 1995), we believe it is important for empirical tests of the theory to measure directly any gains in legitimacy received by the organization. Two recent studies have begun to provide such data. In a cross-sectional study of Minnesota banks, Deephouse (1996) showed that conformity to prevailing industry standards (in terms of asset allocations) was significantly associated with banks' legitimacy, as measured by the approval of regulatory agencies as well as public endorsement reported in the press. In a larger, longitudinal study of U.S. hospitals, Westphal, Gulati, and Shortell (1997) showed that isomorphism (i.e., using TQM procedures in the same way as other hospitals) led to increases in legitimacy, as evidenced by the ratings of a national accreditation organization.

While Deephouse's (1996) and Westphal, Gulati, and Shortell's (1997) studies both provided direct measures of legitimacy, they also shared a particular limitation. Each study was conducted within a highly regulated industry, in which the organization had little choice but to follow accepted practices. Banks and hospitals must follow regulatory and accreditation standards or be severely sanctioned. In other business situations, where fears of misconduct and demands for accountability are not so great, pressures for legitimacy may not be strong enough to prevail over technical and economic considerations. Moreover, in many industries, legitimacy may simply be bestowed on the highest-performing firms, regardless of whether they adhere to popular business practices in their pursuit of economic performance.

To validate institutional theory as a more general explanation of organizational behavior, attention should be directed to a broad cross-section of firms. Attention should also be directed to positive as well as negative aspects of social control. At present, negative sanctioning is recognized as a central component of coercive institutional processes. This is logical, given that coercive pressures include rules, regulations, and laws that are used to constrain organizational actions (e.g., DiMaggio and Powell, 1983; Scott, 1995). But negative sanctioning is also implicit in most empirical tests involving normative systems of control. For example, when accreditation is at stake in hospital or educational settings (e.g., Ruef and Scott, 1998), a failure to meet the conditions set by external examiners can constitute a threat to the well-being or survival of the organization, not unlike that of government sanctioning in regulated industries. Because of this reliance on negative (rather than positive) sanctioning, previous tests of institutional theory have probably understated the differences between coercive and normative systems of control.

Theoretically, normative pressures can refer to the positive pursuit of valued ends, not just negative deviations from goals and standards (Scott, 1995). The positive pursuit of cultural or industry ideals is something that may be richly rewarded by external agents and observers of the organiza-

tion, providing the firm with clear opportunities to gain in stature. Thus, when normative pressures are considered in a more positive (or bidirectional) light, institutional forces can be seen as influencing a broader range of actions, beyond the usual dichotomy of meeting or not meeting expectations or behaving in ways that are acceptable or not.

A more positive approach to normative control also implies that organizational attention does not necessarily revert to technical and economic considerations when a threat to legitimacy is resolved. Once minimal standards are met, corporations are likely to continue working for the esteem of external judges, be they various trade associations, public interest groups, or the business press. They may exert efforts to be the best or most admired in arenas from customer service to employment conditions to product design. Hence, when institutional forces are described in terms of positive as well as negative pressures, there is reason to consider the pursuit of reputation (e.g., Fombrun and Shanley, 1990; Fombrun, 1996) as a major vehicle for gaining organizational legitimacy. Since organizational legitimacy constitutes "the degree of cultural support for an organization" (Meyer and Scott, 1983: 201), significant changes in reputation may often be what drives the institutional basis of behavior.

Legitimacy and Performance

If one describes the adoption of popular management techniques as a means for the corporation to improve its reputation, does this also imply that there is a reduction in the technical or economic performance of the firm? Implicit in most versions of institutional theory is the notion that organizations are less efficient or rational when they seek legitimacy rather than economic ends (e.g., Meyer and Rowan, 1977). The pursuit of legitimacy is presumed either to lead to nonefficient practices or to draw the firm's attention away from more essential activities. But, as Scott (1995) pointed out, even if an organization pursues a policy or procedure for legitimacy reasons, this does not necessarily mean that there will be negative economic consequences. A gain in legitimacy could materially benefit an organization, since it may aid in securing valued resources or external support. And, if "best practices" are even partially as useful as they are claimed to be, then their adoption will be beneficial even when it is motivated by legitimacy rather than economic considerations. Thus, arguments can be mustered on both sides of the performance question. While some scholars stress that many management techniques are nothing more than passing fads (e.g., Abrahamson, 1996), others wonder why seemingly smart organizations fail to adopt beneficial innovations (e.g., Pfeffer and Sutton, 2000). Hence, there is reason to expect either an increase or decrease in organizational performance following the adoption of popular business practices:

Hypothesis 1a (H1a): The adoption of popular management techniques will lead to an increase in organizational performance.

Hypothesis 1b (H1b): The adoption of popular management techniques will lead to a decrease in organizational performance.

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The Pursuit of Legitimacy

Though we have posed conflicting hypotheses about whether popular techniques facilitate or detract from organizational performance, the effects of performance on corporate reputation are not so ambiguous. Using *Fortune* magazine's well-known annual survey on corporate reputation, Fombrun and Shanley (1990) and McGuire, Schneeweis, and Branch (1990) found highly significant relationships between performance and admiration. One specific example highlights this relationship over time. From 1983 to 1986, IBM was rated highest in *Fortune's* survey of corporate reputation, since this was also a period when its economic performance was strongest. As IBM's performance declined, however, so did its corporate reputation. After two years (1992–93) of negative returns on assets, sales, and equity, IBM's reputation fell all the way to number 354 on the 1994 *Fortune* list. Nonetheless, as the firm's economic performance improved in the late 1990s, so too did its corporate reputation, moving back to number 37 on the 1999 *Fortune* survey. Thus,

Hypothesis 2 (H2): Organizational performance will significantly influence a firm's external reputation.

Given the relationship between organizational performance and reputation, one might hypothesize that legitimacy is primarily achieved through strong financial performance. Whatever techniques a firm uses could become the accepted (even approved) means of production, as long as they appear to be associated with positive economic performance. Likewise, if adopting popular management techniques really does add to organizational performance, one might also expect an improvement in the firm's reputation. In either case, legitimacy would be mediated by organizational performance, such that popular management techniques would not be associated with legitimacy when performance is statistically controlled. Thus,

Hypothesis 3 (H3): Organizations will gain in external reputation when they have adopted popular management techniques that are either positively associated with firm performance or actually lead to improved performance.

Though it is possible to build corporate reputation by adopting innovations that improve organizational performance, institutional theorists argue that the process can be much simpler. As Meyer and Rowan (1977) noted, when an organization adopts programs that adhere to the prescriptions (and myths) in the institutional environment, it demonstrates that it is acting on collectively valued purposes in a proper and adequate manner. Because popular management techniques are generally as much a reflection of the values of a culture as a technical solution (Barley and Kunda, 1992; Wagner and Gooding, 1987), their adoption reflects an alignment of corporate and societal values. By adopting fashionable management techniques (e.g., TQM, empowerment, or teams), organizations may thus be able to improve their corporate reputations directly, regardless of economic performance.

Hypothesis 4 (H4): Organizations will gain in external reputation when they have adopted popular management techniques, regardless of whether there is an improvement in firm performance.

Since corporate reputations are an aggregation of judgments, appearances can also count as much or more than reality. As Oliver (1991: 155) noted, "from an institutional perspective . . . the appearance rather than the fact of conformity is often presumed to be sufficient for the attainment of legitimacy." Thus, not only may economic benefits be unnecessary for reputational effects, it may not even be essential to implement the techniques themselves. Such decoupling between the rhetoric and implementation of management techniques could be due to managerial efforts to manipulate or control the institutional environment surrounding an organization (Pfeffer, 1981; Westphal and Zajac, 1998). It may also reflect the simple fact that it is easier to talk about popular management techniques (such as TQM) than to implement them (Zbaracki, 1998; Cole, 1999; Pfeffer and Sutton, 1999). Regardless, one can argue that reputational effects are most immediately influenced by the information available to external judges of the organization and that information linking the firm with popular management techniques must only be salient and/or credible, not necessarily true. Thus,

Hypothesis 5 (H5): Organizations will gain in external reputation when they are informationally linked with popular management techniques, irrespective of the firm's economic performance.

Institutional theorists argue that firms adopting popular management techniques are following social convention or fashion, essentially conforming to industry or societal norms. Yet because popular management techniques are generally characterized as modern, state-of-the-art tools, information linking the firm with these techniques may influence the perception of innovation. Jumping on the bandwagon, even at the later stages of a management fad, may be perceived as a form of innovation when it is contrasted with the more passive act of ignoring industry trends or the more active stance of rejecting them altogether. Although moving with business fashions may be interpreted by academic observers as a form of conformity (e.g., Meyer and Rowan, 1983; Abrahamson, 1996), business practitioners are likely to see these changes as a means of keeping up to date and competitive. Thus,

Hypothesis 6 (H6): Organizations that are informationally linked with popular management techniques will be perceived as more innovative, irrespective of the firm's economic performance.

The use of popular management techniques may also be interpreted as a general indicator of management quality. Because there is so much ambiguity in attributing the causes of organizational performance (March and Olsen, 1976; Staw, 1980), outside observers may rely on positively valued behaviors in making their judgments of a corporation's management. Observers may perceive that managers are well qualified and of high ability when they are using the latest techniques, such as TQM, empowerment, or teams. Because these techniques are popular, leaders using them are assumed to be competent, regardless of their actual degree of effectiveness. Thus,

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Hypothesis 7 (H7): Organizations that are informationally linked with popular management techniques will be perceived as having higher-quality management, irrespective of the firm's economic performance.

Beyond External Reputation

By pursuing valued goals and employing generally approved procedures for reaching these goals, organizations are able to build legitimacy in the domains in which they operate (e.g., Oliver, 1991; Scott, 1995). Though it comes as no surprise that being associated with popular management techniques may help to improve a corporation's external legitimacy, there may also be some isomorphism in the way legitimacy is built inside and outside the organization. The kinds of actions that help legitimate a firm in its environment may also help gain credibility for managers inside the organization. There are several ways such intraorganizational effects could be manifested.

If corporate leaders advocate popular management techniques and their implementation actually improves organizational performance, then one would certainly expect these executives to be held in high regard within their firms. But institutional theorists would argue that top managers might be rewarded for the simple adoption of well-accepted procedures, regardless of their economic consequences. Executives who adopt popular procedures may be held in greater esteem by evaluators within the organization, such as the board of directors and its compensation committee. These evaluators may use popular management techniques as a heuristic cue or cognitive shortcut in deciding the value and compensation of the organization's leaders (Nisbett and Ross, 1980). Because of difficulties in evaluating the true performance of organizational leaders, boards of directors have been found to use psychological as well as economic referents in determining compensation for the chief executive officer (CEO) (Main, O'Reilly, and Wade, 1995; O'Reilly, Main, and Crystal, 1988). Similarly, one might expect corporate boards to use popular management techniques as an indicator of the professionalism or effectiveness of chief executives. They may consider CEOs associated with popular procedures to be more advanced or forward-looking leaders, worth more than CEOs not so identified with the latest procedures. Thus,

Hypothesis 8 (H8): Corporate leaders will be compensated more when their firms have adopted popular management techniques that are either positively associated with firm performance or actually lead to improved performance.

Hypothesis 9 (H9): Corporate leaders will be compensated more when their firms have adopted popular management techniques, regardless of whether there is an improvement in firm performance.

Just as external reputation may be dependent on the perceptual linkage of corporations with popular techniques, so, too, may CEO compensation. Westphal and Zajac (1998) found that public announcements of popular pay plans were important in managing both internal and external constituents, irrespective of the actual changes implemented by firms. Thus,

it is possible that public information linking companies with particular management techniques can influence the way boards of directors treat CEOs. Because of widespread belief in the merits of popular management techniques, CEOs associated with these techniques may gain internal approval or repute. Leaders of companies associated with popular management techniques may then receive increased compensation, even if this association is based on public information about the firm and is not tied to increased firm performance:

Hypothesis 10 (H10): Corporate leaders will be compensated more when their firms are informationally linked with popular management techniques, irrespective of the performance of the firms they lead.

In addition to acting as a direct psychological cue to the value or effectiveness of leaders (cf. Staw, 1975), there may be some indirect ways in which popular management techniques contribute to executive pay. Because the true performance of an organization's leader is so ambiguous, inside evaluators could turn to outside evaluators for guidance in forming their own opinions. Such a transference of opinions from outside to inside the organization would be analogous to the social information processing effects originally described by Salancik and Pfeffer (1978). Being identified with popular management techniques may increase a leader's compensation because association with these techniques has heightened external admiration of a corporation's management.

Hypothesis 11 (H11): Corporate leaders will be compensated more when they are informationally linked with popular management techniques, but this effect will be mediated by outsiders' opinions of the management of the firm.

A third reason why leaders may be compensated more when they are identified with popular management techniques could stem from the reputational effects these techniques provide to the organization. Because the adoption of popular techniques may increase support and goodwill for the organization, any benefits received by corporate leaders could simply be viewed as payback for gains in external reputation. Even if there are no economic benefits resulting from popular management techniques, boards could reward increases in reputation when deciding compensation for the chief executive. Thus,

Hypothesis 12 (H12): Corporate leaders will be compensated more when their firms are informationally linked with popular management techniques, but this effect will be mediated by the external reputation of the firm.

These compensation hypotheses extend institutional theory from external to internal processes of the firm. They delve into whether rewards are determined by the economic and social outcomes brought to the firm or if CEO pay is simply a product of the leader's association with widely accepted management techniques. If the latter is true, then there may be a decoupling of performance and consequences for top

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management inside the firm, in much the same way as legitimacy is achieved by organizations in their environments.

Effects of Information vs. Implementation

Information linking firms with popular management techniques may only be an imperfect indicator of the actual adoption or implementation of these procedures. This means that one might expect stronger relationships between implementation measures and firm performance than between performance and informational measures linking the firm with popular management techniques. Because actions should generally be more important than rhetoric in improving organizational performance (Pfeffer and Sutton, 1999), measures of actual implementation should take precedence over informational data in testing for performance effects such as those outlined in hypotheses 1a and 1b.

The situation should be reversed when testing for reputational effects. According to institutional theory, gains in legitimacy are bestowed on organizations believed to be using socially approved practices and procedures. Primary to such beliefs would be information linking the corporation with certain procedures, not the actual practices themselves. In fact, a firm may be able to convince external constituents that it is on the leading edge of popular management techniques, even though reality may not match the rhetoric (e.g., Westphal and Zajac, 1998; Zbaracki, 1998). Information linking firms with popular management techniques should therefore predict corporate reputation better than measures of the implementation of these same procedures. There may also be significant effects of informational linkage over and above those for implementation:

Hypothesis 13 (H13): Organizations will gain in external reputation when they are informationally linked with popular management techniques, irrespective of the firm's actual implementation of these procedures.

In predicting CEO compensation, we are less certain whether the effects will be stronger for the implementation of popular management techniques or information linking them with the firm. On the one hand, CEO compensation is determined by committees that should be more knowledgeable about a corporation's affairs than outsiders, including the firm's implementation of popular management techniques. On the other hand, many studies have found that boards of directors are less than fully informed about corporate affairs (e.g., Mace, 1971; Lorsch and MacIver, 1989), making them (like outsiders) susceptible to public information tying the firm to popular management techniques. Thus, it is possible that there are compensation effects for informational linkage over and above those for the implementation of popular management techniques:

Hypothesis 14 (H14): Corporate leaders will be compensated more when their firms are informationally linked with popular management techniques, irrespective of the firm's actual implementation of these procedures.

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In the research reported below, we first tested for improvements in organizational performance that may result from popular management techniques. Then, in accord with institutional theory, we examined whether keeping up with management trends yields improved reputation for the firm. Finally, we investigated whether institutional effects translate into personal gains for the organization's leader, testing if identification with popular management techniques or their implementation leads to greater financial compensation.

METHOD

Sample

The sample for this research consisted of the largest (in terms of sales) U.S. industrial corporations. Using the 1995 *Fortune* 500 data base, which included both financial and industrial corporations, we chose the 100 largest industrial corporations for which we could also obtain data on either corporate reputation or executive compensation. The final sample consisted of corporations from 25 industries. The Appendix lists the firms.

Popular Management Techniques

We used three different measures of popular management techniques. Because reputations are a function of what external parties see the organization doing, we created two informational measures linking sampled corporations with popular management techniques. A third measure assessed the extent to which corporations in our sample implemented a currently popular management technique, total quality management. We tested each of the hypotheses using these three indicators of popular management techniques.

Informational measures. To obtain informational measures of popular management techniques, we consulted the Nexis News Library, a computerized full-text data base of legal, business, and current affairs information. The Nexis News Library includes major U.S. newspapers such as the *New York Times* and the *Washington Post*, as well as news magazines such as *Time*, *Fortune*, and *Business Week*. Using a search of all magazines and major newspapers in the Nexis Library, we examined the recent citation rates of a number of popular management techniques. For the focus of this study we selected three of the most frequently cited techniques: quality, teams, and empowerment.

Pilot searches were conducted to eliminate false hits for the three management techniques. These searches showed that it was necessary to preclude the everyday use of terms such as quality, since this could yield numerous articles about product quality rather than total quality management, or teams, since this could yield articles on sports rather than team-based management. Accurate searches were produced by coupling quality, teams, and empowerment with other adjectives so as to yield only work-related articles. Our final search protocol consisted of the following descriptors for the three popular management techniques: (1) quality: total quality, quality assurance, or quality circles, (2) teams: self-managed teams, self managing teams, or work teams, and (3) empowerment: employee participation, worker participation,

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employee involvement, worker involvement, employee empowerment, or worker empowerment.

Relative citation rates. We first conducted computerized searches for the year 1994 and then gathered data for the years 1990–1992 so as to study lagged effects. For each of the 100 companies in our sample, we recorded the number of articles retrieved on both the company name and the descriptors of quality, teams, and empowerment. These citation data measure the informational linkage of a particular firm with popular management techniques. Because citation data are third-party observations, they may be subject to reporting errors. For example, the larger a company, the more press coverage it can be expected to attract. Likewise, the better the performance of a firm, the more likely observers are to see positively valued activities such as popular management techniques. Therefore, we controlled for both size and performance in our empirical tests.

We also paid attention to the conceptual meaning of these citation data. At their most obvious level, citation data are indicators of public attention, in the form of media exposure, for a company's activities. Therefore, by counting all citations associating each company with quality, teams, and empowerment, we constructed a measure of exposure for popular management techniques (*PMT exposure*). Because the number of citations for a firm on quality, teams, and empowerment depended highly on the size of the firm (e.g., average $r = .72$), we divided the number of citations by firm size, measured as the average of normalized sales and assets. The resulting measure reduces the problem of multicollinearity when size and PMT exposure are both included in regression equations. Thus, the measure of PMT exposure can be interpreted as the amount of attention paid to a firm's popular management techniques relative to other firms of its size.

Though public exposure for popular management techniques is a useful variable for predicting legitimacy effects, it may be an imperfect guide to the actual use of popular management techniques. Because companies attempt to manage public impressions (Elsbach, 1994; Johns, 1999), they may attempt to associate themselves with popular management techniques even when they have not seriously implemented them. To control for simple efforts to gain positive publicity, we constructed an alternative informational measure. For each corporation, we divided the number of articles linking the firm with the three popular management techniques by the total number of citations received by that firm during a given year. The resulting measure can be considered an indicator of the firm's focus on popular management techniques (*PMT focus*), since it taps the proportion of each firm's citations devoted to these procedures. Logically, for a company to receive a greater proportion of citations on quality, teams, and empowerment, it would have to receive a lower proportion of citations on other corporate issues, such as product introductions, earnings, new hiring, and community affairs. Because there are many issues on which corporations attempt to gain media exposure, it would be costly to trade off such publicity in exchange for greater attention on popular management techniques. Thus, we believe the PMT focus

data are less subject to corporate impression management than data on PMT exposure, though they may not be totally devoid of such influences.

TQM implementation. As a third measure of popular management techniques, we used Easton and Jarrell's (1998) sample data as an indicator of the implementation of total quality management (TQM) programs. To build a sample, Easton and Jarrell initially gathered information on firms reputed to have TQM programs. They conducted computerized searches of annual reports, selecting companies that mentioned the implementation of at least one specific quality-management approach (e.g., statistical process control, just-in-time manufacturing, quality training, improvement teams). They also searched annual reports and Standard and Poor's *Register of Directors and Executives* for use of the word "quality" within five words of "vice president" or "director." Finally, they searched the Businesswire data base for references to quality awards, along with lists of site-visited firms for the Malcolm Baldrige National Quality Award (from the U.S. Government Accounting Office) and the institutional affiliations of Baldrige Award examiners for the years 1989 to 1993.

After reviewing information on over 500 firms from the above sources, Easton and Jarrell approached 207 firms they initially believed to have implemented TQM programs. In the process of setting up interviews, 17 firms were determined not to have a TQM system, and 14 firms declined to participate in the study, leaving 176 firms. George Easton, a former senior examiner for the Baldrige Awards, then conducted semistructured interviews with a top manager in these firms familiar with the company's quality-management system, generally a vice president or director of quality. The objective was to develop a time-line of the company's TQM efforts, determine what key approaches were used, and assess the actual extent of deployment through in-depth probing. As a result of the on-site interviews, Easton and Jarrell eliminated 53 firms from their sample because they considered the company's efforts to implement TQM to be inadequate. An additional 15 were eliminated because performance data were not available. Easton and Jarrell's final sample consisted of 108 firms deemed to "have made serious efforts to implement TQM approaches in a majority of their business" (p. 244). Most of the firms using TQM were determined to have first implemented it in the late 1980s, with the latest starting date being 1991.¹

Of the 100 companies in our *Fortune* sample, 36 were also determined by Easton and Jarrell to have implemented TQM programs. We therefore dummy coded our sampled companies as being included in Easton-Jarrell's TQM sample or not. We recognize, of course, that such a dummy coding can only be considered an approximate measure of TQM implementation. Although Easton and Jarrell tried to be exhaustive in their construction of a TQM sample, there is no guarantee that every company excluded from their sample did not have a TQM program. Therefore, Easton and Jarrell's coding should be interpreted as a fairly conservative measure of

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To create a fully accurate indicator of TQM implementation, one might also want to interview lower-level employees and observe the actual workings of various quality programs. Nevertheless, given the previous experience of the interviewer as a former quality examiner, and the fact that nearly a third of the companies initially thought to have quality programs were eliminated from the sample, we interpret these data as a reasonably accurate indicator of implementation.

implementation, one that possibly underestimates the differences between the TQM and non-TQM subsamples.

Measuring popular management techniques. Of this study's three indicators of popular management techniques, the two informational measures, PMT exposure and PMT focus, both rest on citation rates (and share a common numerator), yet they are only modestly correlated (e.g., $r = .46$ for 1994). The TQM measure is obviously derived from an entirely different methodology from the PMT measures. In addition, its subject matter overlaps only partially with the informational measures of popular management techniques. Though TQM programs generally involve efforts to improve quality, use work teams, and empower workers, they often include additional technical and managerial components (Hackman and Wageman, 1995). Therefore, it is not surprising that the measure of TQM implementation is only moderately associated with informational measures of popular management techniques (e.g., $r = .41$ between TQM and PMT exposure; $r = .43$ between TQM and PMT focus).

Not only may each of the three measures of popular management techniques tap a slightly different aspect of the general construct, each may also differ on the dimension of rhetoric vs. reality. Based on journalistic reports, the two informational measures are both subject to corporate efforts in impression management. Though it is unclear how much of the informational linkage a company can really manage, it is likely that the focus measures are less susceptible to impression management efforts than the exposure measures. The TQM implementation measure, based on Easton and Jarrell's rather thorough assessment techniques, should be least affected by impression management biases.

Corporate reputation. Data on corporate reputations were based on *Fortune* magazine's "Most Admired" survey. Our primary dependent measures consisted of the 1995 survey results published in the March 6, 1996 issue of *Fortune*, but we obtained the data we used from *Fortune*'s web site (http://pathfinder.com/@kZZmUAcAZ1v@*gy7/fortune/1996/specials/mostadmired/index.html), since it contained more detailed information than the magazine article summarizing the results. Previous years' data were obtained from the magazine's archives.

Fortune sends surveys to executives and outside directors asking them to rank companies in their own industries on eight criteria. They also send surveys to financial analysts asking them to rank companies within the industries they cover. The *Fortune* surveys are sent out between September and December and are received up until the end of the year. Approximately 11,000 people receive the survey, and the response rate is between 45 and 50 percent. The companies chosen for the reputation survey are limited to members of the *Fortune* 500 in industries in which there are at least five companies represented in the *Fortune* 500. Industry groups are assigned to companies on the basis of their largest source of revenue (Fisher, 1996).²

Ninety-four companies in our sample were also included in the *Fortune* "Most Admired" data base. For each of these

2

Some of our information on the procedures used in the *Fortune* survey on corporate admiration comes from a telephone interview with Greg Martire, representing the research firm of Clark, Martire and Bartolomeo, which conducted the survey for *Fortune* magazine.

companies, *Fortune* reported ratings on eight dimensions of corporate reputation and an overall measure of "admiration." We recorded the ratings from both sampled executives and financial analysts on overall admiration ($\alpha = .97$ for 1995 data) as well as the individual ratings for the following aspects of corporate reputation: (1) innovativeness, (2) quality of management, (3) quality of products/services offered, (4) long-term investment value, (5) financial soundness, (6) ability to attract/keep talented people, (7) community/environmental responsibility, and (8) use of corporate assets.

Economic performance. We used the COMPUSTAT data base of corporate financial information to determine each company's economic performance, recording financial data on return on assets (ROA), return on equity (ROE), and return on sales (ROS). The intercorrelation of these three financial indicators averaged .80 (with a range from .73 to .86). To create a measure of overall financial performance, we first normalized each of these financial indicators and then aggregated the scores into an overall performance measure.

CEO compensation. Data on CEO salary and bonuses came from the "Executive Pay Scoreboard" published by *Business Week* for the years 1990 through 1995. Data on long-term compensation were drawn from COMPUSTAT's Execucomp data base for the years 1992 (the first year available) through 1995. Long-term compensation included the value of restricted stock grants, long-term incentive payouts, the value of stock options granted (using the Black-Scholes formula), and all other long-term compensation for the year. The value of stock options exercised during the year was not included because these options were granted in previous years and the timing of their exercise was, to a large extent, at the CEO's discretion.

Control Variables

Although size was used in creating the exposure measures of popular management techniques, it may still have independent effects on the dependent variables. Large firms may be held in greater repute, and corporate officers of larger firms may be paid more than others. Therefore, we used company size as a control variable in regressions predicting corporate reputation and CEO pay. Since company sales and assets were highly correlated ($r = .9$), we averaged the normalized scores on both of these variables to compose an index for size. We also used data on industry performance as a control variable in analyses of corporate performance. Information on industry performance came from *Fortune* magazine's "Fortune 500" issue for each year of the study. We recorded industry averages for ROA, ROE, and ROS, and then calculated overall, normalized means of these measures. In the analyses of CEO compensation, we controlled for a number of previously researched determinants of executive pay (e.g., Barkema and Gomez-Mejia, 1998). Data on CEO tenure were obtained from COMPUSTAT's Execucomp data base. Data on the size of the board of directors, proportion of inside directors, and whether the CEO was also chair of the board were obtained from the 1995 Standard and Poor's *Register of Corporations, Directors, and Executives*.

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RESULTS

Table 1 shows the intercorrelations among the study's primary variables using 1994–1995 data. As one might expect, there were strong correlations among the informational measures of popular management techniques. When companies were cited for using one of these techniques, they also tended to be cited for using other techniques. This was especially true for the various exposure measures, since they are based on aggregated citation counts rather than on the relative proportion of citations on a particular technique. There were also strong correlations among the components of corporate reputation, reflecting likely spillover or halo on these questionnaire-based measures. There were, however, only modest relationships among the major independent variables used in this study. Thus, multicollinearity is not a problem as long as each of the popular management techniques and reputational measures is entered into separate regression equations.

Organizational Performance

Table 2 examines the effects of popular management techniques on organizational performance. Each of the equations in the table predicts 1995 performance using a normalized average of 1995 return on sales, return on assets, and return on equity. The first three equations are predictive models using 1994 measures of quality, team, and empowerment focus as the independent variables, along with controls for size and industry performance. Equation 4 includes the aggregate measure of popular management techniques (PMT focus) to predict subsequent performance. As shown in the table, only the specific measure of quality and the PMT-focus measure were significant predictors of performance, and these relationships were negative.

It is possible to argue that a one-year lag is insufficient time for popular management techniques to positively influence organizational performance. We therefore conducted longitudinal analyses in which earlier measures of popular management techniques (from 1990, 1991, and 1992) were entered into the predictive equations. We also included prior firm performance (from 1990, 1991, or 1992) in the same regression equations. Including prior performance in the set of predictor variables not only allows a test for changes in performance over time, it also helps to control for any unspecified correlates of performance (Pedhazur, 1982). Thus, equations 5, 6, and 7 predict changes in performance that may have occurred over a three-, four-, and five-year time period. The results of these longitudinal analyses showed no significant effects of popular management techniques on changes in firm performance over time, thereby failing to support either of the performance hypotheses, H1a or H1b.

We also analyzed the effects of TQM implementation. Equation 8 predicts corporate performance with Easton-Jarrell's measure of TQM implementation, as well as controls for size and industry performance. Equation 9 predicts changes in corporate performance using TQM implementation, controlling for previous corporate performance, size, and industry performance. We selected 1991 as the year for previous corporate performance because it was the last year of TQM

Table 1

Correlations among Major Variables

Variable	Mean	S.D.	1	2	3	4	5
1. Overall reputation 95	6.67	.88					
2. Innovativeness 95	6.44	.96	.88**				
3. Quality of management 95	6.90	1.04	.96**	.80**			
4. CEO pay 95 (salary & bonus)	2244.36	984.61	.06	.07	.11		
5. CEO pay 95 (long-term comp.)	2621.40	2939	.09	.02	.11	.44**	
6. Firm performance 95*	-7.E-17	.94	.45**	.36**	.40**	.09	-.01
7. Quality focus 94	1.4E-02	9.E-03	.03	.07	.07	.13	-.04
8. Quality exposure 94	4.1E-16	.97	.13	.28**	.10	.13	.09
9. Team focus 94	3.1E-03	3.E-03	.24*	.29**	.24*	.17	.00
10. Team exposure 94	-2.E-16	.97	.26*	.43**	.20	.18	.12
11. Empowerment focus 94	3.9E-03	4.E-03	.07	.09	.11	.14	-.05
12. Empowerment exposure 94	9.7E-17	.97	.19	.31**	.16	.14	.12
13. PMT focus 94	2.0E-02	1.E-02	.09	.13	.13	.16	-.04
14. PMT exposure 94	3.1E-17	.97	.17	.33**	.14	.15	.11
15. TQM implementation	.36	.48	.12	.20	.15	.22*	.05
16. Size 94*	3.7E-17	.98	.15	.05	.17	.47**	.38**
17. Industry performance 94*	4.6E-17	.96	.30**	.26*	.22*	.18	.13
18. Proportion inside directors	.41	.86	-.01	-.03	-.05	-.04	-.04
19. Board size	12.94	2.72	.14	.15	.09	.04	.12
20. CEO tenure	7.68	6.74	-.15	-.12	-.15	-.20	-.24*
21. CEO as board chair	.91	.29	.03	-.09	.08	-.01	-.10

Variable	6	7	8	9	10	11	12
7. Quality focus 94	-.27**						
8. Quality exposure 94	-.03	.45**					
9. Team focus 94	-.09	.58**	.29**				
10. Team exposure 94	.04	.33**	.85**	.51**			
11. Empowerment focus 94	-.12	.61**	.25*	.67**	.30**		
12. Empowerment exposure 94	.01	.42**	.81**	.40**	.78**	.57**	
13. PMT focus 94	-.23*	.94**	.43**	.78**	.41**	.80**	.51**
14. PMT exposure 94	-.01	.45**	.99**	.36**	.91**	.33**	.88**
15. TQM implementation	-.08	.35**	.39**	.39**	.44**	.35**	.47**
16. Size 94*	-.02	-.10	-.08	.03	.01	.00	-.01
17. Industry performance 94*	.43**	.02	.12	.09	.15	-.06	.07
18. Proportion inside directors	.06	-.11	-.05	-.07	-.06	.01	.04
19. Board size	-.11	.13	-.09	.02	-.13	.02	-.02
20. CEO tenure	-.10	-.07	-.18	-.03	-.19	-.11	-.24*
21. CEO as board chair	-.06	-.07	-.15	-.05	-.24*	-.05	-.21*

Variable	13	14	15	16	17	18	19	20
14. PMT exposure 94	.46**							
15. TQM implementation	.41**	.43**						
16. Size 94*	-.06	-.06	.17					
17. Industry performance 94*	.02	.12	-.06	-.05				
18. Proportion inside directors	-.09	-.04	-.14	.00	-.09			
19. Board size	.09	-.09	-.15	.14	.03	-.12		
20. CEO tenure	-.08	-.20*	-.19	-.18	-.08	-.05	.11	
21. CEO as board chair	-.07	-.18	-.06	-.18	-.04	.01	-.11	.23*

* $p < .05$; ** $p < .01$; two-tailed tests.

*Variable has been normalized around mean of 0.

implementation noted by Easton and Jarrell. The results of these longitudinal analyses showed no effects of TQM implementation on corporate performance.

Corporate Reputation

Because we found little relationship between popular management techniques and performance, it is difficult to argue (as does H3) that performance mediates the relationship between these techniques and external reputation (cf. Baron and Kenny, 1986). Although it is unlikely that companies will

Effects of Bandwagons

Table 2

Effects of Popular Management Techniques on 1995 Firm Performance and on Changes in Firm Performance (N = 100)*

Variable	1	2	3	4	5	6	7	8	9
Industry performance	.423*** (.086)	.431*** (.090)	.414*** (.090)	.423*** (.087)	.412*** (.111)	.218* (.105)	.171 (.111)	.417*** (.091)	.217* (.105)
Size	-.031 (.085)	-.001 (.088)	-.003 (.088)	-.017 (.086)	.082 (.090)	.037 (.088)	.015 (.089)	.053 (.090)	.035 (.089)
Prior firm performance					.129 (.122)	.329** (.103)	.358** (.112)		.362** (.105)
94 Quality focus	-28.3** (8.83)								
94 Team focus		-37.0 (26.7)							
94 Empowerment focus			-24.8 (24.4)						
94 PMT focus				-15.7** (5.89)					
92 PMT focus					-.341 (4.42)				
91 PMT focus						-5.99 (5.41)			
90 PMT focus							-2.56 (5.88)		
TQM implementation								-.101 (.182)	.159 (.183)
R ²	.262	.199	.191	.239	.254	.258	.250	.185	.223

* $p < .05$; ** $p < .01$; *** $p < .001$; two-tailed tests.

* Standard errors are in parentheses.

be more admired because popular management techniques have improved their performance, an examination of table 3 shows several direct effects of performance on corporate reputation. As shown in the table, 1994 performance was a highly significant predictor of 1995 reputation. The better a firm performed, the higher was its corporate reputation, supporting H2. There also were direct effects of size, with respondents to the *Fortune* survey tending to rate larger firms higher on measures of corporate reputation.

As illustrated in table 3, when both firm performance and size were held constant, there were significant effects of popular management techniques on corporate reputation. As predicted by H4, there were significant effects of TQM implementation on a firm's reputation. And, as predicted by H5, the informational linkage of firms with quality, team, and empowerment techniques was significantly related to its reputation. These effects were more consistent using exposure than focus measures of popular management techniques, although overall measures (PMT focus and PMT exposure) both showed significant effects on reputation, controlling for size and prior performance.

In line with H6 and H7, there also were significant effects of popular management techniques on the ratings of firms' innovativeness and quality of management. In results not presented here, analyses like those shown in table 3 yielded significant effects of prior performance and size on respondents' ratings of innovativeness and quality of management. And when both prior performance and size were controlled, there remained significant effects of quality, team, and empowerment techniques on these perceptual ratings. As in table 3,

Table 3
Effects of Popular Management Techniques on 1995 Corporate Reputation (N = 94)*

Variable	1	2	3	4	5	6	7	8	9
94 Performance	.517*** (.084)	.518*** (.083)	.514*** (.081)	.512*** (.080)	.514*** (.084)	.516*** (.082)	.521*** (.083)	.519*** (.082)	.530*** (.083)
94 Size	.138* (.078)	.142* (.076)	.126* (.074)	.130* (.073)	.130* (.077)	.132* (.075)	.138* (.077)	.140* (.075)	.105 (.077)
94 Quality focus	9.44 (8.21)								
94 Quality exposure		.163* (.078)							
94 Team focus			68.1** (22.7)						
94 Team exposure				.243*** (.074)					
94 Empowerment focus					28.0 (21.7)				
94 Empowerment exposure						.196** (.078)			
94 PMT focus							9.24* (5.31)		
94 PMT exposure								.191** (.077)	
TQM implementation									.324* (.159)
R ²	.311	.333	.365	.376	.314	.347	.324	.346	.332

* $p < .05$; ** $p < .01$; *** $p < .001$; one-tailed tests.

* Standard errors are in parentheses.

Effects of Bandwagons

the results were more consistent using exposure than focus measures of popular management techniques. Nonetheless, the measures of PMT focus, PMT exposure, and TQM implementation all proved to be significant predictors of the firm's rated innovativeness and quality of management.

Longitudinal effects. To check if the effects on corporate reputation would hold up over time, we conducted a series of longitudinal tests. In each of these tests, earlier measures of popular management techniques and corporate reputation (from 1990, 1991, or 1992) were included in regression equations, along with controls for performance and size. The longitudinal equations enabled us to examine whether popular management techniques could predict changes in corporate reputation over time and controlled for the possible mediation of reputational effects by firm performance. Because measures of management techniques preceded those of performance by two, three, or four years, any effects on reputation due to changes in performance would be controlled in the analyses.

Table 4 shows seven regression equations in which PMT measures, prior reputation, performance, and size were used to predict subsequent (1995) corporate reputation. As expected, each equation showed prior performance to be a highly significant predictor of corporate reputation. Also as expected, measures of prior reputation were significant predictors of corporate reputation in subsequent years. Nonetheless, controlling for prior performance and reputation, there remained significant effects of PMT focus and PMT exposure on corporate reputation. The effects of popular management

Table 4

Effects of Popular Management Techniques on Changes in 1995 Corporate Reputation*

Variable	1	2	3	4	5	6	7
94 Performance	.135* (.062)	.141* (.060)	.224** (.073)	.226** (.072)	.242*** (.072)	.246*** (.070)	.240*** (.072)
94 Size	.098* (.049)	.010* (.047)	.094 (.059)	.099* (.058)	.073 (.060)	.074 (.059)	.058 (.058)
92 Reputation	.663*** (.059)	.661*** (.057)					
92 PMT focus	4.97* (2.40)						
92 PMT exposure		.157** (.048)					
91 Reputation			.523*** (.067)	.522*** (.066)			.545*** (.066)
91 PMT focus			7.42* (3.77)				
91 PMT exposure				.172** (.060)			
90 Reputation					.550*** (.069)	.548*** (.067)	
90 PMT focus					6.63* (3.97)		
90 PMT exposure						.148** (.062)	
TQM implementation							.353** (.124)
R ²	.717	.735	.598	.617	.598	.661	.617

* $p < .05$; ** $p < .01$; *** $p < .001$; one-tailed tests.

* Standard errors are in parentheses. N = 91 for equations 1 and 2; N = 89 for equations 3–7.

techniques held regardless of whether the equations were used to predict changes in reputation over three-, four-, or five-year periods. The effects also generalized to the measure of TQM implementation. Results showed a significant improvement in corporate reputation from 1991 (the last date of TQM implementation) to 1995 that could be attributed to whether total quality management was implemented by the firm.

Information vs. implementation. To help separate the effects of information about popular management techniques from their implementation, we conducted a series of hierarchical regression analyses predicting changes in corporate reputation over three, four, and five years. In each of these analyses, we first entered the control variables, including earlier (1992, 1991, or 1990) measures of corporate reputation. Second, we entered the measure of TQM implementation. Finally, we entered the PMT exposure measure for the 1992, 1991, or 1990 time period. Results showed that in each of these analyses the TQM measure explained a significant amount of variance beyond that of the control variables. In each analysis, the PMT exposure measure also explained a significant amount of variance beyond that of TQM implementation, as predicted by H13. Thus, not only did implementing a popular management technique have a positive influence on a firm's reputation, information linking the firm with such techniques increased the company's reputation above and beyond that of implementation.

CEO Compensation

Table 5 shows determinants of CEO compensation (salary and bonus) for our sample of U.S. corporations. As in much of the previous literature on CEO pay (e.g., Crystal, 1991; Barkema and Gomez-Mejia, 1998), there were no significant effects of firm performance on CEO pay. Nor were there significant effects of the percentage of inside directors, board size, and CEO tenure. Some effects were found for the CEO also being board chair, yet they were inconsistent across several of the regression equations. Among the control variables, by far the largest and most consistent effect was for firm size. The larger the company (as measured by total assets and sales), the greater was the compensation provided to the leader of the firm.

The equations in table 5 also show significant effects of popular management techniques on CEO compensation, holding constant the six other predictors of executive pay. As with the analyses of reputational data, the exposure measures were more consistent predictors of compensation than were the focus measures. Once again, however, effects for both the overall measures of PMT focus and PMT exposure proved significant. Although the effect for TQM implementation was in the predicted direction, it did not reach statistical significance.

Longitudinal effects. Results of a series of longitudinal tests on CEO pay are depicted in table 6. As in the test of reputational effects, these longitudinal analyses used data on popular management techniques from 1990, 1991, and 1992. In addition to the control variables depicted in table 5, these

Table 5
Effects of Popular Management Techniques on 1995 CEO Pay (Salary and Bonus in \$000)*

Variable	1	2	3	4	5	6	7	8	9
94 Performance	167 (105)	162 (104)	155 (105)	173* (104)	156 (106)	158 (105)	166 (105)	165 (104)	171 (106)
94 Size	493*** (97.1)	503*** (97.4)	476*** (97.0)	495*** (95.8)	478*** (97.9)	494*** (97.7)	487*** (96.8)	502*** (97.0)	456*** (98.7)
% Inside directors	-47.1 (103)	-51.9 (102.6)	-48.9 (103)	-43.7 (102)	-64.5 (104)	-71.2 (103)	-49.3 (103)	-53.8 (102)	-40.0 (105)
Board size	-19.0 (40.1)	-6.41 (39.9)	-18.9 (40.3)	19.3 (39.8)	-16.7 (40.7)	-13.8 (40.0)	-20.3 (40.2)	-6.41 (39.8)	-2.86 (40.7)
CEO tenure	-16.7 (14.8)	-15.1 (14.8)	-16.8 (14.8)	-14.4 (14.7)	-15.7 (15.2)	-14.0 (15.1)	-15.7 (14.8)	-14.3 (14.8)	-16.0 (15.0)
CEO is board chair	505 (365)	663* (365)	569 (364)	779* (370)	545 (369)	674* (370)	516 (365)	694* (366)	572 (365)
94 Quality focus	19704* (11452)								
94 Quality exposure		182* (98.7)							
94 Team focus			47487 (30432)						
94 Team exposure				217* (97.4)					
94 Empowerment focus					32234 (33047)				
94 Empowerment exposure						169* (98.9)			
94 PMT focus							12842* (7437)		
94 PMT exposure								192* (98.8)	
TQM implementation									281 (208)
R ²	.301	.305	.297	.318	.284	.295	.301	.308	.291

* p < .05; ** p < .01; *** p < .001; one-tailed tests.
* N = 90. Standard errors are in parentheses.

analyses included previous CEO salary and bonus in the regression equations. As a result, the equations examined the effects of popular management techniques on changes in pay over three-, four-, and five-year time spans.

As illustrated in table 6, there were again few effects of firm performance on CEO pay, contradicting an assumption underlying H8. Stronger and more consistent effects on CEO pay were shown by organizational size, and, as expected, previous CEO pay was a significant predictor of subsequent pay in all equations. Beyond the influence of these and other control variables, the table shows effects of popular management techniques generally in line with H9 and H10. Equations 1 and 2 show significant effects of 1992 PMT exposure and PMT focus on 1995 CEO salary and bonus, controlling for prior compensation, prior performance, firm size, percentage of inside directors, board size, CEO tenure, and whether the CEO is also the board chair. In equations 3–6, 1990 and 1991 PMT exposure measures were significant predictors of subsequent CEO pay using the same control variables. Equation 7 showed a significant effect of TQM implementation on 1995 compensation, controlling for CEO pay in 1991 as well as the other control variables.

Long-term pay. We also analyzed the effects of popular management techniques on long-term pay. For these analyses, we aggregated the value of restricted stock grants, long-term incentive payouts, the Black-Scholes value of stock options, and all other long-term compensation. Regression equations were constructed as shown in table 6, using data available from 1992 to 1995. Like previous analyses, there were significant effects of size on long-term compensation as well as significant effects of prior years' pay on subsequent (1995) compensation levels. There were also significant effects of CEO tenure, such that more recently hired CEOs were given larger compensation packages. Unlike previous analyses, however, there were no significant effects of popular management techniques on long-term CEO pay. There were no effects of PMT focus, PMT exposure, or TQM implementation on long-term compensation or any of its components.

Mediation of CEO compensation. We tested for whether the effects on CEO compensation were mediated by either outsiders' opinions of the quality of a firm's management or overall reputation of the firm. To do this, we reexamined the strongest effects found on CEO salary and bonus, those of 1992 PMT focus and exposure and TQM implementation. To test H11, we added measures of perceived management quality to equations 1, 2, and 7 of table 6. To test H12, we added measures of corporate reputation to the same equations. In each case, we used 1993 data on management quality or overall reputation, since they were actually published by *Fortune* during 1994, approximately 9–10 months before compensation decisions were made by corporate boards of directors (i.e., either at the end of 1994 or early in the 1995 fiscal year). We also used 1993 data on corporate performance and size, since ratings of management quality (and reputation) can be influenced by these control variables.

Table 6

Effects of Popular Management Techniques on Changes in CEO Pay (1995 Salary and Bonus in \$000)*

Variable	1	2	3	4	5	6	7
94 Performance	134 (94.6)	134 (93.7)	107 (103)	107 (102)	146 (105)	150 (102)	199* (103)
94 Size	457*** (87.3)	473*** (87.0)	460*** (95.2)	478*** (94.9)	444*** (98.2)	463*** (96.2)	362*** (97.6)
% Inside directors	-49.6 (91.9)	-52.1 (100)	-54.1 (100)	-53.4 (99.0)	-65.8 (103)	-66.3 (99.6)	-36.0 (99.7)
Board size	-19.4 (37.7)	-8.34 (37.5)	-16.5 (41.8)	-3.88 (40.3)	-24.5 (41.7)	-9.25 (39.9)	1.08 (39.8)
CEO tenure	-9.63 (13.4)	-8.11 (13.3)	-16.1 (14.5)	-14.4 (14.4)	-13.8 (14.9)	-10.9 (14.5)	-9.52 (14.4)
CEO is board chair	472 (325)	718* (327)	493 (354)	646* (357)	704* (364)	964** (369)	774* (352)
92 CEO salary and bonus	.612*** (.125)	.607*** (.124)					
92 PMT focus	10546** (4228)						
92 PMT exposure		247** (88.7)					
91 CEO salary and bonus			.448*** (.133)	.441*** (.130)			.508*** (.130)
91 PMT focus			7135 (6269)				
91 PMT exposure				169* (94.6)			
90 CEO salary and bonus					.582** (.210)	.638** (.202)	
90 PMT focus					10173 (7183)		
90 PMT exposure						276** (112)	
TQM implementation							521** (203)
R ²	.468	.479	.376	.391	.343	.377	.389

* $p < .05$; ** $p < .01$; *** $p < .001$; one-tailed tests.

* N = 85. Standard errors are in parentheses.

Overall, the results of these analyses did not show strong evidence of mediation. There was, as expected, a reduction in the effects of TQM implementation on CEO pay, rendering the effects nonsignificant when either perceived management quality or corporate reputation was added to the predictive equations. The effects of PMT focus and PMT exposure, however, remained highly significant in all the analyses. Moreover, in none of the analyses were there direct effects of perceived management quality or corporate reputation on CEO pay, relationships that should logically be present if these variables were actually determining how top executives were compensated (cf. Baron and Kenny, 1986).

Information vs. implementation. To test H14, we also conducted several analyses designed to separate the effects of information linking companies to popular management techniques from their implementation. In a series of hierarchical regressions, we first entered all the controls for CEO pay, as well as earlier compensation levels (i.e., 1992, 1991, or 1990) in predicting 1995 salary and bonus. Next, we entered the measure of TQM implementation. Finally, we entered 1992, 1991, or 1990 PMT exposure into the regression equations. The results showed a highly significant effect for TQM implementation over and above that of the control variables in each of the analyses. In two of the three analyses (those using 1992 and 1990 measures of popular management techniques), the PMT exposure measure explained a significant amount of variance over and above that of TQM implementation.

DISCUSSION

Organizational Performance

We uncovered very few effects of popular management techniques on organizational performance. Using informational measures of quality, teams, and empowerment, we found scant effects on corporate performance, no matter whether changes in performance were assessed over one-, three-, four-, or five-year periods. Likewise, there were no significant effects of TQM implementation on changes in performance over time.

One might argue that informational measures do not accurately reflect the actions of corporations, that they are more a reflection of the reporting biases of the business press than the actual behavior of firms. Yet if this were true, one would expect business journalists to have written more articles linking successful firms with techniques like quality, teams, and empowerment. This was not the case. There were few significant relationships between the informational measures and organizational performance, no matter whether popular management techniques were treated as leading, lagging, or concurrent indicators of performance.

A second, related argument against using informational measures linking companies with popular management techniques is that they may simply gauge public relations efforts rather than the real behavior of firms. Companies may project an image of using techniques such as quality, teams, and empowerment, even if they have not actually implemented

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these programs. There are two responses to this argument. First, because the focus measures hold constant the total amount of publicity a firm receives, they are less likely to reflect impression management efforts than the exposure measures. Second, nearly all the findings using informational data were corroborated by similar results using the Easton-Jarrell measure of TQM implementation. Since none of the measures showed consistent effects on performance, some doubt must be cast on relationships between popular management techniques and performance.

The fact that we did not find any effects of popular management techniques on performance conflicts with recent commentary on the quality movement. For example, Cole (1999) noted that TQM programs, despite some overzealous claims, have contributed to an unmistakable increase in U.S. product quality. There has been a reduction in the quality gap between American and Japanese goods, and the variance in quality has narrowed among U.S. producers of products such as automobiles and computer chips (Cole, 1999: chap. 9). Whether these improvements in quality translate into improved financial performance remains an open question, however. Widespread implementation of programs on quality, teams, and empowerment may actually lessen the importance of these factors in predicting variance in organizational performance (cf. Meyer and Gupta, 1994).

Though our performance results were not supportive of popular management techniques, we would not argue that they provide the definitive test of these procedures. More supportive results might have been found if we had used plant- or division-level data, since implementation of innovations is rarely uniform within a large firm (Zbaracki, 1998). More supportive results might also have been found with proximal outcomes, such as production downtime, product defects, or customer satisfaction, rather than distal outcomes, such as return on sales, assets, and equity. Finally, it is possible that these management techniques produce beneficial outcomes that are not included in traditional accounting measures, such as more satisfied workers, lower turnover, or more ethical work relationships.

Although it may be possible to tease out positive effects with different units of analysis, different time periods, and different measures, the present findings are important in the following sense. They show that what the public reads about large corporations using popular management techniques is basically unrelated to how these same corporations perform financially. There is not the kind of strong or obvious empirical relationship that would seem necessary for a public attribution of success. And without such a visible and verifiable foundation, it is little wonder that the public view of popular management techniques has been so unstable over time (Abrahamson, 1996).

Reputational Effects of Popular Management Techniques

Even though we did not find significant performance effects, the influence of popular management techniques on corporate reputation was quite consistent. Analyses showed that companies were more admired, seen as being more innova-

tive, and rated as having higher-quality management when they followed management trends such as quality, teams, and empowerment. These reputational effects were replicated using two different informational measures of popular management techniques as well as a more conventional measure of TQM implementation. They were also replicated using several different time lags, holding constant earlier measures of corporate reputation, as well as firm size and performance. Some analyses showed the exposure measures to be stronger predictors of corporate reputation than the focus measures. This is logical. Given that corporate reputations are determined by what observers hear or read about companies, one would expect the volume of these communications to be more influential than the proportion or focus of these messages.

It was also shown that media exposure affected corporate reputation above and beyond actual implementation. The importance of rhetoric was underscored by the fact that information about popular management techniques influenced corporate reputation, even after holding constant TQM implementation. Yet even with these findings, we would not go so far as to say that only rhetoric matters, that corporate reputation is unaffected by the actual implementation of popular procedures. Our data showed that the effects of TQM implementation on corporate reputation were consistently significant. And not only were there effects of information above and beyond those of implementation, additional analyses showed that there were also effects of implementation when information (PMT exposure) was held constant. Thus, one must interpret the results as supporting both rhetoric and reality in considering the effects of popular management techniques on corporate reputation.

Differences in reputational effects. In analyzing reputational effects, we also examined whether there were any systematic differences among the observers of a corporation. Because the *Fortune* survey was completed by both outside executives (from the same industry as the rated firm) and financial analysts, we checked to see whether one of these two groups was disproportionately responsible for the effects. One might argue, for example, that industry executives would be relatively immune to public reports of quality, teams, and empowerment, since they might have more direct ways of observing or interpreting the operations of the firm (e.g., through conversations with shared suppliers or customers). In contrast, one could argue that financial analysts might be unswayed by reports of the use of popular techniques, since their job is to predict the earnings and well-being of firms in the industry. The results did not support either of these positions. The data showed very similar effects for both executives and financial analysts, and, thus, the reputational findings did not appear to be due to any particular group of respondents in the *Fortune* survey.

We also investigated whether the effects on corporate reputation were consistent across the various rating scales used in the *Fortune* survey. Due to common-response bias or spillover, one might expect similar results across the various components of corporate reputation. Yet we did find some

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differences in the effects of popular management techniques on the components of reputation. Analyses showed significant effects for the global or management-related ratings and nonsignificant effects for more specific financial assessments, such as ratings of financial soundness, use of assets, and long-term investment value. This pattern makes sense, given that popular management techniques had little actual effect on the financial performance of the firm. The pattern also fits with previous psychological research showing that perceptual biases are more likely to occur on subjective, hard-to-verify characteristics (Sherif, 1936; Allen, 1965; Nisbett and Ross, 1980).

Effects on CEO Compensation

The results of this research showed not only that popular management techniques led to improved corporate reputation but that CEO pay (salary and bonus) was also positively influenced. Our analyses controlled for many previously researched determinants of pay, such as firm performance, size, percentage of inside directors, board size, CEO tenure, and whether the CEO was also chair of the board. As with reputational effects, the exposure measures were the most consistent predictors of CEO pay. Exposure measures were all significant predictors of compensation, regardless of the technique or time period involved. In addition, there were significant effects of PMT focus on CEO pay over one- and three-year time periods, as well as a significant effect of TQM implementation on changes in pay over time.

Since we found few effects of popular management techniques on long-term compensation, we initially thought there was a logical as well as an empirical inconsistency in the results. On reflection, however, we realized that long-term compensation plans generally involve linking pay to performance or the attainment of specific performance goals. These plans are designed to align the interests of the CEO and the firm, to solve the agency problem that concerns economists and compensation experts (e.g., Jensen and Meckling, 1976; Jensen and Murphy, 1990; Crystal, 1991). Hence, long-term compensation schemes may be less a reflection of trust in the CEO than an attempt to reduce opportunistic behavior by top managers (Beatty and Zajac, 1994). One might therefore expect any increase in confidence stemming from a leader's advocacy of popular management techniques to be manifested in greater short-term, rather than long-term, compensation.

To understand why popular management techniques were associated with changes in CEOs' short-term compensation, we checked for the mediation of pay effects. We first examined whether compensation committees appeared to use outsiders' opinions as guidance in forming their opinions of the CEO's value. We then tested whether corporate boards might be compensating CEOs for improving an organization's reputation. In neither of these analyses did we find evidence for mediation. We found only direct effects of popular management techniques on CEO pay, regardless of whether these management techniques were assessed by informational or implementation measures.

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We also conducted several analyses to sort out the effects of rhetoric vs. reality on CEO pay. Hierarchical regression analyses showed effects of PMT exposure over and above those of TQM implementation. These results mean that corporate boards are not just influenced by direct observations of a firm's implementation of popular management techniques. They can also be influenced by public information linking the firm with these procedures, regardless of whether this information is fully accurate or not. Such a conclusion does not, of course, undercut the strong influence of TQM implementation on CEO pay. We consistently found significant effects of TQM implementation on changes in CEO pay. And, in an additional series of hierarchical regressions, we found effects of implementation over and above those of information linking firms to popular management techniques. Thus, it appears that corporate boards use multiple sources of information about popular management techniques. Their decisions about CEO pay seem to be influenced by both public perceptions linking firms to popular techniques and the actual implementation of these procedures. Both sources of data may serve as evidence that the CEO is someone who is up to date and professional, someone who is worthy of a high level of compensation.

Implications for Institutional Theory

The findings of this research fit well with the institutional perspective on organizational innovation. They strengthen previous arguments that firms do not necessarily choose the technologically best or most efficient techniques but, instead, seek external legitimacy by adopting widely accepted and approved practices (Meyer and Rowan, 1977; DiMaggio and Powell, 1983). The evidence provided by this research was more direct than that from early institutional literature. Instead of demonstrating the absence of economic benefits from an innovation or the disparity in consequences between early and late adopters (e.g., Tolbert and Zucker, 1983), this study showed how the reputation of companies could be improved by their association with popular management techniques.

The demonstration of gains in reputation not only fills in a missing mechanism underlying institutional theory, it also provides some long-needed evidence on the positive sanctioning of organizations. Tests of institutional theory have tended to rely on rather negative control mechanisms, either in the realm of regulated industries or organizations subject to high degrees of public accountability (e.g., school, hospitals). As a result, there has been little distinction between coercive and normative processes underlying institutional theory, save for the gravity of negative consequences befalling an organization deviating from accepted standards. Thus, one contribution of this research has been to demonstrate that gains in social approval (e.g., increased reputation) can result from the adoption of (or association with) popular management techniques.

This study also illustrated some important multilevel effects. Although institutional theory does not usually delve into within-firm dynamics, it seems reasonable to suggest that there

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is some isomorphism between intra- and interfirm processes. Like Westphal and Zajac (1998), we found that the kind of actions that help legitimate a firm in its environment may also build credibility for managers who lead these endeavors. This makes sense, given the potential value brought to the organization by the initiating manager. But there need not be a precise payback between firms and their leaders. Just as organizations can gain legitimacy for pursuing popular programs that do not necessarily yield economic benefits, managers may be able to gain credibility by initiating popular programs, irrespective of the outcomes for the firm. The identification of the leader with a fashionable program may be more important than the effects of the program on either economic or social outcomes.

Potential decoupling of organizational programs and their consequences should not be construed as meaning that outcomes never matter. Surely there is a strong relationship between firm performance and reputation (e.g., McGuire, Schneeweis, and Branch, 1990), and organizational performance can no doubt affect the job security of a CEO (e.g., Salancik and Pfeffer, 1980; Ocasio, 1994). Thus, a question for future research is how long the pursuit of popular management techniques can legitimize a company or its leader in the absence of any performance effects. We know that legitimacy can be built in the short and even intermediate term without any tangible economic benefits. But are popular management techniques and organizational performance totally decoupled? If so, then it makes sense for CEOs to pursue them each with a separate set of actions. On the one hand, the pursuit of fashionable programs may help the leader and his or her firm achieve internal and external legitimacy. On the other hand, the quest for sales and profits may necessitate the development of new markets as well as the efficient deployment of human and material resources.

Some Limitations to Institutional Theory

Although our findings support institutional theory, they still fall short of specifying the exact processes underlying institutional effects. Many theorists have described the adoption process as one of modeling and acceptance of taken-for-granted assumptions (e.g., Zucker, 1977; Haunschild and Miner, 1997). Other theorists have argued that the pursuit of legitimacy can be a conscious strategic endeavor. Oliver (1991) noted that firms may actively pursue the approval of other organizations with as much diligence and foresight as used for other important decisions. Elsbach (1994) made a similar point in describing how organizations manage the impressions of various audiences. Although our data do not allow us to answer the question of whether the adoption of popular techniques is a strategic or mindless activity, we do know that both corporate reputations and financial compensation can be influenced by these actions. One might therefore conclude that gains in corporate reputation are sufficient to induce strategic behavior by the firm and that the personal gains bestowed on leaders may activate key individuals like the CEO. Such a motivational explanation must be tentative, however, until further data are collected. Results such as these should be corroborated by surveys on executive

motives (Oliver, 1991: 172) and/or direct observations of organizational decision making. Only then will we know for sure whether gains in legitimacy and compensation are the calculated ends of policy makers or just the fortuitous consequences of their behavior.

Fashion Revisited

While this study demonstrates institutional effects with respect to management techniques, it does not really make the use or popularity of these techniques more predictable, nor does prevailing thought on institutional theory. Some scholars have noted that management procedures may persist over extended periods because of their widespread acceptance and taken-for-granted nature (Meyer and Rowan, 1977; Zucker, 1977). Others, however, have used institutional theory to explain why organizations appear to jump from one fashionable practice to the next (DiMaggio and Powell, 1983; Abrahamson, 1996). To resolve this apparent paradox, we need further knowledge of the temporal dynamics of innovation, including a better understanding of how social and economic outcomes change over time.

At their simplest, fashion cycles may be created by organizations continually searching for improvement in their operations. New procedures may be adopted when they are widely hailed as solutions to human and organizational problems, then dropped after the promised results fail to materialize or are superseded by another, even more promising alternative. What institutional theory adds to this straightforward description of the fashion cycle is the role of social sanctioning and the pursuit of goals other than economic welfare. Institutional processes mean that some innovations can persist when gains in social approval outweigh shortfalls in economic or technical performance. But when an innovation is supported primarily by social approval or legitimacy, rather than its more objective merits, it may be highly subject to contagion effects (Kerckhoff and Back, 1968; Barley and Knight, 1992). Socially supported innovations may be vulnerable to sudden or severe falls in social approval, since few organizational leaders want to be caught using yesterday's solution.

Leveling Fashion Cycles with Organizational Research

Given the volatility of many popular management techniques, one might ask whether there is anything the organizational research community can do to attenuate fashion cycles in management. Can researchers act as a buffer to fashion trends by conducting and disseminating findings on the effectiveness of management techniques? Presumably, when researchers validate a particular procedure, the results should provide additional staying power to the application. Likewise, when researchers discredit a management technique (or the theory underlying it), such information should preclude its resurrection under other rubrics. Thus, as empirical findings on managerial behavior accumulate, one might expect changes in organizational practices to become less frequent over time. Unfortunately, however, such a scenario has not materialized. If anything, the life cycle of management techniques appears to have shortened in recent years

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(Shapiro, 1995). The ebb and flow of popular management techniques seem to be more a function of shifts in societal ideology (Barley and Kunda, 1992), the social dynamics of fashion leaders (Abrahamson, 1991; Pastor, Meindl, and Hunt, 1997), and new challenges facing corporations (Jacoby, 1984; Abrahamson and Fairchild, 1999) than any accumulated research findings. Unlike those using the application process in many of the physical and biological sciences as a guide, managers seldom look to the organizational research community for guidance in deciding whether to adopt new techniques.

Some organizational researchers have tried to alter fashion trends directly through trade publications. While such writings have likely had greater impact on the business community than most academic research publications, they have not yet reduced the volatility or cyclical nature of popular management techniques. In fact, the faddish nature of management techniques may have actually increased due to researchers' modeling their presentations on the very consultants and business writers they wish to supplant. By confidently touting formulas for success in a manner common to the business press, organizational researchers have not differentiated research-based techniques from others in the marketplace.

In our view, a totally different tack should be taken. By publicly expressing doubts about unproven management techniques, in a manner akin to professional skepticism about questionable medical practices, we believe organizational researchers might strengthen their impact on practitioners. By taking a more skeptical stance, organizational researchers could impede the diffusion of doubtful management techniques, while speeding the acceptance of practices that are based on sound research data. More importantly, a public dose of skepticism might actually increase the credibility of the research process itself, providing greater value for the empirical validation of management practices. Such a change in orientation by the organizational research community would not be easy to implement, nor would its results be assured. Yet we believe that increasing demand for accumulated knowledge, as opposed to providing yet another set of solutions, constitutes one of the few ways researchers may be able to dampen fashion cycles in management.

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APPENDIX: Corporations in the Sample

3M	American Brands	Archer-Daniels-Midland
Abbott Laboratories	American Home Products	Ashland Oil
Allied Signal		Atlantic Richfield
Aluminum Co. of America	Amoco	Baxter International
Amerada Hess	Anheuser-Busch	Bethlehem Steel
	Apple Computer	

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Black and Decker	General Motors	Procter and Gamble
Boeing	Georgia Pacific	Quaker Oats
Bristol-Myers Squibb	Gillette	R.R. Donnelley and Sons
Campbell Soup	Goodyear Tire	Ralston Purina
Caterpillar	H.J. Heinz	Raytheon
Champion International	Hewlett-Packard	Reynolds Metals
al	Honeywell	RJR Nabisco
Chevron	IBM	Rockwell International
Chrysler	IBP	Sara Lee
Coastal International	Intel	Stone Container
Oil	International Paper	Sun Microsystems
Colgate-Palmolive	James River Corp.	Tenneco
Compaq Computer	Johnson and Johnson	Texaco
Cooper Industries	Johnson Controls	Texas Instruments
Corning, Inc.	Kellogg	Textron
CPC International	Kimberly-Clark	TRW
Cummins Engine	McDonnell Douglas	Union Carbide
Dana Corp.	Mead	Unisys
Deere	Merck	United Technologies
Digital Equipment	Mobil	USX
Dow Chemical	Monsanto	VF
Dresser Industries	Motorola	W.R. Grace
DuPont	Navistar	Warner-Lambert
Eastman Kodak	Northrop Grumman	Westinghouse
Eaton Corp.	Occidental	Weyerhaeuser
Eli Lilly	Pepsico	Whirlpool
Emerson Electric	Pfizer	Xerox
Exxon	Philip Morris	
Ford	Phillips Petroleum	
General Electric	PPG Industries	