Market Reactions To Company Layoffs: Evidence On The Financial Distress Versus Potential Benefit Hypothesis And The Effect Of Predisclosure Information

Paul Wertheim (E-mail: paul.wertheim@acu.edu), Abilene Christian University
Michael A. Robinson, Baylor University

Abstract

The current study extends theory developed by Malatesta and Thompson (1985) to the area of corporate downsizing, and finds that the magnitude of the stock price reaction to announcements of corporate layoffs is a function of two factors, (1) the economic impact of the announced layoff, and, (2) the degree to which the announcement and signal about the underlying conditions related to the announcement have been anticipated by investors and incorporated previously into the stock price (predisclosure information).

For firms experiencing a negative overall stock price reaction at the date of a layoff announcement, the larger the layoff (proxy for economic impact), the more negative the stock price reaction. Also for these firms, the smaller the firm size (proxy for the level of predisclosure information), the more negative the stock price reaction. This provides evidence that for some firms, the financial distress effect dominates, and the market incorporates previously unknown negative information into the stock price, which results in the negative stock price reaction. For these firms, the larger the impact and the less the event is anticipated, the more negative is the stock price reaction.

For firms experiencing a positive overall stock price reaction at the date of a layoff announcement, the larger the layoff (proxy for economic impact), the more positive the stock price reaction. Also for these firms, the smaller the firm size (proxy for level of predisclosure information), the more positive the stock price reaction. This provides evidence that for some firms, the potential benefit effect dominates. The market has previously incorporated negative information associated with the conditions leading up the layoff, and is now incorporating positive information about the benefits to be achieved by the layoff, which results in the positive stock price reaction. For these firms, the larger the impact and the less the event is anticipated, the more positive is the stock price reaction.

In this study, hypotheses are developed which combine the effects of both economic impact and predisclosure information with the financial distress and potential benefit hypotheses developed in prior research in corporate downsizing. Instead of offering the these two hypotheses as competing and mutually exclusive, evidence is provided that supports the conclusion that these hypotheses simultaneously explain concurrent and additive effects on the stock price reaction to announcements of company layoffs. Finally, results indicate that the relationship between economic impact, predisclosure information and stock price reaction to layoff announcements...
depends on the relative dominance of the signals provided by the layoff about both financial distress and potential benefit.

1. Introduction.

During the declining economic climate of the last few years, many firms have undergone downsizing efforts in an attempt to cut costs. As these downsizing efforts (or layoffs) are announced, however, the market reaction is often mixed. For some firms, there can be a significant negative stock price reaction on the date that a firm announces a layoff, yet for other firms, the market reaction can be significantly positive.

Thus, the question is raised as to the market's true perception of layoffs. Does the layoff announcement provide a signal about the present and/or future financial distress of the company, with the market reaction being negative? Or is the layoff viewed as the fix to an existing problem, with an opportunity for the company to achieve a potential benefit and the market reaction being positive? These two alternatives form the basis for two main hypotheses that have been presented in prior research regarding the stock market reaction to layoff announcements.

The financial distress hypothesis, Worrell, Davidson and Sharma (1991), is based on the premise that the signal provided by the layoff announcement tends to reinforce knowledge about the current negative financial condition of the firm. Layoffs confirm management's view that the current financial problems are real and long-lasting. Share price reactions are expected to be negative for these firms.

An alternative hypothesis is the potential benefit hypothesis, Iqbal and Shetty (1995), which is based on the premise that to some extent all layoffs are an attempt to cut costs and improve earnings. Firms that engage in a layoff do so in an attempt to achieve a future benefit, including the potential for a larger increase in future profits. The layoff may even help the firm avoid bankruptcy. Share price reactions are expected to be positive for these firms.

The current study addresses issues, and conflicting results, that are raised by the financial distress and potential benefit hypotheses. Rather than treating these as competing hypotheses, the current study finds that these hypotheses simultaneously explain concurrent and additive effects on the stock price reactions to layoff announcements, and in particular that stock price reactions to layoff announcements are a function of the economic impact of the layoff and the degree of information existing prior to the time of the announcement (predisclosure information). The following section presents a summary of prior research in the area of stock price reactions to corporate layoffs.

2. Prior Research On Corporate Layoffs.

Worrell, Davidson and Sharma (1991) examined 197 layoff announcements that appeared in the Wall Street Journal for the years 1979 to 1987. Using mean cumulative prediction errors, they found a significant negative overall stock price reaction over the eleven day period surrounding the date of the announcement. In addition, they found that (1) firms stating the layoff was due to “financial reasons” had a significantly more-negative return than firms stating the layoff was due to “restructure or consolidation,” and (2) firms defined as financially poor performers prior to the layoff announcement had significantly more-negative returns than financially healthier firms. WDS concluded that the layoff announcement was viewed as a signal that the firm's problems were serious, and thus was perceived negatively by the market. Their results support the financial distress hypothesis.

Iqbal and Shetty (1995) examined 187 layoff announcements that appeared in the Wall Street Journal over the period 1986 to 1989. Using cumulative average prediction errors, they found a significant negative overall stock price reaction over the two-day event window surrounding the layoff announcement date. These results are consistent with Worrell, Davidson and Sharma. Iqbal and Shetty also examined differences in stock price reactions to the layoff announcements of “financially weak” versus “financially healthy” firms. They found that financially weak
firms had a significantly more-positive stock price reaction than financially healthy firms. These results conflict with the results of Worrell, Davidson and Sharma, who found that financially weak firms had a more-negative stock price reaction. Iqbal and Shetty attributed their findings to the potential benefit hypothesis. They pointed out, however, that the measure they used to identify financially weak firms is different than the measure used by Worrell, Davidson and Sharma, and that their sample size of financially weak firms (17) was considerably smaller. They indicated that these factors could account for the conflicting results of the two studies.

In a study examining the effect of a firm's financial condition on the market's reaction to plant closing announcements, Gombola and Tsetsekos (1992) hypothesized that the stock price reaction to such announcements would be significantly more-negative for firms in poorer financial condition than for firms in better financial condition. The researchers examined 187 announcements of plant closings. Their results support their hypothesis, which provides further support for the financial distress hypothesis.

In a study exploring shareholder reactions to layoff announcements by Canadian firms, Ursel and Armstrong-Stassen (1995) examined stock price reactions to 137 layoff announcements over the period 1989 to 1992. Using cumulative abnormal returns over a two-day event window, they found a significant negative overall reaction to layoff announcements. In addition, they found a greater negative reaction to a company's first layoff than to subsequent layoffs, and that reactions were more negative for large-scale layoffs than for those involving small percentages of the workforce. These results are consistent with the results of Worrell, Davidson and Sharma and the results of Iqbal and Shetty, who found an overall negative reaction to the layoff announcement.

In a study examining stock price reactions to bank layoff announcements, Madura, Akhigbe and Bartunek (1995) examined 48 announcements of bank layoffs and found a significant negative average abnormal return on the layoff announcement date. This result is consistent with those of the studies mentioned previously. For a matched portfolio of non-layoff rival banks, they found a significant positive reaction on the date of the layoff announcement. Thus, rival banks not experiencing a layoff exhibited a more positive stock price reaction at the date of the announcement than the banks experiencing the layoff. The analysis shows positive and significant intra-industry effects, which were interpreted as an opportunity for competitors of the downsizing banks to gain market share.

Finally, Caves and Krepps (1993) examined 513 announcements of corporate downsizing appearing in the Wall Street Journal between 1987 and 1991. They found a significant negative overall stock price reaction over the three-day period ending on the date of the layoff announcement. They concluded that these results tend to support the financial distress hypothesis, i.e., that the market reacts negatively to the bad news the announcement reveals to the shareholders.

3. Current Hypotheses

In a study examining the impact of news announcements on stock prices, Malatesta and Thompson (1985) found that the magnitude of stock price reactions to news announcements is a function of two factors, (1) the economic impact of the announced event, and, (2) the degree to which the announcement (and signal about the underlying conditions related to the announcement) have been anticipated by investors and previously incorporated into the stock price. Applying this theory to the area of corporate downsizing, the current study hypothesizes that the stock price reaction to a layoff announcement is a function of two factors: (1) the economic impact of the announced layoff, and, (2) the degree to which the layoff and underlying events preceding the layoff have been anticipated by investors and previously incorporated into the stock price.

The economic impact of the announced event is measured by the size of the layoff, stated as a percentage of the total workforce. The second variable, the degree to which the underlying information has been anticipated by the market, is measured using firm size. The use of firm size as a proxy for the degree of predisclosure information is based on prior research theory in the area of asymmetrical information. Atiase (1985) and Freeman (1987), in studies examining the differential information hypothesis, state that the availability of information relevant to security valuation is an increasing function of firm size. Collins, Kothari and Rayburn (1987) found that firm size is a proxy
for predisclosure information in financial markets. Finally, Ro (1989) and Lobo and Mahmoud (1989) found that investors have better non-accounting sources of information for larger firms as compared to smaller firms. Therefore, firm size is used as a proxy for the degree to which the underlying information concerning the layoff has been anticipated by the market. In the current study, the variable for firm size is calculated as the log of total sales in the year prior to the layoff announcement.

Prior academic research has generally found a negative overall stock price reaction to announcements of company layoffs. Using theory developed by Malatesta and Thompson (1985), the following section addresses the question whether the direction and magnitude of the reaction is a function of economic significance and degree of predisclosure information.

4. Methodology

4.1. Sample Selection

To obtain data on firms that announced layoffs, a search was performed using the Dow Jones News Retrieval Database. A word search to identify firms announcing layoffs was conducted on announcements appearing in the Wall Street Journal and Wall Street Journal Index during the period 1987-1994.

The search yielded 991 separate announcements of corporate layoffs. In order to be included in the final sample, the firm also had to have financial statement information available on the Compustat Database and daily stock return information available on the CRSP data tapes for the periods necessary in order to perform the required analysis. This condition left a final sample of 604 announcements to be used in the analysis of daily abnormal returns.

4.2. Data Collection

For each announcement appearing in the Wall Street Journal, the following information was obtained:

- the date the announcement first appeared in the Wall Street Journal,
- the absolute number and/or percentage of employees laid off,
- the reason/reasons given by management for the layoff,
- COMPUSTAT data necessary to calculate the relevant variables, and,
- CRSP data necessary to calculate abnormal returns.

4.3. Measuring Stock Price Reaction

Stock price reactions to the layoff announcements are calculated using an event study methodology commonly employed in financial research. To calculate a series of expected returns, a market model was used that regresses security returns against the overall return of the market. A given firm's expected return over period t (ERit) is calculated as:

\[ ER_{it} = \alpha_i + \beta_i R_{mt} + e_{it} \]

where

- \( ER_{it} \) = the expected return for firm i over period t,
- \( R_{mt} \) = the market return over period t,
- \( e_{it} \) = a disturbance term

The coefficients \( \alpha_i \) and \( \beta_i \) are the estimated values of the market model parameters. The coefficients are estimated for the 200 day period from Day t= -220 to Day t= -21, with Day t=0 being the day the layoff
announcement appeared in the Wall Street Journal. The expected returns for company \( i \) at time \( t \) were then compared to the actual returns in order to compute prediction errors as follows:

\[
PE_{it} = R_{it} - (\alpha_i + \beta_i R_{mt})
\]

where

- \( PE_{it} \) = the prediction error for firm \( i \) over period \( t \), and
- \( R_{it} \) = the actual return for firm \( i \) over period \( t \).

Daily prediction errors for each firm were calculated over the period \( Day t=-20 \) to \( Day t=+20 \) using the above formula. Mean prediction errors were computed by summing the prediction errors across all \( N \) firms for each relative time period \( t \) as follows:

\[
\frac{\sum_{i=1}^{N} (PE_{it} / N)}{N}
\]

Mean cumulative prediction errors, MCPE, over various intervals \( T_1 \) to \( T_2 \), were then computed as:

\[
MCPE_{T_1T_2} = \sum_{t=T_1}^{T_2} (PE_t)
\]

5. Preliminary Findings

5.1. Overall Stock Price Reaction

The mean cumulative prediction errors are presented in Table 1 for various event windows surrounding the date of the layoff announcement. For example, the mean cumulative prediction error for the six-day period beginning five days prior to the announcement and ending on the day of the announcement (Day -5 to 0) is -0.0094367, which is significantly negative with a \( t \)-statistic of -2.428.

The two-day event window of Day -1 to 0 has an overall mean cumulative prediction error of -0.0118073. As Table 1 shows, each event window ending on day 0 has a significantly negative overall MCPE. The MCPEs of event windows ending two days or more prior to the layoff announcement are not significantly different than zero. These results from Table 1 indicate that the reaction to the layoff announcement occurs mostly in the two-day period of Day -1 to 0, or the day prior to and the day of the layoff announcement. Thus, MCPEs for the two-day event window ending on Day 0 are used in subsequent analyses.
Table 1
Mean Cumulative Prediction Errors for Various Event Windows Surrounding the Layoff Announcement Date

<table>
<thead>
<tr>
<th>Event Window</th>
<th>Mean Prediction Error</th>
<th>Standard Error</th>
<th>t-stat</th>
<th>% of Firms with Negative Returns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day -4</td>
<td>.0055417</td>
<td>.0014641</td>
<td>.370</td>
<td>52.0</td>
</tr>
<tr>
<td>Day -3</td>
<td>.003451</td>
<td>.0014379</td>
<td>.240</td>
<td>53.9</td>
</tr>
<tr>
<td>Day -2</td>
<td>.0018635</td>
<td>.0013698</td>
<td>1.360</td>
<td>51.0</td>
</tr>
<tr>
<td>Day -1</td>
<td>-.0074559</td>
<td>.0023301</td>
<td>-3.343*</td>
<td>56.0</td>
</tr>
<tr>
<td>Day 0</td>
<td>-.0043515</td>
<td>.0020001</td>
<td>-2.175*</td>
<td>54.2</td>
</tr>
<tr>
<td>Day -20 to -4</td>
<td>-.0061596</td>
<td>.0050975</td>
<td>-1.208</td>
<td>51.5</td>
</tr>
<tr>
<td>Day -20 to -3</td>
<td>-.0061076</td>
<td>.0049896</td>
<td>-1.224</td>
<td>51.0</td>
</tr>
<tr>
<td>Day -20 to -2</td>
<td>-.0042007</td>
<td>.0051131</td>
<td>-.822</td>
<td>51.3</td>
</tr>
<tr>
<td>Day -20 to -1</td>
<td>-.0117030</td>
<td>.0054563</td>
<td>-2.145*</td>
<td>51.9</td>
</tr>
<tr>
<td>Day -20 to 0</td>
<td>-.0160880</td>
<td>.0058642</td>
<td>-2.743*</td>
<td>53.4</td>
</tr>
<tr>
<td>Day -5 to 0</td>
<td>-.0094367</td>
<td>.0038863</td>
<td>-2.428*</td>
<td>53.8</td>
</tr>
<tr>
<td>Day -4 to 0</td>
<td>-.0094559</td>
<td>.0034510</td>
<td>-2.740*</td>
<td>54.6</td>
</tr>
<tr>
<td>Day -3 to 0</td>
<td>-.0099976</td>
<td>.0031738</td>
<td>-3.150*</td>
<td>53.3</td>
</tr>
<tr>
<td>Day -2 to 0</td>
<td>-.0103426</td>
<td>.0029720</td>
<td>-3.480*</td>
<td>52.2</td>
</tr>
<tr>
<td>Day -1 to 0</td>
<td>-.0118073</td>
<td>.0029127</td>
<td>-4.054*</td>
<td>54.9</td>
</tr>
</tbody>
</table>

1 Day 0 corresponds to the date the layoff announcement appeared in the Wall Street Journal.

* Significant at the .05 level.

5.2. Initial Results

Table 2 presents results from a regression of individual firm cumulative prediction errors on the magnitude of the layoff and on firm size. In both simple regression (Panel A) and multiple regression (Panel C) results, there is a significant and negative relationship between the magnitude of the layoff and cumulative prediction errors. The larger the size of the layoff, the more negative the stock price reaction. This is consistent with the hypothesis that the layoff announcement may be viewed as a signal of negative aspects of the firm's financial situation that have preceded the layoff, with the market reaction to the layoff announcement being negative. This hypothesis is referred to as the financial distress hypothesis, which states that to the extent the layoff is viewed as a signal of negative conditions, there will be a negative reaction to the announcement of the layoff. (Worrell, Davidson and Sharma (1991) and Caves and Krepps (1993)).

Conversely, in both simple regression (Panel B) and multiple regression (Panel C) results, there is a significant and positive relationship between firm size and cumulative prediction errors. The larger the size of the firm, the more positive the stock price reaction to the announcement of the layoff. This is consistent with the hypothesis that as the level of predisclosure information (firm size) increases, negative states of nature existing prior to the layoff are known and are already incorporated into the stock price. Therefore, the announcement of the layoff is viewed as a "fix" to an existing problem, with the market reaction being positive. This is referred to as the potential benefit hypothesis, which states that to the extent the layoff itself is perceived to provide a potential benefit, there will be a positive reaction to the announcement of the layoff, (Iqbal and Shetty (1995) and Caves and Krepps (1993)).

Although these results are consistent with prior research, there has been a failure in these studies to allow for differences in the relationship between economic impact (size of layoff), degree of predisclosure information (firm size), and stock price reaction depending on the relative dominance of the signals provided by the layoff about both financial distress and potential benefit. In other words, does the relationship between economic impact, degree of predisclosure information, and stock price reaction remain the same for all situations, or does the relationship differ depending on whether the financial distress or potential benefit effect dominates? The following section refines these two hypotheses to allow for differences in their relative effect.
Table 2  
Results From Regression Of Cumulative Prediction Errors  
On Magnitude Of Layoff And Firm Size  
(Using Full Sample)  

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>t-value</th>
<th># of Obs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Panel A: ¹</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>.0001634</td>
<td>.0035509</td>
<td>.046</td>
<td>542</td>
</tr>
<tr>
<td>Magnitude of Layoff</td>
<td>-1.186894</td>
<td>.0365812</td>
<td>-5.109*</td>
<td></td>
</tr>
<tr>
<td>Panel B: ¹</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>-0.0829781</td>
<td>.0107454</td>
<td>-7.722*</td>
<td></td>
</tr>
<tr>
<td>Firm Size</td>
<td>.0087686</td>
<td>.0012940</td>
<td>6.776*</td>
<td></td>
</tr>
<tr>
<td>Panel C: ²</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>-0.0531100</td>
<td>.0137094</td>
<td>-3.874*</td>
<td>443</td>
</tr>
<tr>
<td>Magnitude of Layoff</td>
<td>-0.0996974</td>
<td>.0433068</td>
<td>-2.302*</td>
<td></td>
</tr>
<tr>
<td>Firm Size</td>
<td>.0054346</td>
<td>.0015281</td>
<td>3.557*</td>
<td></td>
</tr>
</tbody>
</table>

¹ Based on the regression model: \( \text{CPE}_{t} = -1.0 = \alpha + \beta_1 (\text{variable}) + e \)
² Based on the multiple regression model:  
\( \text{CPE}_{t} = -1.0 = \alpha + \beta_1 (\text{magnitude of layoff}) + \beta_2 (\text{firm size}) + e \)  
* Significant at the .05 level.


One limitation of prior studies examining the stock price reaction to layoff announcements is that the financial distress and potential benefit hypotheses were tested as separate hypotheses. In these studies, stock price reactions to layoff announcements were examined to determine whether the reactions were negative or positive, thus providing support for either the financial distress or the potential benefit hypothesis, respectively. Thus, prior research has assumed that the two hypotheses are competing and mutually exclusive.

However, it is possible that these two hypotheses are not mutually exclusive, but rather that the market reaction to the announcement of a layoff is a function of both effects. For example, the announcement of the layoff may signal both an underlying negative state of nature (financial distress) and at the same time signal the positive effects, such as reduced costs and increased profits, that the layoff might provide (potential benefit). Thus, there could be both a negative and a positive component to the overall stock price reaction at the date of the announcement. To the extent the announcement provides a signal about previously unknown bad news associated with the layoff, there will be a negative component to the stock price reaction. But to the extent this information has already been known and incorporated into the stock price (predisclosure information), and to the extent the market now perceives the benefit that can be achieved by the layoff, there will be a positive component to the overall stock price reaction. The net overall stock price reaction will be a function of which effect dominates. Although each component of the stock price reaction is separately unobservable, the net effect is observable, thus giving evidence as to which effect dominates.

Assume for a given firm that the financial distress effect dominates and there is a negative overall stock price reaction to the layoff announcement. The market is incorporating previously unknown negative information, which results in the negative stock price reaction. If this is the case, it is hypothesized that the stronger the signal, the more negative the stock price reaction, other things equal. Since the size of the layoff announcement is serving as a signal of the size of the underlying economic impact, it is hypothesized that the larger the layoff, the more negative the stock price reaction. Specifically, this hypothesis is:

**Hypothesis 1A:** For firms experiencing a negative overall stock price reaction at the date of the layoff announcement, firms with larger layoffs experience a more negative stock price reaction than firms with smaller layoffs.
Continue to assume that the financial distress effect dominates and there is a negative overall stock price reaction to the layoff announcement. The market is incorporating previously unknown negative information, which results in the negative stock price reaction. If this is the case, it is hypothesized that the more the information is unknown (i.e., the smaller the firm size), the more negative the stock price reaction, other things equal. Specifically, this hypothesis is:

**Hypothesis 1B:** For firms experiencing a negative overall stock price reaction at the date of the layoff announcement, smaller firms experience a more **negative** stock price reaction than larger firms.

Now assume for a given firm that the potential benefit effect dominates and there is an overall positive stock price reaction to the layoff announcement. The market has previously incorporated negative information associated with the conditions leading up the layoff, and is now incorporating positive information about the benefits to be achieved by the layoff, which results in the positive stock price reaction. If this is the case, it is hypothesized that the more benefit that can be achieved for that given firm, the more positive the stock price reaction, other things equal. Since the size of the layoff serves as a partial measure of the potential benefit (economic impact) that could be realized, it is hypothesized that the stronger this signal, the more positive the stock price reaction. Specifically, this hypothesis is:

**Hypothesis 2A:** For firms experiencing a positive overall stock price reaction at the date of the layoff announcement, firms with larger layoffs experience a more **positive** stock price reaction than firms with smaller layoffs.

Now continue to assume for a given firm that the potential benefit effect dominates and there is a positive overall stock price reaction to the layoff announcement. The market has previously incorporated negative information associated with the conditions leading up the layoff, and is now incorporating positive information about the benefits to be achieved by the layoff, which results in the positive stock price reaction. However, the more predisclosure information which exists, the less impact this information will have. In other words, as the level of predisclosure information (firm size) increases, the smaller will be the stock price reaction to the announcement of the layoff. And similarly, the less the preceding information has been incorporated into the stock price (the smaller the firm), the more positive the stock price reaction, other things equal. Since the size of the firm serves as a partial measure of the degree of predisclosure information, this hypothesis is:

**Hypothesis 2B:** For firms experiencing a positive overall stock price reaction at the date of the layoff announcement, smaller firms experience a more **positive** stock price reaction than larger firms.

A graphical illustration of these hypotheses is presented in Figure 1. Notice that the hypothesized effects of economic impact (size of layoff) and predisclosure information (firm size) now differ, depending on whether the financial distress or potential benefit effect dominates.

7. **Regression Results Categorized By Stock Price Reaction.**

Table 3 presents results from a regression of individual firm cumulative prediction errors on the magnitude of the layoff and on firm size, categorized by firms with negative versus positive stock price reactions. Results in Table 3 are presented in a similar format as Table 2, except for the separation of the two subgroups of firms.

Panel A presents regression results for the relationship between CPE and magnitude of the layoff. First, focus on the sample of firms with negative prediction errors. There is a significant (t value=-6.954) and negative (coefficient = -.3342) relationship between the magnitude of the layoff and the cumulative prediction errors. For firms with positive prediction errors, there is a significant (t value=3.539) and positive (coefficient = .0633) relationship between the magnitude of the layoff and the cumulative prediction errors. Thus, when the financial distress effect dominates and there is a negative stock price reaction, larger layoffs exhibit more **negative** stock price reactions than smaller firms. However, when the potential benefit effect dominates and there is a positive stock price reaction, larger layoffs exhibit more **positive** stock price reactions. These results support Hypotheses 1A and 1B earlier.
Panel B presents regression results for the relationship between CPE and firm size, where firm size serves as a proxy for the degree of predisclosure information available prior to the layoff announcement. For firms with negative prediction errors, there is a significant (t value=8.058) and positive (coefficient = .0128) relationship between firm size and cumulative prediction errors. For firms with positive prediction errors, there is a significant (t value=-3.551) and negative (coefficient = -.0031) relationship between firm size and cumulative prediction errors. Thus, when the financial distress effect dominates and there is a negative stock price reaction, larger firms exhibit more positive stock price reactions than smaller firms. However, when the potential benefit effect dominates and there is a positive stock price reaction, larger firms exhibit more negative stock price reactions. These results support Hypotheses 2A and 2B earlier. Similar conclusions are obtained in the multiple regression results of Panel C.

Figure 2 presents a graphical illustration of the regression results of Table 3. Panel A shows a graph of the regression equations from Panel A of Table 3. Panel B shows a graph of the regression equations from Panel B of Table 3. Notice the consistency of the actual results of Figure 2 compared with the hypothesized effects illustrated in Figure 1.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Firms With Positive CPE</th>
<th>Firms With Negative CPE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coefficient</td>
<td>t-value</td>
</tr>
<tr>
<td>Panel A: (^1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>.0232370</td>
<td>11.581*</td>
</tr>
<tr>
<td>Magnitude of Layoff</td>
<td>.0633436</td>
<td>3.539*</td>
</tr>
<tr>
<td>Panel B: (^1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>.0542073</td>
<td>7.200*</td>
</tr>
<tr>
<td>Firm Size</td>
<td>-.0031342</td>
<td>-3.551*</td>
</tr>
<tr>
<td>Panel C: (^2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>.0347619</td>
<td>4.946*</td>
</tr>
<tr>
<td>Magnitude of Layoff</td>
<td>.0371565</td>
<td>2.373*</td>
</tr>
<tr>
<td>Size of Firm</td>
<td>-.0016931</td>
<td>-2.109*</td>
</tr>
</tbody>
</table>

\(^1\) Using the regression model: \( \text{CPE}_t = \alpha + \beta_1 \text{ (variable)} + e \)
\(^2\) Using the multiple regression model: \( \text{CPE}_t = \alpha + \beta_1 \text{ (Magnitude of Layoff)} + \beta_2 \text{ (Firm Size)} + e \)

\(^*\) Significant at the .05 level.

8. Summary

For firms experiencing a negative overall stock price reaction at the date of the layoff announcement, the larger the layoff (proxy for economic impact), the more negative the stock price reaction. Also for these firms, the smaller the firm size (proxy for level of predisclosure information), the more negative the stock price reaction. This provides evidence that for some firms, the financial distress effect dominates and the market incorporates previously unknown negative information into the stock price, which results in the negative stock price reaction. For these firms, the larger the impact and the less the event is anticipated, the more negative is the stock price reaction.

For firms experiencing a positive overall stock price reaction at the date of the layoff announcement, the larger the layoff (proxy for economic impact), the more positive the stock price reaction. Also for these firms, the smaller the firm size (proxy for level of predisclosure information), the more positive the stock price reaction. This provides evidence that for some firms, the potential benefit effect dominates. The market has previously incorporated negative information associated with the conditions leading up the layoff, and is now incorporating positive information about the benefits to be achieved by the layoff, which results in the positive stock price reaction. For these firms, the larger the impact and the less the event is anticipated, the more positive is the stock price reaction.
The current study extends theory developed by Malatesta and Thompson (1985) to the area of corporate downsizing, and finds that the magnitude of the stock price reaction to announcements of corporate events is a function of two factors, (1) the economic impact of the announced layoff, and, (2) the degree to which the announcement and signal about the underlying conditions related to the announcement have been anticipated by investors and incorporated previously into the stock price (predisclosure information).

In addition, hypotheses are developed which combine the effects of both economic impact and predisclosure information with the financial distress and potential benefit hypotheses developed in prior research in corporate downsizing. Instead of offering the these two hypotheses as competing and mutually exclusive, evidence is provided that supports the conclusion that these hypotheses simultaneously explain concurrent and additive effects on the stock price reaction to announcements of company layoffs. Finally, results indicate that the relationship between economic impact, predisclosure information and stock price reaction to layoff announcements depends on the relative dominance of the signals provided by the layoff about both financial distress and potential benefit.

Figure 1

The Relationship Between Cumulative Prediction Errors And Research Variables: Hypothesized Differences Between Firms With Positive Versus Negative Stock Market Reactions To Layoff Announcements

Panel A:
Hypothesized Relationship Between CPE and Magnitude of Layoff

Panel B:
Hypothesized Relationship Between CPE and Firm Size
Figure 2
The Relationship Between Cumulative Prediction Errors and Research Variables: 
Actual Regression Equations Showing Differences Between Firms With Positive Versus Negative 
Stock Market Reactions to Layoff Announcements

Panel A: 
Regression Equation 
Using Magnitude of Layoff

Panel B: 
Regression Equation 
Using Firm Size

Using the regression model:
CPE t = -1.0 = .0232370 + .0633436 (magnitude) for firms with positive CPE
CPE t = -1.0 = -.0242805 + -.3342538 (magnitude) for firms with negative CPE

Using the regression model:
CPE t = -1.0 = .0542073 + -.0031342 (firm size) for firms with positive CPE
CPE t = -1.0 = -.1480861 + .0128735 (firm size) for firms with negative CPE
References


Notes