



The Market for Corporate Control and Firm Innovation

Michael A. Hitt; Robert E. Hoskisson; Richard A. Johnson; Douglas D. Moesel

The Academy of Management Journal, Vol. 39, No. 5. (Oct., 1996), pp. 1084-1119.

Stable URL:

<http://links.jstor.org/sici?sici=0001-4273%28199610%2939%3A5%3C1084%3ATMFCCA%3E2.0.CO%3B2-L>

The Academy of Management Journal is currently published by Academy of Management.

Your use of the JSTOR archive indicates your acceptance of JSTOR's Terms and Conditions of Use, available at <http://www.jstor.org/about/terms.html>. JSTOR's Terms and Conditions of Use provides, in part, that unless you have obtained prior permission, you may not download an entire issue of a journal or multiple copies of articles, and you may use content in the JSTOR archive only for your personal, non-commercial use.

Please contact the publisher regarding any further use of this work. Publisher contact information may be obtained at <http://www.jstor.org/journals/aom.html>.

Each copy of any part of a JSTOR transmission must contain the same copyright notice that appears on the screen or printed page of such transmission.

The JSTOR Archive is a trusted digital repository providing for long-term preservation and access to leading academic journals and scholarly literature from around the world. The Archive is supported by libraries, scholarly societies, publishers, and foundations. It is an initiative of JSTOR, a not-for-profit organization with a mission to help the scholarly community take advantage of advances in technology. For more information regarding JSTOR, please contact support@jstor.org.

THE MARKET FOR CORPORATE CONTROL AND FIRM INNOVATION

MICHAEL A. HITT

ROBERT E. HOSKISSON

Texas A&M University

RICHARD A. JOHNSON

University of Missouri–Columbia

DOUGLAS D. MOESEL

Lehigh University

This research examines an integrated theoretical model that explains how strategies for participating in the market for corporate control (acquisitions and divestitures) affect internal control mechanisms and, together, influence internal and external innovation. Nine out of ten hypotheses received support, with results showing that firms engaging in acquisitions and divestitures emphasize financial controls, de-emphasize strategic controls, and thereby produce less internal innovation. Furthermore, these firms are likely to seek external innovation to gain short-term benefits in competitive advantage. We conclude that engaging in the market for corporate control strongly affects the context in which innovation is framed, the control mechanisms employed, and the design and process of innovation.

Mergers and acquisitions have been a significant firm strategy for many years. For example, during the 1970s and 1980s, the fourth wave of mergers and acquisitions in this century (Golbe & White, 1988; Walsh & Kosnik, 1993) was observed. There were over 55,000 such deals in the 1980s, valued at just under \$2 trillion. In fact, almost \$250 billion was invested in acquisitions during 1988 alone (Weston & Chung, 1990). Moreover, although there was a reduction in such activity in the early 1990s, more dollars were invested in acquisitions during 1994 than in any previous year (Steinmetz, 1995).

Concurrent with the heavy merger and acquisition activity, firm innovation in the form of new products and processes has become increasingly important as a way for companies to achieve and maintain a competitive advantage (Franko, 1989). The technological revolution and greater competition in international markets have increased the competitive importance of innovation (Hitt, Keats, & DeMarie, 1995). In fact, a new competitive landscape is forming, in which rapid technological change and diffusion and

This research was partially supported by grants from the National Science Foundation and the Advanced Research Program of the State of Texas.

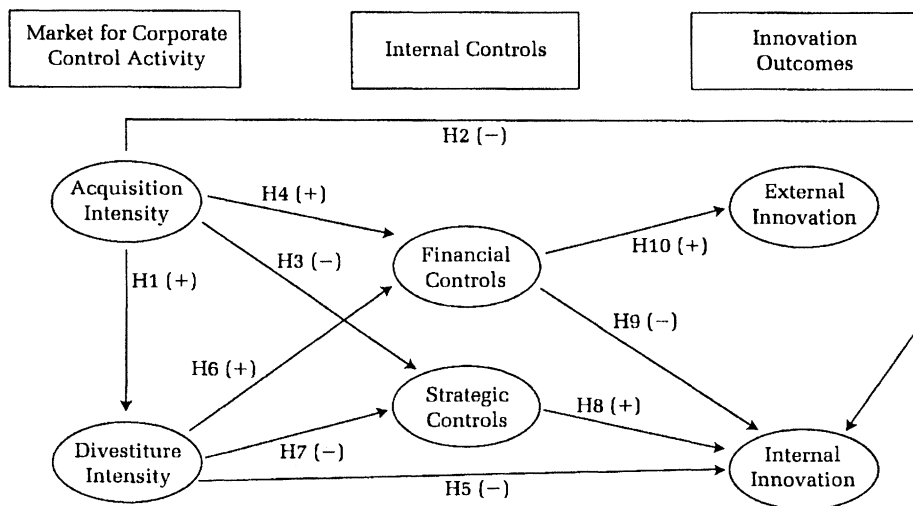
increasing knowledge intensity are salient features (Bettis & Hitt, 1995). Thus, firm innovation has become important for value creation in many industries. Unfortunately, the market for corporate control often has not created the value expected and has harmed companies' innovative capabilities (Hitt, Hoskisson, Ireland, & Harrison, 1991a, 1991b). The market for corporate control is defined as the transferring of managerial control to new capital providers (e.g., shareholders) through acquisitions, divestitures, and other control-transfer mechanisms. Essentially, it is the market for buying and selling businesses or parts thereof (Manne, 1965).

Although Jensen (1993) argued that the failure of the market for corporate control regarding innovation is partly due to legal restrictions on the capital market (e.g., Roe, 1990), he suggested that the major source of failure is "internal control systems." By this term he means the overall governance systems of firms, including poor managerial incentives. Jensen's argument implies that internal control systems designed to regulate managerial behavior, especially that of divisional managers, may have critical effects on firm innovation. Jensen (1993) provided evidence that internal control systems have not produced effective R&D and capital expenditure allocations. Seward and Walsh (1995) concluded that the effects of acquisitions and divestitures on shareholder wealth could be largely attributed to internal managerial control practices. The management literature has partially addressed the relationship of governance and innovation activities (e.g., Baysinger, Kosnik, & Turk, 1991; Graves, 1988; Hansen & Hill, 1991; Hill & Snell, 1988), but more research is required to precisely explain the relationships involved. Thus, there is need for research that examines the problems identified by Jensen (1993) and explores the effects of acquisition and divestiture activity on internal managerial controls and the consequent effects of these controls on firm innovation. In particular, there is a need to examine these relationships in a systemic integrated model.

In the reported research, we developed a model integrating strategic activities related to the market for corporate control, internal control mechanisms, and forms of firm innovation. The purpose of this research was to test this systemic model of the effects of buying and selling assets (acquisitions and divestitures) on firm innovation. Figure 1 depicts the theoretical model developed and tested.

In prior research, Hitt and colleagues (1991b) found acquisitions to have a direct negative effect on firms' R&D intensity. Furthermore, Hoskisson and Johnson (1992) found that divestment activity that refocused firms had a direct, positive effect on R&D intensity over time. Jensen (1993) argued that firms' R&D performance had suffered largely because of the failings of internal control systems. Acquisitions and divestments are strongly linked to internal control systems (Hoskisson & Hitt, 1994). However, to gain a clear understanding of the relationships among firms' participation in the market for corporate control, their internal control systems, and their innovative capability and productivity, there is need to test these relationships in a systemic, integrated model. The current study extends prior research by

FIGURE 1
Theoretical Model



developing more sophisticated measures of acquisition and divestment activity and examining how they affect the internal development of innovation (investment in R&D and new product introductions to the market) and the external acquisition of innovation (such as acquiring firms with new products), both directly and through the use of specific internal controls (financial and strategic). Importantly, it examines these relationships in the systemic integrated model illustrated in Figure 1. Below, we explain the theoretical model and each of the expected relationships and present the hypotheses tested in this study.

THEORETICAL MODEL AND HYPOTHESES

Firms that are actively seeking and completing acquisitions, managing a portfolio of businesses (acquiring and divesting), or only divesting businesses are all active in the market for corporate control. A firm may follow an acquisition strategy for several reasons. A primary reason for acquisitions is to achieve greater market power. Acquisitions may be used to increase the size of a firm and its resources and capabilities, all of which can improve its ability to compete, especially in the global marketplace. Additionally, a firm may use acquisitions to overcome barriers to entry into desirable markets. In fact, acquiring a firm in industries with high entry barriers may be the only way to enter such markets (Balakrishnan, 1988). Often, market entry through acquisitions can be less costly, require less time, and achieve a more profitable return than internal new ventures. Target firms have track records that can be carefully analyzed; future revenues and costs can be forecasted from

historical records. So acquisitions often represent more certainty and lower risk than do new ventures. Although it may be easier to develop new products for a firm's existing markets internally, it is more difficult to develop and successfully enter new markets that the firm's managers do not understand well. Thus, acquisitions also represent a popular way of diversifying, and managers may prefer to enter new markets through acquisitions. Finally, firms may use acquisitions to enter related and unrelated markets to reduce dependence on markets with substantial competitive pressure (Hitt, Ireland, & Hoskisson, 1995) or with severe cyclicality (Amit & Livnat, 1988).

Similarly, firms divest assets for several reasons (Hoskisson, Johnson, & Moesel, 1994; Johnson, 1996). Divesting firms often seek to correct strategic mistakes and improve their performance, so they may divest businesses to obtain significant new cash flows with the purpose of strategically refocusing on their core businesses and core competencies. Divestiture may be necessary because of overdiversification (Markides, 1992). Thus, firms may divest businesses to restructure their portfolios of assets, reduce debt associated with heavy acquisition activity, and improve the innovative competitiveness of existing businesses.

Regardless of the reason for acquisitions and divestitures, research suggests that buying and selling activity may ultimately have an effect on a firm's level of innovation and the type of innovation sought. However, to understand this effect, one must examine a causal network among acquisition and divestiture activity, internal control systems, and internal and external innovation. Below, we describe a systemic, integrated model of the relationships among these variables. The first relationship examined is the link between acquisitions and divestitures.

Acquisitions and Divestitures

Because acquisitions are a major source of firm growth, over time they may lead to the need for divestitures (Porter, 1987). Acquisitions frequently produce little or no return to acquiring shareholders (Jensen, 1988), so some acquiring firms evidently have been unable to achieve the desired synergy with the acquired assets. When this occurs, firms seek to divest those assets to reduce future losses and thereby improve firm value. Ravenscraft and Scherer (1987) found that almost one-third of the businesses acquired by the firms they studied were subsequently divested. Additionally, firms following an acquisition strategy, particularly for the purpose of diversification, may overdiversify (Hoskisson & Hitt, 1994; Markides, 1992; Shleifer & Vishny, 1991). Roll (1986) suggested that managers may overvalue their ability to manage new businesses, exhibiting hubris that leads to excessive diversification. In overdiversified firms, top executives find it difficult to effectively manage the many separate businesses, and thus firm value decreases. Later, these firms seek to strategically refocus by divesting assets that are unrelated to their core businesses (Johnson, 1996).

Often, acquisitions require substantial financial resources, and firms have commonly used leverage as one source of such capital (Hitt, Hoskisson, & Ireland, 1990; Hoskisson, Hitt, & Ireland, 1994). As firms use greater amounts of leverage, their financial risk increases. At times, debt costs (repayment of principal and interest) can be substantial. In fact, the payment of debt costs may require significant cash flow. Firms with high debt costs may require new cash flows to repay the debt and reduce their financial risk (Hitt & Smart, 1994), so active acquirers may divest assets to create greater cash flow. Hoskisson, Johnson, and Moesel (1994) showed that divestiture programs are positively associated with high relative debt and high relative diversification (overdiversification). Finally, firms following an active acquisition strategy may seek to divest assets in order to change their portfolios of assets. In fact, some firms are continuously acquiring and divesting businesses in the management of their asset portfolios. For these reasons, we expected a positive relationship between acquisitions and divestitures.

Hypothesis 1: Acquisition intensity is positively related to divestiture intensity.

Acquisitions and Innovation

Acquisitions often entail substantial transaction costs that result in acquiring firms not realizing gains from acquisitions (Barney, 1988). Transaction costs include negotiating, bidding, monitoring, and enforcement costs resulting from transaction difficulties in the exchange process. Among the potential relevant transaction difficulties are "bounded rationality" and uncertainty and complexity (Jones & Hill, 1988). Acquisition negotiations are often highly complex, with multiple parties involved, including investment bankers, lawyers, and top executives from both firms. To extract the highest price possible for its shareholders, target firm managers attempt to exchange only information that can positively affect the acquisition price. Information asymmetries between the two parties often result. Finally, the complexity and information asymmetries are exacerbated by the bounded rationality of the primary actors on each side of the acquisition negotiations. Thus, acquiring firms may not easily nor accurately predict potential synergy between the target and acquiring firm assets. This lack of accuracy may lead to problems in integrating the acquired assets into the acquiring firm and to economies of scale and scope that are lower than predicted (Haspeslagh & Jemison, 1991; Jemison & Sitkin, 1986). Ineffective integration processes may harm internal innovation efforts, particularly if they draw attention and resources from such efforts (Pritchett, 1985). Internal innovation refers to the development and introduction of new products and processes.

The acquisition process often absorbs significant amounts of managerial time and energy, thereby diverting managerial attention from other important activities (Haspeslagh & Jemison, 1991). Acquisitions require extensive preparation and negotiations. Firms with an active acquisition strategy must

conduct searches for viable acquisition candidates, which generally involves extensive data gathering and analyses. Although executives rarely gather the data and perform the analyses, they must review the results of those analyses and select appropriate acquisition targets. After selecting targets, they must formulate an effective strategy to acquire the firms and begin the negotiations. These negotiations frequently consume much time, particularly if an acquisition bid is undesired by the target firm (Hitt et al., 1990). During this process, the attention of several members of a top management team may be diverted from internal activities, particularly important long-term investments such as developing and bringing new products to the market.

Target firm executives also have to exert much energy and attention toward acquisition negotiations. Activities in target firms being vigorously pursued often enter a state of "suspended animation" (Hoskisson, Hitt, & Ireland, 1994). Daily operations continue unabated, but decisions requiring long-term commitments are often postponed, pending the outcome of the acquisition negotiations. Managers of a target firm are frequently reluctant to make long-term commitments of resources (e.g., heavy investments in R&D), unless they are made for defensive purposes—for instance, to reduce the firm's cash position, making it a less attractive acquisition candidate. Therefore, the process of acquisition often creates a short-term perspective and heightened risk aversion among the top-level managers of both the acquiring and target firms.

Once an acquisition is completed, the process of integrating the acquired assets becomes critical (Fulmer & Gilkey, 1988; Shrivastava, 1986). Because of the importance of gaining synergy between the two sets of assets and the complexity involved in the integration process, much managerial time and energy is devoted to this process in successful acquisitions. Thus, an acquisition may consume considerable amounts of managers' energy over substantial time periods. Therefore, firms following an active acquisition strategy may have lower managerial commitment to internal innovation (Hitt et al., 1990).

Firms following an active acquisition strategy often need substantial resources to complete their acquisitions and thus resort to the use of debt, as noted above. Doing so creates debt costs that must be traded off against the use of these resources for other purposes. Constable (1986) concluded that diversification by acquisition diverted investments from internal development. Furthermore, debt holders frequently impose strict rules that include higher costs for risky projects with assets that are not redeployable for other purposes (Williamson, 1988). The creation of innovation through internal development (R&D) involves assets that are largely nonredeployable. As a result, debt holders are likely to prefer the use of debt to fund acquisitions rather than to support innovation activities. Increased leverage, then, is likely to lead to greater risk aversion on the part of managers. In turn, risk aversion reduces managerial commitment to innovation.

Finally, firms following an active acquisition strategy may use acquisitions as a substitute for internal innovation. Managers often perceive inter-

nally developed innovation as entailing a high risk because of the low probability of success and the length of time required for new innovations to produce adequate returns (Clark & Malabre, 1988; Hill & Snell, 1989). For example, Biggadike (1979) found that new ventures require multiple years to achieve profitability and even more to generate adequate cash flows. Furthermore, a significant number of innovations fail to achieve adequate returns on their investment (Mansfield, 1969). This problem has intensified in recent years because the increasing pace of technological change and heightened global competition have shortened the amount of time that firms have to achieve adequate returns on their innovation investments (Bettis & Hitt, 1995).

The preceding arguments suggest that firms involved in an active acquisition strategy may invest less in the internal development of innovation than other firms. Transaction costs make it difficult to understand and realize potential synergies, acquisitions often absorb much managerial time and energy, and acquisitions use significant resources, which are often at least partially financed by debt. Finally, investments in acquisitions may be perceived as less risky than investments in innovation and yet offer new products, processes, or markets to acquiring firms. As a result, we expect a negative relationship between acquisition activity and internal firm innovation.

Hypothesis 2: There is a negative relationship between acquisition intensity and internal firm innovation.

Acquisitions and Internal Controls

Hoskisson and Hitt (1988) argued that two types of major internal controls associated with the management of large firms, particularly diversified firms, have an important effect on firm innovation: strategic controls and financial controls. Strategic controls entail the use of long-term and strategically relevant criteria for the evaluation of business-level managers' actions and performance. Strategic controls emphasize largely subjective and sometimes intuitive criteria for evaluation (Gupta, 1987). The use of strategic controls requires that corporate managers have a deep understanding of business-level operations and markets. Such controls also require a rich information exchange between corporate and divisional managers (Hoskisson, Hitt, & Ireland, 1994).

Alternatively, financial controls entail objective criteria such as return on investment (ROI) in the evaluation of business-level managers' performance. They are similar to what Ouchi (1980) and Eisenhardt (1985) referred to as outcome controls. Thus, top-level managers establish financial targets for each business and measure the business-level managers' performance against those targets. Such an approach can be problematic when the degree of interdependence among business units is high. Thus, emphasis on financial controls requires each division's performance to be largely independent

of that of other divisions; for instance, there would be little resource sharing between divisions (Goold & Campbell, 1987; Hill & Hoskisson, 1987; Jones & Hill, 1988).

Firms following an active acquisition strategy may add whole firms or multiple businesses to their portfolios with each acquisition. Sometimes, acquisitions add substantial numbers of new assets and multiple markets to a firm's original portfolio. Thus, as a firm grows through acquisition, it also grows in complexity and the number of units that corporate executives must oversee and manage (thereby increasing their spans of control). Clearly, each acquisition increases corporate managers' need for information processing, sometimes dramatically so. These changes make it difficult for corporate managers to use strategic controls. To reduce information-processing demands, they may change their emphasis from strategic to financial controls.

As noted earlier, acquisitions are a primary means of diversifying firms. As a firm acquires businesses that are different from its current core businesses or portfolio of businesses, additional information-processing demands are placed on corporate managers. In fact, major diversifying acquisitions can change a firm's center of gravity (Galbraith & Kazanjian, 1986). A firm's center of gravity is established by its initial operations in a specific industry at a particular stage in a product-market stream. Each industry has specific, and often different, critical success factors. If multiple acquisitions produce extensive diversification, or even changes in the firm's center of gravity, corporate managers may begin to experience control loss. Control loss occurs when corporate managers are not adequately informed about the internal operations or the external environments of major businesses (e.g., divisions) (Ellsworth, 1983). This problem results from the corporate managers' lack of knowledge of the acquired firms' business operations and markets. Furthermore, top managers are often unable to adequately attenuate the information asymmetry between themselves and business-level managers. Thus, as a result of bounded rationality alone, highly diversified firms may overload the ability of corporate managers to process the necessary information and adequately evaluate and control business-level managers' performance (Williamson, 1985).

Although development of highly sophisticated management information systems has helped corporate managers in this regard, effective strategic control often requires the use of face-to-face communication to obtain the rich information necessary to make appropriate subjective assessments using strategically relevant criteria (Chandler, 1991; Goold & Campbell, 1987). Thus, as firms acquire more businesses, particularly ones that are unrelated to their current core businesses, corporate managers often change the emphasis of the controls they use from a strategic (more subjective) to an objective (often financial) one. Objective criteria do not require extensive knowledge of each business operation and its markets.

Corporate culture (a set of core values shared by organizational members) can also help corporate managers control business-level operations (Kilmann, Saxton, & Serpa, 1986). However, a firm following an active ac-

quisition strategy often finds it difficult to maintain a common corporate culture throughout the total organization; such a widespread culture has been called a clan control system (Ouchi, 1980). Firms that are acquired have their own corporate cultures, and these cultures may differ, sometimes significantly so, from the acquiring firm's culture. A common corporate culture facilitates the use of strategic controls (Hill, Hitt, & Hoskisson, 1992). However, firms with multiple and diverse cultures find it difficult to implement common strategic controls. Thus, they are more likely to emphasize financial controls.

These arguments suggest that firms following an active acquisition strategy are likely to emphasize financial controls and deemphasize the use of strategic controls. Thus,

Hypothesis 3: Acquisition intensity is negatively related to the use of strategic controls.

Hypothesis 4: Acquisition intensity is positively related to the use of financial controls.

Divestiture Intensity and Firm Innovation

Firms divest businesses or portions thereof for multiple reasons. One of the most common reasons they do so is because of poor performance (Hoskisson et al., 1994; Jain, 1985). Undoubtedly, many firms' low performance is the result of poorly performing assets (businesses). Low performance from poorly performing assets is often related to strategic errors made in the acquisition process in earlier years. For example, some firms acquire businesses with unrealistic expectations of achieving synergy between the acquired assets and their current sets of assets. A common reason for such errors is managerial hubris (Roll, 1986) or overvaluation of managerial capability in the acquisition process.

Furthermore, firms that have used acquisitions to diversify reach a point of overdiversification, as described earlier (e.g., Hoskisson et al., 1994; Markides, 1992, 1995). They then may divest units that are unrelated to their core to strategically refocus or "downscope" (Hoskisson & Hitt, 1994). Divestitures help make adjustments to a firm's asset portfolio designed to induce a higher market return from that portfolio.

As noted earlier, firms often divest assets in order to increase cash flow, particularly where they have heavy debt loads. Thus, firms sell off assets to pay substantial debt costs (Hoskisson, Johnson, & Moesel, 1994; Scherer, 1988). Where debt costs are high, resources from divestitures of assets are used to pay the debt costs (Lee & Cooperman, 1989), rather than to make such long-term strategic investments as developing internal innovation (Hitt & Smart, 1994). Firms undergoing significant divestitures frequently operate as if in suspended animation (Hitt et al., 1990) and experience a period of "post-restructuring drift" (Johnson, Hoskisson, & Margulies, 1990). Many of

these firms exist in highly turbulent environments—those characterized by significant technological change or substantial global competition, for instance—that produce disorder, disequilibrium, and significant uncertainty within the organizations (Prigogine & Stengers, 1984). As a result, managers often postpone significant long-term investments during the process of divestitures. Also, because of poor performance, high debt costs, or both, the firms do not have the appropriate resources to make significant investments that won't realize returns for several years. In addition, because of the significant uncertainty created by the substantial changes and the turbulent environment in which they exist, managers may find it difficult and undesirable to make long-term commitments.

After a deal is consummated, the divesting firm must engage in damage control within its remaining units (Nees, 1981; Taylor, 1988). The process of divestiture (and acquisition as well) can result in lower morale, higher turnover, and a decrease in productivity due to uncertainty and a lack of clear signals from top management (Hayes, 1972; Johnson et al., 1990; Nees, 1981; Walsh, 1988, 1989). As the level of distrust increases due to a lack of information from top management, communication and cooperation may decrease (Nees, 1981; Schweiger, Ivancevich, & Power, 1987). Managers and employees alike fear making mistakes that become visible to key decision makers because of job security concerns. Individuals afraid of making visible mistakes are conservative in their actions and therefore less innovative. This concern may continue for some time after a divestiture is completed, particularly in firms that have made multiple divestitures. Furthermore, divestitures disrupt existing communication networks, thereby constraining information flows. Innovations often are the result of combining information from disparate sources (Gemunden, Heydebreck, & Herden, 1992). Disruptions in communication flow can limit innovation. Thus, we expect a negative relationship between divestitures and internal innovation to prevail during a divestiture program.

Hypothesis 5: There is a negative relationship between divestiture intensity and internal innovation.

Divestitures and Internal Controls

As noted earlier, firms that are widely diversified are expected to make heavier use of financial controls (Hoskisson & Hitt, 1988; Reece & Cool, 1978). These same firms are expected to have a lower emphasis on strategic controls (Hitt et al., 1990). Furthermore, previous research has suggested that firm performance is generally poor prior to divestiture (Duhaime & Grant, 1984; Hoskisson, Johnson, & Moesel, 1994; Jain, 1985; Johnson, 1996; Ravenscraft & Scherer, 1987). For example, Jain reported that firms exhibited negative abnormal returns of -10.8 percent prior to divestiture, and Duhaime and Grant reported that 40 percent of divested units were sustaining losses and 44 percent exhibited unacceptably low profits. There is growing evidence to

suggest that most firms engage in cost and asset reduction to halt performance declines and stage successful turnarounds (Barker & Mone, 1994; Hofer, 1980; Robbins & Pearce, 1992). Such actions almost always entail strict cost reductions (Grinyer & McKiernan, 1990; Hambrick & Schecter, 1983). Strict cost reductions imply the increased use of tight financial controls (Hambrick & Schecter, 1983), including an emphasis on short-term cash flows and accounting returns like ROI, to help reduce expenses (Barker & Mone, 1994; Robbins & Pearce, 1992). We therefore expect firms engaging in divestitures to emphasize financial controls to improve their profitability.

Often making divestitures also requires significant time and effort on the part of top executives. For example, completing divestitures of assets entails many of the transaction costs described earlier for acquisitions. The process of divesting a business unit involves several stages—recognizing the need for divestitures, deciding to divest, selecting the assets to divest, finding a buyer, negotiating the sale, and obtaining ratification by the board (Taylor, 1988). The decision process may involve roadblocks such as sociopolitical issues and unwillingness to admit failure, which require further time on the part of top management. Taylor (1988) reported that executives perceive the divestiture process as similar to a divorce. Most of the executives in her study felt it was much easier (in terms of time and energy) to acquire a business than to divest one (cf. Hayes, 1972; Nees, 1981; Porter, 1976).

Divestitures differ from acquisitions in that the market for divested assets often follows a “Dutch auction” process in which the divesting firm initiates the transaction (as opposed to the buyer) and normally deals with only one buyer (Jain, 1985; Sicherman & Pettway, 1992). A Dutch auction implies that the firm sets a price for the unit to see if a buyer is interested. If no buyer comes forward, the unit price is reduced until a buyer is found or the firm decides to retain the unit. After a potential buyer is identified, the negotiation process begins. Latent problems in the business are hard to discover, making potential buyers cautious. Thus, potential buyers often bid the lowest possible amount (discounted present value of a continuing stream of depressed profits) for the unit. It may, therefore, take considerable time for the buyer and seller to reach a mutually agreeable price; Nees (1981) reported a range of 20 months to several years in her study. Spin-offs represent an alternative to divestitures because they don’t require buyers, but the separation process is still difficult. For example, it is not clear how successful the AT&T breakup will be. It has been particularly disruptive for Bell Laboratories, the traditional engine of innovation for AT&T businesses (Ziegler & Gautam, 1995).

While managers are engaged in divesting units, they may not be able to maintain the characteristic openness of strategic control systems because of a lack of time and information-processing limitations exacerbated by the divestiture process. Rather, executives rely on more formal procedures, such as *ex ante* budgets and other financial controls, while a firm is actively involved in divesting business units because they require less time and energy (Johnson et al., 1990).

The previous arguments suggest that top management increases financial controls and reduces strategic controls as the number of divestitures increases. Thus,

Hypothesis 6: There is a positive relationship between divestiture intensity and financial controls.

Hypothesis 7: There is a negative relationship between divestiture intensity and strategic controls.

Internal Organizational Controls and Internal Firm Innovation

Strategic controls focus on long-term performance; managers in firms that emphasize strategic controls evaluate the strategies business-level managers formulate and the strategic actions they take rather than their outcomes (Chandler, 1991). Firms in which strategic controls are used often are more focused and emphasize the long-term development of their core businesses (Goold & Campbell, 1987; Hoskisson, Hitt, & Hill, 1991). Use of strategic controls helps establish a norm of risk sharing between corporate and business-level managers. Business-level managers are more likely to undertake risky projects because they feel that corporate managers understand their strategic proposals. Also, business-level managers believe they will be rewarded for the quality of their strategies rather than for short-term financial outcomes. In addition, with a strategic control emphasis, corporate managers frequently establish criteria to promote innovation in these businesses and reward division managers for meeting those criteria. So strategic controls promote increased managerial commitment to innovation (Hitt et al., 1990). This commitment can be observed in higher levels of investment in R&D and in managers' championing new product ideas to bring them to the market (new product introductions). Thus, we expect the use of strategic controls to promote more internal innovation.

Hypothesis 8: There is a positive relationship between strategic controls and internal innovation.

In firms that emphasize financial controls, managers are evaluated on objective financial criteria such as ROI. Furthermore, managerial rewards are contingent on the achievement of these financial outcomes. ROI can be increased in the short term by reducing long-term expenditures, such as investments in R&D (Hayes & Abernathy, 1980). The effects of reducing these long-term investments will not be evident for several years. Because tenure in a specific managerial position is often less than five years, managers who reduce or postpone long-term investments are unlikely to be present when the outcomes of such actions become evident (Fredrickson, Hambrick, & Baumrin, 1988). Furthermore, if managerial compensation and other rewards such as promotion are tied to the achievement of short-term financial outcomes such as ROI, rational managers will take actions to achieve those outcomes (Hoskisson et al., 1991).

In contrast to corporate executives, business unit managers cannot diversify their employment risk. Therefore, proposing risky investments (e.g., R&D) or championing risky new product ideas places a business manager's future earnings (and career) at risk. Because financial performance outcomes are a function of managerial behavior, as well as other factors beyond managerial control, rewards based on financial outcomes shift some of the firm risk to the business-level manager (Eisenhardt, 1985). This shift of risk is likely to produce increased managerial risk aversion at the business level (Hitt et al., 1990). An emphasis on financial controls thus often leads to lower internal innovation (Hayes & Abernathy, 1980; Rappaport, 1978).

Hypothesis 9: There is a negative relationship between financial controls and internal innovation.

Goold and Campbell (1987) found that firms with strong financial controls achieved growth largely by acquiring new operational units rather than by direct internal investment. In industries in which innovation is important to maintain competitive parity or gain competitive advantage, managers working under strong financial controls may still search for ways to bring innovation to their firms. Their search will, however, emphasize innovation with less risk and more certain short-term payoffs. As a result, they may attempt to identify businesses that have developed and introduced new products to the market or new processes that have achieved at least a measure of short-term success. They then seek to acquire these firms in order to incorporate the new products or processes into their firms. Such acquisitions may also help acquiring firms move into new markets. We should, therefore, expect firms with strong emphases on financial controls to seek external innovation.

Hypothesis 10: There is a positive relationship between financial controls and external innovation.

In summary, the theoretical arguments presented above suggest that activity in the market for corporate control diminishes internal innovation. Activity in the market for corporate control produces significant transaction costs and absorbs substantial amounts of managerial time and energy, whether assets are being acquired or divested. As firms acquire more units, diversify through acquisition, or both, information-processing demands on corporate managers increase geometrically. They thus tend to emphasize financial controls over strategic controls. Firms using high levels of strategic controls produce more internal innovations, whereas firms using high levels of financial controls tend to produce fewer internal innovations but acquire more innovation externally. Firms restructuring through divestitures are often seeking to improve performance, pay debt costs, or change their portfolios of assets. This process requires much managerial time and energy, along with significant transaction costs. During the process of restructuring, there is likely to be internal turmoil, and managers may operate as if in a state of suspended animation. Thus, they are unlikely to make significant long-term

investments or to change their control emphasis. We tested the integrated model posed herein using a complex research design and a multiyear, multisource data collection effort. The methodology used to test the proposed hypotheses is described next.

METHODS

Sample

The sample was drawn from Standard & Poor's COMPUSTAT Annual Data Tape and from the COMPUSTAT Business Segment Tape. The sampling frame consists of those firms that reported R&D expenditures each year between 1985 and 1991, with some operations in the industrial manufacturing segment (Standard Industrial Classification [SIC] codes 2000–4000). We focused on industrial firms because they form a major base for strategic competitiveness (Hitt, Keats, & DeMarie, 1995) and provide useful measures of internal innovation (e.g., investments in R&D, new product introductions). In addition, firms were required to have at least \$25 million in total assets for each year of the study. We imposed this criterion to remove small start-up firms from the sample. The time frame was chosen because significant restructuring activity (acquisitions and divestitures) occurred during this period (Weston & Chung, 1990).

Information on divestitures and acquisitions was obtained from *Mergers & Acquisitions*, the *Wall Street Journal Index*, *Compact Disclosure*, and the popular business press (*Business Week*, *Fortune*, and so forth). A total of 776 firms had the necessary COMPUSTAT information. Of this total, 286 firms had all necessary data (including survey data). As 36 of these firms had completed their divestiture program by the end of the study period, we deleted them from the analyses, for consistency with the hypotheses. Thus, the resulting sample for this study was 250 firms.

Survey

Few studies have attempted to measure corporate internal control systems or the importance of external innovation (Hill et al. [1992] and Johnson, Hoskisson, and Hitt [1993] are exceptions). A survey was developed to measure type of controls and degree of emphasis on external innovation because this information is unavailable from secondary sources. CEOs and other top management team members were identified from *Standard & Poor's Directory of Corporate Affiliations*. We made an attempt to contact each firm's CEO by telephone to secure his or her cooperation in completing the survey. Response rates can be significantly increased when verbal commitment is obtained prior to sending a survey instrument (O'Keefe & Homer, 1987). In most cases, if the CEO could not be reached, a researcher spoke to a CEO designee. In some firms, no telephone contact was possible.

The survey was mailed in 1991 and responses were largely received in

the summer and fall of 1991 (a few were received in early 1992). The overall response rate for the survey was 36.9 percent (286 out of 776). This response rate is quite high, given that surveys were completed by CEOs or their designees (usually a firm's chief financial officer or top officer in charge of strategic planning). Because time is scarce among this group, Gaedeke and Tootelian (1976) forecasted a 20 percent response rate from surveys of top executives. Additionally, our response rate exceeds that achieved by Nayyar (1993; 20.1 percent) and is similar to that of Finkelstein (1992; 34.5 percent), both of whom sought survey responses from top executives. Thus, our response rate can be considered quite good.

To check for potential nonresponse bias, we conducted *t*-tests to examine potential differences in all the COMPUSTAT-based variables used in the structural equation modeling procedure. There were no significant differences in firm performance (returns on assets, equity, or sales), R&D intensity, size (total assets, total sales, or number of employees), or current ratio between respondents and nonrespondents during the time period over which survey data were collected (i.e., 1991). These findings suggest that respondents did not differ from nonrespondents along the dimensions examined. Furthermore, there was no significant difference in average industry R&D intensity ($t = .79$) between respondents and nonrespondents, suggesting that industry response bias also is not a concern in this sample.

Measures

Data for the study were collected over three different time periods. Following previous research on corporate restructuring (e.g., Hoskisson & Johnson, 1992), we collected product diversification data for the two years prior to the year in which a firm began to engage in acquisition or divestiture activity, which we refer to as restructuring. Pre-restructuring years were used because diversification (control variable) has been argued to affect firm strategies and control systems (cf. Hoskisson & Hitt, 1988). We collected acquisition intensity and divestiture intensity data from the first three years of our study period beginning with the onset of the restructuring (activity started in 1985, 1986, or 1987) through 1991 (the end of the study period). For those firms engaging in no restructuring activity during the period of this study, 1985 was considered the base year, and product diversification data were collected for 1983–84). Survey data used to assess external innovation and control systems were collected in 1991, and the internal innovation data were collected in the period 1991–92. Firms that completed their restructuring activity prior to filling out the survey (a total of 36) were deleted to meet the assumptions of our theoretical arguments. We expected firms that had completed a planned restructuring to act differently than those in the process of restructuring. All other financial information was collected for 1990–91 and averaged to remove possible accounting inconsistencies or unusual effects in a given year.

Primary Variables

Acquisition intensity. Acquisition intensity was operationally defined using two indicators: (1) number of acquisitions completed and (2) percentage of sales acquired. The number of acquisitions was the total number of business units acquired during the restructuring period. The percentage of sales acquired was measured as the acquisition price of the unit being acquired divided by the acquiring firm's total sales during the previous year. This measure is similar to that used by Simmonds (1990). These percentages were summed over the years the firm acquired businesses to obtain the total percentage of sales acquired.

Divestiture intensity. Divestiture intensity was defined using two different indicators: (1) number of divestitures made, and (2) percentage of sales divested. Number of divestitures was the total number of business units sold through sell-offs, buyouts, or equity "carve outs" or spun off during restructuring (Hoskisson, Johnson, & Moesel, 1994; Johnson et al., 1993). The percentage of sales divested was measured as the sales price of a sold unit divided by its total sales for the previous year. This measure is similar to that used by Bethel and Liebeskind (1993) and Hoskisson, Johnson, and Moesel (1994). In the absence of a publicly reported price for a divestiture, we used the unit's sales for the previous year to serve as a proxy for this price because publicly reported prices often approximate this figure. These percentages were summed over the years a firm restructured to derive the total percentage of sales divested.

Financial controls. The financial control factor was composed of four items modified from a scale reported in Hill and colleagues (1992). These items assessed the importance of financial control measures and procedures in evaluating divisional managers' performance on a seven-point Likert scale. The four items were (1) return criteria such as return on assets, return on invested capital, and so forth, (2) cash flows, (3) objective strategic criteria such as return on investment, and (4) formal reports from management information systems received by headquarters. The coefficient alpha for this scale was .70.

Strategic controls. We measured strategic controls used by top management to process external and internal information in order to evaluate business unit strategy and allocate resources using survey items. These items indicate the emphasis on using strategic controls in evaluating division managers' strategies and performance on a seven-point Likert scale. The strategic control variable is composed of three survey items used by Johnson and colleagues (1993): (1) formal face-to-face meetings between headquarters and subunit personnel, (2) informal face-to-face meetings between headquarters and subunit personnel, and (3) subjective strategic criteria, such as attributes of marketing strategy internal to a firm. The coefficient alpha for this scale was .72.

External innovation. External innovation was composed of three items from the survey instrument asking to what extent a firm had made (1) ex-

ternal acquisitions of new products, (2) external acquisitions to develop new processes, and (3) external acquisitions to build new markets. These three items describe the importance of external innovation to the firm on a seven-point Likert scale. The coefficient alpha for this scale was .73.

Internal innovation. Internal innovation was defined with two variables measuring different dimensions of the construct: (1) firm R&D intensity and (2) new product intensity. R&D intensity was a firm's reported R&D expenditure per \$1,000 of sales. This variable is commonly used to assess inputs to the innovation process. We obtained new product data from Dialog's PTS New Product Announcements on-line database containing full-text news releases issued directly by companies and their authorized marketing representatives. The database includes both U.S. and international companies from the industrial manufacturing and service sectors. Announcements include the introduction of all types of new products and services, new processes, new technologies, product modifications, and licensing agreements. We scanned the database for the years 1991–92 to obtain the number of new products introduced. The search was constructed in such a way that duplicate announcements were removed from the sample. We then divided the mean number of new product announcements over the two years by mean annual firm sales to adjust for size effects in the number of new products introduced (Acs & Audretsch, 1987; Chaney, Devinney, & Winer, 1991). This variable is referred to as new product intensity.

Control Variables

Product diversification. The level of preacquisition or predivestiture product diversification was used as a control because it has been shown to influence R&D expenditures (Hoskisson & Hitt, 1988) and divestiture intensity (Bethel & Liebeskind, 1993; Hoskisson, Johnson, & Moesel, 1994; Markides, 1992), and to be related to acquisition intensity (Hitt et al., 1991b). We calculated level of product diversification using the entropy measure (Jacquemin & Berry, 1979; Palepu, 1985) and the approach specified by Davis and Duhaime (1992). The following formula was used: *entropy measure* = $\sum P_j \times \ln(1/P_j)$, where P_j is defined as the percentage of firm sales in segment j and $\ln(1/P)$ is the weight for each segment j . This measure, therefore, takes into account the number of segments in which a firm operates and the relative importance of each segment in sales (Palepu, 1985). This continuous measure of diversification has been found to have good construct validity relative to other diversification measures (Chatterjee & Blocher, 1992; Hoskisson, Hitt, Johnson, & Moesel, 1993).

Firm size. Firm size has been shown to influence both R&D expenditures (Baysinger & Hoskisson, 1989) and product introductions (Chaney & Devinney, 1992; Chaney et al., 1991). In addition, firm size is related to firm diversification and acquisitions (Bettis, 1981; Hoskisson et al., 1993; Montgomery, 1982), and divestiture intensity (Hoskisson & Johnson, 1992; Hoskisson, Johnson, & Moesel, 1994). We calculated firm size by using the loga-

rhythms of total assets, total sales, and number of employees as indicators. Industry-adjusted firm size was calculated by subtracting the average values of the above-mentioned variables for the dominant two-digit SIC code industry from their firm counterparts.

Average industry R&D intensity. Previous research has shown that average industry R&D intensity has an effect on the relative levels of R&D intensity at the firm level and new product introductions (Baysinger & Hoskisson, 1989; Chaney & Devinney, 1992; Hoskisson & Johnson, 1992). Average industry R&D intensity may also reflect a firm's need to remain in technological parity with competitors, thus necessitating external innovation if internal innovation is not forthcoming. We defined average industry R&D intensity with two indicators: (1) average industry R&D divided by average industry sales and (2) average industry R&D divided by average industry total assets. Average industry R&D intensity was calculated using average industry R&D, sales, and total assets at the two-digit SIC code level.

Accounting performance. High levels of firm performance have been shown to influence R&D spending and new product introductions (Chaney & Devinney, 1992). High performance may also influence a firm's ability to engage in acquisition activity and external innovation. We measured accounting-based performance using three indicators: (1) return on assets (ROA), (2) return on equity (ROE), and (3) return on sales (ROS). Each measure was calculated by dividing net income by total assets, total common equity, and total net sales, respectively. To control for industry effects, we adjusted ROA, ROE, and ROS for industry by subtracting the dominant two-digit industry average ROA, ROE, and ROS from their respective firm counterparts.

Current ratio. A standard measure of liquidity, the current ratio (current assets/current liabilities) has been found to influence the amount of funds available for R&D (Baysinger & Hoskisson, 1989; Hitt et al., 1991b).

Interrater Reliability

In order to assess interrater reliability for survey items, we sent duplicate surveys to a random sample of 130 responding firms. A total of 62 firms returned the duplicate questionnaire for a response rate of 47.7 percent. Fifty-five of the duplicate surveys were usable. The interrater reliability was .74 ($p < .0001$) for the strategic control factor, .76 ($p < .0001$) for the financial control factor, and .81 ($p < .0001$) for the external innovation factor. These results provide strong support for the reliability of these measures. Furthermore, they strongly suggest that the survey measured firm attributes as opposed to individual idiosyncratic interpretations. Table 2, which appears in the Results section, reports additional construct validity information concerning the factor loadings and significance levels of the confirmatory factor analysis. Overall, the results suggest good construct validity.

TABLE 1
Means, Standard Deviations, and Correlations^a

Variable	Mean	s.d.	1	2	3	4	5	6	7	8
1. R&D intensity	4.78	6.17								
2. New product intensity	0.02	0.04	.51							
3. External acquisition of new products	4.16	1.73	-.03	-.01						
4. External acquisition to develop new processes	3.40	1.57	-.07	-.18	.58					
5. External acquisition to build new markets	4.22	1.71	-.08	-.20	.43	.45				
6. Return on investment criteria	5.78	1.50	-.25	-.30	.11	.13	.14			
7. Cash flows	5.39	1.58	-.11	-.14	.02	.05	.11	.45		
8. Objective strategic criteria	5.49	1.46	-.20	-.24	.13	.19	.14	.46	.42	
9. Formal reports from MIS systems	4.77	1.62	-.10	-.17	.11	.17	.11	.22	.29	.42
10. Formal face-to-face meetings	6.05	1.34	.18	.12	.07	.01	.12	.10	.13	.09
11. Informal face-to-face meetings	5.72	1.45	.17	.14	.05	.08	.07	.10	.16	.09
12. Subjective strategic criteria	4.93	1.40	.22	.15	.07	.14	.05	.07	.10	.10
13. Number of acquisitions	6.41	7.55	-.19	-.48	.16	.19	.28	.18	.17	.15
14. Percent of sales acquired	16.89	18.67	-.08	-.24	.22	.19	.30	.13	.11	.15
15. Number of divestitures	4.18	8.74	-.26	-.35	-.08	.10	.01	.16	.16	.15
16. Percent of sales divested	8.39	7.52	-.18	-.22	-.08	.01	.01	.11	.15	.11
17. Product diversification	0.47	0.52	-.29	-.48	.01	.15	.13	.18	.15	.24
18. Firm total assets ^b	6.62	1.86	-.19	-.62	-.01	.17	.05	.11	.03	.21
19. Firm sales ^b	6.83	1.79	-.22	-.62	-.02	.15	.05	.14	.02	.24
20. Firm employees ^b	1.90	1.65	-.20	-.59	-.03	.14	.04	.16	.02	.23
21. Current ratio	2.12	0.91	.25	.44	.06	-.08	.09	-.15	-.15	-.06
22. Industry R&D/sales	4.47	2.35	.34	.40	.11	-.05	.02	-.29	-.07	-.18
23. Industry R&D/assets	4.28	2.19	.32	.35	.14	-.03	.01	-.27	-.07	-.17
24. Industry-adjusted ROA	1.89	7.60	-.04	-.04	.15	.10	.12	.04	-.19	.01
25. Industry-adjusted ROS	0.53	13.94	-.05	-.06	.16	.10	.11	.06	-.18	.01
26. Industry-adjusted ROE	1.42	22.72	-.04	-.10	.13	.08	.10	.06	-.16	.01

^a Correlations greater than or equal to .19 are significant at $p < .001$; those greater than or equal to .15 are significant at $p < .01$; those greater than or equal to .12 are significant at $p < .05$; and those greater than or equal to .10 are significant at $p < .10$.

^b Variable is a logarithm.

General Model (Structural Equation) Method

The hypotheses were tested using structural equation modeling. By definition, structural equation analysis is a combination of factor analysis and path analysis. Our approach to estimating the structural equations model follows the two-stage procedure recommended by Anderson and Gerbing (1988). The first stage involves estimation of the measurement model using confirmatory factor analysis. This stage tests whether or not the variables selected to measure each construct exhibit sufficient convergent and discriminant validity. Once a good measurement model is established, the final stage tests the theoretical model (for a complete explanation of the decision tree process used, see Anderson and Gerbing [1988] and Bollen [1989]).

RESULTS

Table 1 reports means, standard deviations, and correlations between all variables used in the study. Analysis of the correlation matrix shows initial

TABLE 1 (continued)

9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
.10																
.10	.69															
.05	.35	.41														
.17	-.09	-.11	-.16													
.17	-.09	-.08	-.14	.57												
.09	-.11	-.10	-.13	.28	.09											
.15	-.11	-.08	-.11	.08	.12	.71										
.01	.01	-.01	-.08	.39	.17	.36	.18									
.04	.11	.06	.10	.39	.10	.35	.16	.51								
.04	.09	.04	.09	.39	.11	.34	.12	.50	.97							
.06	.08	.04	.07	.40	.11	.32	.10	.51	.93	.95						
-.06	-.02	.05	-.02	-.20	-.10	-.28	-.19	-.32	-.46	-.46	-.45					
-.07	.04	.11	.05	-.19	.01	-.25	-.12	-.35	-.36	-.40	-.36	.25				
-.06	.05	.13	.03	-.17	.03	-.24	-.09	-.34	-.35	-.38	-.35	.25	.94			
-.05	.01	.06	-.07	.02	.03	-.14	-.13	.01	.16	.19	.17	.26	.05	.04		
-.04	.01	.06	-.08	.02	.04	-.15	-.11	.01	.18	.20	.16	.24	.05	.04	.90	
-.01	.01	.04	-.11	.08	.07	-.13	-.10	.08	.21	.23	.21	.16	.02	.05	.85	.85

evidence of good convergent and discriminant validity. Nine of 11 correlations greater than .60 involve intrafactor correlations. The other two correlations are both .62 and reflect part of the important control path from firm size to new product intensity.

Overview of Structural Equation Modeling Results

Tables 2–5 and Figure 2 summarize the results derived from the structural equation modeling.

Table 2 summarizes the results of the confirmatory factor analysis (first stage of the modeling procedure) on the initial measurement model (model 1). Measurement information from the final “best” model (model 5) is also included for comparative purposes. Each variable is named and linked with a factor; a factor loading and its associated *Z*-statistic, where applicable, are reported for both models 1 and 5. Table 3 presents summary statistics of all models estimated in both stages of the modeling procedure as well as chi-square statistics and goodness-of-fit information for each model.

As the factor loadings for model 1 in Table 2 show, the expected mea-

TABLE 2
Factor Loadings: Measurement Model Compared to Final Best Model^a

Variable	Factor Name	Model 1, Measurement Model		Model 5, Final Best Model	
		Loading	Z-statistic	Loading	Z-statistic
R&D intensity	Internal innovation	0.520***	7.252	0.518***	7.180
New product intensity	Internal innovation	0.974		0.978	
External acquisition of new products	External innovation	0.746***	7.872	0.749***	7.792
External acquisition to develop new processes	External innovation	0.753***	7.874	0.758***	7.790
External acquisition to build new markets	External innovation	0.615		0.605	
Return on investment criteria	Financial controls	0.664***	6.086	0.664***	6.110
Cash flows	Financial controls	0.622***	5.931	0.620***	5.943
Objective strategic criteria	Financial controls	0.699***	6.184	0.697***	6.208
Formal reports from MIS systems	Financial controls	0.483		0.485	
Formal face-to-face meetings	Strategic controls	0.804***	9.807	0.803***	9.748
Informal face-to-face meetings	Strategic controls	0.845		0.847	
Subjective strategic criteria	Strategic controls	0.486***	7.015	0.483***	6.965
Number of acquisitions	Acquisition intensity	1.000***	11.066	0.999***	11.067
Percent of sales acquired	Acquisition intensity	0.574		0.574	
Number of divestitures	Divestiture intensity	1.000***	15.764	0.995***	15.765
Percent of sales divested	Divestiture intensity	0.707		0.707	
Product diversification	Product diversification	1.000		1.000	
Firm total assets ^b	Firm size	0.977***	40.341	0.977***	40.359
Firm sales ^b	Firm size	0.994***	45.296	0.994***	45.290
Firm employees ^b	Firm size	0.952		0.952	
Current ratio	Current ratio	1.000		1.000	
Industry R&D/sales	Industry R&D intensity	0.993***	21.310	0.991***	21.382
Industry R&D/total assets	Industry R&D intensity	0.942		0.944	
Industry-adjusted ROA	Firm performance	0.952***	24.839	0.952***	24.838
Industry-adjusted ROS	Firm performance	0.951***	24.812	0.951***	24.812
Industry-adjusted ROE	Firm performance	0.890		0.890	

^a This analysis allows a comparison of factor patterns throughout the modeling process.

^b Measured as a logarithm.

*** $p < .001$

surement model performed very well. This conclusion is confirmed by the model chi-square statistic and goodness-of-fit measures for model 1 reported in Table 3. For instance, all of the factor loadings for model 1 in Table 2 are higher than .48. Factor loadings at the .40 level and above are routinely used in the social sciences (Ford, MacCallum, & Tait, 1986). Furthermore, there is good discriminant validity among the factors. Thus, all factors appeared adequate for use in the second stage.

The chi-square statistic and goodness-of-fit measures for model 1 in Table 3 reflect a very strong model. Goodness-of-fit measures of .90 and above on the Bentler-Bonett normed fit index (NFI) are considered desirable, and values of .95 and above on the comparative fit index (CFI) are generally considered strong evidence of practical significance (Bentler, 1989). Table 4 summarizes the hierarchical model testing sequence employed to compare the models and to determine the final best model (model 5).

We compared models 1–5 in Table 3 while examining the theoretical model (see Figure 1) and used sequential chi-square difference tests (SCDTs) to obtain successive fit information (Steiger, Shapiro, & Browne, 1985). Following a series of hierarchical tests, a final best model was derived that is both theoretically meaningful and free of obvious specification problems.

As presented in Table 3, the theoretical model (model 2) suggests the removal of five paths from the fully saturated model (model 1). Model goodness-of-fit measures are highly comparable across the two models. In Table 4, this comparison is summarized as the first step in the hierarchical sequence in the row labeled “model 2 vs. 1.” The difference in chi-square is shown to be statistically significant, indicating that there is some misspecification in the theoretical model (model 2). Specifically, model 2 lacks a path or paths that are important to the overall fit of the model.

The second step involves the comparison of the next-best constrained model (model 3) with the theoretical model (model 2). In the next-best constrained model, one or more of the paths previously specified in the theoretical model are eliminated. In model 3, the next-best constrained model, we chose to drop the paths from divestiture intensity to financial and strategic controls to test the notion that the effects of divestitures on firm innovation are direct and not mediated by internal controls. Hoskisson and Johnson (1992) found a direct relationship between divestitures and investment in firm R&D. The comparison of model 3 to model 2 (Table 4) results in a significant chi-square statistic ($p < .005$), indicating that the theoretical model (model 2) is preferred over the next-best constrained model (model 3). These results suggest that the eliminated paths should be restored.

In the third step, we tested the next-best unconstrained model (model 4) against the theoretical model (model 2). The next-best unconstrained model contains all of the paths specified in the theoretical model plus one or more previously unspecified paths that represent important alternative theoretical arguments in the literature. For the next-best unconstrained model, we specified three new paths from acquisition intensity to external innovation, from strategic controls to external innovation, and from strategic controls to

TABLE 3
Model Statistics^a

Model	Description	χ^2	df	<i>p</i>	NFI	NNFI	CFI
1	Measurement	387.970	246	<.001	.914	.955	.966
2	Theoretical	412.450	251	<.001	.909	.950	.962
3	Next-best constrained	435.111	253	<.001	.904	.944	.957
4	Next-best unconstrained	389.315	248	<.001	.914	.956	.966
5	Final model	390.456	250	<.001	.914	.956	.967

^a NFI = Bentler-Bonett normed fit index, NNFI = Bentler nonnormed fit index, CFI = comparative fit index.

financial controls. Hitt and colleagues (1990) argued that in addition to the effects on internal innovation mediated by control systems, acquisitions could serve as a substitute for internal innovation, implying that firms may acquire innovation rather than develop it internally. Alternatively, firms that emphasize strategic controls are less likely to focus on external innovation. Strategic controls require knowledge of the businesses operated, and executives are less willing to acquire new businesses of which they have little understanding. Finally, although all firms normally use some amount of both strategic and financial controls, it has been argued that there is a trade-off between the two, suggesting a negative relationship (i.e., Hoskisson & Hitt, 1988; Hitt et al., 1990). Thus, there are reasons to expect the relationships posed by the paths added to the model. The chi-square difference test reported in Table 4 is statistically significant, indicating that the next-best unconstrained model is preferred over the theoretical model.

In the fourth step, the next-best unconstrained model (model 4) is compared to the measurement model (model 1). The chi-square difference test presented in Table 4 was nonsignificant ($p > .10$), suggesting that model 4 is preferred over model 1. Lastly, we dropped the one path that was not significant in model 4. The test of the difference between the model 4 and model 5 chi-squares was nonsignificant ($p > .10$), indicating that model 5 (the most parsimonious model) is preferred. Anderson and Gerbing's (1988)

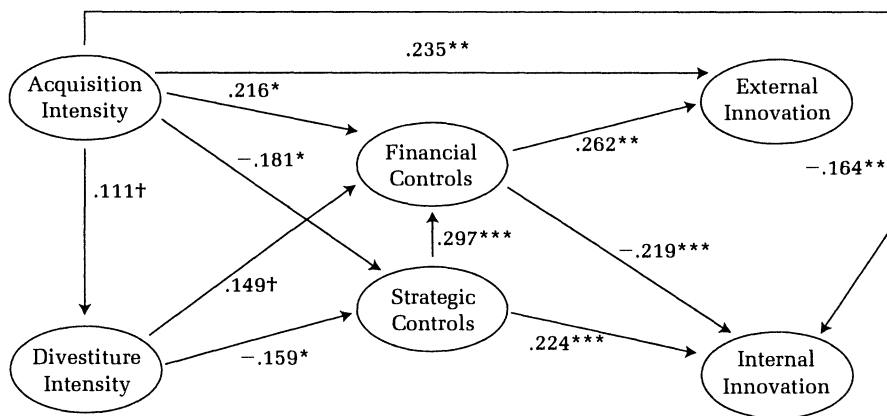
TABLE 4
Testing Sequence and Difference Tests

Comparison	$\Delta\chi^2$	Δdf	<i>p</i> ^a	Model Preference
Model 2 vs. 1	24.480	5	<.005	1
Model 3 vs. 2	22.661	2	<.005	2
Model 4 vs. 2	23.135	3	<.005	4
Model 4 vs. 1	1.345	2	>.10	4
Model 5 vs. 4	1.141	2	>.10	5 ^b

^a Probabilities are stated in inequality terms as chi-square tables are sparse.

^b Results of hierarchical modeling suggest acceptance of the final model (model 5) as the final best model. The modeling process was terminated at this point.

FIGURE 2
Final Model^{a,b}



^a Parameters are standardized parameter estimates. Terms in ellipses are factor names.

^b This is a simplified version of the actual model. It does not show error terms, exogenous factor variances, disturbance terms, correlations between exogenous factors, or control paths from statistical control variables.

† $p < .10$

* $p < .05$

** $p < .01$

*** $p < .001$

decision-tree framework suggests accepting the results of model 5 as the final best model.

Identifying a final best model without condition codes or other signs of misspecification allowed a test of hypotheses using the theoretical model (Figure 1 and model 2) and comparison to the final best model illustrated in Figure 2 (model 5).

Table 5 presents results for the theoretical path model illustrated in Figure 1 (model 2 in Table 5). For purposes of direct comparison, we also present parallel results for the final best model illustrated in Figure 2 (model 5 in Table 5). The first ten rows present results of the hypothesis testing. Path coefficients and their respective Z-statistics and indications of significance are summarized for each hypothesis. The next two rows present results for the paths added during the testing of the next-best unconstrained model. The last 25 rows present control paths with path coefficients, Z-statistics, and indications of significance. From the top ten rows of Table 5, we note that all ten hypothesized relationships are in the direction expected in model 2. Seven out of ten relationships were statistically significant at conventional levels ($p < .05$). Two more relationships were statistically significant at marginal levels ($p < .10$). As illustrated in Table 5, the results remained stable for models 2 and 5.

TABLE 5
Structural Equations Modeling Results Comparing Hypothesis Tests for the Theoretical and Final Models

	Hypothesis	Description of Path	Hypothesized Direction	Model 2		Model 5	
				Path	Coefficient	Path	Coefficient
1	Acquisition intensity → divestiture intensity		+	.110†	1.718	.111†	1.724
2	Acquisition intensity → internal innovation		–	–.167**	–3.141	–.164**	–3.010
3	Acquisition intensity → strategic controls		–	–.181*	–2.310	–.181*	–2.317
4	Acquisition intensity → financial controls		+	.179*	2.133	.216*	2.514
5	Divestiture intensity → internal innovation		–	–.016	–0.326		
6	Divestiture intensity → financial controls		+	.145†	1.802	.149†	1.834
7	Divestiture intensity → strategic controls		–	–.158*	–2.037	–.159*	–2.055
8	Strategic controls → internal innovation		+	.195***	3.764	.224***	4.015
9	Financial controls → internal innovation		–	–.194**	–3.166	–.219***	–3.300
10	Financial controls → external innovation		+	.304***	3.036	.262***	2.716
Added path ^a		Acquisition intensity → external innovation	+			.235**	2.797
		Strategic controls → financial controls	–			.297***	3.291
Control	Product diversification → internal innovation		–.150*	–1.961		–.152*	–1.989
Control	Firm size → internal innovation		–.379***	–5.608		–.393***	–5.855
Control	Industry R&D intensity → internal innovation		.143*	2.201		.141*	2.128
Control	Firm performance → internal innovation		–.038	–0.728		–.034	–0.665
Control	Current ratio → internal innovation		.154**	2.632		.151*	2.557
Control	Product diversification → external innovation		.096	1.109		.045	0.527
Control	Firm size → external innovation		.012	0.117		–.055	–0.554
Control	Industry R&D intensity → external innovation		.143†	1.756		.138†	1.723
Control	Firm performance → external innovation		.174*	2.101		.183*	2.254
Control	Current ratio → external innovation		.015	0.171		.015	0.173
Control	Product diversification → strategic controls		–.045	–0.532		–.044	–0.526
Control	Firm size → strategic controls		.302***	3.009		.304***	3.034
Control	Industry R&D intensity → strategic controls		.141†	1.844		.143†	1.859
Control	Firm performance → strategic controls		–.079	–0.996		–.080	–1.005
Control	Current ratio → strategic controls		.084	0.989		.084	0.989
Control	Product diversification → financial controls		.102	1.128		.091	1.044
Control	Firm size → financial controls		–.026	–0.248		–.123	–1.167
Control	Industry R&D intensity → financial controls		–.169*	–2.044		–.214*	–2.563
Control	Firm performance → financial controls		.022	0.268		.004	0.052
Control	Current ratio → financial controls		–.025	–0.290		–.059	–0.676
Control	Product diversification → divestiture intensity		.184*	2.463		.182*	2.459
Control	Firm size → divestiture intensity		.198*	2.386		.199*	2.402
Control	Industry R&D intensity → divestiture intensity		–.072	–1.139		–.073	–1.146
Control	Firm performance → divestiture intensity		–.187***	–2.830		–.188**	–2.832
Control	Current ratio → divestiture intensity		–.038	–0.544		–.038	–0.546

^a These paths were hypothesized in the next-best unconstrained model (model 4).
† $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$

Results of Hypothesis Tests

Acquisition intensity hypotheses. Acquisition intensity is positively related to divestiture intensity (.111, $p < .10$). Thus, Hypothesis 1 received support. Hypothesis 2 also received support. Acquisition intensity has a statistically significant, negative effect on internal innovation ($-.164$, $p < .01$). Additionally, acquisition intensity has a significant, negative effect on strategic control use, supporting Hypothesis 3 ($-.181$, $p < .05$). Lastly, acquisition intensity is positively related to financial controls (.216, $p < .05$). Hypothesis 4 therefore received support.

Divestiture intensity hypotheses. Hypothesis 5 was not supported. There was no statistically significant relationship between divestiture intensity and internal innovation ($-.016$, n.s.). Hypothesis 6 received support. Divestiture intensity had a statistically significant effect on use of financial controls (.149, $p < .10$). Alternatively, divestiture intensity exhibited a negative relationship with use of strategic controls ($-.159$, $p < .05$). Thus, Hypothesis 7 received support.

Control system hypotheses. Strategic controls were found to be positively related to internal innovation (.224, $p < .001$), providing support for Hypothesis 8. Hypothesis 9 also received support. Financial controls exhibited a statistically significant, negative relationship with internal innovation ($-.219$, $p < .001$). Lastly, financial controls were positively related to external innovation (.262, $p < .01$), providing support for Hypothesis 10.

Other Results

Special paths in the final model. Table 5 presents two special paths that were added during model respecification (in the next-best unconstrained model, model 4). Because we did not initially hypothesize these paths, no path coefficients or Z-statistics are available from the theoretical model (model 2). Two of the three added paths are statistically significant. In the first added path, a positive relationship between acquisition intensity and external innovation was predicted. The path coefficient was positive and statistically significant (.235, $p < .01$). In the second added path, the relationship between strategic controls and financial controls was predicted to be negative. However, the path coefficient was positive and statistically significant (.297, $p < .001$). The third path, between strategic controls and external innovation, was not statistically significant.

Control variables. There were 25 paths between control variables and the primary theoretical variables in the model. Table 5 depicts these paths, 12 of which were statistically significant. It is of note that firm size was positively related to strategic controls (.304, $p < .01$) but negatively related to internal innovation ($-.393$, $p < .001$). Other relatively strong relationships included the path from firm performance to divestiture intensity ($-.188$, $p < .01$) and that from industry R&D intensity to financial controls ($-.214$, $p < .05$). These relationships were as we expected on the basis of prior research.

DISCUSSION

The research provided strong support for the general model presented in Figure 1. In fact, nine of the ten hypotheses received support from the results of the study. These results strongly suggest that firms actively buying or selling businesses, or both, are likely to produce less internal innovation and rely more heavily on external innovation for a variety of reasons, including the structure and implementation of the internal control systems derived from their strategic actions.

The results have important implications for the fields of strategic management and organization theory. First, innovation is an important outcome of firm processes and has been shown to be critical for firm performance, particularly in industries with global competition (Franko, 1989). Bettis and Hitt (1995) described a new competitive landscape that is developing because of the increasing global competition and the technological revolution that affect most all organizations. This new competitive landscape places importance on firms being able to innovate in order to remain competitive in global markets. Innovation is important in both new product introductions and the processing of information and communications throughout complex organizations with operations in multiple countries.

This study focused on strategic actions that have been popular for many years, exemplified by the more than 55,000 acquisitions that occurred during the 1980s, followed by the significant restructuring (downscoping and downsizing) of many major corporations in the United States and abroad (Hitt, Keats, Harback, & Nixon, 1994). Recent data suggest the potential for a new wave of mergers and acquisitions on a global basis. Given that innovation is important for strategic competitiveness and that the buying and selling of businesses is becoming a globally popular strategic action, our results are profoundly important.

Our results suggest that an active acquisition strategy has direct, negative effects on the internal development of firm innovation. This effect is likely due to the transaction costs involved and to acquisition-related activities that absorb managers' time and energy. Because of these transaction costs, managers have little time left to manage other important projects, and target firm managers in particular become strongly risk averse. Thus, managers of acquiring and target firms may postpone major decisions regarding long-term investments such as R&D and thereby reduce the innovative capabilities of their firms.

Acquisitions also have indirect effects on the internal innovation of a firm through the control systems used to implement this strategy. As a firm acquires new units, top corporate executives' span of control increases, and their need to process information grows. Their information-processing capacities become strained, and they often change from an emphasis on strategic controls to an emphasis on financial controls. This change is important because our results show that strategic controls have a positive effect on internal innovation, but financial controls have a negative effect on it. Fi-

nancial controls establish financial targets whereby division managers become increasingly oriented toward the short term and reduce investments (e.g., in new product development) that will not pay off except in the long term.

Alternatively, firms following an active acquisition strategy may remain innovative by acquiring firms that have produced innovations. In other words, they may seek firms that have recently introduced new products or processes in order to remain competitive in their markets. This finding is interesting and suggests how acquiring firms, such as General Electric, can remain competitive while producing less internal innovation. However, Goodman and Lawless (1994) argued that although the acquisition of external innovation may aid a firm's competitive position, it simultaneously lessens corporate control over strategic results. Also, as these acquiring firms integrate the newly acquired innovative business into their organizations and apply the same set of control systems, the new business is likely to become less innovative over time.

These problems are dramatically shown by Smucker's acquisition of Mrs. Smith's. Smucker's faced challenges from competitors that introduced new products to the market, and it turned to acquisitions for new products and sales and profit growth. One of Mrs. Smith's new product lines, Smart-Style lower-calorie desserts, which was introduced with a costly promotional campaign, failed after the acquisition and had to be withdrawn from the market. This failure hurt Smucker's financial performance. One analyst suggested that Smucker's past risk aversion had hurt its competitiveness in the marketplace. Moreover, this analyst predicted that the firm's future was based on its ability to leverage new products through acquisitions (Murray, 1995). More research is required to understand the nature of external innovation and its effects on long-term firm performance.

Jensen (1993) argued that firms that are spending too much on R&D (i.e., the R&D is not producing adequate returns for investors) may be targeted for acquisition. However, the appropriate level of investment in R&D may be difficult to identify. The recent example of Chrysler Corporation provides a case in point. Kirk Kerkorian, a large Chrysler shareholder, made a tender offer for Chrysler Corporation, in partnership with Lee Iaccoca, the former CEO. In particular, Kerkorian felt that Chrysler had excessive cash reserves that should be distributed in dividends to shareholders. However, corporate executives argued that the high cash reserves were necessary to sustain the future new product development required in a globally competitive environment. In this case, the market sided with Chrysler managers, and Kerkorian's proposal did not receive the financial support it needed to move ahead (Woodruff, Laderman, Spiro, Kerwin, & Treece, 1995).

Our results regarding active divestitures provide finer-grained information than previous research and thereby have important differences. For example, Hoskisson and Johnson (1992) suggested that restructuring firms (those actively divesting units) might be able to reestablish strategic controls and thereby improve their innovation (although they did not measure strategic controls). Our results suggest that firms that are actively divesting

businesses cannot reinstate strategic controls while they are restructuring. The process of divestiture also creates significant transaction costs, similar to those acquiring firms incur. Additionally, these actively divesting firms are undergoing significant transformations, so managers may be experiencing significant chaos. Thus, to maintain some order and control, firms making significant divestitures are likely to maintain or even heighten financial controls.

Alternatively, no relationship was found between divestiture intensity and internal innovation. These results suggest that the major effects of divestitures on innovation are indirect, mediated by control systems. Some of the firms making divestitures are likely doing so as a part of a well-planned program of downscoping (Hoskisson & Hitt, 1994). Although such firms may desire to change their control systems, the turmoil (and even chaos) created by the major changes do not allow them to do so. However, the goals of the divestiture program may be to refocus the firm and, in the process, increase firm innovation. Thus, the countervailing forces of positive goals and negative effects from the emphasis on financial controls produce neutral effects of divestitures on internal innovation. In our data set were 36 firms that had completed their divestiture program (they had made no divestitures in the most recent two-year period). These firms, for this reason, were not included in the sample for our primary hypothesis tests. However, post hoc analyses showed divestiture intensity in these firms to have a positive and significant effect on internal innovation. These results provide support for prior research (Hoskisson & Johnson, 1992) and for the arguments regarding the goals of divestitures stated above.

The results of this study strongly suggest that the least innovative firms are likely those following a portfolio strategy. Those firms are regularly acquiring and divesting businesses, so the effects on control systems, internal innovation, and external innovation are likely to be magnified. Because of the continuous changes in the portfolio of businesses through acquisitions and divestitures, these firms have strong financial controls and use few, if any, strategic controls. Furthermore, even if they acquire innovative businesses, they are less likely to realize advantages from them because of the strong focus on acquisitions and divestitures (significant transaction costs and use of managerial time and energy) and heavy emphasis on financial controls. Thus, a portfolio strategy is likely to be successful only in industries in which innovation is unimportant (e.g., mature industries where increases in internal efficiencies can produce greater returns).

The results of this study provide guidance for future research. The significance of internal controls in our study strongly suggests that control systems should be examined in research on organizational innovation. Additionally, we need a better understanding of the long-term implications of substituting external for internal innovation. The research reported herein also suggests that research on organizational innovation should examine systemic integrated models (as opposed to simple bivariate relationships).

More research is also required to understand the true relationship between strategic and financial controls. The results of our study suggest a positive relationship between the two. Perhaps strong use of strategic controls allows positive use of financial controls and delimits their negative effects on organizations.

This research has provided a finer-grained examination of the effects of buying and selling businesses on firm innovation than done in previous research. Specifically, this study has several features not included in previous studies. These include the simultaneous examination of acquisition and divestiture intensity, examination of the relationships between internal control systems and acquisition and divestiture intensity as well as internal and external innovation, examination of both R&D investments and the introduction of new products (internal innovation), and examination of acquiring innovation externally. Perhaps the greatest contribution, however, is that these relationships were examined in a holistic, integrated model for the first time. Although acquisitions seem to have both a direct and mediated effect on firm innovation, divestitures' effect on firm innovation is more indirect, mediated through the firm's control system (until the program of divestitures is completed).

This research suggests that active involvement in the market for corporate control can be negative to an organization's health in industries in which innovation is important. Furthermore, because of the growing importance of innovation in the developing new competitive landscape and the increasing global activity in mergers and acquisitions, the findings of this study may be critically important for firms' maintenance of strategic competitiveness. We conclude that the context in which innovation is framed is strongly affected both by top management's engagement in the market for corporate control and by the effects of that engagement on the control mechanisms used and the design and process of innovation in the organizational units most responsible for innovation.

In conclusion, this research has added to both the strategic management and organization theory literatures focused on acquisitions, restructuring, and organizational innovation. Activity in the market for corporate control can have potentially positive and negative effects, and managers need to understand those effects and their meaning for long-term firm competitiveness and performance. The amount and timing of organizational innovation is becoming increasingly important (Damanpour, 1991; Eisenhardt & Schoonhoven, 1990). Thus, there is a need to understand how strategies undertaken by top executives may affect firms' ability to be innovative, even though those strategies are not designed to affect the firm's innovativeness. Research has shown that firms can be active acquirers and still remain innovative (Hitt, Harrison, Ireland, & Best, 1995). However, it requires a conscious strategic emphasis on innovation and careful selection of target firms for the goals of acquisition and firm innovation to be simultaneously achieved. Therefore, the results of this study may have critical implications for firms competing in the global marketplace.

REFERENCES

- Acs, Z. J., & Audretsch, D. B. 1987. Innovation, market structure, and firm size. *Review of Economics and Statistics*, 69: 567–574.
- Amit, R., & Livnat, J. 1988. The concept of conglomerate diversification. *Journal of Management*, 14: 593–604.
- Anderson, J. C., & Gerbing, D. W. 1988. Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103: 411–423.
- Balakrishnan, S. 1988. The prognostics of diversifying acquisitions. *Strategic Management Journal*, 9: 185–196.
- Barker, V. L., & Mone, M. A. 1994. Retrenchment: Cause of turnaround or consequences of decline? *Strategic Management Journal*, 15: 395–405.
- Barney, J. 1988. Returns to bidding firms in mergers and acquisitions: Reconsidering the relatedness hypothesis. *Strategic Management Journal*, 9: 71–78.
- Baysinger, B. D., & Hoskisson, R. E. 1989. Diversification strategy and R&D intensity in multi-product firms. *Academy of Management Journal*, 32: 310–332.
- Baysinger, B. D., Kosnik, R. D., & Turk, T. A. 1991. The effect of board and ownership structure on corporate R&D strategy. *Academy of Management Journal*, 34: 205–214.
- Bentler, P. M. 1989. *EQS structural equations program manual*. Los Angeles: BMDP Statistical Software.
- Bethel, J. E., & Liebeskind, J. 1993. The effects of ownership structure on corporate restructuring. *Strategic Management Journal*, 14(special issue): 15–32.
- Bettis, R. A., & Hitt, M. A. 1995. The new competitive landscape. *Strategic Management Journal*, 16(special issue): 7–19.
- Biggadike, R. 1979. The risky business of diversification. *Harvard Business Review*, 57(3): 103–111.
- Bollen, K. A. 1989. *Structural equations with latent variables*. New York: Wiley.
- Chandler, A. D. 1991. The functions of the HQ unit in the multibusiness firm. *Strategic Management Journal*, 12(special issue): 31–50.
- Chaney, P. K., & Devinney, T. M. 1992. New product innovations and stock price performance. *Journal of Business Finance and Accounting*, 19: 677–695.
- Chaney, P. K., Devinney, T. M., & Winer, R. S. 1991. The impact of new product introductions on the market value of firms. *Journal of Business*, 64: 573–610.
- Chatterjee, S., & Blocher, J. D. 1992. Measurement of firm diversification: Is it robust? *Academy of Management Journal*, 35: 874–888.
- Clark, L. H., Jr., & Malabre, A. L., Jr. 1988. Slow rise in outlays for research imperils U.S. competitive edge. *Wall Street Journal*, November 16: A1, A5.
- Constable, J. 1986. Diversification as a factor in U.K. industrial strategy. *Long Range Planning*, 19(1): 52–60.
- Damanpour, F. 1991. Organizational innovation: A meta-analysis of effects of determinants and moderators. *Academy of Management Journal*, 34: 555–590.
- Davis, R., & Duhaime, I. M. 1992. Diversification, vertical integration, and industry analysis: New perspectives and measurement. *Strategic Management Journal*, 13: 511–524.
- Duhaime, I. M., & Grant, J. H. 1984. Factors influencing divestment decision making: Evidence from a field study. *Strategic Management Journal*, 5: 301–318.

- Eisenhardt, K. M. 1985. Control: Organizational and economic approaches. *Management Science*, 31: 134–149.
- Eisenhardt, K., & Schoonhoven, C. 1990. Organizational growth: Linking founding team, strategy, environment and growth among U.S. semi-conductor ventures, 1978–1988. *Administrative Science Quarterly*, 35: 504–529.
- Ellsworth, R. R. 1983. Subordinate financial policy to corporate strategy. *Harvard Business Review*, 61(6): 170–181.
- Finkelstein, S. 1992. Power in top management teams: Dimensions, measurement and validation. *Academy of Management Journal*, 35: 505–538.
- Ford, J. C., MacCallum, R. C., & Tait, M. 1986. The application of exploratory factor analysis in applied psychology: A critical review and analysis. *Personnel Psychology*, 39: 291–314.
- Franko, L. G. 1989. Global corporate competition: Who's winning, who's losing and the R&D factor as one reason why. *Strategic Management Journal*, 10: 449–474.
- Fredrickson, J. W., Hambrick, D. C., & Baumrin, S. 1988. A model of CEO dismissal. *Academy of Management Review*, 13: 255–270.
- Fulmer, R. M., & Gilkey, R. 1988. Blending corporate families: Management and organization development in a postmerger environment. *Academy of Management Executive*, 2: 275–283.
- Gaedeke, R. M., & Tootelian, D. H. 1976. The *Fortune* 500 list—An endangered species for academic research. *Journal of Business Research*, 4: 283–288.
- Galbraith, J. R., & Kazanjian, R. K. 1986. *Strategy implementation: Structure, systems, and process*. St. Paul: West.
- Gemunden, H. G., Heydebreck, P., & Herden, R. 1992. Technological interweavement: A means of achieving innovation success. *R&D Management*, 22: 359–376.
- Golbe, D. L., & White, L. J. 1988. A time-series analysis of mergers and acquisitions in the U.S. economy. In A. J. Auerbach (Ed.), *Corporate takeovers: Causes and consequences*: 265–302. Chicago: University of Chicago Press.
- Goodman, R. A., & Lawless, M. W. 1994. *Technology and strategy: Conceptual models and diagnostics*. New York: Oxford University Press.
- Goold, M., & Campbell, A. 1987. *Strategies and styles: The role of the centre in managing diversified corporations*. Oxford: Basil Blackwell.
- Graves, S. B. 1988. Institutional ownership and corporate R&D in the computer industry. *Academy of Management Journal*, 31: 417–428.
- Grinyer, P. H., & McKiernan, P. 1990. Generating major changes in stagnating companies. *Strategic Management Journal*, 11(special issue): 131–146.
- Gupta, A. 1987. SBU strategies, corporate-SBU relations and SBU effectiveness in strategy implementation. *Academy of Management Journal*, 30: 477–500.
- Hambrick, D. C., & Schecter, S. M. 1983. Turnaround strategies for mature industrial-product business units. *Academy of Management Journal*, 26: 231–248.
- Hansen, G. S., & Hill, C. W. L. 1991. Are institutional investors myopic? A time series study of four technology-driven industries. *Strategic Management Journal*, 12: 1–16.
- Haspeslagh, P. C., & Jemison, D. B. 1991. *Managing acquisitions: Creating value through corporate renewal*. New York: Free Press.
- Hayes, R. 1972. New emphasis on divestment opportunities. *Harvard Business Review*, 50(4): 55–64.
- Hayes, R. H., & Abernathy, W. J. 1980. Managing our way to economic decline. *Harvard Business Review*, 58(4): 67–77.

- Hill, C. W. L., Hitt, M. A., & Hoskisson, R. E. 1992. Cooperative versus competitive structures in related and unrelated diversified firms. *Organization Science*, 3: 501–521.
- Hill, C. W. L., & Hoskisson, R. E. 1987. Strategy and structure in the multi-product firm. *Academy of Management Review*, 12: 331–341.
- Hill, C. W. L., & Snell, S. A. 1988. External control, corporate strategy, and firm performance in research intensive industries. *Strategic Management Journal*, 9: 579–590.
- Hill, C. W. L., & Snell, S. A. 1989. Effects of ownership structure and control on corporate productivity. *Academy of Management Journal*, 32: 25–46.
- Hitt, M. A., Harrison, J. S., Ireland, R. D., & Best, A. 1995. *Successful and unsuccessful acquisitions: A comparison of attributes*. Paper presented at the annual meeting of the Strategic Management Society, Mexico City.
- Hitt, M. A., Hoskisson, R. E., & Ireland, R. D. 1990. Mergers and acquisitions and managerial commitment to innovation in M-form firms. *Strategic Management Journal*, 11(special issue): 29–47.
- Hitt, M. A., Hoskisson, R. E., Ireland, R. D., & Harrison, J. S. 1991a. Are acquisitions a poison pill for innovation? *Academy of Management Executive*, 5(4): 22–34.
- Hitt, M. A., Hoskisson, R. E., Ireland, R. D., & Harrison, J. S. 1991b. The effects of acquisitions on R&D inputs and outputs. *Academy of Management Journal*, 34: 693–706.
- Hitt, M. A., Ireland, R. D., & Hoskisson, R. E. 1995. *Strategic management: Competitiveness and globalization*. St. Paul: West.
- Hitt, M. A., Keats, B. W., & DeMarie, S. M. 1995. *Navigating in the new competitive landscape: Building competitive advantage and strategic flexibility in the 21st century*. Paper presented at the annual meeting of Strategic Management Society, Mexico City.
- Hitt, M. A., Keats, B. W., Harback, H. F., & Nixon, R. D. 1994. Rightsizing: Building and maintaining strategic leadership and long-term competitiveness. *Organizational Dynamics*, 23(2): 18–32.
- Hitt, M. A., & Smart, D. 1994. Debt: A disciplining force for managers or a debilitating force for organizations? *Journal of Management Inquiry*, 3: 144–152.
- Hofer, C. W. 1980. Turnaround strategies. *Journal of Business Strategy*, 1(1): 19–31.
- Hoskisson, R. E., & Hitt, M. A. 1988. Strategic control systems and relative R&D investment in large multi-product firms. *Strategic Management Journal*, 9: 605–621.
- Hoskisson, R. E., & Hitt, M. A. 1994. *Downscoping: How to tame the diversified firm*. New York: Oxford University Press.
- Hoskisson, R. E., Hitt, M. A., & Hill, C. W. L. 1991. Managerial risk taking in diversified firms: An evolutionary perspective. *Organization Science*, 3: 296–314.
- Hoskisson, R. E., Hitt, M. A., & Ireland, R. D. 1994. The effects of acquisitions and restructuring (strategic refocusing) strategies on innovation. In G. von Krogh, A. Sinatra, & H. Singh (Eds.), *Managing corporate acquisitions*: 144–169. London: MacMillan Press.
- Hoskisson, R. E., Hitt, M. A., Johnson, R. A., & Moesel, D. D. 1993. Construct validity of an objective (entropy) categorical measure of diversification strategy. *Strategic Management Journal*, 14: 215–235.
- Hoskisson, R. E., & Johnson, R. A. 1992. Corporate restructuring and strategic change: The effect on strategy and R&D intensity. *Strategic Management Journal*, 13: 625–634.
- Hoskisson, R. E., Johnson, R. A., & Moesel, D. D. 1994. Corporate divestiture intensity in restructuring firms: Effects of governance, strategy, and performance. *Academy of Management Journal*, 37: 1207–1251.

- Jacquemin, A. P., & Berry, C. H. 1979. Entropy measure of diversification and corporate growth. *Journal of Industrial Economics*, 27: 359–369.
- Jain, P. C. 1985. The effects of voluntary sell-off announcements on shareholder wealth. *Journal of Finance*, 40: 209–224.
- Jemison, D. B., & Sitkin, S. B. 1986. Corporate acquisitions: A process perspective. *Academy of Management Review*, 11: 145–163.
- Jensen, M. C. 1988. Takeovers: Their causes and consequences. *Journal of Economic Perspectives*, 2(1): 21–48.
- Jensen, M. C. 1993. The modern industrial revolution, exit, and the failure of internal control systems. *Journal of Finance*, 48: 831–880.
- Johnson, R. A. 1996. Antecedents and outcomes of corporate refocusing. *Journal of Management*, 22: 437–481.
- Johnson, R. A., Hoskisson, R. E., & Hitt, M. A. 1993. Board of director involvement in restructuring: The effects of board versus managerial controls and characteristics. *Strategic Management Journal*, 14(special issue): 33–50.
- Johnson, R. A., Hoskisson, R. E., & Margulies, N. 1990. Corporate restructuring: Implications for organization change and development. In R. W. Woodman & W. A. Pasmore (Eds.), *Research in organizational change and development*, vol. 4: 141–165. Greenwich, CT: JAI Press.
- Jones, G. R., & Hill, C. W. L. 1988. Transaction cost analysis of strategy-structure choice. *Strategic Management Journal*, 9: 159–172.
- Kilmann, R. H., Saxton, J. J., & Serpa, R. 1986. Issues in understanding and changing culture. *California Management Review*, 28(2): 87–94.
- Lee, W. B., & Cooperman, E. S. 1989. Conglomerates in the 1980s: A performance appraisal. *Financial Management*, 18(2): 45–54.
- Manne, H. G. 1965. Mergers and the market for corporate control. *Journal of Political Economy*, 73: 110–120.
- Mansfield, E. 1969. *Industrial research and technological innovation*. New York: Norton.
- Markides, C. C. 1992. Consequences of corporate refocusing: Ex-ante evidence. *Academy of Management Journal*, 35: 398–412.
- Markides, C. C. 1995. Diversification, restructuring and economic performance. *Strategic Management Journal*, 16: 101–118.
- Montgomery, C. A. 1982. The measurement of firm diversification: Some new evidence. *Academy of Management Journal*, 25: 299–307.
- Murray, M. 1995. Smucker's deal for Mrs. Smith is proving to be a pie in the face. *Wall Street Journal*, November 22: B1, B4.
- Nayyar, P. 1993. Performance effects of information asymmetry and economies of scope in diversified service firms. *Academy of Management Journal*, 36: 28–57.
- Nees, D. 1981. Increase your divestment effectiveness. *Strategic Management Journal*, 2: 119–130.
- O'Keefe, T. B., & Homer, P. M. 1987. Selecting cost-effective survey methods: Foot-in-door and prepaid monetary incentives. *Journal of Business Research*, 15: 365–376.
- Ouchi, W. G. 1980. Markets, bureaucracies and clans. *Administrative Science Quarterly*, 25: 129–141.
- Palepu, K. 1985. Diversification strategy, profit performance, and the entropy measure. *Strategic Management Journal*, 6: 239–255.

- Porter, M. E. 1976. Please note location of nearest exit: Exit barriers and planning. *California Management Review*, 29(2): 22–33.
- Porter, M. E. 1987. From competitive advantage to corporate strategy. *Harvard Business Review*, 65(3): 43–59.
- Prigogine, I., & Stengers, I. 1984. *Order out of chaos*. Toronto: Bantam Books.
- Pritchett, P. 1985. *After the merger: Managing the shock waves*. New York: Dow Jones-Irwin.
- Rappaport, A. 1978. Executive incentives vs. corporate growth. *Harvard Business Review*, 56(4): 81–88.
- Ravenscraft, D. J., & Scherer, F. M. 1987. *Mergers, sell-offs and economic efficiency*. Washington, DC: Brookings Institution.
- Reece, J. S., & Cool, W. R. 1978. Measuring investment center performance. *Harvard Business Review*, 56(3): 28–46.
- Robbins, D. K., & Pearce, J. A. 1991. Turnaround: Retrenchment and recovery. *Strategic Management Journal*, 13: 287–309.
- Roe, M. J. 1990. Political and legal restraints on ownership and control of public companies. *Journal of Financial Economics*, 27: 7–42.
- Roll, R. 1986. The hubris hypothesis of corporate takeovers. *Journal of Business*, 59: 197–216.
- Scherer, F. M. 1988. Corporate takeovers: The efficiency arguments. *Journal of Economic Perspectives*, 2(1): 69–82.
- Schweiger, D. M., Ivancevich, J. M., & Power, F. R. 1987. Executive actions for managing human resources before and after acquisition. *Academy of Management Executive*, 1: 127–138.
- Seward, J. K., & Walsh, J. P. 1995. The acquisition of restructured firms: An illustration of market discipline. *Journal of Economics and Management Strategy*, 3: 585–603.
- Shleifer, A., & Vishny, R. W. 1991. Takeovers in the 60s and the 80s: Evidence and implications. *Strategic Management Journal*, 12(special issue): 51–59.
- Shrivastava, P. 1986. Postmerger integration. *Journal of Business Strategy*, 7(1): 65–76.
- Sicherman, N. W., & Pettway, R. H. 1992. Wealth effects for buyers and sellers of the same divested assets. *Financial Management*, 21(4): 119–128.
- Simmonds, P. G. 1990. The combined diversification breadth and mode dimensions and the performance of large diversified firms. *Strategic Management Journal*, 11: 399–410.
- Steiger, J. H., Shapiro, A., & Borne, M. W. 1985. On the multivariate asymptotic distribution of sequential chi-square statistics. *Psychometrika*, 50: 253–264.
- Steinmetz, G. 1995. Mergers and acquisitions set records, but activity lacked that 80s pizzazz. *Wall Street Journal*, January 3: R8.
- Taylor, M. L. 1988. *Divesting business units: Making the decision and making it work*. Lexington, MA: Lexington Books.
- Walsh, J. P. 1988. Top management turnover following mergers and acquisitions. *Strategic Management Journal*, 9: 173–183.
- Walsh, J. P. 1989. Doing a deal: Merger and acquisition negotiations and their impact upon target company top management turnover. *Strategic Management Journal*, 10: 307–322.
- Walsh, J. P., & Kosnik, R. D. 1993. Corporate raiders and their disciplinary role in the market for corporate control. *Academy of Management Journal*, 36: 671–700.
- Weston, J. F., & Chung, K. S. 1990. Takeovers and corporate restructuring: An overview. *Business Economics*, 25(2): 6–11.

- Williamson, O. E. 1985. *The economic institutions of capitalism: Firms, markets and relational contracting*. New York: Free Press.
- Williamson, O. E. 1988. Corporate finance and corporate governance. *Journal of Finance*, 48: 567–591.
- Woodruff, D., Laderman, J., Spiro, L. N., Kerwin, K., & Treece, J. B. 1995. Can Kerkorian and Iaccoca really pull off their bombshell bid? *Business Week*, April 24: 34–38.
- Ziegler, B., & Gautam, N. 1995. Bell Labs is facing a mundane future under a breakup plan. *Wall Street Journal*, September 22: A-10.

Michael A. Hitt holds the Paul M. and Rosalie Robertson Chair in Business Administration at Texas A&M University. He received his Ph.D. degree from the University of Colorado and currently is president of the Academy of Management. His research interests focus on mergers and acquisitions, innovation process and performance, international diversification, and how firms effectively navigate in the evolving competitive landscape.

Robert E. Hoskisson, professor of management at Texas A&M University, received his Ph.D. degree at the University of California, Irvine, with a specialty in strategic management. His teaching and research focus on strategic management of large multinational firms. His current interests include acquisition and restructuring strategies, and comparative governance structures of multinational firms.

Richard A. Johnson is an assistant professor of management in the College of Business and Public Administration at the University of Missouri. He received his Ph.D. degree in strategic management from Texas A&M University. His current research interests include corporate restructuring, corporate governance and controls, top management team, and corporate innovation.

Douglas D. Moesel is an instructor in the Department of Business at Lehigh University. He is completing his Ph.D. from Texas A&M University. His research interests include corporate-divisional relationships within diversified firms, the influence of corporate restructuring on innovation within the firm, strategic control systems, manager-equityholder relationships, new venture manager dismissal, and the pedagogy of teaching using the Internet.

LINKED CITATIONS

- Page 1 of 11 -



You have printed the following article:

The Market for Corporate Control and Firm Innovation

Michael A. Hitt; Robert E. Hoskisson; Richard A. Johnson; Douglas D. Moesel

The Academy of Management Journal, Vol. 39, No. 5. (Oct., 1996), pp. 1084-1119.

Stable URL:

<http://links.jstor.org/sici?sici=0001-4273%28199610%2939%3A5%3C1084%3ATMFCCA%3E2.0.CO%3B2-L>

This article references the following linked citations. If you are trying to access articles from an off-campus location, you may be required to first logon via your library web site to access JSTOR. Please visit your library's website or contact a librarian to learn about options for remote access to JSTOR.

References

Innovation, Market Structure, and Firm Size

Zoltan J. Acs; David B. Audretsch

The Review of Economics and Statistics, Vol. 69, No. 4. (Nov., 1987), pp. 567-574.

Stable URL:

<http://links.jstor.org/sici?sici=0034-6535%28198711%2969%3A4%3C567%3AIMSAFS%3E2.0.CO%3B2-L>

The Prognostics of Diversifying Acquisitions

Srinivasan Balakrishnan

Strategic Management Journal, Vol. 9, No. 2. (Mar. - Apr., 1988), pp. 185-196.

Stable URL:

<http://links.jstor.org/sici?sici=0143-2095%28198803%2F04%299%3A2%3C185%3ATPODA%3E2.0.CO%3B2-9>

Returns to Bidding Firms in Mergers and Acquisitions: Reconsidering the Relatedness Hypothesis

Jay B. Barney

Strategic Management Journal, Vol. 9, Special Issue: Strategy Content Research. (Summer, 1988), pp. 71-78.

Stable URL:

<http://links.jstor.org/sici?sici=0143-2095%28198822%299%3C71%3ARTBFIM%3E2.0.CO%3B2-6>

LINKED CITATIONS

- Page 2 of 11 -



Diversification Strategy and R&D Intensity in Multiproduct Firms

Barry Baysinger; Robert E. Hoskisson

The Academy of Management Journal, Vol. 32, No. 2. (Jun., 1989), pp. 310-332.

Stable URL:

<http://links.jstor.org/sici?sici=0001-4273%28198906%2932%3A2%3C310%3ADSARII%3E2.0.CO%3B2-Z>

Effects of Board and Ownership Structure on Corporate R&D Strategy

Barry D. Baysinger; Rita D. Kosnik; Thomas A. Turk

The Academy of Management Journal, Vol. 34, No. 1. (Mar., 1991), pp. 205-214.

Stable URL:

<http://links.jstor.org/sici?sici=0001-4273%28199103%2934%3A1%3C205%3AEOBAOS%3E2.0.CO%3B2-G>

The Effects of Ownership Structure on Corporate Restructuring

Jennifer E. Bethel; Julia Liebeskind

Strategic Management Journal, Vol. 14, Special Issue: Corporate Restructuring. (Summer, 1993), pp. 15-31.

Stable URL:

<http://links.jstor.org/sici?sici=0143-2095%28199322%2914%3C15%3ATEOOSO%3E2.0.CO%3B2-G>

The Functions of the HQ Unit in the Multibusiness Firm

Alfred D. Chandler, Jr.

Strategic Management Journal, Vol. 12, Special Issue: Fundamental Research Issues in Strategy and Economics. (Winter, 1991), pp. 31-50.

Stable URL:

<http://links.jstor.org/sici?sici=0143-2095%28199124%2912%3C31%3ATFOTHU%3E2.0.CO%3B2-W>

The Impact of New Product Introductions on the Market Value of Firms

Paul K. Chaney; Timothy M. Devinney; Russell S. Winer

The Journal of Business, Vol. 64, No. 4. (Oct., 1991), pp. 573-610.

Stable URL:

<http://links.jstor.org/sici?sici=0021-9398%28199110%2964%3A4%3C573%3ATIONPI%3E2.0.CO%3B2-F>

Measurement of Firm Diversification: Is It Robust?

Sayan Chatterjee; James D. Blocher

The Academy of Management Journal, Vol. 35, No. 4. (Oct., 1992), pp. 874-888.

Stable URL:

<http://links.jstor.org/sici?sici=0001-4273%28199210%2935%3A4%3C874%3AMOFDII%3E2.0.CO%3B2-6>

LINKED CITATIONS

- Page 3 of 11 -



Organizational Innovation: A Meta-Analysis of Effects of Determinants and Moderators

Fariborz Damanpour

The Academy of Management Journal, Vol. 34, No. 3. (Sep., 1991), pp. 555-590.

Stable URL:

<http://links.jstor.org/sici?sici=0001-4273%28199109%2934%3A3%3C555%3AOIAMOE%3E2.0.CO%3B2-U>

Diversification, Vertical Integration, and Industry Analysis: New Perspectives and Measurement

Rachel Davis; Irene M. Duhaime

Strategic Management Journal, Vol. 13, No. 7. (Oct., 1992), pp. 511-524.

Stable URL:

<http://links.jstor.org/sici?sici=0143-2095%28199210%2913%3A7%3C511%3ADVIAIA%3E2.0.CO%3B2-3>

Factors Influencing Divestment Decision-Making: Evidence from a Field Study

Irene M. Duhaime; John H. Grant

Strategic Management Journal, Vol. 5, No. 4. (Oct. - Dec., 1984), pp. 301-318.

Stable URL:

<http://links.jstor.org/sici?sici=0143-2095%28198410%2F12%295%3A4%3C301%3AFIDDEF%3E2.0.CO%3B2-R>

Control: Organizational and Economic Approaches

Kathleen M. Eisenhardt

Management Science, Vol. 31, No. 2. (Feb., 1985), pp. 134-149.

Stable URL:

<http://links.jstor.org/sici?sici=0025-1909%28198502%2931%3A2%3C134%3ACOAFA%3E2.0.CO%3B2-B>

Organizational Growth: Linking Founding Team, Strategy, Environment, and Growth Among U.S. Semiconductor Ventures, 1978-1988

Kathleen M. Eisenhardt; Claudia Bird Schoonhoven

Administrative Science Quarterly, Vol. 35, No. 3. (Sep., 1990), pp. 504-529.

Stable URL:

<http://links.jstor.org/sici?sici=0001-8392%28199009%2935%3A3%3C504%3AOGLETS%3E2.0.CO%3B2-23>

Power in Top Management Teams: Dimensions, Measurement, and Validation

Sydney Finkelstein

The Academy of Management Journal, Vol. 35, No. 3. (Aug., 1992), pp. 505-538.

Stable URL:

<http://links.jstor.org/sici?sici=0001-4273%28199208%2935%3A3%3C505%3APITMTD%3E2.0.CO%3B2-M>

LINKED CITATIONS

- Page 4 of 11 -



Global Corporate Competition: Who's Winning, Who's Losing, and the R&D Factor as One Reason Why

Lawrence G. Franko

Strategic Management Journal, Vol. 10, No. 5. (Sep. - Oct., 1989), pp. 449-474.

Stable URL:

<http://links.jstor.org/sici?sici=0143-2095%28198909%2F10%2910%3A5%3C449%3AGCCWWW%3E2.0.CO%3B2-L>

A Model of CEO Dismissal

James W. Fredrickson; Donald C. Hambrick; Sara Baumrin

The Academy of Management Review, Vol. 13, No. 2. (Apr., 1988), pp. 255-270.

Stable URL:

<http://links.jstor.org/sici?sici=0363-7425%28198804%2913%3A2%3C255%3AAM OCD%3E2.0.CO%3B2-X>

Institutional Ownership and Corporate R&D in the Computer Industry

Samuel B. Graves

The Academy of Management Journal, Vol. 31, No. 2. (Jun., 1988), pp. 417-428.

Stable URL:

<http://links.jstor.org/sici?sici=0001-4273%28198806%2931%3A2%3C417%3AIOACRI%3E2.0.CO%3B2-0>

Generating Major Change in Stagnating Companies

Peter Grinyer; Peter McKiernan

Strategic Management Journal, Vol. 11, Special Issue: Corporate Entrepreneurship. (Summer, 1990), pp. 131-146.

Stable URL:

<http://links.jstor.org/sici?sici=0143-2095%28199022%2911%3C131%3AGMCISC%3E2.0.CO%3B2-X>

SBU Strategies, Corporate-SBU Relations, and SBU Effectiveness in Strategy Implementation

Anil K. Gupta

The Academy of Management Journal, Vol. 30, No. 3. (Sep., 1987), pp. 477-500.

Stable URL:

<http://links.jstor.org/sici?sici=0001-4273%28198709%2930%3A3%3C477%3ASSCRAS%3E2.0.CO%3B2-5>

Turnaround Strategies for Mature Industrial-Product Business Units

Donald C. Hambrick; Steven M. Schecter

The Academy of Management Journal, Vol. 26, No. 2. (Jun., 1983), pp. 231-248.

Stable URL:

<http://links.jstor.org/sici?sici=0001-4273%28198306%2926%3A2%3C231%3ATSF MIB%3E2.0.CO%3B2-O>

LINKED CITATIONS

- Page 5 of 11 -



Are Institutional Investors Myopic? A Time-Series Study of Four Technology- Driven Industries

Gary S. Hansen; Charles W. L. Hill

Strategic Management Journal, Vol. 12, No. 1. (Jan., 1991), pp. 1-16.

Stable URL:

<http://links.jstor.org/sici?sici=0143-2095%28199101%2912%3A1%3C1%3AAIIMAT%3E2.0.CO%3B2-D>

Cooperative versus Competitive Structures in Related and Unrelated Diversified Firms

Charles W. L. Hill; Michael A. Hitt; Robert E. Hoskisson

Organization Science, Vol. 3, No. 4. (Nov., 1992), pp. 501-521.

Stable URL:

<http://links.jstor.org/sici?sici=1047-7039%28199211%293%3A4%3C501%3ACVCSIR%3E2.0.CO%3B2-L>

Strategy and Structure in the Multiproduct Firm

Charles W. L. Hill; Robert E. Hoskisson

The Academy of Management Review, Vol. 12, No. 2. (Apr., 1987), pp. 331-341.

Stable URL:

<http://links.jstor.org/sici?sici=0363-7425%28198704%2912%3A2%3C331%3ASASITM%3E2.0.CO%3B2-F>

External Control, Corporate Strategy, and Firm Performance in Research- Intensive Industries

Charles W. L. Hill; Scott A. Snell

Strategic Management Journal, Vol. 9, No. 6. (Nov. - Dec., 1988), pp. 577-590.

Stable URL:

<http://links.jstor.org/sici?sici=0143-2095%28198811%2F12%299%3A6%3C577%3AECCSAF%3E2.0.CO%3B2-U>

Effects of Ownership Structure and Control on Corporate Productivity

Charles W. L. Hill; Scott A. Snell

The Academy of Management Journal, Vol. 32, No. 1. (Mar., 1989), pp. 25-46.

Stable URL:

<http://links.jstor.org/sici?sici=0001-4273%28198903%2932%3A1%3C25%3AEOOSAC%3E2.0.CO%3B2-M>

Mergers and Acquisitions and Managerial Commitment to Innovation in M-Form Firms

Michael A. Hitt; Robert E. Hoskisson; R. Duane Ireland

Strategic Management Journal, Vol. 11, Special Issue: Corporate Entrepreneurship. (Summer, 1990), pp. 29-47.

Stable URL:

<http://links.jstor.org/sici?sici=0143-2095%28199022%2911%3C29%3AMAAAMC%3E2.0.CO%3B2-R>

LINKED CITATIONS

- Page 6 of 11 -



Effects of Acquisitions on R&D Inputs and Outputs

Michael A. Hitt; Robert E. Hoskisson; R. Duane Ireland; Jeffrey S. Harrison
The Academy of Management Journal, Vol. 34, No. 3. (Sep., 1991), pp. 693-706.

Stable URL:

<http://links.jstor.org/sici?sici=0001-4273%28199109%2934%3A3%3C693%3AEOAORI%3E2.0.CO%3B2-R>

Strategic Control Systems and Relative R&D Investment in Large Multiproduct Firms

Robert E. Hoskisson; Michael A. Hitt
Strategic Management Journal, Vol. 9, No. 6. (Nov. - Dec., 1988), pp. 605-621.

Stable URL:

<http://links.jstor.org/sici?sici=0143-2095%28198811%2F12%299%3A6%3C605%3ASCSARR%3E2.0.CO%3B2-N>

Managerial Risk Taking in Diversified Firms: An Evolutionary Perspective

Robert E. Hoskisson; Michael A. Hitt; Charles W. L. Hill
Organization Science, Vol. 2, No. 3. (Aug., 1991), pp. 296-314.

Stable URL:

<http://links.jstor.org/sici?sici=1047-7039%28199108%292%3A3%3C296%3AMRTIDF%3E2.0.CO%3B2-A>

Construct Validity of an Objective (Entropy) Categorical Measure of Diversification Strategy

Robert E. Hoskisson; Michael A. Hitt; Richard A. Johnson; Douglas D. Moesel
Strategic Management Journal, Vol. 14, No. 3. (Mar., 1993), pp. 215-235.

Stable URL:

<http://links.jstor.org/sici?sici=0143-2095%28199303%2914%3A3%3C215%3ACVVOAO%28%3E2.0.CO%3B2-G>

Corporate Restructuring and Strategic Change: The Effect on Diversification Strategy and R&D Intensity

Robert O. Hoskisson; Richard A. Johnson
Strategic Management Journal, Vol. 13, No. 8. (Nov., 1992), pp. 625-634.

Stable URL:

<http://links.jstor.org/sici?sici=0143-2095%28199211%2913%3A8%3C625%3ACRASCT%3E2.0.CO%3B2-I>

Corporate Divestiture Intensity in Restructuring Firms: Effects of Governance, Strategy, and Performance

Robert E. Hoskisson; Richard A. Johnson; Douglas D. Moesel
The Academy of Management Journal, Vol. 37, No. 5. (Oct., 1994), pp. 1207-1251.

Stable URL:

<http://links.jstor.org/sici?sici=0001-4273%28199410%2937%3A5%3C1207%3ACDIIRF%3E2.0.CO%3B2-4>

LINKED CITATIONS

- Page 7 of 11 -



Entropy Measure of Diversification and Corporate Growth

Alexis P. Jacquemin; Charles H. Berry

The Journal of Industrial Economics, Vol. 27, No. 4. (Jun., 1979), pp. 359-369.

Stable URL:

<http://links.jstor.org/sici?sici=0022-1821%28197906%2927%3A4%3C359%3AEMODAC%3E2.0.CO%3B2-N>

The Effect of Voluntary Sell-Off Announcements on Shareholder Wealth

Prem C. Jain

The Journal of Finance, Vol. 40, No. 1. (Mar., 1985), pp. 209-224.

Stable URL:

<http://links.jstor.org/sici?sici=0022-1082%28198503%2940%3A1%3C209%3ATEOVSA%3E2.0.CO%3B2-W>

Corporate Acquisitions: A Process Perspective

David B. Jemison; Sim B Sitkin

The Academy of Management Review, Vol. 11, No. 1. (Jan., 1986), pp. 145-163.

Stable URL:

<http://links.jstor.org/sici?sici=0363-7425%28198601%2911%3A1%3C145%3ACAAPP%3E2.0.CO%3B2-D>

Takeovers: Their Causes and Consequences

Michael C. Jensen

The Journal of Economic Perspectives, Vol. 2, No. 1. (Winter, 1988), pp. 21-48.

Stable URL:

<http://links.jstor.org/sici?sici=0895-3309%28198824%292%3A1%3C21%3ATTAC%3E2.0.CO%3B2-N>

The Modern Industrial Revolution, Exit, and the Failure of Internal Control Systems

Michael C. Jensen

The Journal of Finance, Vol. 48, No. 3, Papers and Proceedings of the Fifty-Third Annual Meeting of the American Finance Association: Anaheim, California January 5-7, 1993. (Jul., 1993), pp. 831-880.

Stable URL:

<http://links.jstor.org/sici?sici=0022-1082%28199307%2948%3A3%3C831%3ATMIREA%3E2.0.CO%3B2-G>

LINKED CITATIONS

- Page 8 of 11 -



Board of Director Involvement in Restructuring: The Effects of Board Versus Managerial Controls and Characteristics

Richard A. Johnson; Robert E. Hoskisson; Michael A. Hitt

Strategic Management Journal, Vol. 14, Special Issue: Corporate Restructuring. (Summer, 1993), pp. 33-50.

Stable URL:

<http://links.jstor.org/sici?sici=0143-2095%28199322%2914%3C33%3ABODIIR%3E2.0.CO%3B2-U>

Transaction Cost Analysis of Strategy-Structure Choice

Gareth R. Jones; Charles W. L. Hill

Strategic Management Journal, Vol. 9, No. 2. (Mar. - Apr., 1988), pp. 159-172.

Stable URL:

<http://links.jstor.org/sici?sici=0143-2095%28198803%2F04%299%3A2%3C159%3ATCAOSC%3E2.0.CO%3B2-S>

Mergers and the Market for Corporate Control

Henry G. Manne

The Journal of Political Economy, Vol. 73, No. 2. (Apr., 1965), pp. 110-120.

Stable URL:

<http://links.jstor.org/sici?sici=0022-3808%28196504%2973%3A2%3C110%3AMATMFC%3E2.0.CO%3B2-3>

Consequences of Corporate Refocusing: Ex Ante Evidence

Constantinos C. Markides

The Academy of Management Journal, Vol. 35, No. 2. (Jun., 1992), pp. 398-412.

Stable URL:

<http://links.jstor.org/sici?sici=0001-4273%28199206%2935%3A2%3C398%3ACOCREA%3E2.0.CO%3B2-M>

Diversification, Restructuring and Economic Performance

Constantinos C. Markides

Strategic Management Journal, Vol. 16, No. 2. (Feb., 1995), pp. 101-118.

Stable URL:

<http://links.jstor.org/sici?sici=0143-2095%28199502%2916%3A2%3C101%3ADRAEP%3E2.0.CO%3B2-H>

The Measurement of Firm Diversification: Some New Empirical Evidence

Cynthia A. Montgomery

The Academy of Management Journal, Vol. 25, No. 2. (Jun., 1982), pp. 299-307.

Stable URL:

<http://links.jstor.org/sici?sici=0001-4273%28198206%2925%3A2%3C299%3ATMOFDS%3E2.0.CO%3B2-N>

LINKED CITATIONS

- Page 9 of 11 -



Performance Effects of Information Asymmetry and Economies of Scope in Diversified Service Firms

Praveen R. Nayyar

The Academy of Management Journal, Vol. 36, No. 1. (Feb., 1993), pp. 28-57.

Stable URL:

<http://links.jstor.org/sici?sici=0001-4273%28199302%2936%3A1%3C28%3APEOIAA%3E2.0.CO%3B2-T>

Increase Your Divestment Effectiveness

Danielle Nees

Strategic Management Journal, Vol. 2, No. 2. (Apr. - Jun., 1981), pp. 119-130.

Stable URL:

<http://links.jstor.org/sici?sici=0143-2095%28198104%2F06%292%3A2%3C119%3AIYDE%3E2.0.CO%3B2-P>

Markets, Bureaucracies, and Clans

William G. Ouchi

Administrative Science Quarterly, Vol. 25, No. 1. (Mar., 1980), pp. 129-141.

Stable URL:

<http://links.jstor.org/sici?sici=0001-8392%28198003%2925%3A1%3C129%3AMBAC%3E2.0.CO%3B2-I>

Diversification Strategy, Profit Performance and the Entropy Measure

Krishna Palepu

Strategic Management Journal, Vol. 6, No. 3. (Jul. - Sep., 1985), pp. 239-255.

Stable URL:

<http://links.jstor.org/sici?sici=0143-2095%28198507%2F09%296%3A3%3C239%3ADSPPAT%3E2.0.CO%3B2-I>

Turnaround: Retrenchment and Recovery

D. Keith Robbins; John A. Pearce II

Strategic Management Journal, Vol. 13, No. 4. (May, 1992), pp. 287-309.

Stable URL:

<http://links.jstor.org/sici?sici=0143-2095%28199205%2913%3A4%3C287%3ATRAR%3E2.0.CO%3B2-6>

The Hubris Hypothesis of Corporate Takeovers

Richard Roll

The Journal of Business, Vol. 59, No. 2, Part 1. (Apr., 1986), pp. 197-216.

Stable URL:

<http://links.jstor.org/sici?sici=0021-9398%28198604%2959%3A2%3C197%3ATHHOCT%3E2.0.CO%3B2-8>

LINKED CITATIONS

- Page 10 of 11 -



Corporate Takeovers: The Efficiency Arguments

F. M. Scherer

The Journal of Economic Perspectives, Vol. 2, No. 1. (Winter, 1988), pp. 69-82.

Stable URL:

<http://links.jstor.org/sici?sici=0895-3309%28198824%292%3A1%3C69%3ACTTEA%3E2.0.CO%3B2-Y>

Takeovers in the '60s and the '80s: Evidence and Implications

Andrei Shleifer; Robert W. Vishny

Strategic Management Journal, Vol. 12, Special Issue: Fundamental Research Issues in Strategy and Economics. (Winter, 1991), pp. 51-59.

Stable URL:

<http://links.jstor.org/sici?sici=0143-2095%28199124%2912%3C51%3ATIT%27AT%3E2.0.CO%3B2-1>

The Combined Diversification Breadth and Mode Dimensions and the Performance of Large Diversified Firms

Paul G. Simmonds

Strategic Management Journal, Vol. 11, No. 5. (Sep., 1990), pp. 399-410.

Stable URL:

<http://links.jstor.org/sici?sici=0143-2095%28199009%2911%3A5%3C399%3ATCDBAM%3E2.0.CO%3B2-9>

Top Management Turnover Following Mergers and Acquisitions

James P. Walsh

Strategic Management Journal, Vol. 9, No. 2. (Mar. - Apr., 1988), pp. 173-183.

Stable URL:

<http://links.jstor.org/sici?sici=0143-2095%28198803%2F04%299%3A2%3C173%3ATMTFMA%3E2.0.CO%3B2-I>

Doing a Deal: Merger and Acquisition Negotiations and Their Impact Upon Target Company Top Management Turnover

James P. Walsh

Strategic Management Journal, Vol. 10, No. 4. (Jul. - Aug., 1989), pp. 307-322.

Stable URL:

<http://links.jstor.org/sici?sici=0143-2095%28198907%2F08%2910%3A4%3C307%3ADADMAA%3E2.0.CO%3B2-V>

Corporate Raiders and Their Disciplinary Role in the Market for Corporate Control

James P. Walsh; Rita D. Kosnik

The Academy of Management Journal, Vol. 36, No. 4. (Aug., 1993), pp. 671-700.

Stable URL:

<http://links.jstor.org/sici?sici=0001-4273%28199308%2936%3A4%3C671%3ACRATDR%3E2.0.CO%3B2-V>

LINKED CITATIONS

- Page 11 of 11 -



Corporate Finance and Corporate Governance

Oliver E. Williamson

The Journal of Finance, Vol. 43, No. 3, Papers and Proceedings of the Forty-Seventh Annual Meeting of the American Finance Association, Chicago, Illinois, December 28-30, 1987. (Jul., 1988), pp. 567-591.

Stable URL:

<http://links.jstor.org/sici?sici=0022-1082%28198807%2943%3A3%3C567%3ACFACG%3E2.0.CO%3B2-5>