# Asset Divestiture After Business Acquisitions: Failure Or Reconfiguration?

LAURENCE CAPRON INSEAD Boulevard de Constance 77350 Fontainebleau Cédex, France capronl@insead.fr

WILL MITCHELL University of Michigan Business Schoo Ann Arbor, MI 48109-1234 wmitchel@umich.edu

ANAND SWAMINATHAN
University of Michigan Business School
Ann Arbor, MI 48109-1234
anands@umich.edu

# **ABSTRACT**

We argue that business acquisitions and asset divestitures help businesses overcome barriers to change. We show that post-acquisition redeployment to and from targets increases with resource strength asymmetry and environmental similarity. Target and acquirer asset divestiture then increase with resource redeployment to the focal business.

## INTRODUCTION

Many convincing theoretical and empirical studies in organization theory, economics, and business strategy show that firms face strong social and economic inertial barriers to organizational change. Nonetheless, although many businesses do not respond successfully to changes in their competitive environments, some firms do change substantially over time. Recently, economic, organizational, and strategy researchers have begun to focus on the intersection of inertia and change, on the processes by which some firms balance their needs for reliability of current activities with their needs to reshape their business capabilities (Hrebiniak and Joyce, 1985; Kogut and Zander, 1992; Langlois, 1992; Levinthal and March, 1993; Henderson and Cockburn, 1994; Burgelman, 1994; Mitchell, 1994). A key argument of this emerging literature is that business acquisition plays a central role as a mechanism by which businesses reshape their capabilities in the face of the inertial forces of current activities (Wernerfelt, 1984; Singh and Zollo, 1997; Capron, Dussauge, and Mitchell, 1998).

#### BACKGROUND AND PREDICTIONS

This paper examines one aspect of the process by which firms use business acquisitions to reshape their capabilities. We examine the causes of the divestiture of target and acquiring firm assets following business acquisitions. We define asset divestiture as the partial or complete divestiture of physical and organizational assets, shut down of facilities, and reduction of work forces of target or acquiring businesses. In our view, asset divestiture often occurs as the result of post-acquisition resource redeployment between target and acquiring firms. Resource redeployment is the use by a target or acquiring business of the other businesses' resources, which may involve physical transfer of resources to new locations or sharing resources without physical transfer. Resources

are stocks of knowledge, financial assets, physical assets, human capital, and other tangible and intangible factors that a business owns or controls (Grant, 1991; Amit and Schoemaker, 1993). Traditional research focuses on divestiture of target firm resources (e.g., Porter, 1987; Ravenscraft and Scherer, 1987). Such research often views post-acquisition asset divestiture quite negatively, as part of a process in which acquisitions serve to consolidate and protect existing positions of firms and managers or to correct past mistakes. By contrast with traditional research, we examine divestiture of both target and acquiring firm assets and develop the argument that many asset divestitures are outcomes of a business reconfiguration process. Our goal is to help identify and understand the processes by which some firms successfully change their capabilities.

Our central theme is that many acquisitions and post-acquisition asset divestitures are part of the process by which businesses attempt to respond to competitive changes in the face of the strong inertial forces that constrain their actions. Together, business acquisition, resource redeployment, and asset divestiture provide elements of a semi-endogenous process of business growth and development, in which firms change by recombining internal and external resources. The process is endogenous to a firm's existing resources in two senses. First, firms can change by combining portions of their existing resources with resources that they obtain through business combinations. Second, the strength of firms' existing resources and the nature of the competitive environments in which they operate influence the search process for acquisition and reconfiguration opportunities. The process is only partially endogenous, however, because the acquiring and target firms cannot fully control the acquisitions market or the reconfiguration outcomes. This recombination process provides a form of Schumpeterian innovation in the creation of novel combinations of business resources (Galunic and Rodan, 1997), drawing resources from both within and outside existing organizations.

The argument in the full paper that describes our research proceeds in three stages. We first review traditional explanations for acquisitions and post-acquisition asset divestiture. We next develop hypotheses concerning incentives to undertake resource redeployment following acquisitions. We then turn to hypotheses concerning the impact of resource redeployment on asset divestiture. Our hypotheses, and an alternative hypothesis that arises in traditional views of resource appropriation, are as follows.

**Hypothesis 1.** The greater the asymmetry in the strength of target and acquirer resources, the greater the post-acquisition redeployment of resources from the stronger business to the weaker business.

Hypothesis 2. The greater the similarity of competitive environments of target and acquiring businesses, the greater the post-acquisition redeployment of resources to and from targets.

**Hypothesis 3.** The greater the redeployment of resources to a target, the greater the divestiture of the target's resources.

**Hypothesis 4.** The greater the redeployment of resources to an acquirer, the greater the divestiture of the acquirer's resources.

Hypothesis 4alt. The greater the redeployment of resources to an acquirer, the greater the divestiture of the target's

In summary, our hypotheses address incentives to redeploy resources and the influence of resource redeployment on divestiture. We expect resource redeployment to and from targets to increase with resource asymmetry and environmental similarity. In turn, we expect divestiture of target and acquiring business resources to increase with the extent of resource redeployment to the focal business. Together, the predictions treat acquisitions as part of a process in which firms extend the use of valuable resources. In some cases, firms seek targets with strengths that the acquiring firm can use. In other cases, acquirers seek targets with weaknesses that the acquiring firm can overcome. In either type of case, the recipient of the new resources often then has excess assets that it can sell or dispose. The argument contrasts with traditional negative arguments concerning divestiture, which view divestiture as appropriation of value from a target, as a sign of acquisition failure, or as part of a process of creating market power. Our argument also contrasts with other more positive views of divestiture, which emphasize gaining scale in declining industries or eliminating weak targets and acquirers. In the results section, we describe several variables that we use to address the alternative explanations.

# RESULTS

We test our predictions with a survey that includes responses concerning 253 horizontal acquisitions by firms based in Europe and North America between 1988 and 1992. The analysis controls for key alternative explanations for post-acquisition divestiture including industry effects, firm effects, transfer of financial resources, and acquisition date.

We used the statistical program AMOS to estimate a structural model. The analysis and interpretation of an AMOS model take place in two stages: (1) assessment of the reliability and validity of the measurement model, and (2) assessment of the causal relationships within the structural model. This two-stage sequence of analyzing the estimated model ensures that we have reliable and valid measures of constructs before attempting to draw conclusions regarding the statistical relationships among the constructs.

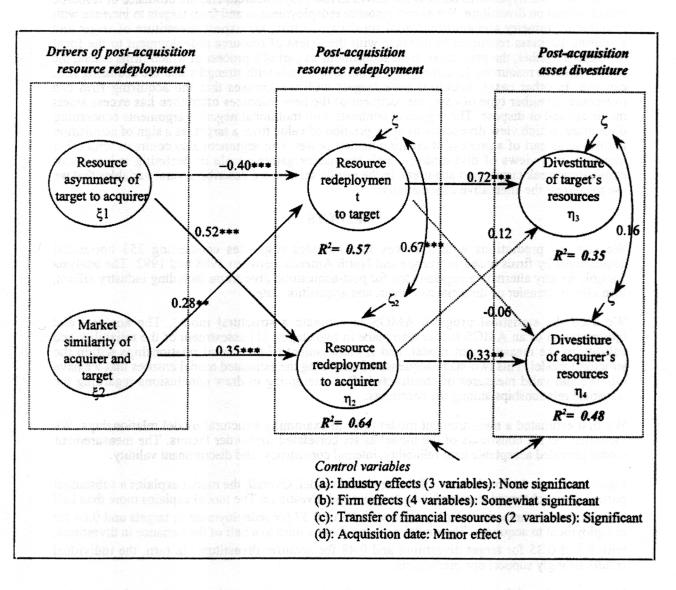
We first estimated a measurement model prior to examining structural model relationships. We modelled the six constructs of the model as six correlated first-order factors. The measurement model provided acceptable item reliability, internal consistency, and discriminant validity.

Figure 1 reports the focal results of the structural model. Overall, the model explains a substantial portion of the observed extent of redeployment and divestiture. The model explains more than half the observed variance in redeployment, with R<sup>2</sup> of 0.57 for redeployment to targets and 0.64 for redeployment to acquirers. The model explains about a third to a half of the variance in divestiture, with R<sup>2</sup> of 0.35 for target divestiture and 0.48 for acquirer divestiture. In turn, the individual results strongly support our predictions.

Hypotheses 1 and 2 receive strong support. Consistent with hypothesis 1, figure 1 shows that greater resource asymmetry leads to greater redeployment from the stronger business and less redeployment to the weaker business. Consistent with hypothesis 2, figure 1 shows that greater market similarity leads to greater resource redeployment to acquirers and to targets. Thus, the results concerning the causes of resource redeployment are consistent with the argument that firms often use acquisitions as means of exchanging valuable resources.

Hypotheses 3 and 4 also receive strong support. Consistent with hypothesis 3, figure 1 shows that greater resource redeployment to targets tends to lead to greater divestiture of target resources. In

Figure 1
Post-Acquisition Resource Redeployment and Divestiture Model Results



parallel, consistent with hypothesis 4, the figure shows that greater resource redeployment to acquirers tends to lead to greater divestiture of acquirer resources. These results are consistent with the argument that divestiture often occurs as an outcome of post-acquisition business change and reconfiguration.

The results reject Hypothesis 4alt. There is little support for the argument that divestiture tends to occur as the residual sale of assets that remain after an acquirer appropriates target resources. Similarly, there is little or no effect on divestiture of acquirer assets when an acquirer transfers its own resources to a target. These conclusions stem from the non-significant cross-effects between the resource redeployment and divestiture constructs, which shows that little divestiture occurs at the business that provides the resources. The non-significant cross-effects run counter to some traditional explanations for post-acquisition divestitures, which emphasize an appropriation logic in which firms acquire particularly valuable resources from a target and divest the target's remaining assets.

Several other influences that Figure 1 depicts are notable. First, the high correlation between the residual errors of the two resource redeployment constructs (0.67) shows that redeployment is often a bilateral process, in which firms redeploy resources both to and from a target. Second, by contrast, the low correlation between the residual errors of the two divestiture constructs (0.16) shows that divestiture of target and acquiring business assets are independent outcomes during the reconfiguration process. Together, these other influences again support the argument that many acquisitions provide opportunities for business reconfiguration.

The model also estimated the influences of the control variables for industry effects, firm effects, and transfer of financial resources. Figure 1 briefly summarizes these results. None of the industry-level effects had a significant influence on resource redeployment or divestiture. Several firm-level effects were significant. Firms were unlikely to divest assets of profitable targets, while profitable acquirers tended to redeploy resources to targets. Cases involving larger targets led to lesser resource redeployment to targets and greater divestiture of acquirer assets. Cross-border acquisitions resulted in greater redeployment to targets and lesser divestiture of target assets. Most financial transfer variables also provide significant influences on redeployment and divestiture, but in directions that conflict with traditional explanations for asset sell-off. Acquirers that provided financial resources to a target also tended to redeploy other resources to the target, while being less likely to divest target resources and more likely to divest acquirer resources. Thus, the results again run counter to appropriation views of acquisitions. Also counter to appropriation views, firms that transferred financial resources from the target to the acquirer often provided the target with other resources in return, while being less likely to divest the target's resources. We also found that the earlier the acquisition date, the greater the resource redeployment to the target.

In summary, the results strongly support the predictions. Redeployment tends to occur from stronger businesses to businesses firms operating in similar competitive environments. In turn, resource redeployment tends to lead to divestiture at the business that receives the resources but not at the contributing business. The results support the argument that acquisitions often provide firms with opportunities to reconfigure the capabilities of both target and the acquiring businesses, while divestiture is commonly a second stage outcome of post-acquisition resource redeployment rather than a primary goal of the acquisition.

#### CONCLUSION

We argue that resource redeployment and asset divestiture are part of a common search and selection process in which firms seek to recombine and upgrade the capabilities of the merging

firms. Our approach contrasts with studies that treat resource redeployment and resource divestiture as separate areas of study. The perspective that we present in the paper emphasizes the evolutionary perspective on acquisitions, in the form of a Schumpeterian innovation process in which firms change by recombining internal and external resources.

An evolutionary perspective views a firm as a collection of routines or resources that are subject to a variation-selection-retention cycle (Nelson and Winter, 1982; Miner, 1994). Acquisitions are a source of variation in organizational routines. Selection processes determine which resources firms redeploy to and from targets. In our analysis, we emphasized asymmetrical resource endowments and environmental similarity as key variables that influence the amount of resource redeployment. Our results provide little support for the traditional views on post-acquisition divestiture, which emphasize market power, social power, and operating efficiency as direct determinants of divestiture.

This research is part of a recent change in the emphasis of evolutionary studies of firms and other organizations. Established evolutionary perspectives in the organizational, economic, and technology literature often focus on organizational units, which resist change or tend to undertake path-dependent changes owing to routine rigidity within the organizations. More recently, evolutionary theorists have begun to examine intra-organizational processes and competencies that enable change as well as inhibit it. Galunic and Eisenhardt (1996), for instance, examine means by which firms undertake substantive changes to intra-divisional charters, emphasizing the impact of the growth of new core businesses on the decline of established charters, while Galunic and Rodan (1997) and Zollo and Singh (1997) argue that firm-level innovation rests on the ability to realize novel combinations of firm resources. Henderson and Cockburn (1994) distinguish between component competencies that affect day-to-day problem solving and architectural competencies that effect the ability to use and integrate component competencies. Kogut and Zander (1992) argue that business acquisitions provide a means for firms to synthesize and acquire new knowledge. Leonard-Barton (1992) emphasizes the role of stressful product development projects as means of overcoming traditional rigidities. In parallel, a substantial stream of research examines the role of top management turnover in organizational change (e.g., Romanelli and Tushman, 1994; Harris and Helfat, 1997). Several recent business alliance studies, in turn, emphasize acquisition of personal (e.g., Liebeskind, Oliver, Zucker, and Brewer, 1996) and organizational capabilities (e.g., Mitchell and Singh, 1996; Martin, Swaminathan, and Mitchell, 1998). While emphasizing a range of issues, these more recent approaches to evolutionary investigation converge in the sense that they examine resources within organizations as key units of analysis in studies of organizational change.

These recent intra-organizational evolutionary views share several causal assumptions with organization-level evolution. At the core, organization level and intra-organization perspectives both expect substantial path dependence in the types of changes that firms undertake, conditioned on inertia created by internal routines and external environments. Thus, although managers may seek profitable business activities, they are constrained by their firm-specific and external market contexts. These views assume that much business value arises from intangible resources that firms must adjust over time, but that resources also face market failure in discrete exchange owing to valuation and opportunism constraints. At the same time, though, intra-organizational evolutionary views are beginning to identify means by which firms sometimes over-come inertial tendencies, emphasizing the importance of reconceptualizing and recombining existing internal resources in order to use the resources in new ways.

Our approach builds on and extends the recent intra-organization emphasis by examining means by which firms can change by recombining internal and external resources. We argue that business

acquisitions can help firms acquire and recombine sets of resources from both within and without existing organizational units and, in the process of recombining resources, undertake substantive change of business units. Business acquisitions, followed by post-acquisition resource redeployment and asset divestiture, provide one such means by which firms can undertake such changes. In this view, business acquisition and asset divestiture are often part of healthy and successful business processes. This conclusion suggests that studies of acquisitions cannot simply examine the incidence of acquisition and divestiture. Instead, acquisition studies must delve within the organizations that undertake the acquisitions.

Our study also follows current trends in research on organization-level evolution. Earlier research at the organization level implicitly assumed that differences in firm survival resulted from variations in resource endowments or competitive positions of firms in a changing external environment (Hannan and Freeman, 1989). Recent research at the organization level emphasizes the role of organizational change as an important mediating outcome in explaining firm performance. In this view, firms respond to changes in their external environment and these changes in turn affect firm performance (Amburgey, Kelly, and Barnett, 1993). Just as we examine the factors that influence resource redeployment and the impact of redeployment on post-acquisition divestitures, research at the organization level has begun examine the factors affecting organizational change and the impact of change on firm survival (e.g., Delacroix and Swaminathan, 1991; Haveman, 1992). Thus, organization level and intra-organizational evolutionary perspectives complement and contribute to each other's development.

Our results suggest that resource redeployment is a central aspect of the acquisition process and highlight avenues for future research. New research needs to examine the impact of various factors on the kinds of organizational routines or type of resources that firms transfer across targets and acquirers in the post-acquisition redeployment process. We also need to know more about the individual, firm-level and industry-level factors that shape and impede resource redeployment. Finally, if divestitures are often merely secondary outcomes of the acquisition process, we should focus on the resource redeployment process rather than the incidence of acquisition and divestiture in order to evaluate the success and failure of acquisition efforts.

### REFERENCES

Amburgey, Terry L., Dawn Kelly, and William P. Barnett. 1993. Resetting the clock: The dynamics of organizational failure. Administrative Science Quarterly, 38: 51-73.

Burgelman, R. A. 1994. Fading memories: A process theory of strategic business exit in dynamic environments. Administrative Science Quarterly, 39: 24-56.

Capron, Laurence, Pierre Dussauge, and Will Mitchell. 1998. Resource redeployment following horizontal mergers and acquisitions in Europe and North America, 1988-1992. Strategic Management Journal, Forthcoming.

Delacroix, Jacques, and Anand Swaminathan. 1991. Cosmetic, speculative and adaptive change in the wine industry: A longitudinal study. Administrative Science Quarterly, 36: 631-661.

Galunic, Charles, and Simon Rodan. 1997. Resource recombinations in the firm: Knowledge structures and the potential for Schumpetarian recombination. INSEAD working paper 97/89/OB/SM.

Galunic, D. Charles, and Kathleen M. Eisenhardt. 1996. The evolution of intracorporate domains: Divisional charter losses in high-technology multidivisional corporations. Organization Science, 7:

- Grant, R.M. 1991. The Resource-based theory of competitive advantage: Implications for strategy formulation. California Management Review, 33 (3): 114-135.
- Hannan, Michael T., and John H. Freeman. 1989. Organizational Ecology. Cambridge, MA: Harvard University Press.
- Harris, Dawn, and Constance Helfat. 1997. Specificity of CEO human capital and compensation. Strategic Management Journal, 18: 895-920.
- Haveman, Heather. 1992. Between a rock and a hard place: Organizational change and performance under conditions of fundamental environmental transformation. Administrative Science Quarterly, 37: 48-75.
- Henderson, R., and I. Cockburn. 1994. Measuring competence? Exploring firm effects in pharmaceutical research. Strategic Management Journal, Winter Special Issue, 15: 63-84.
- Hrebiniak, L.G., and W.F. Joyce. 1985. Organizational adaptation: Strategic choice and environmental determinism. Administrative Science Quarterly, 30: 336-349.
- Kogut, Bruce and Udo Zander. 1992. Knowledge of the firm, combinative capabilities, and the replication of technology. Organizational Science, 3: 383-397.
- Langlois, R.N. 1992. Transaction-cost economics in real time. *Industrial and Corporate Change*, 1: 99-127.
- Leonard-Barton, Dorothy. 1992. Core capabilities and core rigidities: A paradox in managing new product development. Strategic Management Journal, 13 (Summer Special Issue): 111-125.
- Levinthal, Daniel A., and James G. March. 1993. The myopia of learning. Strategic Management Journal, Winter Special Issue, 14: 95-112.
- Liebeskind, Julia, Amalaya Lumerman Oliver, Lynne Zucker, and Marilyn Brewer. 1996. Social networks, learning, and flexibility: Sourcing scientific knowledge in new biotechnology firms. Organization Science, 7: 428-443.
- Martin, Xavier, Anand Swaminathan, and Will Mitchell. 1998. Organizational evolution in an interorganizational environment: Vertical, competitor, and community-level influences on supplier expansion to foreign markets. Administrative Science Quarterly, forthcoming.
- Mitchell, Will, and Kulwant Singh. 1996. Survival of businesses using collaborative relationships to commercialize complex goods. Strategic Management Journal, 17 (3): 169-196.
- Mitchell, Will. 1994. The dynamics of evolving markets: The effects of business sales and age dissolutions and divestitures. Administrative Science Quarterly, 39: 575-602.
- Ravenscraft, David J., and Frederic M. Scherer. 1987. Mergers, sell-offs, and economic efficiency. Washington, DC: Brookings Institution.

- Romanelli, E., and M. L. Tushman, 1994. Organizational transformation as punctuated equilibrium: An empirical test. Academy of Management Journal, 37: 11141-1166.
- Rugman. A. 1981. Inside the multinational: The Economics of internal markets. New York: Columbia University Press.
- Singh, Harbir, and Maurizio Zollo. 1997. Knowledge accumulation and the evolution of post-acquisition management practices. Paper presented at the Academy Management Conference, Boston, Massachussets, August 8-13.
- Wernerfelt, Birger. 1984. A resource based-view of the firm. Strategic Management Journal, 5: 171-180.