Corporate Diversification, Manager's Incentive, And Shareholder Wealth

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Abstract

This study examines the impact of managers’ incentives and corporate diversification on the returns to shareholders of acquiring firms in acquisition activities. Managers’ incentives are measured by creating an incentive ratio (IR). The IR is constructed by dividing the market value of the equity holdings of the three managers with the largest equity shareholding within the firm by their annual compensation. We hypothesize that managers with a high IR are more likely to undertake acquisitions that benefit the shareholders of the acquiring firm than are managers with a low IR. We further hypothesize that the acquisition of a firm that is a focused acquisition (i.e., same industry) will produce greater returns to the acquiring firm’s shareholders than will diversified acquisitions. Results indicate significant positive returns to acquiring firms whose managers have high IRs. While diversified acquisitions produce insignificant negative stock returns, focused acquisitions, on average, generate significant positive stock returns for acquiring firms. Results also suggest that managers with a low IR consistently undertake more diversified acquisitions than focused acquisitions, that the group with the combination of high IRs and focused acquisitions produces the highest returns among four groups, and that the group with the opposite combination produces the lowest returns.

Introduction

Evidence of returns to shareholders of acquiring firms in acquisition activities remains mixed. While some studies document that shareholders of acquiring firms benefit from acquisitions (Schipper and Thompson 1983, Dennis and McConnell 1986, and Asquith, Bruner, and Mullins 1983), others conclude that acquisition activities result in a decrease in shareholders’ wealth (Bradeley, Desai and Kim 1988, Roll 1986). It is possible that the mixed results of prior studies are due to a failure of those studies to differentiate between motives of managers of acquiring firms.

There are a number of reasons that managers may be motivated to undertake acquisitions. Managers may be motivated to initiate acquisition activities by what Roll (1986) calls the hubris hypothesis. A manager of an acquiring firm may overpay for the target firm because he overestimates his ability to profitably manage the acquired firm. Negative returns to shareholders of acquiring firms may be the result of this bad investment decision.

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Among others, one plausible explanation for an acquisition is that the manager of an acquiring firm may pursue personal wealth maximization rather than shareholder wealth maximization. Managers of acquiring firms might knowingly undertake value-decreasing investments that benefit themselves but hurt the shareholders.

Dennis, Dennis and Sarin (1997) provide recent evidence that suggests, on average, the costs of corporate diversification outweigh the benefits for shareholders. They study the impact of corporate diversification on shareholders' wealth within the context of manager incentives. Unrelated acquisitions provide better diversification opportunities for a manager to reduce the risk of his human capital or job security than related ones. A manager may pursue personal benefits through unrelated acquisitions, at the expense of shareholders' wealth. In contrast, related acquisitions provide fewer personal benefits for a manager than unrelated acquisitions, but may benefit shareholders.

This study examines the differential motivations of managers for undertaking acquisitions. Prior studies have examined the relationship between the personal costs associated with a value-decreasing acquisition for managers and the returns to shareholders of acquiring firms. What distinguishes this study from prior ones is that this study evaluates both the personal costs and the personal benefits of managers of acquiring firms by creating an incentive ratio (IR) of these costs and benefits.

Managers with proper incentives should act in the best interest of shareholders. We hypothesize that acquiring firms whose managers have proper incentives experience higher returns in acquisition activities, that related acquisitions create more wealth for shareholders of acquiring firms, and that acquiring firms whose managers have a proper incentive engage in more related acquisitions than unrelated ones.

This paper is organized as follows: section 2 reviews the relevant literature; section 3 presents the data collection and research methodology; section 4 discusses the results of the study; and section 5 summarizes and concludes the study.

Literature review

Agency theory (Jensen and Meckling 1976) suggests that, in the absence of proper incentives, managers might not act in the best interest of shareholders. Rather, managers may be motivated to maximize their personal wealth rather than shareholders' wealth when the environment does not provide proper incentives for managers to maximize shareholders' wealth. Morck et al. (1990) provide evidence that managers' personal objectives might provide motivation for acquisitions that benefit the managers but hurt shareholders.

A well-designed compensation plan should provide incentives for a manager to engage in acquisitions that increase shareholders' wealth, and to avoid those acquisitions that decrease shareholders' wealth. Several empirical studies focus on the manager's incentive effect on acquisition decisions. When a manager has the proper incentive, acquisitions should, at least, produce nonnegative returns to shareholders of acquiring firms. Lewellen et. al. (1985) utilize management's equity share holdings as a proxy to measure managers' incentives. They find a positive relationship between the wealth effects from takeovers for acquiring firms and the percent of equity share holdings owned by management.

Previous studies face a significant difficulty when measuring the manager's incentive. Proxies used in the prior studies only measure the personal costs associated with a value-decreasing acquisition for a manager of an acquiring firm (i.e., decrease in the value of equity share holdings). However, there are also personal benefits associated with such activities for a manager of an acquiring firm. Those benefits include, but are not limited to, higher compensation and other compensation-related benefits. Management compensation is largely determined by the firm size (Baumol 1962). Managers, on average, ob-
tain higher compensation as the firm size increases. Therefore, we would expect managers whose compensation is high relative to value of their equity holdings in their firm to undertake acquisitions that are compensation increasing, even if they result in decreases in shareholders' wealth. Wiedenbaum and Vogt (1987) contend that in a larger, more complex corporation, the ability of shareholders to monitor management decreases. This represents another type of personal benefit that accrues to a manager when he engages in acquisitions that increase the size of the firm.

In this study, a ratio based on both costs and benefits serves as a proxy for the manager’s incentive. The ratio is defined as the personal costs divided by the personal benefits (costs/benefits). The numerator of this ratio is the market value of shares in dollar held by a manager on a specified date prior to the acquisition. The denominator of this ratio is total compensation (salary, bonuses, etc.) enjoyed by a manager at the same specified date. A high ratio would suggest that the market value of shares owned by a manager is substantial relative to his total compensation. A rational manager seeks to engage in acquisitions that maintain or increase this value. Thus, the manager’s incentive would be consistent with that of the public shareholders. Consequently, shareholders of acquiring firms whose managers have a high IR are likely to experience positive returns. However, if the ratio is low, then the market value of shares owned by a manager is small in comparison to the manager’s compensation. A manager’s incentive will be to maximize the value of compensation at the expense of share value, because share value is low relative to total compensation. Returns to shareholders of acquiring firms whose managers have a low IR are likely to be negative.

Corporate Diversification

Empirical evidence suggests that, on average, shareholders of acquiring firms suffer a loss in wealth from corporate diversification activities. However, some studies present evidence supporting positive returns to shareholders of acquiring firms under certain conditions. Levy and Sarant (1970) hypothesize and report that vertical and horizontal mergers are better than conglomerate mergers for acquiring firms. Weston and Copeland (1988) contend that industrial relatedness is essential for the success of mergers and that related mergers perform better than unrelated mergers. However, other studies document the negative impact of industrial relatedness on returns to shareholders of acquiring firms (Sicherman and Pettway 1987; and Scanlon; Trifts, and Pettway 1989). Switzerd (1996) documents that industry relatedness between the acquirer’s and target’s businesses has insignificant impact on the operating performance of merged firms between 1967 and 1987.

Financial theory does not support business diversification at the corporate level. Shareholders can achieve the diversification effect at a personal level by purchasing other firms’ stocks (Amihud and Lev 1981). Berger and Ofek (1995) study the diversification’s effect on firm value. They find that, on average, firms’ values decrease by 13% to 15% from diversification during the period 1986-1991. Because each manager has his own specialty in certain lines of business, entering an unrelated business can waste human resources. Comment and Jarrel (1995) provide evidence that greater corporate focus is consistent with shareholder wealth maximization.

In their paper, Amihud and Lev (1981) maintain that when a manager’s compensation is high relative to his holdings in his firm’s stock, the manager may have an incentive to pursue unrelated acquisitions, even if it does not benefit the shareholders. Unrelated acquisitions provide a better diversification effect for a manager by reducing his personal risk on human capital when his personal wealth is limited to the firm. To ensure the survival and continuity of the firm, the manager may be willing to experiment by entering into a new line of business. Marshall, Yawitz and Greenberg (1984) also report
that conglomerate firms acquire more firms whose cash flows have lower correlations with those of their own firms to diversify the business risk.

In summary, research exists which supports the belief that some acquisitions are of a relatively higher quality than other acquisitions. In this study, industrial relatedness is used as an indicator of merger quality. It is tested within the manager's incentive context. We hypothesize that related acquisitions produce more wealth for shareholders of acquiring firms than unrelated acquisitions. Further, we hypothesize that managers with a high IR undertake more related acquisitions than managers with a low IR.

Data and Methodology

The sample analyzed in this study consists of firms that announced acquisitions during the period of 1990 through 1993. Two hundred and sixty-eight acquiring firms were identified from the Wall Street Journal Index and were further verified by using Predicast F & X Index. These acquisitions were screened by using the following criteria. First, acquiring firms must be traded on the NYSE or AMEX at the time of the announcement date. Second, to avoid the size effect, any transactions of less than one million dollars were excluded from the analysis. Third, stock returns for the acquiring firms must be available from the Center for Research in Security Prices (CRSP) for the 250 days before the announcement date of the acquisition. The screening process eliminates forty-two firms and results in a final sample of two hundred and twenty-six firms.

To measure the manager's incentive, both equity share holdings and compensation of managers of acquiring firms were collected. Specifically, we collected both equity share holdings and compensation for the three managers that had the greatest equity share holdings within the firm. These people are most likely involved in the firm's critical investment decisions, such as the acquisition of another firm. Their share holdings and compensation have the potential to affect their judgment regarding the firm's investment decisions. The top three managers of most firms in the sample include CEO, chairman of the board, and president. To calculate an IR, both managers' share holdings and compensation must be available. For some firms we were unable to collect all information about the top three managers. For instance, some managers' compensation was available but share holdings were not reported, or vice versa. In this case we select two of the top three available to calculate the IR. There were 39 firms where two managers instead of three were used to compute the IR. If information is unavailable for more than one manager of the top three of a company, we exclude it from analyses. As a result of this condition, 42 firms were excluded from the analysis.

Data on share ownership and compensation were collected from Compact Disclosure for the year immediately preceding the year in which an acquisition was announced. Compensation includes salary, bonuses, and other items reported on the proxy statements. To obtain the dollar value of equity share holdings, the stock price at the balance sheet date prior to the year in which an acquisition was announced was multiplied by the shares held by the managers.

In this study, we defined industrial relatedness using SIC codes. If the acquiring and target firms share a 4-digit SIC code of sales in their top two business areas of operations, the acquisition is considered as related. It is considered as unrelated otherwise. Stock prices and the SIC codes are obtained from COMPUSTAT.

Standard event study methodology was utilized. The equally-weighted returns for the market was used as the proxy for market return. The date on which the acquisition offer first appeared in The Wall Street Journal was selected as the announcement date to calculate the cumulative abnormal returns (CAR). Returns of 250 days before through 30 days before the announcement date were utilized to estimate the model parameters. To examine the wealth effect from the ac-
acquisition announcements and how the stock market reacts to these announcements, CARs were computed around the announcement date, using a three-day event window (t-1, t 0, t +1). Cumulative abnormal returns were initially calculated for all 226 acquisitions. The data were then stratified based on the managers’ IR and industrial relatedness of each acquisition for further analyses.

Empirical results

Total Sample Results

Table 1 contains results for the 226 acquiring firms calculated over the event window (t-1, t 0, t +1). The CAR is, on average, .18% and is significant at the 5% level. The significant positive return is consistent with the findings of Schipper and Thompson (1983), Dennis and McConnell (1986), and Asquith, Bruner, and Mullins (1983). Results indicate that acquisition activities produce, on average, a .18% return for the shareholders of acquiring firms.

Acquisition Classification Results

To examine the effects of manager incentive, 226 acquisitions in the sample were stratified based on a manager incentive ratio. Table 2 presents the equity share holdings (ES), the dollar value of equity share holdings (DVES), the dollar value of compensation (COM), and the manager incentive ratio IR (DVES/COM) for the top three managers with the most equity shareholdings within the firms.

The incentive ratio (IR) is used to stratify the sample. IRs higher than the mean value are classified in one group and those lower than the mean value are classified in a second group. Furthermore, sample is stratified according to the type of acquisitions, focus and diversified. Table 3 presents the results of stock returns associated with each group and the comparisons between groups. Evidence in Table 3 indicates that returns to acquiring firms whose managers have a high IR are, on average, +.69% and significant at the 1% level. In contrast, returns to acquiring firms whose managers have a low IR are, on average, -.02% but insignificant. When the two groups are compared, the group with the high IR outperforms the other by +.71%, significant at the 1% level.

In addition, results show that focus acquisitions, on average, produce a return of +.56%, significant at the 1% level. Returns involving diversified acquisitions, on average, are -.21% and insignificant. Further, the difference between two groups is +.71% and is significant at the 1% level. This indicates that investors react more favorably to focus acquisition announcements than diversified acquisition announcements.

Results in Table 3 suggest that managers with a high IR undertook acquisitions that resulted in increases in shareholders’ wealth. Those with a low IR undertook wealth-decreasing acquisitions. Consequently, acquiring firms were more likely to experience positive

Table 1
The 3-day Cumulative Abnormal Returns (CARs) for the Acquiring Firms Center on the Acquisition Announcement Date in the Sample N = 226

<table>
<thead>
<tr>
<th></th>
<th>MEAN</th>
<th>MAX</th>
<th>MIN</th>
<th>STD_DEV</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAR</td>
<td>.18%</td>
<td>12.2%</td>
<td>-10.4%</td>
<td>.23%</td>
</tr>
<tr>
<td>% of positive</td>
<td>62%**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T-test</td>
<td>2.1*</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a: Nonparametric sign test is performed to test the significance.
* : Significance at the .10 level.
** : Significance at the .05 level based on nonparametric sign test for the % of positive.
Table 2
Equity Shares (ES)*, Dollar Value of Equity Shares (DVES)*, Dollar Value of Compensation (COM)* and Manager Incentive Ratio (IR)** by the Top Three Managers of the Most Equity Shareholding within the Firms

<table>
<thead>
<tr>
<th>Rank</th>
<th>Equity Shares (ES)</th>
<th>MAX</th>
<th>MIN</th>
<th>STD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>1,495</td>
<td>163,663</td>
<td>32</td>
<td>10,117</td>
</tr>
<tr>
<td></td>
<td>Dollar value of ES</td>
<td>29,207</td>
<td>1,923,040</td>
<td>12.5</td>
</tr>
<tr>
<td></td>
<td>COM</td>
<td>1,052</td>
<td>8,520</td>
<td>127</td>
</tr>
<tr>
<td>2nd</td>
<td>292</td>
<td>7,160</td>
<td>7</td>
<td>2,033</td>
</tr>
<tr>
<td></td>
<td>Dollar value of ES</td>
<td>9,750</td>
<td>1,597,868</td>
<td>7.4</td>
</tr>
<tr>
<td></td>
<td>COM</td>
<td>593</td>
<td>6,487</td>
<td>76</td>
</tr>
<tr>
<td>3rd</td>
<td>81</td>
<td>623</td>
<td>2</td>
<td>173</td>
</tr>
<tr>
<td></td>
<td>Dollar value of ES</td>
<td>13,155</td>
<td>641,083</td>
<td>6.0</td>
</tr>
<tr>
<td></td>
<td>COM</td>
<td>460</td>
<td>4,379</td>
<td>50</td>
</tr>
<tr>
<td>Average IR of the top three</td>
<td>8.1</td>
<td>80.1</td>
<td>.12</td>
<td>7.1</td>
</tr>
</tbody>
</table>

*: in thousands.

**: Manager incentive ratio is computed as the personal costs divided by the personal benefits for each manager (personal costs/personal benefits). To calculate an incentive ratio, both managers' dollar value of shareholdings and compensations should be available. We selected the top three managers with the most equity shareholdings for each firm. For some firms we were unable to collect both variables for the top three managers. For instance, some managers' compensations were available but shareholdings were not reported or vice versa. In this case we select the two of the top three available rather than three to calculate the incentive ratio. If information is unavailable to more than one manager of the top three for this company, we exclude it from analyses. Forty-two companies were excluded from the analyses.

Table 3
Two Sample t-test on 3-day CARs to Acquiring Firms with Different Incentive Ratio (IR) and Industrial Relatedness

<table>
<thead>
<tr>
<th></th>
<th>High IR</th>
<th>Low IR</th>
<th>Difference between two groups</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Avg CAR</td>
<td>-.02%</td>
<td>+.71%</td>
</tr>
<tr>
<td>T statistics</td>
<td>0.69</td>
<td>(.51)**</td>
<td>.13</td>
</tr>
<tr>
<td>Focus</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avg CAR</td>
<td>0.56</td>
<td>-.21%</td>
<td>+.77%**</td>
</tr>
<tr>
<td>T statistics</td>
<td>2.39***</td>
<td>-1.12</td>
<td>2.64***</td>
</tr>
</tbody>
</table>

*: **, ***: significance at the .10, .05 and .01 levels respectively

 abnormal returns when the managers of acquiring firms had a proper incentive to maximize the value of the firms. Additionally, higher stock returns are associated with focus acquisitions.

To examine the joint effect of incentive ratio and industrial relatedness, a cross classification based on these two factors was performed. Evidence from Table 4 shows that the CARs to the low incentive-focus group are insignificant at -.06% and CARs to the high incentive-diversified group are insignificant at-.15%. The group consisting of high incentive and focus, as predicted, produces the highest stock return among four groups at +1.19% and is significant at the 1% level.
Table 4
Double Classification of 3-day CARs Based on Industrial Relatedness and Incentive Ratio for Acquiring Firms in the Sample

<table>
<thead>
<tr>
<th>Double Classification</th>
<th>Incentive Ratio</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Industrial Relatedness</strong></td>
<td><strong>Low</strong></td>
<td><strong>High</strong></td>
<td><strong>Difference</strong></td>
</tr>
<tr>
<td><strong>Focus</strong></td>
<td>-.06%</td>
<td>+1.19%***</td>
<td>+.76%***</td>
</tr>
<tr>
<td>(37)*</td>
<td>(32)</td>
<td>(69)</td>
<td></td>
</tr>
<tr>
<td><strong>diversified</strong></td>
<td>-.25%</td>
<td>-.16%</td>
<td>-.13%*</td>
</tr>
<tr>
<td>(61)</td>
<td>(26)</td>
<td>(97)</td>
<td></td>
</tr>
</tbody>
</table>

**Cross Classification**

**Focus/Good Vs. diversified/Bad**

+1.44%***
(93)

**Focus/Bad Vs. diversified/Good**

+.13%
(63)

* Sample sizes are in parentheses.
** Significance at the .10, .05, .01 levels respectively.

The opposite combination of low incentive and diversified delivers the lowest returns of -.25%, but is insignificant. The difference between these two opposite combinations produces +.44% and it is significant at the 1% level.

Results suggest that the market reacts to focus/diversified acquisitions differently, depending on the known incentives of managers. Related acquisitions by acquiring firms whose managers have higher incentives produce significant positive returns for their shareholders. In contrast, diversified acquisitions by acquiring firms whose managers have lower incentives produce negative returns for their shareholders. Evidence here also indicates that shareholders benefit from focus acquisitions, and do so even more when the manager has a proper incentive.

This study also hypothesized that managers with higher incentives were more likely to engage in focus acquisitions to maximize the shareholders' wealth. To test this hypothesis, the sample was stratified into four groups based on incentive and industrial relatedness. According to this hypothesis, the proportion of focus acquisitions taken by high incentive managers should be significantly higher than the proportion of diversified acquisitions. Using the same line of reasoning, the proportion of diversified acquisitions taken by low-incentive managers should be significantly higher than the proportion of focus acquisitions by such managers. A binomial proportion test is performed to test the hypothesis. Table 5 presents the results.

Results from Table 5 show that there are 61 low-incentive- and diversified acquisitions versus 37 low-incentive- and focus acquisitions. The number of firms from low-incentive-and-diversified group with diversified unrelated acquisitions [62.2% (61/98)] is significantly higher than the test proportion of 50%, at the 1% level. Results support the hypothesis that managers with lower incentives undertake more diversified acquisitions. In the high incentive category, 58 observations are collected. Out of the 58 observations 32 are high-incentive- and focus and 26 are high-incentive-and-diversified. The proportion [55% (32/58)] of high-incentive- and focus of all acquisitions with a high incentive ratio is not significantly higher than the test proportion of 50%. The results fail to support the hypothesis that managers with high incentives undertook more related acquisitions.
Table 5
Nonparametric Test of Proportions of Related and Unrelated Acquisitions by Firms with Different Incentive Ratios

<table>
<thead>
<tr>
<th></th>
<th>Focus Acquisitions</th>
<th>Diversified Acquisitions</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Incentive</td>
<td>32 (55.1%)</td>
<td>26</td>
<td>58</td>
</tr>
<tr>
<td>Low Incentive</td>
<td>37</td>
<td>61 (62.2%)**</td>
<td>98**</td>
</tr>
<tr>
<td>Total</td>
<td>69</td>
<td>87</td>
<td>156</td>
</tr>
</tbody>
</table>

a: Binomial proportion test is utilized to test the significance.
b: Percentage of total within each category.
c: Industrial relatedness of some acquisitions is unavailable. Numbers here represent all observations available in the sample.
***: Significant at the .01 level.

In addition to the proposed incentive ratio in this paper, prior studies have documented several factors that affect stock returns associated with diversified or focused mergers and acquisitions. Among the factors include, the firm's prior performance, free cash flow, insider ownership, and institutional ownership. In addition, firm size has been suggested to affect managerial ownership stakes and managerial compensation. To control for these variables, we estimate multiple regression models to investigate the impact of diversification and managerial incentives on stock performance.

We utilize market to book ratio relative to industry as the proxy for firm performance. The number of institutional investors is used as the proxy for outside blockholders. To measure insider ownership, we use the same proxy suggested by Sridharan (1996). INSIDER is a variable that indicates the proportion of managers on the board of directors. An insider is defined as a director of the board who also holds a management position within the firm. The number of insiders divided by the number of directors is used as a measure of insider ownership. Free cash flow is calculated as suggested by Lohn and Poulsen (1989). The firm’s market value is the proxy for firm size. All variables are collected from the COMPSTAT tape.

Table 6 presents the results of the regression analysis. Models one and three include industrial relatedness but no incentive ratio. Models two and four include the incentive ratio but no industrial relatedness. Results in models one and three suggest that industrial relatedness is marginally significant at the five and 10 percent levels respectively. Models two and four show that the incentive ratio is highly significant at the one percent level. Model five, including both industrial relatedness and incentive ratio, shows that the incentive ratio is the only significant variable at the one percent level. Market value is the control variable for size across all five models.

Conclusion

This paper investigates the returns to acquiring firms in acquisition activities and tests the hypothesis that managers' incentives affect their investment decisions. We also investigate the incentive effect on managers' selection of the types of acquisitions: focus and diversified. We hypothesized that focus acquisitions create more wealth for shareholders of acquiring firms and that firms whose managers have a proper incentive to maximize the firm's value undertake more focus acquisitions.

By examining both personal costs and personal benefits associated with an acquisition, we found that managers' incentives affect the acquisition investment decision and the outcome of the investment. A strong positive relationship exists between stock returns and the manager incentive ratio. Results are consistent with the idea of agency theory by Jensen (1976).
Table 6
Regression Results of Analysis
Regression results of 3-day cumulative abnormal returns (CAR) on explanatory variables, estimated coefficients and their t-statistic in parenthesis, R-squares, and F-values, 1990-1992.

\[ \text{CAR}_{i}(t+1) = \alpha_0 + \alpha_1 \text{IR}_i + \alpha_2 \text{REL}_i + \alpha_3 \text{FCF}_i + \alpha_4 \text{INSDR}_i + \alpha_5 \text{INSTITU}_i + \alpha_6 \text{MKTVAL}_i + \alpha_7 \text{MB}_i + \epsilon_i, \]

<table>
<thead>
<tr>
<th>Regression</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
<th>Model 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>IR</td>
<td>.205(2.716)***</td>
<td>.155(1.85)**</td>
<td>.210(2.615)***</td>
<td>.385(3.746)***</td>
<td></td>
</tr>
<tr>
<td>REL</td>
<td>.134(1.702)*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FCF</td>
<td>.058(.639)</td>
<td>.073(.896)</td>
<td>.054(.556)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INSDR</td>
<td>-.04(-.419)</td>
<td>-.029(-.343)</td>
<td>-.143(-1.359)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INSTITU</td>
<td>-.064(-.705)</td>
<td>-.133(-1.616)*</td>
<td>.077(0.501)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MBRATIO</td>
<td>.029(.315)</td>
<td>-.066(-.068)</td>
<td>.085(.850)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MKTVAL</td>
<td>-.081(-1.025)</td>
<td>-.129(-1.701)*</td>
<td>-.099(-1.10)</td>
<td>-.137(-1.673)</td>
<td>-.163(-1.123)</td>
</tr>
<tr>
<td>R-squared</td>
<td>.5.1%</td>
<td>5.7%</td>
<td>10.1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F-statistic</td>
<td>1.983</td>
<td>5.446***</td>
<td>2.493***</td>
<td>2.658***</td>
<td></td>
</tr>
</tbody>
</table>

CAR (-1, +1) = the 3-day cumulative returns around the acquisition announcements.
***, **, * indicates significance at the .01, .05 and 0.10 levels respectively.

All regression models are both multicollinearity- and heteroskedastic-consistent.
IR: Incentive Ratio.
REL: Industrial relatedness coded 0 if is diversified and 1 if focused.
FCF: Free cash flow.
INSDR: Insider ownership, measured as the number of individuals who are managers as well as directors divided by the total number of directors.
INSTITU: Number of Institutional investors.
MBRATIO: Market to book ratio relative to the industry average.
MKTVAL: Market value of the firm.

This study also provides new evidence of the effects of corporate diversification on the returns to acquiring firms. It shows that focus acquisitions consistently outperform diversified ones, and produce significantly higher returns to shareholders of acquiring firms. Results are consistent with the findings of Sicherman and Pettway (1987), Scanlon, Triffs, and Pettway (1989) and Dennis, Denis, and Sarin (1997) that shareholders, on average, do not benefit from corporate diversification. This study also documents that managers with lower incentives consistently undertake more diversified acquisitions than focus acquisitions. There is also marginal evidence that managers with higher incentives undertake more focus acquisitions than diversified ones. When manager incentive and industrial relatedness are combined, the largest returns are found in the high-incentive-and-focus group. Results suggest that to mitigate the agency costs and to provide a proper incentive for managers, both the manager's equity share holdings and his compensation package should be properly designed.

Suggestions for Future Research

This study provides evidence that managers' incentive substantially affects their investment decisions. The stock market also reacts differently to the acquisition announcements of firms with different incentive ratios. The present study shows that this ratio, incorporating both benefits and costs for managers, measures the degree of alignment between the manager's and shareholder's interest. Future research can utilize this ratio to
investigate corporate issues such as the success of takeover or leverage buyout and others.

Prior research has tended to focus on the returns to acquiring firms. Research on returns to acquired firms has been largely ignored. In fact, managers of acquired firms may have incentives to acquiesce in a takeover bid. Those incentives might include a generous severance plan, options that become immediately exercisable, and lucrative consulting contracts. The greater the benefits accruing to managers of acquired firms, the greater their incentive to mount a weak defense against a bid. A weak defense might result in shareholders of acquired firms receiving a lower price than if a rigorous defense was mounted. Future research might investigate the effect of the incentive ratio on returns for acquired firms.

Finally, further refinement of both costs and benefits, including an examination of nonpecuniary benefits, offer a rich source for future research.

References