Using Acquisitions to Access Multinational Diversity: Thinking Beyond the Domestic Versus Cross-Border M&A Comparison

Jaideep Anand
University of Michigan Business School
Ann Arbor, MI, U.S. 48109-1234
Email: jayanand@umich.edu, Phone: (734) 764-2310, Fax: (734) 764-2557

Laurence Capron
INSEAD
Boulevard de Constance, 77305 Fontainebleau, France
Email: laurence.capron@insead.edu
Phone: 33 (0)1 60 72 44 68, Fax: 33 (0)1 60 74 55 00

Will Mitchell *
The Fuqua School of Business, Duke University
Box 91020, Durham, NC 27708-0120
Email: Will.Mitchell@duke.edu; Phone: 919.960.7994, Fax 919.681.6244

19 March, 2004 (version: Scope5h.doc)

* Please address correspondence to Will Mitchell.
Using Acquisitions to Access Multinational Diversity: Thinking Beyond The Domestic Versus Cross Border M&A Comparison

Abstract

Prior research provides ambiguous results regarding the performance of international acquisitions. Drawing on a survey of 248 acquisitions, we find that acquirers enhance their capabilities when they buy a target with a multinational geographic scope. A financial event study uses a subsample of the acquisitions to show that the financial markets also value targets’ multinational scope. Both survey- and stock market-based studies suggest that targets with access to heterogeneous resource environments provide the acquirer with greater potential for capability enhancement and financial performance. In contrast, simply acquiring firms across borders has less influence on post-acquisition outcomes. The study demonstrates greater value of the attributes of the target rather than of international expansion alone. Thus, the multinational scope of the target is more likely to account for the resource diversity provided by the target than the country of origin of the target per se. The study changes the emphasis on multinational acquisitions, by shifting the focus from foreign market expansion (country-level emphasis) to accessing geographically distributed resources that are embedded in target firms (firm-level emphasis).
This paper posits that the geographic scope of an acquired firm, defined as the multinational scope of its pre-acquisition activities, influences post-acquisition capability improvement of the acquirer. Scholars and market analysts have argued that cross-border acquisitions help acquirers enhance their capabilities by accessing diverse resources and environments, but studies that compare the performance of domestic and cross-border acquisitions have produced ambiguous results. Some studies report that shareholders tend to benefit more from cross-border acquisitions (Markides and Ittner, 1994; Swenson, 1993), while other studies find no differences between domestic and cross-border acquisition returns (Eddy and Seifert, 1984; Dewenter, 1995). This study revisits this topic by complementing the traditional country-level analysis of multinational diversity (domestic versus cross-border acquisition) with a firm-level analysis of the target’s multinational diversity.

While the usual distinction between cross-border and domestic acquisitions assumes an association between the geographic origin of the target and the geographic diversity of the target’s resources, we argue that the target’s geographic scope will be a more relevant indicator of the geographic diversity to which an acquirer may gain access. For example, targets domiciled in the same country as an acquirer (i.e., “domestic targets”) sometimes have resources that encompass diverse geographic settings, while targets domiciled in a different country (i.e., “foreign targets”) might have resources that arise from only one local environment. Such variation suggests the need to cast the analysis not only at the level of the target’s country of origin, but also at the level of the geographic scope of the target.

The study emphasizes the role of the target’s geographic scope in reflecting the complexity of the processes by which firms gain access to technical and institutional resources from heterogeneous foreign environments. The resource-based and evolutionary perspectives on business strategy argue that firms often seek complex and difficult to imitate resources and capabilities through acquisitions rather than contractually through discrete factor markets (Wernerfelt, 1984; Dierickx and Cool, 1989). Our study develops this idea in the context of multinational acquisitions.

The analysis draws on a survey of 248 acquisitions in Europe and the U.S. We find that acquirers are more likely to redeploy resources from targets and enhance their capabilities when they buy a target with a multinational scope. We also find that simply acquiring a foreign target has less influence on post-acquisition outcomes. A financial event study uses a subsample of 101
of the acquisitions to show that the financial markets also value targets’ multinational scope. The study changes the emphasis on multinational acquisitions, by shifting the focus from foreign market expansion (country-level emphasis) to accessing geographically distributed resources that are embedded in target firms (firm-level emphasis).

**Background and Propositions**

Acquisitions are an important vehicle for corporate profitability and growth. On the one hand, acquisitions help firms reduce their costs by achieving greater scale (Seth, 1990). On the other hand, they provide a key mechanism by which firms gain access to new resources that produce operating efficiencies and increase revenues by changing the ways in which a firm operates (Chatterjee, 1986). Acquisitions tend to dominate simpler contractual exchanges when firms want to obtain tacit and organizationally-embedded resources, due both to concerns about opportunistic behavior on the part of exchange partners and to the need for ongoing interaction between the parties in coordinating the exchange of the resources (Nelson and Winter, 1982; Wernerfelt, 1984). Acquirers sometimes use dedicated acquisition integration teams to transfer resources between units (Sirower, 1997). In other cases, resource redeployment occurs more informally through the creation of operating ties between business units, through consolidation of target businesses with the acquirers’ existing businesses, and through ongoing movement of personnel among units (Singh and Montgomery, 1987; Bowman and Singh, 1993). Several empirical studies suggest that acquisitions create value by allowing the redeployment of resources to or from the acquired firm (e.g., Chatterjee, Lubatkin and Weber, 1992; Capron, 1999). Post-acquisition redeployment and performance will tend to be greatest when either the acquired firm or the acquiring firm have particularly strong resources (Seth, 1990; Capron, Dussauge and Mitchell, 1998). This study focuses on the potential to enhance acquirer performance through the redeployment of capabilities from the target firm.

International business researchers have extended the concept of resource opportunities to include a geographic component. This view recognizes that an extra benefit arises from gaining access to acquired firms with resources that encompass varied environmental settings. The notion of geographic scope arises in internalization theory and, more recently, in the reverse internalization literature and in discussions on agglomeration and national innovation systems. The internalization of intangible assets argument, originally advanced by Hymer (1960), posits that multinational enterprises (MNEs) exist because of their ability to transfer and exploit
knowledge more effectively in the intra-corporate context than through contractual market mechanisms (Caves, 1971; Buckley and Casson, 1976; Casson, 1987). This argument applies to acquisitions, because an acquisition represents one way of reproducing an intra-corporate context by taking control of an acquired firm to which the acquirer can redeploy its intangible assets.

Recently, the international business literature has begun to consider a reverse-internalization argument. Since Cantwell’s (1989) thesis, the field has hypothesized that industries where host countries have advantages in resident technology attract foreign investment (Kogut and Chang 1991). While the traditional internalization focus takes on the form of a sectoral “push” of the home country’s technological advantages, the more recent argument posits a geographic “pull” of the host country’s skills (Anand and Kogut, 1997). The acquired firm’s assets in the host country – which range from technical skills, to market understanding, to supplier relationships, to government ties – enable the MNE to add to their competitive advantages, as well as to exploit their current advantages.

The reverse-internalization perspective parallels arguments in the national innovation systems and regional agglomeration literatures. Nelson (1993), for instance, shows that different countries possess substantially different technical bases. More broadly, agglomeration studies demonstrate significant inter-regional differences in technical and business skills (Chung and Alcacer, 2003; Stuart and Sorenson, 2003). These results again speak of the value of gaining access to resources across multiple countries.

Despite the potential benefits of cross-border acquisitions that the reverse-internalization argument identifies, studies that compare empirical outcomes of domestic and cross-border acquisitions offer ambiguous conclusions. In a financial event study, Markides and Ittner (1994) find that cross-border acquirers tend to gain value, counter to the common conclusion in the domestic acquisitions literature that acquiring firm shareholder value remains unchanged or even falls. Eddy and Seifert (1984), on the other hand, find little difference between the returns of acquirers that purchase foreign firms and those that purchase domestic firms. In studying the acquisition of U.S. firms, Swenson (1993) reports that acquired firm shareholders benefit more when a foreign company takes over the firm than when the acquirer is a U.S. firm. Dewenter (1995), though, finds no significant difference in the mean level of acquired firm shareholder wealth gains in domestic versus foreign acquisitions. Finally, Seth, Song and Pettit (2000) find that cross-border acquisitions produce gains for acquired firms and acquirers that are similar in
value to those in domestic cases. If it makes sense to posit that geographic scope amplifies the potential for acquisitions to improve firms’ capabilities, one can wonder why the empirical cross-border acquisition literature has reached such inconclusive results.

As we noted earlier, the common distinction between cross-border and domestic acquisitions assumes an association between the geographic origin of the target and the geographic diversity of the target’s resources. By contrast, we argue that an acquired firm’s geographic scope is a more relevant indicator of the geographic diversity to which an acquirer may gain access than the dichotomy between domestic and cross-border acquisitions.

A target firm’s multinational scope encompasses three aspects of potential resource acquisition: ownership, location, and organization. Ownership opportunities stem from the possession of proprietary assets. Locational opportunities stem from access to geographically distributed resource networks, including technical and market skills as well as institutional benefits such as supplier networks and government ties. Organizational opportunities stem from the ability to coordinate intra-corporate knowledge transfer.

First, consider ownership opportunities to gain possession of proprietary assets. Theorists argue that MNEs exist because the hazards associated with market transactions of the firms’ proprietary assets, particularly tacit assets such as R&D skills, make internalization a more efficient mechanism for redeploying those assets in international markets (Hennart, 1982; Caves, 1996). Empirical studies show that firms with greater multinational activity are likely to possess more important proprietary assets, such as technology, marketing, and organizational capabilities, as well as access to institutional linkages with partners and government bodies (Kogut and Chang, 1991; Morck and Yeung, 1992). This perspective implies that opportunities for gaining access to a variety of proprietary assets through an acquisition are likely to increase with the geographic scope of the acquired firm, because the more countries in which a target operates, the greater the diversity of its resource base.

At the same time, ownership may impose constraints on expansion by limiting variation and opportunities. Clearly, firms cannot rely solely on multinational acquisitions as a means of growing. Mathews (2002, 2003), for instance, argues that firms will gain greater resource variety if they blend internal development with external resource leverage via contractual and alliance relationships. Our argument, though, is not that firms will gain most if they only engage in multinational acquisitions. Instead, we suggest that acquisitions of multinational targets provide
access to a wider variety of resources, including both technical and institutional resources, than do acquisitions of domestically-focused targets. Moreover, resource ownership is most important in cases where the resources face limited discrete transferability due to problems that stem from coordination needs (Penrose, 1959) and property right issues (Mathews, 2003). These issues are common in multinational contexts, and underlie much of the value of multinational acquisitions.

Second, consider locational opportunities to gain access to geographically distributed knowledge. Targets that operate in multiple countries provide immediate opportunities for extensive market expansion. In addition, such targets provide opportunities to gain new knowledge. Scholars focusing on the knowledge creation potential of the multinational firm stress the ability of foreign subsidiaries to generate innovations based on resources resident in the heterogeneous, host country environment (Kogut and Zander, 1995; Birkinshaw, 1997; Dunning, 1990; Frost, 2001). Localized technological and marketing capabilities frequently emerge as key resources in studies of cross-border acquisitions (Delios and Beamish, 1999). Eun, Kolodny, and Scheraga (1996) and Morck and Yeung (1992) emphasize the role of acquirer and acquired firms’ technological assets. Marketing expertise, such as brand capital and distribution access, also provides critical resources for accessing new markets. Marketing expertise often involves substantial intangible know-how that it is risky and difficult to develop independently or to obtain in arms-length transactions. While marketing know-how is an intangible public good within the firm, foreign brands may be difficult to exploit in new markets (Caves and Mehra, 1986). Similarly, critical intangible know-how underlying a firm’s sourcing and distribution activities (e.g., supplier relationships, warehouse logistics, and sales force management) may be difficult to develop in new markets.

Through their ongoing interaction with their host country environment, firms with greater multinational scope have developed networks of relationships with universities, firms, suppliers, and public agencies. Participation in external networks in different countries provides the firm with a greater capability to scan the environment, screen new technologies and ideas, gain access to local resources, and leverage institutional contacts (Kostova and Zaheer, 1999). Acquired firms with high participation in foreign external networks are more likely to contribute to the resource search of their acquirers.

Thus, the geographic spread of a target firm’s activities indicates the diversity of resources that arise in the heterogeneous host country environment of the target. The
multinational scope of the target firm’s activities is more likely to account for the resource diversity provided by the acquired firm than the country of origin of the acquired firm. In other words, a target firm that is based in the same country as the acquirer can provide more international resource diversity if the target has a multinational scope than a target firm that is based in a different country from the acquirer but which has only local scope.

Third, consider organizational opportunities to coordinate intra-corporate knowledge transfer. While extensive literature shows that multinational firms require substantial organizational and managerial capability to administer knowledge transfer effectively, research has focused on the internal development of these capabilities rather than on their acquisition (Bartlett and Ghoshal, 1989).

We propose that the acquisition of a firm with multinational scope helps the acquiring firm obtain the acquired firm’s capability to coordinate the diversity of contexts, as well as its technological and market capabilities. Such organizational capability is complex, unobservable, and difficult to imitate (Rivkin, 2000). Several studies document the difficulties of integrating international units (Yoshida, 1987; Hennart and Park, 1993), while firms also face difficulties in creating networks of interdependent subsidiaries (Porter, 1987). The existing literature has focused more on the acquisition of individual capabilities, rather than on the acquisition of coordination capabilities. The adoption of superior coordinative routines not only provides greater efficiency, but also enables different units to learn more quickly from experience in other parts of the organization.

MNEs that operate in diverse settings can take advantage of accumulated organizational experience in transferring their resources across their units, from home headquarters to foreign subsidiaries, from foreign units to home locations, and across subsidiaries. Research on international knowledge transfer shows that multinational firms develop skills and processes to carry out international knowledge transfer that takes place within the context of a network of differentiated units (Hedlund, 1994; Gupta and Govindarajan, 2000). Such international knowledge transfer commonly implies the development of practices that allows firms to ‘decontextualize’ and ‘recontextualize’ the knowledge that they want to transfer and integrate into the acquired firm’s units (Doz and Santos, 1997; Brannen, Liker and Fruin, 1998). These practices make the firm’s resources less context-specific and more suitable to redeployment on an international scale.
The task of integrating globally dispersed knowledge is challenging (Kogut and Zander, 1995; Gupta and Govindarajan, 2000), and the development of organizational capability to facilitate this process can be time consuming (Dierickx and Cool, 1989). The addition of multinational scope without the requisite organizational capabilities can be costly, but MNEs tend to develop an accumulated experience of intra-corporate knowledge transfer over time. This experience is a valuable asset when the acquirer wants to transfer knowledge to or from the acquired firm. An acquired firm with a multinational scope may already possess such organizational capabilities, leading to more effective intra-corporate knowledge transfer.

Together, the arguments concerning ownership, locational, and coordination opportunities suggest that the multinational scope of a target will influence post-acquisition strategy and performance. First, greater geographic diversity provides opportunities to redeploy resources from the target firm. Several types of resources offer potential for redeployment, including technical skills, brand names, supplier relationships, managerial expertise, and institutional ties. Second, in parallel, greater geographic diversity leads to increased potential for post-acquisition capability improvement for the acquirer. Capability improvement may arise on multiple dimensions, including R&D capabilities, product quality, cost efficiency, and product line expansion. Thus, the multinational geographic diversity of the target amplifies the argument that the foreign direct investment (FDI) literature proposes concerning cross-border acquisitions.

At the same time, of course, acquisitions commonly encounter problems. Integrating disparate resources is a challenging task (Sirower, 1997). Acquisitions that involve targets with operations in multiple countries will be particularly challenging to integrate, because such integration requires coordinating and reconfiguring resources in an internationally dispersed network, transferring best practice across units, retaining key personnel, and exchanging knowledge across geographically dispersed units (Cannella and Hambrick, 1993; Anderson, Havila, and Salmi, 2001). Nonetheless, numerous small- and large-scale studies show that firms often do manage to integrate resources across borders (e.g., Havila and Salmi, 2000; Seth, Song and Pettit, 2000). Moreover, even though multinational acquisitions often encounter difficulties, acquirers that manage to overcome even some of the difficulties will gain advantages relative to firms that do not gain access to the diverse set of resources that multinational targets offer. Thus, the recognition that acquisition integration is a difficult task places bounds on the amount and
impact of post-acquisition resource redeployment, rather than suggesting that multinational acquisitions will provide no benefits.

In sum, we argue that the multinational geographic scope of the target firm is an important determinant of potential resource transfer to the acquirer. Targets with multinational scope commonly possess specific proprietary resources, as well as complex coordinative routines and integrative capabilities. This approach includes the traditional emphasis on intangible operating assets such as technological and marketing skills, while also viewing multinational scope as itself being a key complex and inimitable capability.

Accordingly, we propose that the potential for resource redeployment to the acquirers and acquisition capability improvement increase with the geographic scope of the target firm. We will also investigate, whether, after taking into account the effect of an acquired firm’s multinationality on post-acquisition knowledge transfer, buying a domestic versus a foreign acquired firm, also influences post-acquisition resource redeployment and capability improvement. Prior equivocal results concerning the performance of cross-border acquisitions suggest that there will be less influence.

Research Design

Survey

We conducted a top-management survey of acquirers involved in horizontal acquisitions in Europe and North America between 1988 and 1992. The late 1980s and early 1990s marked a period in which cross-border acquisitions were enjoying substantial growth in both continents, which offers a substantial opportunity to study the phenomenon. The survey was conducted in 1994, within two to six years of the acquisitions. We received 248 responses that we could use for this study, including 175 cross-border acquisitions and 73 domestic acquisitions. The median lag between acquisition and survey was about four years, with 85% of the acquisitions occurring three to five years before the survey. This lag provides sufficient time for resource redeployment and capability improvements to take place, while being sufficiently recent for respondents to recall the conditions of the acquisitions. Table 1 reports descriptive information about the respondent firms.

********** Table 1 about here **********

Appendices 1 and 2 describe our data collection procedure, and include the questions that we used for this study. The survey procedure involved extensive preliminary discussions and
pre-testing with executives in the United States and Europe who had substantial experience in
domestic and cross-border acquisitions. We used these discussions to ensure that our concepts
and questions were meaningful to a relevant population and that respondents could discriminate
among different types of causes and effects, to ensure that perceptions about one category of
resource or capability improvement did not spill over to other categories. In addition, we
discussed the information that we obtained from the survey with knowledgeable executives to
ensure that the information had face validity. Based on these discussions, we believe that the
respondents were knowledgeable and that the responses reflected their knowledge.

Measures

We measured post-acquisition outcomes on two dimensions. First, to investigate the
degree of resource transfer associated with acquisitions, we constructed a typology of resources,
drawing from previous research (Morck and Yeung, 1992; Chatterjee and Wernerfelt, 1991).
From this research, we identified four intangible resources that indicate post-acquisition resource
transfer: technical (R&D and manufacturing know-how), brand name, supplier relationships, and
managerial resources. We measured the extent to which the acquirer used resources from the
acquired firm in each dimension, using an ascending five-point scale. Measuring the extent of
these transfers following the acquisitions allowed us to capture not only the degree of resource fit
(i.e., possession of resources and availability of opportunities to redeploy them into new uses)
but also the capability of the merging firms to implement the redeployment of their resources
into each other’s businesses (Chatterjee, 1986).

Second, we used four other variables to measure post-acquisition capability improvement
of the firm: change in R&D capabilities, product quality, cost efficiency, and product line
extension. Each outcome measure consists of a five-point scale. Table 2 reports summary
statistics for the variables.

********** Table 2 about here **********

In a complementary analysis of acquisition performance, we also carried out an event
study of how the acquisitions influenced the cumulative average abnormal return (CAAR) of the
acquirers, assessing 101 publicly-traded firms in the sample. The event study examines how
financial markets assessed the potential of the acquisitions to generate value. We focused on
whether the multinational scope of the target firm influenced stock market perceptions of
acquirer performance. The CAAR analysis offers two benefits: first, it determines whether the
financial market’s expectations conform to the longer term performance outcomes, and second, the analysis provides a robustness check using external performance data, which helps balance the fact that we use subjective assessments in the survey measures of performance. Appendix 3 describes the event study in greater detail. While several scholars have criticized event studies as assessing only short-term performance, requiring strong assumptions about unanticipated events, focusing on public firms, and missing the impact of acquisitions that are part of a broader corporate strategy (e.g., Lubatkin and Shrieves, 1986; McWilliams and Siegel, 1997), the CAAR approach provides a useful comparative analysis.

We measured the geographic scope variable of the acquired firm with three 0-1 dummy variables based on three categories of multinational scope: domestic scope, international scope within one region, and global scope. The regions were North America, the European Union, and Asia-Pacific. In this sample, 40% of the target firms have domestic scope, 40% have international scope within one region, and 20% are global (operate in multiple regions). We used the dummy variables for global and regional scope in the analysis, comparing their effects to domestic scope as the omitted variable.

We expect target global and regional scope to have greater impact than domestic scope on post-acquisition resource redeployment and performance. It is also useful to consider whether the impact of regional scope will differ from that of global scope. The simplest expectation is that target global scope will have more influence than target regional scope. However, it is possible that regional scope will have similar, or even more, influence than global scope if regional firms tend to operate in many countries within a region, while global firms might operate in only a few countries in multiple regions. Moreover, more regional scope might alleviate integration problems that arise from cultural misunderstandings and a wide variety in management practices that may occur in more extreme cases of global acquisitions. If this is the case, targets with regional scope might enjoy access to a more diverse or more manageable set of resources than targets with global scope. Therefore, we treat the relative impact of global and regional scope as an exploratory question.

The target scope variables offer direct, if relatively simple, measures of resource diversity. A more complex analysis might identify the specific countries and industrial environment in which targets operate, but such an analysis is beyond the scope of this study. Nonetheless, the regional and global multinational scope variables provide meaningful indicators
of the potential for resource redeployment and capability improvement stemming from the diversity of a target’s resource base.

Several control variables addressed other influences on acquisition performance.

*Domestic versus cross-border acquisition.* As we noted earlier, we investigate whether the fact of buying a domestic versus a foreign acquired firm adds extra explanatory power to post-acquisition knowledge transfer. We used a binary variable.

*Acquirer geographic scope.* MNE theory suggests that multinational acquirers are more likely than domestic acquirers to redeploy resources to targets and to benefit from acquisitions. We measured acquirer geographic scope with a three-value scale, with domestic scope set equal to 1, international scope within one region equal to 2, and global scope equal to 3. In the sample, 12% of the acquirers are domestic, 23% have international scope within one region, and 65% are global. It also is possible that acquirers with greater geographic scope might have greater absorptive capacity to benefit from target geographic scope. Therefore, the analysis will investigate whether the interaction between target and acquirer geographic scope provides additional influence on resource redeployment or performance.

*Pre-acquisition profitability of targets and acquirers.* The corporate governance literature has long noted the motive to restructure poorly performing firms through superior management (Jensen and Ruback, 1983). At the same time, though, poorly performing firms may have weaker skills and thus provide fewer opportunities for resource redeployment to the acquirer. We control for the acquired and acquirer firms’ pre-acquisition profitability, but make no prediction about a direction of any effect. We measured pre-acquisition profitability relative to the industry average, using a five-point scale, ranging from “much more profitable” to “much less profitable”.

*Pre-acquisition resource asymmetry.* The relative resource profile of the acquired and acquirer firms will influence the potential to create value from an acquisition. We expect acquirers to draw knowledge from acquired firms on dimensions where the latter have relative strength. This argument arises from both the M&A and FDI literatures. We measured the pre-acquisition resource profile by evaluating the relative strength of the target to the acquirer in R&D, marketing, and managerial areas based on an ascending five-point scale.

*Similarity.* We assessed the similarity of the target and acquirer to control for alternative explanations such as economies of scale and opportunities for reducing overlapping functions and overcapacity. We used three measures based on 5-point scales to account for similarity
between the acquired and acquirer firms: similarity of technology, similarity of geographic markets, and direct competition.

Relative size of target to acquirer. The acquisition of a relatively large target is likely to be a more important economic event for the acquirer than the acquisition of a small target (Agrawal, Jaffe, and Mandelker, 1992). Acquisitions involving large targets are more likely to generate operational synergies than those involving smaller ones (Seth, 1990), but may also create greater integration difficulties. We measured the relative sales of acquired firm to acquirer on a five-point scale, with 1 indicating acquired firm sales less than 10% of acquirer sales and 5 indicating acquired firm sales of more than 100%. (We used the mean value of the relative size variable for seven cases with missing data).

Market growth forecast. Acquisitions that occur in industries with low prospects for growth could lead to overall weaker performance than acquisitions that take place in fast growing markets. Firms might also be more likely to redeploy resources in growing industries, rather than in stable or declining industries. We measured expected industry sales growth on a five-point scale, ranging from “rapidly growing” to “rapidly declining”.

Other influences. In sensitivity analyses, we also investigated whether the year in which an acquisition took place affected reported resource redeployment and performance, on the premise that greater time might lead to more extensive activity that, in turn, might negate any influence of target geographic scope. In the light of the fact that we found only weak impact of timing, with no material changes in the global scope influence that we discuss next, we did not include the time variable in the reported analysis. The limited effects of timing are likely to arise for two reasons: first, there was sufficient lag between acquisition and survey for most redeployment and performance effects to emerge and, second, most acquisitions clustered in a relatively narrow band of three to five years, as we noted earlier.

Results

Resource redeployment

Table 3 reports multivariate least square regression analyses of the proposition that resource redeployment will increase with target geographic scope. The results in Table 3 strongly support the argument on resource redeployment between acquiring and acquired firms. Greater global scope of the target has a strong and significant influence on post-acquisition resource redeployment from the target to the acquirer. The relationship holds across the four types of
resources we investigated: technical skills, brand names, supplier relationships, and managerial expertise.

********** Table 3 about here **********

Intriguingly, Table 3 shows that target regional scope has little significant influence on resource redeployment, compared to target domestic scope, with only a smaller impact on supplier relationships. Thus, the potential for redeployment arises primarily in acquisitions involving targets that have widely-spread global activities, rather than those that cluster within a single region (supplemental analysis showed that all four global scope coefficients were statistically larger than the regional scope coefficients). This difference might arise if there is substantially less diversity and heterogeneity of resources within regions than across regions and/or if firms can use internal expansion rather than acquisitions to gain access to needed resources within regions. Thus, even though firms might face greater difficulties in integrating widely-spread global operations, the greater diversity of practices and contacts might more than trade off with the difficulties.

Moreover, acquirers do not necessarily need to undertake full-scale integration in order to gain the benefits of global diversity. Instead, they may be able to redeploy selectively from the wider opportunity set that global targets provide. A simple analogy with the selective choice argument arises in consumer retail shopping at supermarkets and smaller stores. A large supermarket offers consumers both greater choice and greater need for evaluation during shopping than a smaller store. Shoppers typically need to spend more time walking the aisles and comparing products in a supermarket, as well as more time traveling to and from the store, than they do with a smaller store. Nonetheless, they typically take more products home, although without buying all the items that the supermarket has available, than when shopping in a smaller store.

The results in Table 3 hold after controlling for cross-border acquisitions, acquirer geographic scope, relative size, relative resource strength, pre-acquisition profitability, target-acquirer similarity, and other factors. Notably, we find no impact of cross-border acquisitions on resource transfer. Instead, the global geographic scope of the acquired firm is the key driver. The most common alternative influence on resource redeployment arises when the target and acquirer are direct competitors, which leads to greater redeployment of technical skills, brand names, and supplier relationships, most likely because overlap in business operations creates opportunities
for scale economies. In addition, targets with particularly strong managerial skills are common sources of supplier relationships and managerial expertise, most likely because the acquirer seeks to draw on the administrative skills of its new unit.

In exploratory analyses, we investigated whether acquirer geographic scope moderated the impact of target geographic scope, on the premise that acquirers with greater scope might have greater absorptive capacity for redeploying resources or, conversely, that an acquirer with only domestic scope would gain little when it purchased a target with global scope. We found no significant influence when we interacted the acquirer and target geographic scope variables. This null result might arise for two reasons, one conceptual and one empirical. First, it is possible that acquirers with substantial geographic scope possess redundant resources that offset any absorptive capacity benefits (Hennart and Reddy, 1997), such that the target’s geographically distributed assets are less novel if the acquiring firm already has a multinational organization. Second, more simply, there are few cases in our data in which domestic acquirers purchased global or regional targets (only eight cases); thus, there is little activity at the primary point at which the absorptive capacity contingency would apply, so that the primary influence in our study arises from the main effects of target scope, rather than from the absorptive capacity contingency.

**Performance**

Table 4 reports multivariate analyses of the proposition that acquisition performance will increase with target geographic scope. Columns 1a to 1d report the analysis based on the post-acquisition performance information in the survey. Columns 2a and 2b report the CAAR financial event study.

The results in columns 1a to 1d of Table 4 support the argument for post-acquisition improvement of capabilities for the combined firm. There are significant positive relationships between global scope of the target and the extent to which three types of capabilities of the newly combined firm improved following the acquisition. The result takes statistically significant levels for R&D capabilities, product quality, and product line extension. Cost efficiency is also positive, but at an insignificant level. Regional scope, however, has a positive impact on R&D capabilities, but no significant impact on the other three types of capabilities.

Unlike the resource transfer analysis, meanwhile, columns 1a to 1d in Table 4 also show
that cross-border acquisitions lead to three types of capability improvement: R&D, cost, and product line extension. Thus, both target geographic scope and acquirer geographic expansion appear to provide benefits. This dual source of benefits suggests that cross-border expansion by an acquirer can create capability improvements that arise independently of resource redeployment. Such benefits might include increased markets for the acquirer’s existing products (cost efficiency), opportunities to introduce differentiations of existing products to new markets (line extension), and the need to improve development in order to undertake line extensions (R&D capabilities).

The difference in the sources of cost efficiency benefits in column 1c of Table 4 offers useful insights. As we noted above, the cost benefits arise from cross-border acquisitions rather than from targets with greater geographic scope. This difference is likely to arise because most cost reductions stem from greater economies of scale (based on acquirers’ market expansion), while the R&D, quality, and line extension advantages stem more from gaining access to a more diverse set of resources (based on acquiring targets with a variety of skills).

The control variables have a mixed influence on capability development. We were particularly interested in the impact of target-acquirer similarity, because this might create greater absorptive capacity for improvement. Among the similarity measures, direct competition produces improvement in product quality and product cost, while geographic similarity leads to improvement in cost and product line extensions. We also used exploratory analysis to investigate potential non-monotonic effects of acquirer-target similarity – in terms of technology similarity, geographic market similarity, and direct competition – on resource redeployment and capability improvement. It seemed possible that moderate similarity might provide the greatest potential for resource redeployment and performance improvements, with low similarity making absorption difficult and high similarity creating redundancy. However, we found no such non-linear effects on any of the three similarity dimensions, for either resource redeployment or capability improvement.

The event study results in columns 2a and 2b of Table 4 reinforce the benefits of target geographic scope. Both the 1-day and 5-day abnormal returns show that financial markets valued target scope, including both global and regional targets (supplemental analyses showed that the global and regional scope coefficients did not differ statistically from one another). Thus, market analysts appear to believe that targets with access to heterogeneous markets and resource
environments provide greater potential for financial performance. Such performance would arise partly from the capability improvement that we observe in the first part of the table. In addition, financial benefits might arise simply from gaining access to a large number of markets and consequently gaining economies of scale in the use of existing capabilities. Nonetheless, stock market analysis shows less influence of cross-border acquisitions. Thus, the market appears to place greater value on the attributes of the target — and the potential for improving the skills of the acquirer — than on international expansion alone.

It is intriguing that the stock market appears to value targets with regional scope more than the survey results might suggest. As we noted above, the survey results reported that regional targets helped acquirers improve only their R&D capabilities (column 1a), with little impact on the other three dimensions (columns 1b to 1d). The event study, however, reported that regional targets had a strong impact on acquirer performance (columns 2a and 2b). This difference might arise for at least two reasons. First, the stock market might place particular emphasis on the potential for R&D improvements, which were significant in the first part of the table. Second, the markets may have overestimated the performance improvement that will arise from regionally-focused expansion. As we noted earlier, the period of the study (the late 1980s and early 1990s) marked the beginning of a large run-up in international acquisitions, especially in Europe and North America. Given the early point on the experience curve, it is possible that market analysts overestimated the benefits of acquiring more focused firms and learned more during the next decade about the degree to which benefits require extensive resource diversity within a target. It would be useful to conduct comparative studies at different time periods, in order to tease out such implications.

As in the resource redeployment analysis, we carried out a supplemental investigation of whether acquirer geographic scope moderated the performance benefits of target geographic scope. We again found no significant influence of interactions between the target and acquirer geographic scope variables. Again, the lack of moderating influence could stem either from redundancy trade-offs or from limited multinational acquisition activity by domestic acquirers.

At their root, the resource redeployment and capability development results suggest that target firms with activities that span different countries provide internationally diverse contexts in which acquirers can obtain new resources and skills that complement their knowledge bases, even if the acquirers are already international in scope. Intra-firm geographic knowledge transfer
improves when the acquired firm has developed experience in knowledge transfer through its international expansion. The ability to absorb new knowledge and transfer it across units depends both on the sender and the recipient of knowledge and their ability to engage in the transfer process (Szulanski, 1996; Lane and Lubatkin, 1998). A target firm with a domestic scope may possess only limited diversity that would help its acquirer improve its capabilities. In addition, a domestic target may have limited experience in codifying and decontextualizing its knowledge because the incentives for diffusing its knowledge across foreign units do not exist. Therefore, a firm with only domestic scope is more likely to possess only context-specific resources that are more difficult to transfer back to the acquirer. Moreover, most multinational targets possess processes, incentives, and culture to leverage geographically dispersed knowledge that enable the organization to unbundle and re-bundle activities in novel ways (Hagström, 1990). Utilizing dispersed resources requires a mental attitude built on the ability to treat knowledge residing in geographically dispersed units as valuable assets (Bartlett and Ghoshal, 1989). Given that 88% of the acquirers in the sample have at least one-region multinational scope, it is possible that those acquirers tend to share a similar understanding of the capabilities of multinational targets than of domestic targets.

**Conclusion**

This study shows that geographic scope helps account for resource transfer and capability improvement following acquisitions. The weaker result for the domestic versus cross-border acquisition dichotomy suggests that accessing a target’s dispersed geographic resources has more important influence on capability building than simply crossing a border. Multinational targets provide additional sources of value creation by drawing on national differences and diverse environments, while acquired firms present in a foreign country may not provide the same richness of resources.

Our results shed light on those obtained in empirical comparisons of domestic and cross-border acquisitions (Markides and Ittner, 1994; Eddy and Seifert, 1984; Dewenter, 1995; Swenson, 1993; Seth, Song and Pettit, 2000). While the recent literature in international business has increasingly addressed the asset-seeking motive in international transactions and FDI, research has emphasized cross-border acquisitions rather than the potential to gain access to skills and recombine firms’ geographically distributed resources. We are now shifting the focus from foreign market entry (country-level emphasis) to gaining and recombining geographically
distributed resources that are embedded in acquired firms (firm-level emphasis).

Beyond the traditional ownership and locational advantages that the international business literature stresses, we emphasize the advantages pertaining to access to MNEs’ organizational know-how, integrative mechanisms, and coordination routines that enable intra-corporate knowledge transfer. Such access does not eliminate problems of post-acquisition integration, but may ease some of the hurdles of knowledge diffusion across the merging firms. Outside the MNE context, the development of new technologies is much more rapid than the development of complex organizational skills in firms. While previous research has focused on market access by technology firms and vice versa, the acquisition of organizational capital that firms require to manage multiple technologies and markets needs more attention.
References


Caves, R. E. 1996. Multinational enterprise and economic analysis, second edition. Cambridge,
England: Cambridge University Press.


<table>
<thead>
<tr>
<th>A. Industry</th>
<th>#</th>
<th>%</th>
<th>C. Home country</th>
<th># - Acquirer</th>
<th>% - Acquirer</th>
<th># - Target</th>
<th>% - Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemicals</td>
<td>39</td>
<td>15%</td>
<td>France</td>
<td>106</td>
<td>42%</td>
<td>51</td>
<td>20%</td>
</tr>
<tr>
<td>Foods and spirits</td>
<td>37</td>
<td>15%</td>
<td>United Kingdom</td>
<td>40</td>
<td>16%</td>
<td>43</td>
<td>17%</td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td>30</td>
<td>12%</td>
<td>United States</td>
<td>35</td>
<td>14%</td>
<td>40</td>
<td>16%</td>
</tr>
<tr>
<td>Machines-tools</td>
<td>16</td>
<td>6%</td>
<td>Germany</td>
<td>25</td>
<td>10%</td>
<td>28</td>
<td>11%</td>
</tr>
<tr>
<td>Automotive components</td>
<td>14</td>
<td>6%</td>
<td>Scandinavia</td>
<td>20</td>
<td>8%</td>
<td>13</td>
<td>5%</td>
</tr>
<tr>
<td>Electronics</td>
<td>13</td>
<td>5%</td>
<td>Other European countries</td>
<td>20</td>
<td>8%</td>
<td>63</td>
<td>25%</td>
</tr>
<tr>
<td>Instruments-medical devices</td>
<td>10</td>
<td>4%</td>
<td>Canada</td>
<td>5</td>
<td>2%</td>
<td>5</td>
<td>2%</td>
</tr>
<tr>
<td>Plastic packaging</td>
<td>9</td>
<td>4%</td>
<td>Other countries</td>
<td>2</td>
<td>1%</td>
<td>10</td>
<td>4%</td>
</tr>
<tr>
<td>Materials</td>
<td>9</td>
<td>4%</td>
<td>Total cases</td>
<td>253</td>
<td>100%</td>
<td>253</td>
<td>100%</td>
</tr>
<tr>
<td>Electrical appliances</td>
<td>9</td>
<td>4%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Telecommunications</td>
<td>7</td>
<td>3%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Steel</td>
<td>7</td>
<td>3%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aeronautics</td>
<td>4</td>
<td>2%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paper</td>
<td>4</td>
<td>2%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>45</td>
<td>18%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total cases</td>
<td>253</td>
<td>100%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B. Relative size of target to acquirer (annual sales)</th>
<th>#</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 25%</td>
<td>132</td>
<td>52%</td>
</tr>
<tr>
<td>25-49%</td>
<td>55</td>
<td>22%</td>
</tr>
<tr>
<td>50-74%</td>
<td>17</td>
<td>7%</td>
</tr>
<tr>
<td>75-100%</td>
<td>16</td>
<td>6%</td>
</tr>
<tr>
<td>&gt;100%</td>
<td>21</td>
<td>8%</td>
</tr>
<tr>
<td>NA</td>
<td>12</td>
<td>5%</td>
</tr>
<tr>
<td>Total cases</td>
<td>253</td>
<td>100%</td>
</tr>
</tbody>
</table>
Table 2. Correlations and summary statistics (n=248)

<table>
<thead>
<tr>
<th>Variable</th>
<th>1a</th>
<th>1b</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
<th>18</th>
<th>19</th>
<th>20</th>
<th>21</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a. Target had global scope</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1b. Target had regional scope</td>
<td>-0.40</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Cross-border acquisition (0=domestic; 1=cross-border)</td>
<td>-0.05</td>
<td>0.07</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Acquirer geographic scope</td>
<td>0.15</td>
<td>0.11</td>
<td>0.21</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Pre-acquisition target profitability compared to industry</td>
<td>0.10</td>
<td>-0.02</td>
<td>-0.03</td>
<td>-0.04</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Pre-acquisition acquirer profitability compared to industry</td>
<td>0.16</td>
<td>-0.10</td>
<td>-0.01</td>
<td>-0.04</td>
<td>0.01</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Relative R&amp;D strength of target to acquirer</td>
<td>0.07</td>
<td>0.10</td>
<td>0.01</td>
<td>-0.11</td>
<td>-0.14</td>
<td>0.01</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Relative marketing strength of target to acquirer</td>
<td>0.13</td>
<td>-0.11</td>
<td>0.08</td>
<td>-0.16</td>
<td>-0.30</td>
<td>0.16</td>
<td>0.43</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Relative managerial strength of target to acquirer</td>
<td>0.08</td>
<td>-0.04</td>
<td>0.05</td>
<td>-0.12</td>
<td>-0.25</td>
<td>0.23</td>
<td>0.36</td>
<td>0.47</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Similarity of technology</td>
<td>0.01</td>
<td>-0.10</td>
<td>0.05</td>
<td>-0.01</td>
<td>-0.01</td>
<td>0.03</td>
<td>-0.06</td>
<td>0.01</td>
<td>0.12</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Similarity of geographic markets</td>
<td>0.10</td>
<td>-0.04</td>
<td>-0.32</td>
<td>0.03</td>
<td>0.15</td>
<td>-0.01</td>
<td>0.02</td>
<td>-0.14</td>
<td>-0.08</td>
<td>0.18</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Direct competitors</td>
<td>0.17</td>
<td>-0.04</td>
<td>-0.12</td>
<td>0.04</td>
<td>0.17</td>
<td>-0.04</td>
<td>-0.01</td>
<td>0.05</td>
<td>0.04</td>
<td>0.18</td>
<td>0.39</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Relative annual sales of target to acquirer</td>
<td>0.21</td>
<td>-0.04</td>
<td>-0.13</td>
<td>-0.15</td>
<td>-0.01</td>
<td>0.10</td>
<td>0.18</td>
<td>0.27</td>
<td>0.23</td>
<td>0.03</td>
<td>0.15</td>
<td>0.22</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Market growth forecast</td>
<td>-0.04</td>
<td>-0.13</td>
<td>-0.13</td>
<td>-0.18</td>
<td>0.06</td>
<td>0.16</td>
<td>-0.08</td>
<td>0.09</td>
<td>0.05</td>
<td>-0.08</td>
<td>0.06</td>
<td>0.14</td>
<td>0.14</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Technical knowledge transfer from target to acquirer</td>
<td>0.20</td>
<td>-0.13</td>
<td>-0.07</td>
<td>-0.09</td>
<td>0.07</td>
<td>0.08</td>
<td>0.38</td>
<td>0.15</td>
<td>0.16</td>
<td>0.02</td>
<td>0.11</td>
<td>0.35</td>
<td>0.26</td>
<td>0.04</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Brand name transfer from target to acquirer</td>
<td>0.18</td>
<td>-0.03</td>
<td>-0.01</td>
<td>0.00</td>
<td>0.12</td>
<td>0.03</td>
<td>0.01</td>
<td>0.15</td>
<td>-0.01</td>
<td>-0.01</td>
<td>0.15</td>
<td>0.35</td>
<td>0.15</td>
<td>0.17</td>
<td>0.36</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. Supplier relationships transfer from target to acquirer</td>
<td>0.20</td>
<td>0.03</td>
<td>0.01</td>
<td>-0.03</td>
<td>0.04</td>
<td>0.07</td>
<td>0.19</td>
<td>0.16</td>
<td>0.26</td>
<td>0.01</td>
<td>0.08</td>
<td>0.29</td>
<td>0.22</td>
<td>0.08</td>
<td>0.41</td>
<td>0.46</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. Managerial expertise transfer from target to acquirer</td>
<td>0.22</td>
<td>-0.03</td>
<td>-0.03</td>
<td>-0.12</td>
<td>0.05</td>
<td>0.18</td>
<td>0.24</td>
<td>0.22</td>
<td>0.37</td>
<td>0.02</td>
<td>0.11</td>
<td>0.13</td>
<td>0.34</td>
<td>0.10</td>
<td>0.44</td>
<td>0.29</td>
<td>0.47</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. R&amp;D capability enhancement</td>
<td>0.34</td>
<td>0.01</td>
<td>0.01</td>
<td>0.04</td>
<td>0.17</td>
<td>-0.01</td>
<td>0.26</td>
<td>0.13</td>
<td>-0.01</td>
<td>0.08</td>
<td>0.06</td>
<td>0.11</td>
<td>0.40</td>
<td>-0.14</td>
<td>0.42</td>
<td>0.21</td>
<td>0.21</td>
<td>0.34</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19. Product quality capability enhancement</td>
<td>0.28</td>
<td>-0.05</td>
<td>-0.05</td>
<td>0.03</td>
<td>0.14</td>
<td>-0.08</td>
<td>0.14</td>
<td>-0.01</td>
<td>-0.04</td>
<td>-0.08</td>
<td>0.08</td>
<td>0.32</td>
<td>0.14</td>
<td>-0.09</td>
<td>0.37</td>
<td>0.15</td>
<td>0.14</td>
<td>0.16</td>
<td>0.44</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. Product cost efficiency enhancement</td>
<td>0.24</td>
<td>-0.05</td>
<td>-0.05</td>
<td>-0.02</td>
<td>0.13</td>
<td>0.09</td>
<td>0.08</td>
<td>0.05</td>
<td>-0.08</td>
<td>-0.06</td>
<td>0.20</td>
<td>0.21</td>
<td>0.32</td>
<td>0.01</td>
<td>0.24</td>
<td>0.16</td>
<td>0.14</td>
<td>0.21</td>
<td>0.42</td>
<td>0.53</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>21. Product line scope extension</td>
<td>0.19</td>
<td>0.00</td>
<td>-0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>-0.05</td>
<td>0.02</td>
<td>0.05</td>
<td>-0.05</td>
<td>0.08</td>
<td>0.14</td>
<td>0.11</td>
<td>0.17</td>
<td>-0.07</td>
<td>0.17</td>
<td>0.23</td>
<td>0.23</td>
<td>0.21</td>
<td>0.37</td>
<td>0.32</td>
<td>0.40</td>
<td>1</td>
</tr>
</tbody>
</table>

**Summary statistics**

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.20</td>
<td>0.37</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>0.40</td>
<td>0.48</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>0.20</td>
<td>0.37</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>0.40</td>
<td>0.48</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

Notes: Values are correlation coefficients.
Table 3. OLS influences on the extent of post-acquisition resource redeployment (n=248)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Target geographic scope (a)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1a. Target had global scope</td>
<td>0.15 **</td>
<td>0.19 ***</td>
<td>0.18 **</td>
<td>0.20 ***</td>
</tr>
<tr>
<td>1b. Target had regional scope</td>
<td>0.01</td>
<td>0.09</td>
<td>0.10 *</td>
<td>0.03</td>
</tr>
<tr>
<td>2. Cross-border acquisition (0=domestic; 1=cross-border)</td>
<td>-0.03</td>
<td>-0.01</td>
<td>0.02</td>
<td>0.05</td>
</tr>
<tr>
<td>3. Acquirer geographic scope</td>
<td>-0.05</td>
<td>0.07</td>
<td>-0.02</td>
<td>-0.09 *</td>
</tr>
<tr>
<td>4. Pre-acquisition target profitability compared to industry</td>
<td>0.02</td>
<td>0.08</td>
<td>0.05</td>
<td>0.08</td>
</tr>
<tr>
<td>5. Pre-acquisition acquirer profitability compared to industry</td>
<td>0.07</td>
<td>0.00</td>
<td>0.02</td>
<td>0.06</td>
</tr>
<tr>
<td>6. Relative R&amp;D strength of target to acquirer</td>
<td>0.35 ***</td>
<td>-0.6</td>
<td>0.14 **</td>
<td>-0.05 *</td>
</tr>
<tr>
<td>7. Relative marketing strength of target to acquirer</td>
<td>-0.08</td>
<td>0.28 ***</td>
<td>-0.01</td>
<td>0.10</td>
</tr>
<tr>
<td>8. Relative managerial strength of target to acquirer</td>
<td>-0.01</td>
<td>-0.09</td>
<td>0.22 ***</td>
<td>0.23 ***</td>
</tr>
<tr>
<td>9. Similarity of technology</td>
<td>-0.05</td>
<td>-0.04</td>
<td>-0.08</td>
<td>-0.06</td>
</tr>
<tr>
<td>10. Similarity of geographic markets</td>
<td>-0.09</td>
<td>0.01</td>
<td>-0.04</td>
<td>0.03</td>
</tr>
<tr>
<td>11. Direct competitors</td>
<td>0.31 ***</td>
<td>0.26 ***</td>
<td>0.25 ***</td>
<td>0.08</td>
</tr>
<tr>
<td>12. Relative annual sales of target to acquirer</td>
<td>0.09</td>
<td>0.04</td>
<td>0.03</td>
<td>0.21 ***</td>
</tr>
<tr>
<td>13. Market growth forecast</td>
<td>0.04</td>
<td>0.11 **</td>
<td>0.04</td>
<td>0.07</td>
</tr>
<tr>
<td>Intercept</td>
<td>1.22 **</td>
<td>.102</td>
<td>0.51</td>
<td>0.04</td>
</tr>
</tbody>
</table>

R-Square | 0.28 | 0.22 | 0.21 | 0.29 |

*** p <0.01; ** p <0.05; * p < 0.10 (one-tailed tests)
(a) The baseline variable is “Target had domestic scope”
Table 4. OLS influences on post-acquisition capability enhancement (n=248) and acquirer abnormal returns (n=101)

<table>
<thead>
<tr>
<th>Variables</th>
<th>1. Post-acquisition capability enhancement of combined firm</th>
<th>2. Acquirer CAAR (b)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1a. R&amp;D capabilities</td>
<td>1b. Product quality</td>
</tr>
<tr>
<td>1. Target geographic scope (a)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1a. Target had global scope</td>
<td>0.21 **</td>
<td>0.15 *</td>
</tr>
<tr>
<td>1b. Target had regional scope</td>
<td>0.13 *</td>
<td>0.08</td>
</tr>
<tr>
<td>2. Cross-border acquisition (0=domestic; 1=cross-border)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Acquirer geographic scope</td>
<td>0.12 *</td>
<td>-0.04</td>
</tr>
<tr>
<td>4. Pre-acquisition target profitability compared to industry</td>
<td>-0.14 **</td>
<td>-0.02</td>
</tr>
<tr>
<td>5. Pre-acquisition acquirer profitability compared to industry</td>
<td>0.01</td>
<td>-0.04</td>
</tr>
<tr>
<td>6. Relative R&amp;D strength of target to acquirer</td>
<td>0.32 ***</td>
<td>0.10</td>
</tr>
<tr>
<td>7. Relative marketing strength of target to acquirer</td>
<td>0.07</td>
<td>-0.03</td>
</tr>
<tr>
<td>8. Relative managerial strength of target to acquirer</td>
<td>-0.21 **</td>
<td>-0.11</td>
</tr>
<tr>
<td>9. Similarity of technology</td>
<td>0.07</td>
<td>-0.13 *</td>
</tr>
<tr>
<td>10. Similarity of geographic markets</td>
<td>-0.02</td>
<td>-0.06</td>
</tr>
<tr>
<td>11. Direct competitors</td>
<td>-0.01</td>
<td>0.40 ***</td>
</tr>
<tr>
<td>12. Relative annual sales of target to acquirer</td>
<td>0.31 ***</td>
<td>-0.01</td>
</tr>
<tr>
<td>13. Market growth forecast</td>
<td>-0.05</td>
<td>-0.01</td>
</tr>
<tr>
<td>Intercept</td>
<td>1.89 ***</td>
<td>3.67 ***</td>
</tr>
<tr>
<td>R-Square</td>
<td>0.32</td>
<td>0.21</td>
</tr>
</tbody>
</table>

*** p <0.01; ** p <0.05; * p < 0.10 (one-tailed tests)
(a) The baseline variable is “Target had domestic scope”
(b) CAAR = Cumulative average abnormal return
APPENDIX 1: SURVEY PROCESS

The use of a survey to account for post-acquisition knowledge transfer highlights an important difference between this study and several previous studies based on secondary data. These studies have revealed many important relationships between the pre-acquisition characteristics of merging firms’ resource endowment (e.g., advertising or R&D expense ratio) and acquisition performance. Prior studies have identified conditions that may eventually lead to a process of resource redeployment after the acquisition between the merging firms, but they do not explicitly capture the ability of those firms to effectively transfer knowledge and enhance their capabilities. Most large-sample research concerning acquisitions focuses on publicly-traded U.S. firms (e.g., Haunschild, 1994), often emphasizing larger firms and acquisitions (e.g., Davis and Stout, 1992; Cannella and Hambrick, 1993; Hayward and Hambrick, 1993). This research typically relies on publicly available financial and structural data, and lacks fine-grained information concerning post-acquisition behavior because determining the extent of knowledge transfer cannot be easily identified from the firm’s public announcements. Acquisition research that includes archival information concerning non-U.S. firms and small private U.S. firms also typically lacks detailed internal information (e.g., Freeman, Carroll, and Hannan, 1983; Mitchell, 1994). To overcome these limits, we surveyed the managers of the acquiring firms. Surveys have been used previously in the strategic management literature to gather data on firms’ attributes and internal processes (Hunt, 1990; Datta, 1991; Very, Lubatkin, Calori and Veiga, 1997). Our survey methodology provides extensive information concerning post-acquisition behavior despite the substantial number and wide variety of firms.


The data collection process proceeded in four phases. First, we developed measurement scales by reviewing relevant literature and by completing 25 on-site interviews with CEOs from large firms, academics and consultants. We pre-tested these scales with a group of academics and consultants. Next, a bilingual researcher pre-tested the preliminary versions of the resulting questionnaires (in both English and French) with senior executives of large U.S. and European firms attending executive education programs in two major business schools located in the United States and in France. These pre-tests led to the revision of several items to improve their clarity as well as the addition of several new items identified during the interviews. The third stage consisted of on-site interviews with CEOs or executives in charge of their acquisition programs in 10 large firms, resulting in the final version of the questionnaire. In the final stage, we mailed the survey to the acquiring companies included in the sampling frame described above. We addressed the surveys to the chief executives of the business units that undertook the acquisition. In the cover letter, we requested that the survey be completed either by the CEO or by a senior executive with overall responsibility for the acquisition case studied. Following
Dillman (1978), we mailed two follow-up letters and one replacement questionnaire following the initial mailing.

We used a single informant at the acquirer for information concerning each acquisition. Although the use of multiple respondents would have reduced concerns about potential response biases, respondents had to be knowledgeable about the firm and its competitive environment (Campbell, 1955), as well as the consolidation processes following the acquisition. In a large sample study such as ours, identifying and obtaining responses from multiple, well-informed respondents is extremely problematic. The key methodological solution in using a single respondent approach is to find the most appropriate respondent (John and Reves, 1982). Thus, we qualified our respondents as individuals who held a CEO or equivalent position, or had been involved as senior managers of the acquisition process. We recognize that the survey records only the acquirers’ views of the acquisition. However, the managers from the acquiring firms tend to be the most knowledgeable about post-acquisition activities, owing to the high level of acquired firm CEO turnover following acquisitions (Walsh, 1988). From a practical standpoint, it is often virtually impossible to track former executives of the acquired firm, since, in many cases, the acquired firm is no longer a separate entity. As a robustness check, meanwhile, we undertook a financial event study of acquirer performance for the publicly-traded firms in the sample (about 40% of the responses), as we describe in the text and in Appendix 3.

From the initial sample, we mailed questionnaires to the 1,778 acquirers for whom we obtained addresses. We received a total of 273 completed questionnaires, representing a response rate of 15%. This response rate is comparable with those found in the most recent large-scale surveys involving executives (Gatignon, Robertson and Fein, 1997; Powell and Dent-Micalleff, 1997; Robertson, et al., 1995). This response rate is a reasonable one, given the dispersed setting of the survey in more than a dozen countries on two continents, the diversity of firms in the survey, the senior positions of the respondents (CEO, president, executive chair, vice president of finance, and managing director), and the sensitivity of the information. Following a check to ensure that these cases all represented horizontal acquisitions, we eliminated 20 responses. We eliminated another 5 cases for which we could not identify global scope. The final data set includes 248 unique acquired firms and 190 unique acquirers, with a smaller number of acquirers occurring because some firms acquired more than one firm (and thus returned several questionnaires to analyze the different acquisition cases involved, answering one questionnaire for each case). Out of these 248 acquisitions, 175 are cross-border and 73 are domestic.

We evaluated non-response biases by comparing the industries represented in our sample with the initial sample used. We found no differences in the industries represented. We also compared early respondents (first half) with late respondents (second half), following the Armstrong and Overton procedure (1977). We found no significant differences in key characteristics such as market conditions, acquisition motives or industry characteristics, suggesting that non-response bias should not be a problem. Overall, the data represent a wide range of industries, countries, firms, and scope of acquisition. A more detailed description is available upon request.
APPENDIX 2: SURVEY INSTRUMENT

A. POST-ACQUISITION KNOWLEDGE TRANSFER MEASURES

The following sections ask questions about the transfer of resources, knowledge, and capabilities across the acquired business and your existing business. Please use the scale below to assess the extent to which people have been collaborating and resources have been transferred.

TRANSFER OF RESOURCES, KNOWLEDGE, AND CAPABILITIES

To what extent have you used resources from the acquired business to assist your existing business?

<table>
<thead>
<tr>
<th></th>
<th>NOT AT ALL</th>
<th>TO SOME EXTENT</th>
<th>TO A VERY LARGE EXTENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Use of acquired business’s product innovation capabilities</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Use of acquired business’s know-how in manufacturing processes</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Use of acquired business’s brand name</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Use of acquired business’s supplier relationships</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Use of acquired business’s general management expertise</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

B. POST-ACQUISITION PERFORMANCE

What has been the impact of the acquisition on the position of the consolidated business?

Impact on the consolidated business

<table>
<thead>
<tr>
<th></th>
<th>NEGATIVE IMPACT</th>
<th>POSITIVE IMPACT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. R&amp;D capabilities</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>2. Product quality</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>3. Product cost efficiency</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>4. Broadening of product line</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

C. ANTECENDTS OF RESOURCE REDEPLOYMENT

Geographic scope of the merging firms

Geographic scope of the acquired firm’s operations
1. Domestic/national
2. International (but limited to one geographic zone; i.e., Europe, North America, or Asia)
3. International/global

Geographic scope of the acquiring firm’s operations
1. Domestic/national
2. International (but limited to one geographic zone; i.e., Europe, North America, or Asia)
3. International/global

Resource profile. Please assess the acquired business’s position, compared to your existing business’s position at the moment of the acquisition.

The acquired business position was:

<table>
<thead>
<tr>
<th></th>
<th>WEAKER</th>
<th>EQUAL</th>
<th>STRONGER</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Innovativeness (R&amp;D)</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Commercial assets (marketing)</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Managerial capabilities</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Product similarity** Please compare your existing business with the acquired business just before the acquisition.

<table>
<thead>
<tr>
<th></th>
<th>NOT AT ALL</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>ABSOLUTELY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your technologies were similar</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Your geographic markets were similar</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>You were direct competitors</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

**Pre-acquisition profitability of the merging firms.**

Profitability (profit/capital employed) of the acquired business relative to industry average before the acquisition:
1. Much less profitable
2. Less profitable
3. Equivalent
4. More profitable
5. Much more profitable

Profitability (profit/capital employed) of the acquiring firm relative to industry average before the acquisition:
1. Much less profitable
2. Less profitable
3. Equivalent
4. More profitable
5. Much more profitable

**Relative size.** Relative proportion of the acquired business’s annual sales in comparison to your firm’s sales before the acquisition (in the line of business concerned):
1. < 25%
2. 25-49%
3. 50-74%
4. 75-100%
5. > 100%

**Industry growth.** Forecast demand in your industry within the next five years
1. A RAPIDLY GROWING MARKET
2. A SLOWLY GROWING MARKET
3. A STABLE MARKET
4. A SLOWLY DECLINING MARKET
5. A RAPIDLY DECLINING MARKET
APPENDIX 3: EVENT STUDY

We conducted a complementary financial market event study on a sub-sample of 101 acquirers that were stock-listed and for which we obtained relevant data.

The normal return is defined as that which one would expect if the event did not take place and is measured by the return obtained with the market model.

The daily excess return of a firm $i$ for day $t$ ($AR_{it}$) is thus estimated as:

$$ AR_{it} = R_{it} - \alpha_i - \beta_i R_{mt}, $$

where $R_{it}$ is the observed individual firm $i$'s return for day $t$, and $R_{mt}$ is the return on a market index for the same period.

In the above equation, $\alpha$ and $\beta$ are ordinary least square (OLS) values from the estimation period, which precedes the event window. We obtained the daily returns of all the firms in the sample for a period ranging from 180 days prior to the acquisition announcement in the Wall Street Journal, to 180 days after the acquisition announcement. The estimation period includes day -180 through -50, and day +50 through +180. To remove any bias due to changes in a firm’s characteristics around the acquisition announcement, we apply the procedure outlined in Ruback (1982). The parameters before the announcement date are estimated on data from the pre-event estimation period; those on or after the event are estimated from the post-event estimation period. We use market-model parameters from the pre-event estimation period to calculate abnormal returns for days -20 to -1. Similarly, we use parameters from the post-event estimation period to calculate abnormal returns for days 0 to +1.

Average excess returns for each relative day are calculated by:

$$ AR = \frac{1}{N} \sum_{i=1}^{N} AR_{it}, $$

where $N$ is the number of securities with excess returns during day $t$.

The cumulative abnormal return (CAR) for each security $i$, $CAR_i$, is formed by summing individual excess returns over time as follows:

$$ CAR_{k,l} = \sum_{t=k}^{l} AR_{it}, $$

where $CAR_{k,l}$ is for the period from $t = k$ days until $t = l$ days.

The cumulative average abnormal return (CAAR) over the event time from $k$ days until $l$ days is calculated by:

$$ CAAR_{k,l} = \frac{1}{N} \sum_{i=1}^{N} CAR_{k,l}. $$