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# Acquiring organizational capital

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# Acquiring Organizational Capital

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## Abstract

Organizational capital is the accumulation and use of private information to enhance economic efficiency for a firm. Theory has argued that organizational capital is typically embodied in employees and the organizational structure, and is hard to transfer across organizations. In this paper, we study whether organizational capital is transferable across firms via mergers. The evidence shows that acquirers gain more from acquiring firms with higher organizational capital and acquirers are also willing to pay a higher premium for higher organizational capital targets. The evidence suggests that acquiring higher organizational capital targets creates synergies which are shared between acquirers and targets.

**Keywords**: Organizational Capital, Mergers and Acquisitions, Synergy, Abnormal Returns

**JEL Code**: G34, G32

# 1. Introduction

Evenson and Westphal (1995, p. 2237) define organizational capital as "the knowledge used to combine human skills and physical capital into systems for producing and delivering want-satisfying products." It has often been invoked as the key factor that gives a firm sustainable competitive advantage in a highly competitive industry, e.g., Procter & Gamble in consumer goods and IBM in computers and information technology. Atkeson and Kehoe (2005) estimate that the payments that arise from organization capital are more than one-third the size of those generated by physical assets, and represent more than 40% of the cash flows generated by all intangible assets in the U.S. National Income and Product Accounts.

Organizational capital cannot be completely codified and hence transferred to other firms or imitated by other firms. Jovanovic (1979) and Becker (1993) argue that organizational capital is embodied in the organization: their employees, organizational culture and others. Evenson and Westphal (1995, p. 2213) also write: "Much of the knowledge about how to perform elementary processes and about how to combine them in efficient systems is tacit, not physically embodied and neither codified nor readily transferable. Thus, though two procedures...... may use identical material inputs in conjunction with equal information, they may nonetheless employ...... two distinct techniques owning to differences in understanding of the tacit elements."

Although it is difficult for firms to buy organizational capital separately, mergers may be a way for firms to acquire the organizational capital of another. Carlin, Chowdhry and Garmaise (2012) and Faria (2008) conduct theoretical analysis on firms' decision on internal investment on organizational capital and external investment via mergers. Firms with organizational capital are not necessarily those that can manage it the best. Market for organizational capital can emerge as a natural outcome. In this paper, we investigate whether acquirers can benefit from acquiring other firms with high organizational capital. We plan to shed light on the transferability of organizational capital across firms and how the market for organizational capital works.

Our paper is closely related to a contemporaneous paper by Li, Qiu, and Shen (2017). They examine the effect of *acquirer* organizational capital on acquirer performance, while we examine the effect of *target* organizational capital on acquirer performance. Our empirical investigation is motivated by theoretical studies on the market for organizational

capital which is defined as the market where firms acquire organizational capital externally (Faria, 2008). Faria (2008) finds that considering the market for organizational capital can generate merge waves and also a few other stylized facts on mergers. Therefore, it is important to empirically test whether the market for organizational capital is important and also its efficiency by examining whether acquirers can benefit by acquiring targets with higher organizational capital and how this market works.

## 2. Data

We extract the acquisition sample from the Securities Data Corporation's (SDC) U.S. Mergers and Acquisitions database. We identify 1,805 acquisitions made by 1,177 firms between January 1, 1981 and December 31, 2011 that meet the following criteria. The acquisition is completed. The acquirer controls less than 50% of the target's shares prior to the announcement and owns 100% of the target's shares after the transaction. The deal value disclosed in SDC is more than $1 million and is at least 1% of the acquirer's market value of equity measured on the 11th trading day prior to the announcement date. Both the acquirer and the target are public listed in the U.S.

We construct the organizational capital (OrgCap) measure following Eisfeldt and Papanikolaou (2013). Lev and Radhakrishnan (2005) and Eisfeldt and Papanikolaou (2013) argue that a large component of Selling, General and Administrative Expenses (SG&A) consists of expenses related to workplace training, organizational redesign, investment in information and internal communication system, and consulting, thus reflecting firms' investment in organizational capital. The existing studies have also conducted validity tests for this measure. Eisfeldt and Papanikolaou (2013) show that capitalized SG&A expenses indeed capture many aspects of organizational capital, e.g., firms with more organization capital are more likely to list loss of key personnel as a risk factor, are positively correlated with the management quality score developed by Bloom and Van Reenen (2007) and have a greater demand for information technology. Specifically, we recursively construct the stock of organizational capital $OrgCap_{it}$ by cumulating the deflated value of SG&A expenses,

$$OrgCap_{it} = (1 - \delta_0) * OrgCap_{it-1} + \frac{SGA_{it}}{cpi_t} \qquad (1)$$

where $cpi_t$ is the consumer price index at year $t$. The initial stock of organizational capital is calculated according to

$$OrgCap_{it} = \frac{SGA_{it}}{g + \delta_0} \qquad (2)$$

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where $g$ is the growth rate of firm level SG&A expenses and $\delta_0$ is the depreciation rate of organizational capital. We set $\delta_0$ to 15% and $g$ to 10% as in Eisfeldt and Papanikolaou (2013). Missing values of SG&A expenses are set to zero. We scale organizational capital by the firm's book value of assets in the same fiscal year. In the main analysis, we adjust firm-level organizational capital by subtracting its industry median where industries are defined based on the Fama-French 48 industries.

Table 1 reports the summary statistics for the sample. We winsorize all continuous variables at 1% and 99% tail levels to mitigate the impact of outliers. We use the cumulative abnormal acquirer return from two days before the announcement to two days after the announcement (i.e., CAR(-2,2)) to measure acquirer gains. Abnormal return is raw return minus the CRSP value-weighted index return. Besides target firm organizational capital and CAR(-2,2), we also report the summary statistics for acquirer's organizational capital (which is also industry adjusted) and other variables which are known to be related to acquirer announcement returns. The variables are defined in the caption of Table 1. We see that, on average, target firms have higher organizational capital than their industry peers, while acquirer firms have lower organizational capital than their industry peers. Target organizational capital is negatively correlated with target size. We also see that acquirer organizational capital and target organizational capital are positively correlated, suggesting some positive assortative matching between acquirers and targets.

## 3. Results

### 3.1 Target organizational capital and acquirer CAR

The first five columns of Table 2 present the regression results of CAR(-2,2). In Column (1), we find that the coefficient on OrgCap(Tar.) is 0.006, which is statistically significant at 1% level. The standard deviation of OrgCap(Tar.) is 1. The coefficient suggests that a one standard deviation increase of OrgCap(Tar.) is associated with a 0.60% increase in acquirer announcement returns. Li, Qiu, and Shen (2016) find acquirer OrgCap affects acquirer CAR. The results are similar if we control for acquirer organizational capital and other acquirer firm and deal characteristics which are known to be related to acquirer announcement returns (Moeller, Schlingermann, and Stulz, 2004).

In the next four columns, we run the same regression but in subsamples. We split the sample into two equal-sized subsample based on the sample median of relative deal size or

OrgCap(Acq.). The results show that the effect of OrgCap(Tar.) is stronger when relative deal size is larger and when the acquirer OrgCap is higher, suggesting that there is some complementarity in organizational capital between acquirers and targets.

Our results differ from Li, Qiu, and Shen (2017). Although Li, Qiu, and Shen (2017) focus on the effect of *acquirer* organizational capital on acquirer performance, they also have some brief analysis on how acquirer performance varies with *target* organizational capital but fail to find any significant relation. Our sample selection differs from theirs. We only analyze acquisitions where the targets are public firms. Li, Qiu, and Shen (2017) also consider private targets and subsidiary targets for which their parent firms are public. They use CapitalIQ for the data on private targets' organizational capital, and use parent firms' organizational capital as the subsidiaries'. One possible reason for the differences between our finding and Li, Qiu, and Shen (2017) is that including private targets and subsidiary targets increases the measurement errors of target organizational capital, while only considering public targets gives cleaner and sharper results.

## 3.2 Target organizational capital and target executive retention and future SG&A investment

Jovanovic (1979), Becker (1993), and Eisfeldt and Papanikolaou (2013), among others, have argued, organizational capital is embedded in a firm's people. We therefore expect that, to maximize the value of target OrgCap, acquirers are less likely to allow the target key personnel to leave the combined firms. Columns (7) and (8) report probit regression results on how target organizational capital is correlated with the propensity for target executives to stay. For each deal we find the target's executives from Execucomp database in the fiscal year before the announcement date. We have 311 acquisitions covered by Execucomp. For each executive, we create a binary variable indicating whether he/she stays in the merged company in the second year after the merger. An executive is defined as having left a company in a particular year if he/she is associated exclusively with another company or his/her ID is not found in the Execucomp database in that year. The regression is at executive level. We consider all executives from the Execucomp database in the first column and only the top five managers (i.e., the CEO and the other four executives with the highest pay) in the second column. Both coefficients of OrgCap(Tar.) are significant, supporting the conjecture that retention of managers in higher OrgCap targets is higher.

How will firms change their operation? In Column (9), we find that the combined firms

increase their investment in organizational capital (i.e., SG&A) more if the target has higher organizational capital. We follow Barber and Lyon (1996) and Fu, Lin, and Officer (2013) to calculate abnormal changes in SG&A. Specifically, we find a same-industry control firm that has the closest SG&A, in the year before the merger, with the acquirer and with the target separately. We calculate the weighted average SG&A for the target and acquirer in the pre-merger period and adjust it by the weighted average of the two control firms. We also adjust the combined firm's SG&A by the weighted average of the two control firms in the post-period. Control firms are required to exist for at least three years after the merger. We regress the mean value of the match-adjusted performance over the three-year post-period on the combined acquirer-target match-adjusted performance over the one-year pre-period, OrgCap(Tar.), and acquirer and deal characteristics. The coefficient on OrgCap(Tar.) is positive and significant, suggesting that the combined firms' SG&A increases more if the target's OrgCap is higher.

3.3 Target organizational capital and acquisition premium

Since organizational capital is valuable, are acquirers willing to pay a higher premium for targets with higher organizational capital? Column (10) reports the results. The coefficient of target organizational capital is 3.606 and statistically significant. This implies that one standard deviation change of target organizational capital is associated with a 3.6% increase in merger premium. The average merger premium is around 42.5%. A 3.6% increase is not a small change.

3.4 Robustness tests

In Table 3, we conduct various robustness tests. First, in our main analysis, following the existing studies (Moeller, Schlingemann, and Stulz, 2004; among others), we exclude withdrawn offers from the sample. However, withdrawn offers may differ from successful offers systematically (Cumming, Ji, Johan, and Tarsalewska, 2016; Wang, 2017). In Column (1), we include the withdrawn offers into the regression and find that the coefficient of OrgCap(Tar.) is 0.007, which is very similar to the results without considering failed deals. The $t$-value increases from 3.03 to 4.12, probably because of larger sample size. Overall, we think, although excluding withdrawn offers could lead to sample selection issues in some cases, it does not seem to be a major concern for our paper.

Second, existing studies show that acquirers can learn from the market and their

acquisition experience matters for their acquisition performance (Aktas, de Bont, and Roll, 2013; Ouyang and Szewczyk, 2016). In Column (2), we add the number of acquisitions done by the acquirer in the past five years as a control for the experience effect. The coefficient of this variable is positive (0.001, t=1.76), consistent with the learning effect (Aktas, de Bont, and Roll, 2013). However, adding it has minimal effect on the effect of OrgCap(Tar.).

Third, target organizational capital may be correlated with target's growth opportunity. It is likely that growth opportunity spurs investment in organizational capital, and organizational capital enhances growth opportunity. The transfer of growth opportunity from target to acquirer may also affect acquirer performance, leading to an omitted variable problem. To mitigate this concern, in Column (3), we add target $q$—our measure of target's growth opportunity. The coefficient of target organizational capital is 0.007 (t=3.17), very similar to the results without controlling for target $q$. Interestingly, the coefficient of target $q$ is -0.005 (t=-2.73). The negative coefficient of target $q$ suggests that acquirers gain less by buying targets with higher $q$. This further mitigates the concerns above.

Fourth, target organizational capital may be correlated with target's corporate governance. It is likely that acquirers may benefit from acquiring better governed targets. Following Cremers and Nair (2005), we create a Block variable: the percentage stock ownership by a firm's institutional blockholders, defined as institutional investors with at least 5% of equity ownership. Interestingly, target organizational capital is slightly negatively correlated with Block with a correlation coefficient of -0.051 (p=0.03). Column (4) reports the results after adding Block into the regression. The coefficient of target organizational capital is 0.006 (t=3.03), similar to the results without controlling for Block. In untabulated results, we also examine the correlation between target organizational capital and a few other corporate governance measures including percent ownership of the top 1, top 5 or top 10 institutional investors, number of blockholders, the G-index, and CEO-chairman duality. The correlations are either significantly negative or statistically insignificant. Not surprisingly, controlling for them has little effect on the coefficient of target organizational capital.

Fifth, in Columns (5)-(8), we vary the ways to calculate cumulative abnormal returns. Our results are similar if we change the dependent variable to be the raw returns, raw returns adjusted by equal-weighted CRSP index returns, raw returns adjusted by size decile portfolio returns, or raw returns adjusted by the DGTW benchmark (Daniel,

Grinblatt, Titman, and Wermers, 1997).

Finally, in Column (9), we show that our results are also robust to the accounting based performance measure. We use the same matching-firm approach as when we analyze change of SG&A to facilitate comparisons of industry-adjusted pre- and post-merger accounting performance and to control for mean reversion in accounting performance measures. Our accounting performance measure is defined as operating income before depreciation divided by sales, following Fee and Thomas (2004). In the three-year post-merger period (one-year pre-merger period), abnormal performance, or, match-adjusted performance, is calculated as acquirer's accounting performance (weighted average performance of the merging firms) minus the weighted average performance of the control pair, with weights being acquirer and target's relative total assets measured at the fiscal year prior to the merger. Control firms are required to exist for at least three years after the merger. When regressing acquirer's post-merger accounting performance on target organizational capital, we find that the coefficient of target organizational capital is 0.007 (t=1.81), again statistically significant.

## 4. Conclusions

In this paper, we find that, in mergers and acquisitions, acquirers benefit more when the target firms have higher organizational capital. Post-merger, acquirers invest more in organizational capital and their performance also improves. Top managers from the target firms are more likely to stay in the combined firm if the target has higher organizational capital. We also find that acquirers pay a higher premium for higher organizational capital targets. All these findings suggest that organizational capital is transferable via mergers. The synergy is shared among the target shareholders and the acquirer shareholders.

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# Table 1. Summary statistics

This table reports the summary statistics (mean, standard deviation (STD) and pairwise correlation coefficients) of each variable. CAR is cumulative abnormal stock return which is calculated as the cumulative stock return from two days before deal announcement to two days after deal announcement subtracted by the contemporaneous CRSP value-weighted index return. OrgCap(Tar.) and OrgCap(Acq.) are the industry median adjusted target and acquirer organizational capital. Size is the acquirer's log book assets. $q$ is market value of assets over book value of assets. FCF is free cash flow which is calculated as operating income before depreciation–interest expense–income taxes–capital expenditures, divided by book value of total assets. Leverage is short-term debt plus long-term debt divided by total assets. Runup is the acquirer buy-and-hold abnormal return of the period (-210, -11). Cash is equal to one if a deal is purely financed by cash, and zero otherwise. Industry M&A is the value of all corporate control transactions of \$1 million reported by SDC for each prior year and Fama-French industry divided by the total book value of assets of all Compustat firms in the same Fama-French industry and year. HighTech is defined following Loughran and Ritter (2004), which is equal to one for firms in the SIC codes 3571, 3572, 3575, 3577, 3578 (computer hardware), 3661, 3663, 3669 (communications equipment), 3671, 3672, 3674, 3675, 3677, 3678, 3679 (electronics), 3812 (navigation equipment), 3823, 3825, 3826, 3827, 3829 (measuring and controlling devices), 3841, 3845 (medical instruments), 4812, 4813 (telephone equipment), 4899 (communications services), and 7371, 7372, 7373, 7374, 7375, 7378, and 7379 (software), and zero otherwise. Relative size is the deal value (from SDC) divided by bidder's market value of equity. Tender is equal to one if a deal is a tender offer and zero otherwise. Hostile is equal to one is the target attitude is hostile and zero otherwise. Diversifying is equal to one if the target and the acquirer are not in the same Fama-French 48 industry and zero otherwise. * $p<0.1$; ** $p<0.05$; *** $p<0.01$.

| | | Mean | STD | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | CAR(-2+2) | -0.01 | 0.09 | 1.00 | | | | | | | | | | | | | | |
| 2 | OrgCap(Tar.) | 0.19 | 1.00 | 0.07*** | 1.00 | | | | | | | | | | | | | |
| 3 | OrgCap(Acq.) | -0.19 | 0.70 | 0.02 | 0.28*** | 1.00 | | | | | | | | | | | | |
| 4 | Size(Acq.) | 6.72 | 1.96 | -0.05** | -0.26*** | -0.24*** | 1.00 | | | | | | | | | | | |
| 5 | q(Acq.) | 2.48 | 3.97 | -0.09*** | -0.04* | -0.05** | -0.07*** | 1.00 | | | | | | | | | | |
| 6 | FCF(Acq.) | 0.02 | 0.15 | 0.05** | -0.11*** | -0.12*** | 0.25*** | -0.04* | 1.00 | | | | | | | | | |
| 7 | Leverage(Acq.) | 0.14 | 0.14 | 0.11*** | -0.06*** | -0.07*** | 0.08*** | -0.25*** | -0.11 | 1.00 | | | | | | | | |
| 8 | Runup(Acq.) | 0.03 | 0.41 | -0.03 | -0.06*** | -0.04* | 0.01 | 0.23*** | 0.12 | 0.03 | 1.00 | | | | | | | |
| 9 | Cash | 0.29 | 0.46 | 0.15*** | 0.06*** | -0.05** | 0.19*** | -0.08*** | 0.17 | -0.04* | -0.07*** | 1.00 | | | | | | |
| 10 | Industry M&A | 0.10 | 0.12 | -0.04* | -0.06*** | -0.03 | -0.01 | 0.16*** | -0.04 | -0.06** | 0.06** | -0.01 | 1.00 | | | | | |
| 11 | HighTech | 0.32 | 0.47 | -0.12*** | 0.09*** | -0.09*** | -0.04* | 0.18*** | 0.01 | -0.34*** | 0.06*** | 0.03 | 0.12*** | 1.00 | | | | |
| 12 | Relative size | 0.45 | 0.92 | 0.03 | -0.06*** | 0.05** | -0.20*** | -0.07*** | -0.08 | 0.19*** | -0.07*** | -0.09*** | -0.04* | -0.11*** | 1.00 | | | |
| 13 | Tender offer | 0.27 | 0.44 | 0.10*** | -0.01 | 0.01 | 0.12*** | -0.09*** | 0.13 | 0.05** | -0.07*** | 0.43*** | -0.05** | -0.10*** | 0.00 | 1.00 | | |
| 14 | Hostile | 0.04 | 0.21 | 0.07*** | -0.03 | 0.02 | 0.00 | -0.04* | 0.03 | 0.11*** | -0.01 | -0.02 | -0.03 | -0.08*** | 0.18*** | 0.21*** | 1.00 | |
| 15 | Diversifying | 0.38 | 0.48 | 0.02 | 0.01 | 0.00 | 0.05** | -0.02 | 0.10 | 0.00 | 0.01 | 0.09*** | -0.01 | -0.14*** | -0.07*** | 0.11*** | -0.03 | 1.00 |

**Table 2. The role of target organizational capital on acquisitions**

Premium is defined as offer price to target closing stock price one week prior to the announcement date, expressed as a percentage. The definition of all other variables can be found in Table 1. We have industry and year fixed effects in all the models. Please see the text for the details of the specifications of these models. Standard errors are clustered by acquirers' industries. * $p<0.1$; ** $p<0.05$; *** $p<0.01$.

| Dependent variable = | CAR(-2, +2) | | | | | Stay dummy | | | |
|---|---|---|---|---|---|---|---|---|---|
| Sample specification: | | Relative size | | OrgCap (Acq.) | | | | | |
| | Whole sample | Large | Small | Large | Small | All managers | Top 5 managers | Post-merger SG&A | Premium |
| | (1) | (2) | (3) | (4) | (5) | (7) | (8) | (9) | (10) |
| OrgCap(Tar.) | 0.006*** | 0.011** | -0.001 | 0.009** | 0.003 | 0.199** | 0.176* | 0.012** | 3.606*** |
| | (3.03) | (2.66) | (-0.28) | (2.38) | (1.15) | (2.03) | (1.70) | (2.33) | (3.30) |
| OrgCap(Acq.) | -0.000 | 0.002 | -0.011*** | 0.007 | -0.019 | -0.157 | -0.183 | 0.005 | 0.401 |
| | (-0.11) | (0.53) | (-2.86) | (0.77) | (-1.38) | (-0.94) | (-1.09) | (0.52) | (0.20) |
| Size(Acq.) | -0.006*** | -0.011*** | -0.005*** | -0.006** | -0.005*** | 0.107** | 0.088* | 0.000 | -0.655 |
| | (-4.01) | (-4.70) | (-3.28) | (-2.58) | (-3.80) | (2.21) | (1.85) | (0.03) | (-1.04) |
| q(Acq.) | -0.000 | -0.005 | 0.001*** | -0.000 | -0.000 | -0.088 | -0.175** | 0.004*** | 0.070 |
| | (-0.38) | (-1.64) | (2.79) | (-0.12) | (-0.14) | (-1.23) | (-2.52) | (3.20) | (0.45) |
| FCF(Acq.) | 0.040*** | 0.063*** | 0.002 | 0.043** | 0.048 | 1.482 | 1.906 | -0.059 | -1.376 |
| | (2.82) | (2.72) | (0.08) | (2.29) | (1.24) | (0.90) | (1.02) | (-1.43) | (-0.09) |
| Leverage(Acq.) | 0.034* | 0.045 | 0.048** | 0.035 | 0.042 | -1.660** | -1.876** | 0.023 | 23.754* |
| | (1.77) | (1.45) | (2.57) | (1.21) | (1.50) | (-2.31) | (-2.33) | (0.70) | (1.88) |
| Runup(Acq.) | -0.002 | -0.002 | 0.000 | 0.003 | -0.009 | 0.683* | 0.795** | -0.027*** | -1.628 |
| | (-0.30) | (-0.16) | (0.03) | (0.40) | (-0.87) | (1.84) | (2.09) | (-3.85) | (-0.42) |
| Cash | 0.029*** | 0.039*** | 0.009 | 0.022*** | 0.036*** | -0.431** | -0.462** | -0.004 | 1.472 |
| | (4.19) | (3.01) | (1.67) | (2.90) | (4.41) | (-2.09) | (-2.31) | (-0.30) | (0.66) |
| Industry M&A | 0.000 | 0.034 | -0.067** | 0.011 | -0.006 | -0.076 | 0.328 | -0.017 | 8.453 |
| | (0.01) | (1.42) | (-2.42) | (0.68) | (-0.15) | (-0.10) | (0.38) | (-0.35) | (0.39) |
| HighTech | 0.001 | -0.010 | 0.001 | 0.005 | -0.001 | 0.136 | 0.157 | 0.049** | -0.994 |
| | (0.14) | (-0.77) | (0.23) | (0.31) | (-0.12) | (0.54) | (0.64) | (2.56) | (-0.47) |
| Relative size | -0.000 | 0.001 | -0.150*** | -0.003 | 0.002 | 0.644*** | 0.632*** | -0.003 | -2.119 |
| | (-0.10) | (0.21) | (-4.49) | (-0.89) | (0.52) | (4.40) | (4.38) | (-0.80) | (-0.94) |
| HighTech*Relative size | -0.036** | -0.010 | -0.066 | -0.047 | -0.030*** | -0.232 | -0.198 | 0.023 | 0.783 |
| | (-2.60) | (-0.65) | (-1.16) | (-1.62) | (-4.18) | (-1.08) | (-0.80) | (1.04) | (0.09) |
| Tender offer | 0.002 | 0.006 | 0.003 | 0.013 | -0.011* | 0.134 | 0.222 | 0.000 | 4.293* |
| | (0.37) | (0.68) | (0.55) | (1.61) | (-1.89) | (0.56) | (0.96) | (0.00) | (1.86) |
| Hostile | 0.023** | 0.028* | 0.004 | 0.032* | 0.019 | 0.432 | 0.280 | -0.008 | 9.992* |
| | (2.27) | (1.92) | (0.30) | (1.96) | (1.11) | (1.33) | (0.66) | (-0.29) | (1.94) |
| Diversify | -0.003 | -0.010 | 0.001 | -0.009 | 0.002 | 0.165 | 0.194 | -0.001 | 0.181 |
| | (-0.57) | (-1.26) | (0.13) | (-1.65) | (0.33) | (1.13) | (1.33) | (-0.19) | (0.08) |
| CAR(-2+2) | | | | | | -1.156 | -1.091 | | |
| | | | | | | (-0.91) | (-0.84) | | |
| Pre-merger SG&A | | | | | | | | 1.048*** | |
| | | | | | | | | (2.69) | |
| Adj/Pseudo-R² | 0.085 | 0.148 | 0.039 | 0.072 | 0.089 | 0.142 | 0.140 | 0.093 | 0.041 |
| N | 1805 | 903 | 902 | 903 | 902 | 1226 | 1036 | 1338 | 1270 |

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## Table 3. Robustness tests

This table presents various robustness tests. In Column (1), in addition to the successful offers, we also include withdrawn offers in the regression. In Column (2), we add the number of acquisitions done by the acquirer in the past five years (denoted as Experience (Acq.)) as an additional control. In Column (3), we add Target $q$ in the regression model as an additional control, where $q$ is market value of assets over book value of assets. In Column (4), we add Block in the regression model as an additional control, where Block is the percent of ownership by blockholders, defined as institutional investors with at least 5% of equity ownership. In Columns (5)-(8), we vary the ways to calculate CAR: raw returns, DGTW adjusted returns (Daniel, Grinblatt, Titman, and Wermers, 1997), Equal-weighted CRSP index adjusted returns, and size-decile portfolio adjusted returns, respectively. In Column (9), the dependent variable is a measure of firm accounting performance: operating income before depreciation divided by sales, adjusted by matched firms (Barber and Lyon, 1996; Fu, Lin, and Officer, 2013). We have all the control variables in Column (1) of Table 2, but the coefficients of these control variables are not reported. The definition of all these control variables can be found in Table 1. We have industry and year fixed effects in all the models. Standard errors are clustered by acquirers' industries. * $p<0.1$;  ** $p<0.05$; *** $p<0.01$.

| Dependent variable = | CAR(-2+2) | | | | | | | | Accounting Performance |
|---|---|---|---|---|---|---|---|---|---|
| | Including withdrawn offers | Controlling For experience | Controlling for target $q$ | Controlling for target governance | Raw returns | DGTW adj. | EW CRSP adj. | Size adj. | Abnormal cash flow performance |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| OrgCap(Tar.) | 0.007*** | 0.006*** | 0.007*** | 0.006*** | 0.006*** | 0.006*** | 0.006*** | 0.005*** | 0.007* |
| | (4.12) | (3.02) | (3.17) | (3.03) | (2.73) | (3.28) | (3.02) | (2.85) | (1.81) |
| Experience(Acq.) | | 0.001* | | | | | | | |
| | | (1.76) | | | | | | | |
| q(Tar.) | | | -0.005*** | | | | | | |
| | | | (-2.73) | | | | | | |
| Block | | | | 0.000 | | | | | |
| | | | | (0.02) | | | | | |
| pre-merger accounting performance | | | | | | | | | 1.32 |
| | | | | | | | | | (1.30) |
| Other controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Adj R$^2$ | 0.074 | 0.085 | 0.105 | 0.085 | 0.076 | 0.097 | 0.085 | 0.085 | 0.116 |
| N | 2510 | 1805 | 1609 | 1805 | 1805 | 1728 | 1805 | 1805 | 1233 |

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