Strategic Management Journal
Strat. Mgmt. J., **19**: 989–999 (1998)

RESEARCH NOTES AND COMMUNICATIONS

DETERMINANTS OF LAYOFF ANNOUNCEMENTS FOLLOWING M&As: AN EMPIRICAL INVESTIGATION

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It is often argued that mergers and acquisitions (M&As) lead to employee layoffs. This paper examines factors that influence the probability that a layoff announcement will follow an M&A. A sample of 136 large M&As, involving U.S. targets, that occurred between 1989 and 1993 is analyzed. Analyses of this sample indicate that the probability of a layoff announcement is higher if the firms involved in the transaction are related. The probability that a layoff will be announced was not changed when the acquirer was a non-U.S. firm (cross-border transactions). Target revenue per employee before the M&A is negatively related to the probability that a layoff was announced. Target financial performance prior to the transaction and use of borrowed funds to finance the merger were not found to have an impact on the probability that a layoff will be announced. © 1998 John Wiley & Sons, Ltd.

Large-scale mergers and acquisitions and persistent layoffs are reshaping corporate America. Few firms, if any, are large enough to escape the reach of the market for corporate control and few employees, if any, can rest assured that their jobs will survive the next round of layoffs.

Numerous empirical studies exist on various aspects of mergers and acquistions (M&As). For example, the stock market's reaction to M&A announcements has received a great deal of attention (see, for example, Chatterjee, 1986, 1992; Chatterjee *et al*., 1992; Flanagan, 1996; Lubatkin, 1987; Matsusaka, 1993; Morck *et al*., 1990; Shelton, 1988; Singh and Montgomery, 1987). Some empirical research has analyzed how the combined firm is managed after the M&A is completed. Top management turnover following M&As (Cannella and Hambrick, 1993; Walsh, 1988, 1989; Walsh and Ellwood, 1991) has been a popular research topic, as has the impact of M&As on research and development expenditures (Hitt *et al*., 1991; Long and Ravenscraft, 1993). No research, however, has analyzed the determinants of layoff announcements following M&As.

While previous research has not focused on the connection between M&As and layoffs, mergers and layoffs have been linked in prior studies. For example, Caves and Kreps (1993) found no support for the argument that merger activity influences the magnitude of the stock market's reaction to layoff announcements. Bhagat, Shliefer, and Vishny (1990: 55) included changes in employment as a predictor of takeover gains and concluded that 'layoffs are an important but not dominant source of hostile takeover gains.'

Examining mergers and layoffs is crucial because it provides insight into implementation issues and the value-creating mechanisms of M&As. Learning the determinants of layoffs following M&As helps researchers understand when layoffs tend to be part of the M&A implementation process. Layoffs may be motivated by man-

Key words: mergers and acquisitions; layoffs; relatedness
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CCC 0143–2095/98/100989–11$17.50

Received 14 June 1996
Final revision received 19 December 1997

agers who are attempting to realize efficiency gains from an acquisition. The determinants of layoffs following M&As can thus be important indicators of the motives behind some types of M&As.

In this study, we examine the impact of attributes of the acquiring firm, the target firm, and the transaction on the probability that a layoff announcement will follow an acquisition. We develop hypotheses and test them using data on 136 large M&As that occurred from 1989 through 1993.

THEORETICAL CONSIDERATIONS

Two popular rationales for M&As are synergy (Rumelt, 1974; Salter and Weinhold, 1979; Barney, 1988; Singh and Montgomery, 1987) and the disciplining of inefficient targets (Fama, 1980; Jensen and Meckling, 1976; Manne, 1965; Walsh, 1988, 1989). Each of these theories can be used to build hypotheses regarding factors that influence the probability of a layoff announcement following an acquisition. Additionally, we consider the impact of debt on the probability of layoffs following M&A. Debt has been found to be a major characteristic of many mergers and acquisitions (Amihud, Lev, and Travlos, 1990; Chowdrhy and Nanda, 1993; Mayer and Walker, 1996). Theoretical research on the influence of debt on managerial decision making can also provide insight into the M&A/layoff question.

Synergy and management discipline

Synergy occurs when two activities are combined in such a way that they are worth more together than the sum of their value when they are apart. Synergies have often been viewed as a rationale for mergers (Hoskisson and Hitt, 1994; Lubatkin and Lane, 1996; Sirower, 1997). Collusive synergies, operational synergies and financial synergies have all been identified as possible motives for mergers (Chatterjee, 1986; Lubatkin, 1987). We expect that the presence of certain types of synergies will impact whether a layoff is announced after an M&A.

Mergers and acquisitions can also create value by serving as a check on management (Jensen and Ruback, 1983). Managers may have preferences for leisure, growth of the firm, prestige, power, perquisites, and excessive compensation (Holmstrom and Tirole, 1989). Managers may satisfy these preferences, even though these pursuits may reduce the returns to shareholders (Jensen and Meckling, 1976). Fama (1980), Manne (1965) and Morck *et al*. (1990) all discuss the role of corporate control contests (such as M&As) as mechanisms which discipline target managers and improve the performance of acquired firms.

In this section we discuss the potential synergies and reductions in managerial inefficiency likely to occur in combinations of firms in similar lines of businesses, cross-border acquisitions, and acquisitions of poor-performing firms. The potential synergies and reductions in managerial inefficiences in these combinations are used to develop hypotheses regarding layoffs following M&As. Similarly, we develop a hypothesis relating M&A-induced debt to the probability of layoffs.

Combinations of firms in similar lines of business

Operational synergies such as economies of scale and economies of scope have often been cited as potential sources of value creation in related acquisitions (Lubatkin, 1983; Singh and Montgomery, 1987). Value creation through operational synergies exists when the combined firm is able to increase outputs relative to inputs.

A long line of research examines how the similarity of the lines of business that comprise a firm can be a source of synergy (see Ramanujam and Varadarjan, 1989). Beginning with Rumelt (1974), researchers have tested whether the similarity of the group of businesses that a firm operates is related to firm performance. Rumelt, for instance, found that related diversifiers exhibit superior performance over conglomerate diversifiers.

Many empirical studies, however, have failed to find clear evidence that related M&As enhance the value of the acquiring firm (see Sharma and Kesner, 1996; Flanagan, 1996). These studies, however, *do not* show that operational synergies are *not* a major factor in related acquisitions. Instead, difficulties in managing the combined firms and/or the high cost of purchasing a related target have often been cited as the reason empirical research has not clearly found that related

acquisitions benefit the shareholders of the acquiring firm (Barney, 1988; Hoskisson and Hitt, 1994; Sirower, 1997; Porter, 1985).

Clearly, when similar firms combine, there should be more opportunities for the combined firm to realize operational synergies by eliminating redundant activities than when dissimilar firms combine. Walsh (1988, 1989) and Cannella and Hambrick (1993) discuss how, in related combinations, managers of the acquiring firms are more likely to possess the skills needed to run the target. Hence, managers of the target firms become more expendable. We extend this idea to the workforce of the acquiring firm in general. Quite simply, when the two firms that are joining forces are already operating in similar lines of business, an opportunity to eliminate duplicate jobs and reap the associated cost savings is likely to exist. For example, when Philip Morris purchased Kraft, one of the primary rationales for the merger was the potential to reduce the costs of sales and distribution of consumer products (Sherman, 1989). This would mean fewer sales people and fewer distribution employees.

Acquisitions by a related acquirer are also more likely to be motivated by and lead to acquiring firms reducing inefficiencies on the part of target management. The managers of related acquirers will be more able to recognize and correct inefficiencies in the acquired firm due to their experience managing similar lines of business. Acquiring firms that do not operate in the same lines of business as an inefficient target will be less likely to recognize inefficiencies or be able to take steps to correct them (Cannella and Hambrick, 1993; Walsh, 1988, 1989; Pitts, 1976).

Of course, combining unrelated firms *can* result in the elimination of redundant activities (such as some types of overhead) or as a check on the management efficiency of target firms. Combinations of related firms, however, will be *more* likely than combinations of unrelated firms to gain value through elimination of redundant activities and inefficient management practices.

The combination of related firms in poorly performing industries may also lead to layoffs. Morck, Shleifer, and Vishny (1989) point out that shareholders will look to the managers of firms in poorly performing industries to use layoffs as a means of increasing shareholder wealth. Similarly, Harrigan (1988) suggests that, in declining industries, firms may benefit from purchasing the assets of competitors and reducing the combined operating capacity as a means of avoiding price wars. While the mechanism connecting mergers and layoffs differs in this case from the one discussed above, in both cases related M&As lead to layoffs. Hence

> *Hypothesis 1: Relatedness is positively related to the incidence of layoff announcements following mergers and acquisitions.*

Cross-border acquisitions

Both non-U.S. firms and U.S. firms purchase U.S. targets for a variety of reasons. These reasons include transferring valuable know-how across the boundaries of the firms, pursuing operating efficiencies through elimination of redundant activities, and restructuring previously inefficient target firms (Porter, 1987). Following internalization theory (Dunning, 1988; Rugman, 1980; Casson, 1979; Caves, 1982), non-U.S. firms are more likely to acquire U.S. firms as a means of transferring valuable know-how than are U.S. acquirers (Dewenter, 1995). Case studies and empirical literature support the suggestion that cross-border acquisitions more often involve the transfer of valuable know-how than domestic acquisitions (Fina and Rugman, 1996; Kumar, 1987; Ray, 1989; Yu, 1990). In the case of acquisitions, Harris and Ravenscraft (1991) find cross-border acquisitions more prevalent than domestic acquisitions in R&D-intensive industries. Similarly, Morck and Yueng (1991) find that the stock returns of U.S. acquisitions of foreign firms are higher when substantial intangible assets are involved. If cross-border mergers and acquisitions are more frequently driven by transfers of know-how, then they are less likely to be driven by the search for operating efficiencies and thereby less likely to be followed by a layoff announcement.

Additionally, due to information and location disadvantages relative to domestic bidders, foreign acquirers are less likely to purchase a firm in another country with the primary intent of improving the target's efficiency. A foreign acquiring firm is less able to understand what sources of inefficiency exist in the target firm and are, much like an unrelated acquirer, less likely to identify/correct inefficiencies in the tar-

get (including reducing employment). As Dewenter (1995: 846) states, 'identifying and evaluating potential acquisition targets' are among the cost disadvantages a foreign acquirer faces. Therefore, foreign acquirers are less likely to purchase a domestic target with the intent of improving target efficiency. Hence

Hypothesis 2: Acquisitions of U.S. targets by non-U.S. firms have a lower incidence of layoff announcements following mergers and acquisitions.

Poorly performing targets

Poorly performing targets may be purchased by an acquirer who believes it can replace inefficient managers or motivate existing target management to reduce inefficiencies in the target firm. While replacing inefficient management as the source of takeover gains has been a popular research topic, the evidence supporting the benefits of removing inefficient managers through takeovers is mixed. Martin and McConnell (1991) found that the targets of tender offers exhibit poorer performance than comparable firms in their industry and turnover of top management is more likely for poorer performing firms. Walsh (1988) found that top management turnover increases following takeovers. He was unable, however, to find evidence that this is driven by poor performance in the acquired firm prior to the acquisition. Stronger evidence that takeovers do not result in the replacement of inefficient management is reported by Cannella and Hambrick (1993). They find that, in firms where top management remains, performance of the acquired firm increases more than in firms where top managers leave.

If target firms are underperforming, and their management is not removed following an acquisition, then perhaps a change in the behavior of target firm managers occurs. Some empirical evidence suggests that one of the ways performance can be improved is by more efficient application of human resources (Lichtenberg and Seigel, 1987). This suggests that, instead of seeing management removed in takeovers, we might instead see employees and assets shed during the takeover of inefficient firms. For example, Chatterjee (1992) found that the targets of failed takeover attempts were more likely to retain the gains in stock prices in the months following the takeover attempt when they reduced costs or assets and, particularly, when they reduced both costs *and* assets.

The conclusion we draw from Chatterjee (1992) and Lichtenberg and Seigel (1987) is, when targets performed poorly before the M&A, inefficient application of the assets of the firm, especially human assets, is corrected through the market for corporate control. We expect, then, that the performance of acquired firms is inversely related to the likelihood that layoffs follow the acquisition. Hence.

Hypothesis 3: Target firm preacquisition performance is negatively related to the incidence of layoff announcements following an M&A.

Operating efficiency

Layoffs are also more likely to follow the acquisition of targets with low operating efficiency. The market for corporate control can force a change in the way inefficient target firms are managed. Consistent with this logic, Lichtenberg and Seigel (1987) find that changes in ownership are associated with increases in productivity in less efficient manufacturing plants.

Operating efficiency can be signaled by a firm's relative labor efficiency. As Koch and McGrath (1996) suggest, 'Labor productivity taps the extent to which human capital is delivering value to the firm.' Similarly, Useem (1996: 145) states, '. . . the size of a company's workforce and that of its major divisions can serve as a convenient yardstick for the investor, a visible proxy for management quality and cost containment.'

The force of the market for corporate control in correcting labor inefficiencies is pointed out by Morck *et al*. (1989: 847), who state, 'excessive employment growth can itself be an important deviation from value-maximization.' They suggest that this deviation from value maximization is often corrected by the market for corporate control. We suggest that the labor efficiency of target firms is negatively related to the probability that layoff announcements follow M&As.

While past research has not directly tested this logic, Markides (1995) considers the impact of labor productivity in his analysis of performance changes following refocusing. Although his

emphasis is on refocusing, he uncovers a significant relationship between changes in labor productivity (sales per employee) and changes in profitability for firms categorized as overdiversified. Hence.

> *Hypothesis 4: Target firm preacquisition operating efficiency is negatively related to the incidence of layoff announcements following an M&A.*

Debt financing, M&As and layoffs

It has been suggested that the capital structure of firms influences the decisions managers make (Kochhar, 1996). Debt impacts the agency relationships inside firms (Harris and Raviv, 1991). As debt levels increase, the relative equity positions of managers increases, thereby helping align the interests of managers and owners. Debt also reduces the amount of 'free' cash (Jensen, 1986) which reduces the amount of discretion available to managers.

The addition of debt associated with some M&As may have an impact on the decisions managers make concerning how the combination is managed. When M&As are financed with debt, managers have incentives to cut costs in the combined firm in order to meet the associated debt payments. One of the ways these managers might cut costs in the firm is by laying off employees. Ofek (1993) finds that leverage influences the probability of layoffs in poorly performing firms. We expect that layoffs are more likely to follow debt-financed M&As than non-debt-financed M&As.

Although very little research has examined the direct relationship between debt and managerial decision making,[1] a great deal of research has examined leveraged buyouts (LBOs), the extreme case where most of the equity in the firm is replaced by debt. The performance improvements related to LBOs are well documented (Kaplan, 1989; Lichtenberg and Seigel, 1990; Singh, 1990; Smith, 1990; Wruck, 1990). Jensen (1986) suggests that the concentration of ownership, combined with the high levels of debt associated with LBOs, puts the managers' 'feet in the fire.' By forcing the manager to meet large debt payments, the incentives are high for the manager to only undertake activities that produce sufficient revenues.

Particularly germane to this study, the LBO literature points out that increases in efficiency following the change in capital structure are, in part, the result of more efficient staffing levels. Empirical research has found that LBOs tend to lead to employment reductions. Kaplan (1989) finds that employment growth in LBO firms is significantly lower than industry employment growth. Lichtenberg and Seigel (1990) find that nonproduction labor declined 8.5 per cent in manufacturing plant LBOs.

While equating debt-financed M&As with LBOs ignores the consolidation of ownership associated with LBOs that is not necessarily involved in debt financed M&As, we suggest that the lack of consolidation in ownership in debt-financed M&As will reduce the size of the effect rather than eliminate it. The pressure on managers created by fixed debt payment commitments is certainly larger when the managers risk losing their equity, but it is still present when the managers risk losing their jobs due to failure to meet debt payments. Hence,

> *Hypothesis 5: The use of debt financing is positively related to the incidence of layoffs following an M&A.*

METHODS

The sample transactions and variables for analysis were collected from a variety of sources. Our initial sample consisted of the 50 largest mergers and acquisitions of U.S. companies for each of the years 1989, 1990, 1991, 1992, 1993.[2] These transactions were identified using the *Mergers and Acqusitions Almanac*. We then proceeded to identify transactions for which we had the necessary independent variables. We studied these transactions to construct our dependent variable (whether or not a layoff was announced).

[1] A relevant exception is Sharpe (1994), who finds that employment is significantly less stable in more highly leveraged firms.

[2] We chose the 50 largest transactions in each of the 5 years in order to improve the likelihood that we could find adequate descriptive details covering the transactions.

Independent variables

Relatedness of the businesses of the firms involved in the M&As was measured in two ways. Our first measure of relatedness (RELATED-SIC Measure) is a dummy variable coded as 1 if the firms operated in the same 4-digit SIC code prior to the merger. We used the set of SICs listed in compact disclosure for the year prior to the transaction. We considered all SICs reported for the firms rather than simply the primary ones when coding this variable because, in looking for potential labor redundancy, it is only important that firms operate in the same industry, not that the industry be their primary focus.

Our second measure of relatedness (RELATED-Rater Measure), although more subjective, was designed to account for some of the unusual comparisons in SIC classifications. Two raters independently assessed the degree of overlap between the activities of the merging firms on a scale of 1 to 10. The raters used SIC code data as well as the descriptions of the companies involved in the transaction from *Mergers and Acquisitions Magazine*. Inter-rater reliability was assessed using the intraclass correlation coefficient (Shrout and Fleiss, 1979). The value of ICC (3,1) was 0.79, reflecting very high agreement between the two raters. The average of the two raters' assessments for each combination was used as an independent variable in our analysis.

Cross-border (CROSS BORDER) was coded as 1 if the acquiring and acquired firms listed different countries as their headquarters. Since the acquired firms are all domestic, this measure is 1 if the acquiring firm is non-U.S. and 0 if it is headquartered in the United States.[3]

Acquired firm financial performance was measured as return on invested capital the year before the M&A (TARGET ROIC). Returns measures have been used consistently throughout the strategy literature (e.g., Davis, Robinson, and Pearce, 1992; Hansen and Wernerfelt, 1989; Woo, Willard, and Daellenbach, 1992). The data are available on Compact Disclosure. ROIC is an improved returns measure that removes some of the inconsistencies across industries included in measures such as ROA (Healy, Palepu, and Ruback, 1992). We also included INDUSTRY ROIC as a control for industry profitability.

Operational efficiency of the target firm prior to the transaction was measured as revenue per employee (TARGET REVENUE PER EMPLOYEE). Industry revenue per employee was included as a control for the operational efficiency intrinsic to the industry (INDUSTRY REVENUE PER EMPLOYEE).

In order to test Hypothesis 5 we used a variable (SFB-BORROWING) from the SDC (Security Data Corp) data base of mergers and acquisitions. This variable is coded as 1 if the transaction is financed with borrowing.

Of the initial sample of 250 observations, we were able to get transaction data from the SDC data base for 223, and were able to get financial data from Compact Disclosure for 136 of the 223 observations. The sample used in our analysis, therefore, contains 136 observations.

Dependent variable

Having identified transactions for which we had our explanatory variables, we began the more difficult task of constructing our dependent variable. Our dependent variable (LAYOFF) is a dummy variable coded as 1 for firms that announced layoffs associated with the mergers and 0 for firms that did not announce a merger-induced layoff. While a case can be made for using a continuous measure of changes in employment, our original intent was to capture an organization's decision to announce the intention of removing a set of employees.[4]

We determined whether a firm announced a layoff by first reading *Wall Street Journal* abstracts for each firm involved for the year following the transaction. If a firm announced a layoff it was coded as a 1. If we did not find a layoff announcement the firm was analyzed further. As a second screen, the business journal file (BUSFIN; ARCNWS in Nexis) was searched

[3] While foreign acquirers might, in fact, be less likely to announce a layoff, our use of the business journal file on Nexis is an attempt to reduce this problem. The business journal file captures events reported in various local business publications. A foreign acquirer's layoff of local employees is an important event of local interest.

[4] While announced layoffs do not always lead to actual layoffs, there are substantial organizational costs associated with the announcement (employee reactions, departure of most talented employees, ill-will in the community) that make the announcement a credible commitment (Shapiro, 1989) and therefore an important strategic move.

Table 1. Descriptive statistics and correlations

Variable	Mean	S.D.	1	2	3	4	5	6	7	8
1. Layoff	0.46	0.50								
2. Related-SIC Measure	0.58	0.49	0.20*							
3. Related-Rater Measure	6.88	3.42	0.27***	0.65***						
4. Cross Broder	0.23	0.42	–0.14*	–0.15*	–0.23**					
5. Target ROIC	0.09	0.16	–0.08	0.09	0.03	0.06				
6. Target Revenue Per Employee	257	327	–0.13	–0.06	–0.01	–0.02	–0.02			
7. SFB-Borrowing	0.32	0.47	–0.06	–0.13	–0.20*	0.15*	0.11	–0.06		
8. Industry ROIC	0.10	0.06	–0.17*	–0.14	–0.10	0.00	0.11	0.09	0.28***	
9. Industry Sales Per Employee	191	107	0.06	0.09	0.23**	–0.05	–0.07	–0.03	–0.16	–0.08

*$p<0.05$; **$p<0.01$; ***$p<0.001$

for layoff news for the companies involved in the year following the acquisition. If no layoff was found after this second screen it was assumed that no layoff was announced. This result was coded as 0. Thompson, Olsen, and Dietrich (1987) defend the use of newspapers as the source of public announcements. Given that layoffs have been found to materially affect the stock prices of firms (Worrell, Davidson, and Sharma, 1991), the SEC requirement that firms announce actions that will materially affect stock prices would require firms to announce layoffs.

The correlation matrix for the independent and dependent variables used in this study are reported in Table 1.

Statistical methods

A logistic regression model was used to test the hypotheses. The logistic model assesses the probability that a layoff announcement occurred using the set of independent variables as predictors.

RESULTS

The results of the logistic regression analysis support Hypothesis 1, that related acquisitions are more likely to be followed by a layoff announcement than are unrelated acquisitions (Table 2). This is true whether the 4-digit SIC measure of relatedness[5] (Model 1) or the rater-constructed measure of relatedness (Model 2) is employed. The cross-border acquisition (Hypothesis 2) dummy was not significantly related to the probability of layoffs in either model. The coefficients for Target ROIC (Hypothesis 3) were also not statistically significant. Target revenue per employee (Hypothesis 4) had a negative, significant impact on the probability that a layoff would be announced for both model specifications. Use of borrowed funds (Hypothesis 5) did not have a significant impact on the probability of an announced layoff regardless of the model estimated.[6]

Both Models 1 and 2 are statistically significant, with chi-square statistics of 21.91 and 25.14, respectively. When all pairs of acquisitions with different values for the dependent variable are compared, Model 1 assigns those having a layoff announcement a higher probability 72.5 percent of the time and Model 2 assigns the acquisition with a layoff announcement a higher probability 73.6 percent of the time. These figures suggest

[5] We also considered 3-digit SIC relatedness and found similar results.

[6] We also tested the change in debt associated with the transaction and found similar results.

Table 2. Results of logistic regression

Explanatory variables	Model 1	Model 2
Intercept	0.16	0.36
Related-SIC Measure	0.96**	
Related-Rater Measure		0.18**
Cross Border	–0.59	–0.51
Target ROIC	–1.32	–1.21
Target Revenue per Employee	–0.0026*	–0.0025*
SFB-Borrowing	0.31	0.40
Industry ROIC	4.89	5.61†
Industry Revenue per Employee	0.0002	0.0002
Number of observations	136	136
Model chi-square	21.9**	25.14***
Percent of concordant predictions	72.5%	73.6%

Dependent variable: 1 = layoff, 0 = no layoff
†$p < 0.1$; *$p < 0.05$; **$p < 0.01$; ***$p < 0.001$

that both models assist in predicting layoff announcements.

CONCLUSIONS

One decision managers face as they combine organizations is whether or not to lay off employees. The results of this study point out that the likelihood that managers will choose to use layoffs is related to the characteristics of the M&A transaction. Consistent with the synergy view of M&As, we find that related M&As are more likely to be followed by layoffs. Consistent with the market for corporate control view of M&As we find that the probability of postmerger layoffs is inversely related to the premerger labor efficiency of the target.

The layoff decision is an important part of the postmerger implementation process. As Jemison and Sitkin (1986) suggest, much of the success of mergers may come from the ability of the two firms to successfully 'marry.' The support we find for Hypothesis 1, suggesting that related mergers are more often followed by layoffs, is consistent with the idea that the managers of related firms may be using layoffs as one of the means they use to uncover synergies during postmerger implementation. The success of these marriages may be, in part, dependent on the success of the associated layoffs in increasing the efficiency of the combined firm. Future research could seek to relate the process of layoffs in related M&As to changes in the performance of these firms.

A clearer understanding of the specific intent of these layoffs is also needed. As we stated previously, layoffs in related M&As can be used to eliminate redundant activities produced by economies of scale and scope, they can be the result of the acquirer being better able to see inefficiencies in the target, or they can be the result of an attempt to remove excess capacity in a declining industry. Each of these types of related M&As may result in different types of layoffs. For example, layoffs designed to reduce capacity may involve different classes of employees and may have different effects on performance than layoffs designed to eliminate redundancies produced by economies of scale. This understanding suggests that future research could investigate the relationship between layoff intent and outcomes in related M&As.

We also find that the probability of layoff announcements following M&As is inversely related to the labor efficiency of the target firm. This may indicate that layoffs can be used to reduce labor inefficiencies in target firms or that layoffs are more attractive when a firm is relatively labor intense, since changes in the labor-force can have a major impact on the target's total costs. The disciplinary effect of the market for corporate control has been suggested to lead to the removal of ineffective managers. Our results raise the question of how much the disciplinary effect extends to the employees of the target firm. This issue needs more investigation.

Future research on the relationship between layoffs and M&As should seek to understand how these layoffs impact the performance of the resultant firm. The literature investigating layoffs generally finds that layoffs have a negative impact on the survivors of the layoffs (Brockner, 1992) and a negative impact on the performance of firms (Cameron, 1998). If layoffs, in general, do not improve the performance of firms, are they more or less effective when they are part of a merger? Understanding how layoffs, in the context of M&As, impact performance will help us

to better understand how the process of merging two firms influences the ability of the acquiring firm to recoup its investment.

This study found no support for the hypothesis that cross-border combinations are less likely (Hypothesis 2) to result in layoffs than domestic combinations. The simple comparisons in our correlation matrix point out that layoffs are less common in cross-border transactions, but these transactions also involve related firms less often. Given that cross-border M&As have increased in popularity as firms work to adjust to international markets, additional research on the impact of cross-border transactions is warranted.

We find no evidence that debt financing (Hypothesis 5) increases the probability of layoffs following mergers and acquisitions. It could be that Jensen's (1986) suggestion that debt puts managers' feet in the fire is only realized in the case of very high debt levels, where the debt is a real threat to the managers' livelihood. It is also possible that the logic of agency theory connecting debt levels and efficient management may be suspect. Kochhar (1996) points out that a transaction cost view of debt leads to very different conclusions regarding the increase of debt and managers' responses.

M&As continue to be a popular strategic tool, strongly impacting employment. Identifying when and why employment reductions occur has important implications for research and practice. This study provides support for both the synergy view and the managerial discipline view of mergers and acquisitions by pointing out that both of these perspectives can be used to develop hypotheses that successfully predict when layoffs will follow M&As.

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