TRANSACTION SERVICES

The Determinants of M&A Success

What Factors Contribute to Deal Success?

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In conjunction with University of Chicago Graduate School of Business
Professor Steven Kaplan

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Introduction

Last year, deal values reached an unprecedented U.S. $3.79 trillion globally, an increase of 38 percent from 2005 and an increase of 11 percent from 2000, when the prior deal record was set. The second quarter of 2007 set another global record: internationally, companies announced U.S. $1.65 trillion of mergers, which is a 90 percent increase from the same period in 2006.[1] The convergence of numerous factors fueled this M&A surge, and these factors indicate that the M&A market may remain strong, even in light of lending concerns. These factors include large pools of private equity and hedge fund money, an active debt market, and strong emerging markets.

The purpose of this study is to analyze the factors that have recently been correlated with deal success. While some of these factors—such as how deals are financed—may have been examined before, we believe others—such as how deal rationale may affect success—are relatively unexamined. We hope that you find this study provocative and that it contributes to the continuous dialogue on this important business topic. This research has been conducted in consultation with University of Chicago Graduate School of Business Professor Steven Kaplan.

Methodology

This study is based on an analysis of 510 worldwide corporate deals that were announced between January 1, 2000 and December 31, 2004. "Success" was measured using the normalized stock return one and two years after the deal was announced.[2] Normalized returns are stock price returns relative to stock price returns in the same industry. When we refer to a variable or acquisition characteristic as successful, the characteristic is associated with stock returns that are both positive and statistically significant. We also examined how the mergers affected EBITDA[3] margins. The deals included in this study involved 100 percent acquisitions, where the target constituted at least 20 percent of the sales of the acquirer and where the purchase price was in excess of U.S. $100 million. We intend to update this global deal analysis for transactions announced in 2005 and afterwards in future publications.

1 Thomson Financial 2007.
2 Because success was measured using stock price appreciation, acquisitions by private equity firms were excluded from this analysis.
3 EBITDA is defined as earnings before interest, tax, depreciation, and amortization.

Key Findings

Based on our analysis of normalized returns and the variables examined, the following correlations emerged:

- Overall, there was a correlation between merger activity and increasing shareholder value
- Cash deals had significantly higher returns than stock deals and stock and cash deals[4]
- Acquisitions by smaller acquirers (based on market capitalization) were more successful than those by larger acquirers
- Acquirers and targets with low P/E ratios resulted in the most successful deals
- Acquirers with one to two previous deals in the prior two years performed best; those with ten or more performed worst
- Transactions that were motivated by increasing "financial strength" and improving distribution channels were most successful
- Deals that were motivated by vertical integration and acquiring intellectual property or technology were least successful
- The geographic location of the acquirers and targets was not statistically significant

Deal Variables

The variables that we examined included the following:

- Financing – stock vs. cash deals
- The size of the acquirer
- The price-to-earnings (P/E) ratio of the acquirer
- The P/E ratio of the target
- The prior deal experience of the acquirer
- Deal rationale
- The geographic location of the acquirer and target

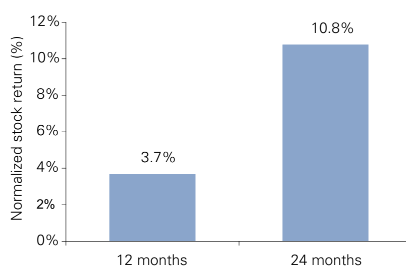
I. Deal Performance

Although there has been some press concerning the fact that mergers may not result in any value creation, recent studies, including this one, lead to a significantly more positive conclusion. According to the results of this study, 12 months after a deal was announced, companies that completed a merger were associated with an average 3.7 percent normalized stock gain. After 24 months, companies in our study were associated with an average 10.8 percent normalized stock gain, meaning that the stock prices of the acquirers performed 10 percent better than their industry peers.[5] This research builds on a 2003 KPMG whitepaper "Beating the Bears," which found that 34 percent of all global deals completed in 2000 and 2001 created value for investors.

Transaction Characteristics

Every deal necessarily has numerous characteristics. Is the deal being financed by cash, stock, or a combination? Is the acquirer worth more than U.S. $10 billion? Is its P/E ratio above or below average? What explanation is the company giving for doing the deal? While many of these factors are a given, such as a company's market capitalization (market cap), it is still interesting to examine how these factors correlate with the success (as defined by stock market appreciation) of recent deals.

Stock Return for Acquirers[6]



Source: KPMG research

[4] Since financial buyers were not included, this study did not include leverage as a variable.
[5] The 12- and 24-month time periods used in this paper were computed from the date the deal was announced.
[6] All references in the charts to 12 and 24 months refer to 12 and 24 months after the deal was announced.

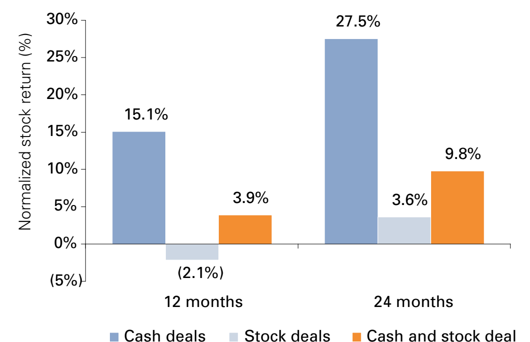
Our study found that certain factors, including whether a deal was financed with cash, had a strong correlation with deal success. Other factors, such as whether both the acquirer and target were in the same geographic region, had no significant correlation with deal success. The factors that were most strongly correlated with success were cash vs. stock financing and low P/E ratios. In addition, deals that were motivated by financial considerations were most successful; deals that were motivated by a desire to acquire intellectual property or for purposes of vertical integration were least successful. A detailed examination of these findings follows.

Deal Currency

Cash is King

What does the way a deal is financed say about the economics of the companies involved and their combined prospects for success? As suspected, cash deals, compared with stock deals, were significantly more successful, measured after both 12-month and 24-month intervals. This study quantified that based on normalized stock returns, the average cash deal in the study showed a return of 15.1 percent after one year, and a stellar 27.5 percent after two years. Deals financed solely with stock were significantly less successful. The average all-stock deal in our study returned negative 2.1 percent at 12 months and positive 3.6 percent at 24 months. Deals that were financed with both cash and stock performed between the two extremes and returned 3.9 percent after one year and 9.8 percent after two years.

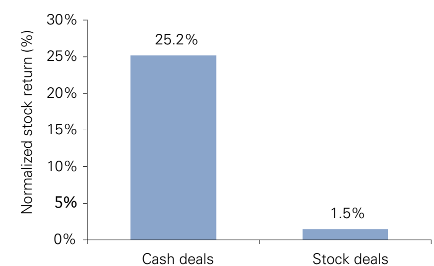
Returns on Financing Options



Source: KPMG research

These results may be due to the fact that companies that finance transactions with stock sometimes perceive their stock to be a "cheaper" currency than cash and may believe their stock prices have reached their peak, especially if their stock price is accompanied by a higher than average P/E ratio or other valuation metric. It is interesting to note that this pattern may be more pronounced in periods when the stock market's P/E ratio in general is elevated. In 2000 at the height of the internet bubble, the U.S. market's P/E ratio was 26, a recent high. One year later, acquirers in our study that completed cash deals showed a normalized return of more than 25 percent. Acquirers that used other means of financing had stock returns that averaged just 1.5 percent. In addition, since many cash deals are financed with debt, companies may gain an added return on equity benefit from the effects of leverage. Although the determination of how to create the best financial structure remains deal specific.

Returns in 2001



Source: KPMG research

The P/E Ratio of the Acquirer and Target

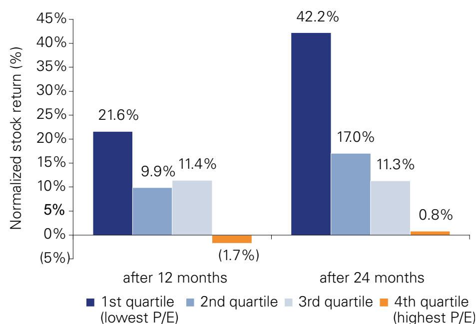
Less is More

Acquisitions made by acquirers who had low P/E ratios were significantly more successful than acquirers with high P/E ratios. Acquirers whose P/E ratios were in the lowest quartile of this study saw an average return of 21.6 percent after the first year and 42.2 percent two years after the deal was announced. Acquirers whose P/E ratios were in the second lowest quartile had an average return of 9.9 percent one year after the deal was announced and 17.0 percent after two years. Conversely, those companies whose P/E ratios placed them in the highest quartile experienced a negative 1.7 percent return after one year and just a 0.8 percent return after two years.

The P/E ratio of the target was also statistically significant. Not surprisingly, acquirers who were able to purchase companies with below average P/E ratios had significantly higher returns. Acquirers whose targets were in the lowest quartile saw an average return of 14.8 percent after one year and a 34.4 percent stock price increase after two years. Acquirers who purchased companies in the second lowest quartile saw returns of 14.5 percent after one year and 24.9 percent after two years. Conversely, acquirers who purchased targets with P/E ratios in the highest quartile saw returns of negative 4.2 percent after one year and a positive 5.5 percent after two years.

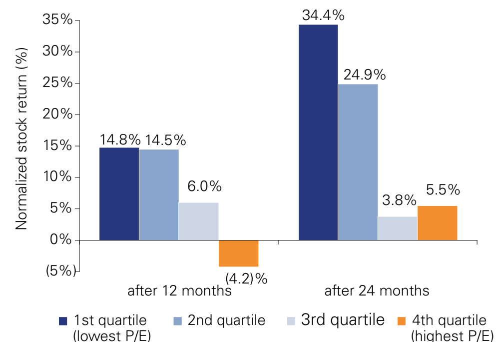
There are several possible explanations for these findings. Acquirers with low P/E ratios may not be as tempted as high P/E ratio acquirers to engage in riskier deals since their stock is probably not overvalued in the market. Acquirers with a high P/E ratio, whose stock may be overvalued, inherently have a more difficult time increasing their value after a transaction and may see their stock price revert back to the industry mean over time. Targets with low P/E ratios are likely to represent acquisitions that are more fairly priced or where an underperforming business is present. In addition, since P/E ratios often reflect an expectation of future cash flows, acquirers who buy low P/E ratio companies are most likely purchasing more realistic cash flows.

Returns Based on Acquirer P/E



Source: KPMG research

Returns Based on Target P/E



Source: KPMG research

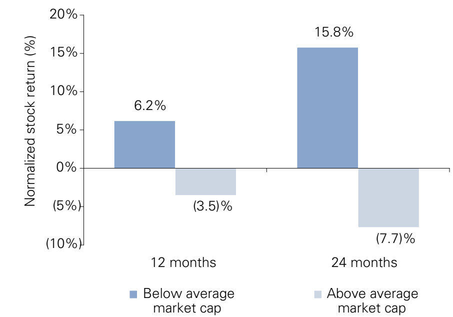
Size of the Acquirer

The Smaller the Acquirer, the More Successful the Deal

Another statistically significant factor in this study was the size of the acquirer. On average, deals completed by smaller acquirers were more successful than deals completed by larger companies. After one year, the deals completed by smaller acquirers had a normalized return of 6.2 percent, and after two years, those deals had a normalized return of 15.8 percent. Deals by larger acquirers were not as successful. On average, after one year, such acquirers returned a negative 3.5 percent, and after two years, they had a negative return of 7.7 percent. The results show the smaller the acquirer, the more successful the deal.[7] Therefore, larger companies may need a more focused transaction process and due diligence approach to improve their chances for a successful deal.

Why did acquisitions by smaller companies tend to have better results? One possible explanation is the way the size of the acquirer is correlated with other factors. This study found that there was a statistically significant correlation between large companies and several other factors. Large companies, in the time period examined, tended to do more deals, especially during the "bubble" year of 2000. Deals by smaller companies were correlated with fewer acquisitions and tended to have targets with lower P/E ratios. Lower P/E ratios and fewer deals (as discussed below) are factors that tended to be correlated with more successful acquirers.

Returns Based on Acquirer Market Cap



Source: KPMG research

Deal Experience

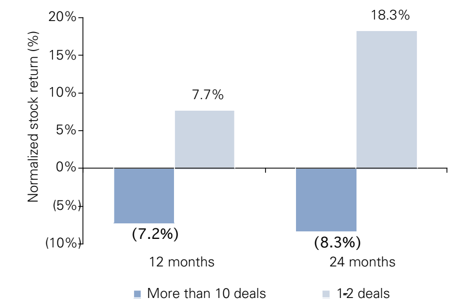
Too Many Deals Lessen Success

Is there any advantage in doing multiple deals? While engaging in several acquisitions a year may give acquirers some advantage in terms of developing best practices, acquirers who engaged in 10 or more deals a year were not as successful at enhancing shareholder value. In this study, companies that had completed one to two deals in the prior year saw an average increase in stock price of 7.7 percent after one year and 18.3 percent after two years; companies that had completed 10 or more acquisitions in a year had an overall negative return of 7.2 percent after one year and a negative 8.3 percent return after two years.

According to this study, acquirers with above average deal activity were less successful than companies with below average deal activity. Acquirers with below average deal experience saw their stock prices increase an average of 6.0 percent one year after the deal was announced and 15.3 percent two years later. Companies with above average deal experience were less successful: on average, their stock returned negative 2.5 percent after one year and 0.3 percent after two years.

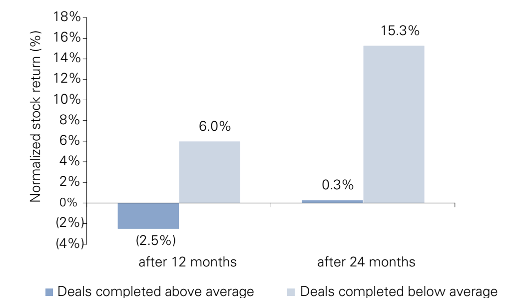
Integration is one of the most important issues for acquirers. Engaging in several transactions a year can teach acquirers valuable lessons. Although there are many exceptions, acquirers who engage in more than 10 deals a year may have a challenging time integrating many companies at once, and active acquirers should have robust processes in place to deal with such challenges.

Returns Based on Number of Deals



Source: KPMG research

Returns Based on Deal Experience



Source: KPMG research

[7] The average market cap of acquirers in our survey was U.S. $7 billion.

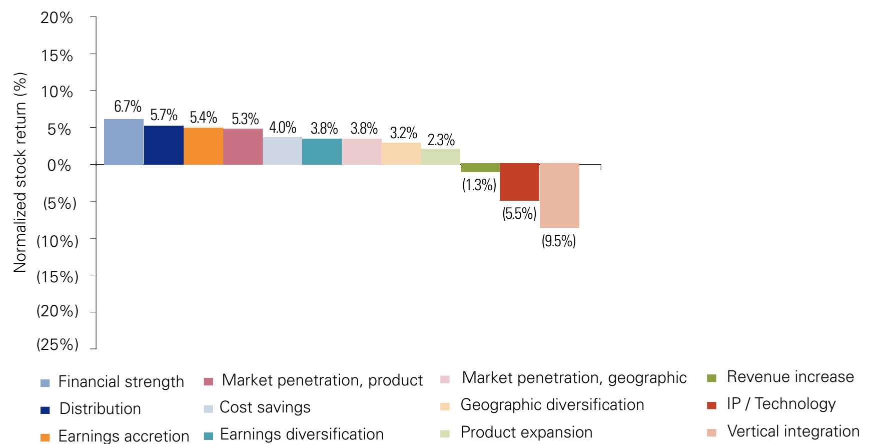
Deal Rationale

Improving Financial Strength Leads to Success

Acquirers frequently make public statements that explain the rationale for their investments. In order to determine whether certain deal rationales resulted in more successful deals, this study examined statements made in press releases, public filings, and in other publications. After one year, acquirers who said that their acquisitions were motivated by increasing financial strength saw their stock prices increase by 6.7 percent, those whose stated aim was to improve distribution channels saw their stock prices increase 5.7 percent, and those that were interested in increasing earnings had stock price gains of 5.4 percent.

After two years, the results were somewhat similar. Companies whose stated goal was to improve their distribution were most successful and had stock prices that increased by an average of 17.8 percent. Companies who said their deals were motivated by financial strength saw their stock prices increase an average of 16.8 percent, and those who were interested in cost savings saw stock prices increase an average of 16.5 percent.

Stock Price Increase Based on Deal Rationale, After 12 Months



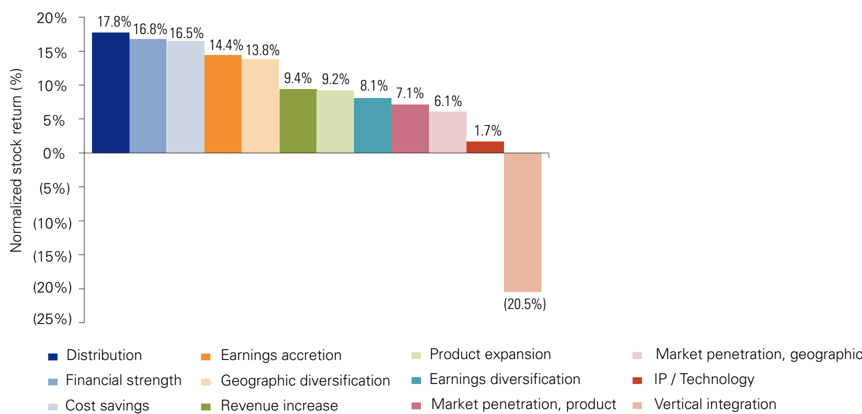
Source: KPMG research

Stick with Your Strengths

Conversely, some deal rationales seemed to lead to less successful stock returns. After one year, companies whose stated motivation was vertical integration saw their stock prices decline an average of 9.5 percent; after two years, their stock prices fell even further—and declined 20.5 percent. Another less successful deal rationale involved deals motivated by the acquisition of intellectual property or technology. After one year, those deals had a negative 5.5 percent return and, after two years, returned only 1.7 percent.

These findings may be explained by the fact that companies motivated by financial strength and cost cutting have generally identified specific areas of synergies and cost reduction that may be implemented relatively easily, especially when compared with a goal of increasing revenues. Companies that are motivated by a desire to increase revenues have a much more difficult task; those companies need to get new products to new customers, a much more speculative endeavor. Unsuccessful deals that were motivated by a desire to purchase intellectual property or technology may be the result of very high multiples, since companies with unique intellectual property may be able to command a high price—one that may not be justified. Companies involved in these deals should therefore pay extra attention during due diligence.

Stock Price Increase Based on Deal Rationale, After 24 Months



Source: KPMG research

II. Post Merger EBITDA

In addition to using the change of an acquirers' stock price as a means of measuring success, this study also examined how the combined company's EBITDA margins changed at one, two, and three years after the deal closed. The study looked at several criteria to test whether they were correlated to EBITDA improvements to the same extent that they were correlated to stock prices.[8]

In general, the EBITDA margins for the companies that made acquisitions were approximately 4 percent higher than their industry-adjusted peers. Although not statistically significant, companies involved in cash deals saw EBITDA margins that were 1.73 percent higher than their industry peers, and all-stock purchasers had EBITDA margins that were 1.84 percent lower than their industry peers. Consistent with the stock price analysis, we found that just as acquirers with more deal activity saw significant stock price declines, those acquirers also saw shrinking EBITDA margins. Acquirers who completed 10 or more deals in years preceding the examined acquisition saw their EBITDA margins shrink by 9.31 percent more than the industry benchmark. Just as financial strength as a deal motivator tended to result in a positive stock return, it also tended to result in an improving EBITDA margin. Companies who stated that their deals were motivated by financial strength had an average EBITDA margin increase by 2.67 percent above their industry group.

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[8] These EBITDA margins were also normalized to take into account industry trends.

III. Factors that Were Not Statistically Significant

Some of the factors that we looked at did not have any statistically significant impact on deal success. These factors included:

- **EBITDA to Sales ratios.**

  When we examined the EBITDA/sales margins of both the acquirer and the target, we found that that criteria did not have any statistically significant effect on how the acquirer's stock would perform after 12 and 24 months.

- **Geographic location.**

  Although most dealmakers would agree that it is more challenging to complete a cross-border transaction, the results of our study found that it was not statistically significant if both the acquirer and target were in the same country or in different countries. In addition, it was also not statistically significant if the both the acquirer and target were located in the same region or in a different geographic location.

Conclusion

As demonstrated in this paper, several deal characteristics tend to be present in the most successful deals. This study was able to quantify just how large the correlation was between success, and cash and low P/E ratios. What these factors usually indicate is that the acquirer is not overpaying for a target and that the merger's financial justification has a realistic chance of success. Similarly, deals motivated by financial strength, distribution gains, and cost cutting—goals that are somewhat simpler to achieve—also accompanied the deals that resulted in the greatest returns for shareholders. While the results of this study may not have the effect of actually encouraging or discouraging any specific deal from taking place, we hope that this statistical analysis continues to spark interesting discussions among dealmakers and adds to the dialogue that helps both acquirers and targets create the most successful transactions.

Appendix
Most Successful Global Deals Based on Stock Price Appreciation

	ACQUIRER	TARGET
2000		
1	Finning International Inc.	Hewden Stuart Plc
2	Hovnanian Enterprises, Inc.	Washington Homes, Inc.
3	Hudson River Bancorp, Inc.	Cohoes Bancorp, Inc.
4	Lennar Corporation	U.S. Home Corporation
5	M&T Bank Corporation	Keystone Financial, Inc.
6	NVIDIA Corporation	3Dfx Interactive, Inc.
7	Pilgrims Pride Corporation	WLR Foods, Inc.
8	Queens County Bancorp, Inc.	Haven Bancorp, Inc.
9	The Shaw Group Inc.	Stone & Webster Incorporated
10	Yasuda Fire & Marine Insurance Co. Ltd.	Nissan Fire & Marine Insurance Co. Ltd.
2001		
1	Allegiant Bancorp, Inc.	Southside Bancshares Corp.
2	Connecticut Bancshares, Inc.	First Federal Savings & Loan Association
3	D.R. Horton, Inc.	Schuler Homes, Inc.
4	Energy East Corporation	RGS Energy Group, Inc.
5	Luxottica Group S.p.A.	Sunglass Hut International, Inc.
6	New York Community Bancorp, Inc.	Richmond County Financial Corp.
7	Persimmon plc	Beazer Homes PLC
8	Groupe SEB	Moulinex S.A.
9	Suiza Foods Corporation	Dean Foods Company
10	Wesfarmers Limited	Howard Smith Ltd.
2002		
1	Acesa Infraestructuras SA	Aurea Concesiones de Infraestructuras, S.A. Concesionaria del Estado
2	Dragados	Hollandsche Beton Groep N.V.
3	Granada Media plc	Carlton Communications PLC
4	Instrumentarium Corporation	Spacelabs Medical Inc.
5	Kroll Inc.	ONTRACK Data International, Inc.
6	Level 3 Communications, Inc.	Software Spectrum, Inc.
7	Logica plc	CMG plc
8	Meiko National Securities Co., Ltd.	Sakura Friend Securities Co., Ltd.
9	National Grid Group plc	Lattice Group plc
10	Omnicare, Inc.	NCS HealthCare, Inc.

	ACQUIRER	TARGET
2003		
1	Armor Holdings, Inc.	Simula, Inc.
2	Canfor Corporation	Slocan Forest Products Ltd.
3	Gart Sports Company	The Sports Authority, Inc.
4	Intermagnetics General Corporation	Invivo Corporation
5	Konica Corporation	Minolta Co., Ltd.
6	Moore Corporation Limited	Wallace Computer Services, Inc.
7	OAO Severstal	Rouge Industries, Inc.
8	Palm, Inc.	Handspring, Inc.
9	Softbank Investment Corporation	E*Trade Japan K.K.
10	Xstrata plc	M.I.M. Holdings Limited
2004		
1	A.B.C. Learning Centres Limited	Peppercorn Management Group Limited
2	Boyd Gaming Corporation	Coast Casinos, Inc.
3	HealthTronics Surgical Services., Inc.	Prime Medical Services Inc.
4	IMCO Recycling Inc.	Commonwealth Industries, Inc.
5	Lyondell Chemical Company	Millennium Chemicals Inc.
6	Metcash Limited	Foodland Associated Limited
7	MGM MIRAGE	Mandalay Resort Group
8	Plains Exploration & Production Company	Nuevo Energy Company
9	Tullow Oil plc	Energy Africa Limited
10	Valero L.P.	Kaneb Services LLC

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