Impact of Related Acquisition Strategy on Bidding Company Performance

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Abstract: *Strategy researchers believe that the better the strategic fit or relatedness between the bidding and acquired firms, the greater should be the economic gain from the merger. Although merger performance has been widely researched we recognized that empirical results on merger performance are inconclusive and that there are research gaps related to geographical settings, time frame and methodological approach. Thus, the research question examined in our study was to find out if acquisition strategy or relatedness of merging companies increases performance of the bidding company. Also we considered moderating effect of premerger bidder profitability on the performance of the merger. Our study predicts that relatedness between merging companies has a positive impact on the merger's performance. Results of 49 mergers completed in 2008 in EU member countries and Switzerland show that related mergers have better merger scores than unrelated mergers. We also predict that the impact of the related acquisition strategy becomes more positive as bidder premerger performance decreases.*

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Introduction

According to the Thompson One Banker database, in 2010, the total value of merger and acquisition transactions amounted to 555 Mil USD which encompassed more than 11 thousand deals worldwide. Because of such practical relevance, mergers and acquisitions have been studied from multidisciplinary perspectives. This field attracted interest of practitioners and academics within a broad range of management disciplines taking into account its financial, strategic, behavioral, operational and cross-cultural aspects.

Mergers and acquisitions could be explained as strategically planned transactions in which the target company and the bidding company jointly create a new entity to gain competitive advantage in the market place. This term describes either the purchase or sale of corporate assets and shares (an acquisition), or the act of combining two or more companies in a single corporate entity (a merger; Ernst and Häcker, 2007). On the surface, the distinction in meaning of "merger" and "acquisition" may not really matter, since the net result is often the same: two companies (or more) that had separate ownership are now operating under the same roof, usually to obtain some strategic or financial objective.

According to Marks and Mirvis (2001), less than one quarter of mergers and acquisitions achieve their financial objectives, as measured by share value, return on investment and post combination profitability. Gugler et al. (2003) compared the performance of merging companies with a control group of non-merging firms, focusing on profitability and sales. The results show that 43% of all merged companies worldwide reported lower profits than comparable non-merged firms. Likewise, more than 50% of U.S. mergers earned negative cumulative abnormal returns (Agrawal et al., 1992). Given these outcomes, it is not surprising that more than half of the merged companies end up being divested (Porter, 1987). Because of the negative financial results in post-mergers special emphasis in different research has been put on successes and failures of merger and acquisition activities.

According to Straub (2007) and Larsson and Finkelstein (1999) mergers and acquisitions have been studied on the basis of several theories. First, there are studies on mergers and acquisitions as a method of diversification, from the strategic perspective, focusing on both the motives for different types of combinations and the performance effects of those combinations. Second, finance scholars have studied mergers and acquisitions by focusing on factors such as economies of scale and

market power as the motives and on the acquisition performance, based on stock-market measures. Third, mergers and acquisitions have been studied from the viewpoint of organizational behavior as well. Furthermore there is also 'process' literature which focuses on the important role of the choice of integration strategy and the acquisition process itself. This approach emphasizes that the acquisition process itself is a factor, in addition to the strategic and organizational fit, that affects the outcome.

In our research, we assumed the last mentioned approach also called the strategic perspective. The research question in this paper was to find out if acquisition strategy of relatedness of merging companies increases the performance of bidding companies. Our hypothesis was that relatedness between merging and bidding company will have an impact on the merger performance.

Literature Review

In the literature it is often found that the primary purpose of merging and acquiring new companies is to improve overall performance by achieving synergy (Lubatkin, 1983). Synergy is thus, the main motive and the source of value creation in mergers. Synergies can be used to explain performance differences among the various merger types (Lubatkin, 1983).

There are various typologies of synergies that exist in the literature. For example, according to Lubatkin's typology, (1983) there are three basic kinds of synergies, i.e. technical economies, pecuniary economies and diversification economies. Technical economies occur when the same amounts of inputs, or factors of production, produce a higher quantity of outputs. Pecuniary economies are achieved by the firm's ability to dictate prices by exerting market power, achieved primarily through size and diversification economies, are achieved by improving a firm's performance relative to its risk attributes.

Furthermore, Chatterjee (1986) uses broader categories of synergies. First, collusive synergy represents the class of scarce resources leading to market power. Second, operational synergy represents the class of scarce resources that leads to production and/or administrative efficiencies. Lastly, financial synergy represents the class of scarce resources that leads to reductions in the cost of capital.

Finally, Seth (1990) emphasizes that according to the value-maximizing hypotheses, positive synergy, or value creation, may be evidenced and value is created on the basis of market power, economies of scale and economies of scope, coinsurance and financial diversification. Market power is the ability of a market participant or group of participants to control the price, the quantity or the nature of the products sold, thereby generating extra profits. Economies of scale can be production-linked or functional. Product linked economies of scale may be achieved in the areas of purchasing or inventory management in the case of mergers involving companies using common raw materials or components. Functional economies of scale may be present in other functional areas of a business such as advertising, distribution, service networks and research and development. Economies of scope are said to exist when the cost of joint production of two goods by a multiproduct company is less than the combined costs of production of these goods by two single-product firms. A Coinsurance effect appears in a merger between companies whose earning streams are less than perfectly correlated. Financial diversification is created when a company acquires another with a different business cycle to its own, resulting in its income stream being stabilized and the variance of the firm's returns reduced.

Regardless of the description of particular synergies and details in their typologies, the mutual feature is that all those synergies provide the basis for value creation measured by financial indicators. Companies with better company performance in post-merger period are considered to have had better synergy effects.

Acquisition Strategy

Companies are able to create better synergies by implementing acquisition strategy. Several researches showed that acquisition strategy had an impact on the company performance in the post-merger period (Rumelt, 1947, Ramaswamy, 1997, Altunbas and Ibanez, 2004). Acquisition strategies have been usually classified by the US Federal Trade Commission (FTC) of merger classification. According to FTC classification, mergers can be horizontal, vertical, product and market concentric or conglomerate mergers. A horizontal merger or related diversification takes place between companies in the same industry, where the two combining companies produce identical products and/or are competitors. Vertical mergers are transactions that take place between companies at different levels of the industry value chain and occur when two companies combine, each working at different stages in the production and distribution of the same good (e.g. buyer-seller, client-supplier). Product or market concentric mergers are transactions involving businesses that

share similar in production or marketing technologies. Conglomerate takes place when the two combining companies operate in unrelated businesses (unrelated diversification).

From the theoretical strategic perspective, researchers believe that the better the strategic fit between the bidding and acquired firms, the greater should be the economic gain from the merger. Strategic fit is described as the level of relatedness of merged companies. According to Rumelt (1974) merging companies may be considered related 'when a common skill, resource, market or purpose applies to each', i.e. if they employ similar production techniques, serve similar markets, use similar distribution systems, and employ similar science-based research.

Lubatkin (1988) outlines the advantages of related mergers. First, related mergers provide opportunities to reduce cost and/or enhance differentiation through exploiting the economies of scale and scope in various operational areas such as manufacturing, distribution, and administration. Second, related mergers provide the potential for power gains and, by becoming larger, can influence the price of its outputs or inputs.

Furthermore in his paper Lubatkin (1988) argues that unrelated mergers involve the combination of noncompeting products that utilize different product and market technologies, thus offering fewer advantages than related mergers. Therefore, while they may provide allocation efficiencies, they will be less able to provide tangible and intangible efficiencies and power gains than related mergers. In other words, according to Lubatkin (1988), related mergers have greater potential to create shareholder value than unrelated mergers.

In studying the impacts of related and unrelated diversification effects on the shareholder wealth, two approaches have been used. One stream of research has examined the accounting performance of companies following different diversification strategies. A second research stream has used market based measures and the event study methodology.

An event study is a statistical method to assess the impact of an event on the value of a firm. For example, the announcement of a merger between two business entities can be analyzed to see whether investors believe that the merger will create or destroy value. The basic idea is to find the abnormal return attributable to the event being studied by adjusting for the return that stems from the price fluctuation of the

market as a whole. The market-based measures intrinsically differ from the accounting-based measures as they focus on the present value of future streams of income, i.e. on expected value, whereas the latter focus on the past performance. Most of the research on takeover performance has focused on the use of market-based measures. One reason for this is the susceptibility of accounting information to managerial manipulation through earnings management and changing accounting policies (Stanton, 1987). Also, because of different accounting standards, accounting performance measures are harder to compare.

Generally, literature of strategy has argued that companies following related diversification strategies should outperform the unrelated diversifiers (Salter and Weinhoid, 1979; Rumelt, 1974). Likewise, Walker (2000) investigated strategic objectives and stock performance of bidding firms. His analysis shows that bidding firm's shareholders earn positive returns following related acquisitions and negative returns following unrelated takeovers. Relatedness in his definition encompass geographic expansion (bidding company seeks economies of scale by expanding its operations geographically), product line extensions (bidding company seeks economies of scope by expanding its product line), and market share increase (bidding company buys its competitor).

However, broader empirical evidence is mixed (Lubatkin and O'Neill 1988; Seth, 1990). For instance, Chatterjee (1986) found that unrelated targets significantly outperformed related, non-horizontal targets. On the other hand Lubatkin (1987) found no significant difference in the performance levels of related and unrelated bidders and targets and concluded that related mergers do not create more value than unrelated mergers. So, strategic fit does not have an important effect on success of acquisitions. Many mergers are consummated on the premise that the two companies have a natural "fit." In reality, this fit is often illusive (Lubatkin and O'Neall, 1988). Because of the inconclusive results, we considered that it would be interested to test the effect of acquisition strategy on merger performance.

Research gaps

Understanding merger performance on the basis on current review on merger research is complex and inconclusive task (Tuch and O'Sullivan, 2007). Since researchers are employing both, market-based and accounting metric, covering a range of time periods, and using different sample sizes, it is not easy to make generalizations on this phenomenon.

On the basis on our identification of before mentioned inconclusive evidence in current empirical research in mergers' performance, we recognized certain gaps related to geographical settings, time frame and methodological approach (Table 1).

Table 1. Gaps in Previous Researches of Mergers

Geographical gap	Most of the research was done on US and UK companies.
Time-frame gap	Research mostly covers mergers in 1980s and 1990s with few of them at the beginning of 2000.
Methodological gap	Analysis of mergers mostly done by event studies, with focus on market based measures.

Most empirical research in the leading academic research journals has been done in Anglo-Saxon geographical settings. For example, in their paper, Tuch and Sullivan (2007) present a review of empirical research on the impact of acquisitions on company performance. Out of 78 presented empirical studies 51 merger studies are from the US market, 24 mergers are from the UK market, and the remaining 3 merger studies are from the other EU countries. To cover the geographical gap that exists in previous research, which encompasses mainly companies in Anglo Saxon countries, we selected companies involved in mergers and acquisitions activities within EU countries and Switzerland. Switzerland was chosen because of the highest number of multinational companies per capita.

Furthermore, research on mergers and acquisitions has been done extensively in 1980s and 1990s and a relatively low number of studies have been done recently. It is believed that mergers performed prior to 1990's are quite different than those done later because of the different economic and other factors outside of the company (Kukalis, 2007). For mentioned reasons, and to be able to look at the results of two years before and after the merger, we selected mergers that have been completed between January 1st and December 31st 2008.

Also the majority of these empirical studies are using event study methodology with market based measures. In order to measure mergers' success, we decided to use accounting metrics. As an argument for accounting metrics Ramaswamy (1997) emphasizes that some surveys of merger decisions have indicated that managers primarily seek to improve profitability through mergers (Ingham, Kran, and Lovestam, 1992; Rose, 1989). As profitability measure we used Return on Assets (ROA).

Model, Data Set and Measures

Model

Our research was developed on studies of Ramaswamy (1997) and Altunbas and Ibanez (2004). Ramaswamy (1997) analyzed the impact of relatedness between US banks on their performance after the mergers. Altunbas and Ibanez (2004) examined the impact of strategic similarities between bidders and targets on post-merger financial performance.

Our model proposes that merger performance is in function of acquisition strategy, premerger bidder performance and relative size. Research model was as following:

> *Merger performance = F (Acquisition strategy, premerger bidder performance, relative size).*

The research question examined in our study was to find out if acquisition strategy or relatedness of merging companies increases the performance of bidding companies. The main hypothesis was the following:

> *H1: Relatedness between merging companies has a positive impact on merger performance.*

Given the results of previous researches, that included acquisition strategy and premerger bidder performance, we assumed that those two variables will have a positive effect on merger results. In other words, we expected that the best merger results will be presented by companies that had related acquisition strategies and lower premerger bidder performance.

> *H2: Premerger bidder performance moderates the impact of related acquisition strategy on merger performance. The impact of related acquisition strategy becomes more positive as bidder premerger performance decreases.*

Data set

To find relevant mergers and conduct the analysis, the Thompson One Banker database on mergers was used. Following criteria were used to screen merging companies:

(1) Merging companies should be from the EU member countries and Switzerland and mergers should be effective in the period between January 1st and December 31, 2008.

(2) Mergers in which the bidding companies had between 50 and 100% of ownership have been selected. According to International Accounting Standards, control is presumed when the parent acquires more than half of the voting rights of the entity (Mackenzie et al., 2011). Also, control is the power to govern the financial and operating policies of an entity so as to obtain benefits from its activities (Mackenzie et al., 2011). Consequently it is reasonable to expect that control over subsidiary should impact performance of bidding firm.

(3) In order to obtain financial data, only publicly listed companies had been selected.

(4) We limited the sample with the requirement for market capitalization of bidding company above 5 Mill USD.

The resulting sample comprised of 81 mergers. Out of 81 mergers, only 49 mergers had full set of required financial data. So a final sample of 49 mergers as a unit of analysis (comprising 98 companies) meeting the above conditions was identified.

Measures

As dependent variable, we measured *merger performance* as the difference between the bidding firm's two-year average return on assets (ROA) after the acquisition and the average of the ROA of the bidding company two years before the acquisition. We considered two years time window to avoid the effect of other economic factors or other mergers which could distort the results if we would take longer time span. According to the Meeks and Meeks (1981) when using accounting measures in assessing impact of merger on efficiency, the problem of extracting the effect of efficiency changes on profit from that of changes in bargaining power resulting from the merger arises. In their paper, among other profitability measures, ROA is the least sensitive in the case of enhancement of leverage or bargaining power resulting from a merger.

Acquisition strategy, as an independent variable, was measured by a dummy variable. If an acquisition was categorized as a 'horizontal merger' (i.e., related acquisition; meaning in the same industry), the variable 'related acquisition' was coded '1'. All other mergers (i.e., unrelated acquisition meaning from different industries), were

coded '0'. Horizontal or related mergers in our sample encompass all mergers in which bidder and target are operating in the same macro industry defined within the Thompson One banker database. This approach was used in several other researches (e.g. Gerbauld and York, 2007)

Two control variables, namely, average premerger ROA of the bidder for two years prior to merger (premerger bidder performance) and the size of a target vis-a-vis the bidder (relative size) were used in the analysis. The level of the bidder's premerger performance, measured as its return on assets, is likely to influence post-merger performance. Altunbas and Ibanez (2004) argue that if a bidder already possesses a high-level of profitability before the merging process, it is more likely that the profitability of the new institution will decrease in the short term due to the process itself. Alternatively, it is probable that bidders with a lower level of performance will manage to increase their profitability after merging with a target. As a consequence, a negative relationship between bidders' premerger performance and post merger performance is expected initially. This effect is also known as a "floor-ceiling" effect (Ramaswamy, 1997).

Relative size was used as a control variable since various studies show that it may impact post merger bidder performance. Some researchers show that larger companies might acquire smaller companies to realize scale-related synergies that would otherwise be difficult to obtain (Datta et al., 1991; Kusewitt, 1985). Chaterjee (1986) states that the smaller the acquired firm, relative to the bidding firm, the greater the potential for synergy. Tuch and O'Sullivan (2007) state that there are a number of reasons why acquiring larger targets might result in better post-acquisition performance. First, larger targets are more difficult to assimilate into a combined organization, so the pool of potential acquirers is expected to be smaller. This may result in acquirers being able to acquire large targets on more advantageous terms (Roll, 1986). Secondly, the economic impact of acquiring a larger target is likely to have a stronger impact on the post-bid performance of the combined company (Bruner 2002). Finally, Moeller *et al.* (2004) argue that the contrasting findings from some studies examining the impact of size arise as a result of the different levels of care exercised by smaller bidders in the acquisition process. Small acquirers need to be more careful when making a potentially risky bid, as there will be a relatively larger economic impact on their company. The authors therefore argue that the size effect is due to smaller acquirers rather than to larger targets. Since data is not conclusive on the direction of the effect, but research shows impact of relative size on the merger performance, this variable is used as control variable.

Relative size was calculated as a relative number representing difference in sales between target and bidder.

In order to give better understanding to variables and their Operationalization but also to connect them with the hypotheses formed, latter table has been prepared (Table 2).

Table 2. Operationalization of the Variables and Hypotheses

Variables	Operationalization	Hypothesis
Control variables		
premerger bidder performance	Average premerger ROA of the bidder for two years prior to merger.	H2: Premerger bidder performance moderates the impact of related acquisition strategy on merger performance. The impact of related acquisition strategy becomes more positive as bidder premerger performance decreases.
relative size	Relative number representing difference in sales between target and bidder.	
Independent variable		
acquisition strategy	If an acquisition was categorized as a 'horizontal merger' (i.e., related acquisition; meaning in the same industry), the variable 'related acquisition' was coded '1'. All other mergers (i.e., unrelated acquisition meaning from different industries), were coded '0'.	H1: Relatedness between merging companies has a positive impact on merger performance.
Dependent variable		
merger performance	Difference between the bidding firm's two-year average return on assets (ROA) after the acquisition and the average of the ROA of the bidding company two years before the acquisition.	

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Results

Prior to testing of hypotheses, we performed correlation analysis which is shown with descriptive statistics in Table 3. Generally, we can conclude that after the merger performance results are on average lower (x=-4,38) than before the merger (x=5,70).

Table 3. Univariate Statistics and Correlation Matrix for Explanatory Variables

	Mean	s.d.	1	2	3
1. Merger performance	-4.38	6.19			
2. Acquisition strategy	0.65	0.48	.14		
3. Premerger bidder performance	5.70	8.36	-.32*	-.33	
4. Relative size	1.38	6.57	.15	.12	-.12

*p< .05

To test our model we decided to calculate hierarchical regression analysis which is usually used when variables are determined by past research and analysis (Field, 2009; Cohen and Cohen, 1984). Some other researchers also used this hierarchical regression analysis to show how an additional set of variables are affecting independent variables, besides used control variables (Altunbas and Marques Ibanes, 2004; Ramaswamy, 1997). Even though data shows respectful standard deviation, the OLS regression was run for both models to generate variance inflation factors (VIF's). Average VIF's for the first model were below 1.014 which is considered acceptable.

Second model primarily included two control variables, one independent and 3 interaction effect but VIF's and eigenvalues proved that there is a presence of multicollinearity. Since there is proof that, in the case of multicollinearity, the dropping of the highly collinear variable can often make other variables statistically significant (Gujarati, 2002; Allison, 1998), we decided to drop out the relative size which had high correlations with other variables and had no predictive effect in the first model. Thus the second model was calculated with one control variable, one independent variable, and 3 interaction effects. The results of the two regression models are showed in the Table 4.

Table 4. Results of Hierarchical Regression Analysis

|	Model 1	Model 2
Control variables		
premerger bidder performance	-0.31*	-1,09**
relative size	0.11	
Independent variables		
acquisition strategy		-0.54**
acquisition strategy x premerger bidder performance		1.12**
acquisition strategy x relative size		-0.07
premerger bidder performance x relative size		-0.30
Model R^2	0.12	0.54
F	3.05	10.25**

*p< .05   **p< .001

The results of the hierarchical regression analysis provide support for the first study hypothesis. The first model shows that the control variable, named relative size as the difference in sales between target and bidder does not have a significant impact on merger performance. Premerger bidder performance, as the second control variable, negatively impacts mergers performance and explains 12% of the variance. The merger performance was calculated as the difference of post-merger and premerger ROA, thus capturing floor – ceiling effect mentioned earlier. In other words, companies that were performing better prior to merging cannot be expected to have results after the merger as high as the companies that were performing poorly (Figure 1). These results are similar to the results of other authors (Harrison et al, 1991; Ramaswamy, 1997; Altunbas and Ibanes, 2004).

Figure 1. Effect of Premerger Bidder Performance on Merger Performance
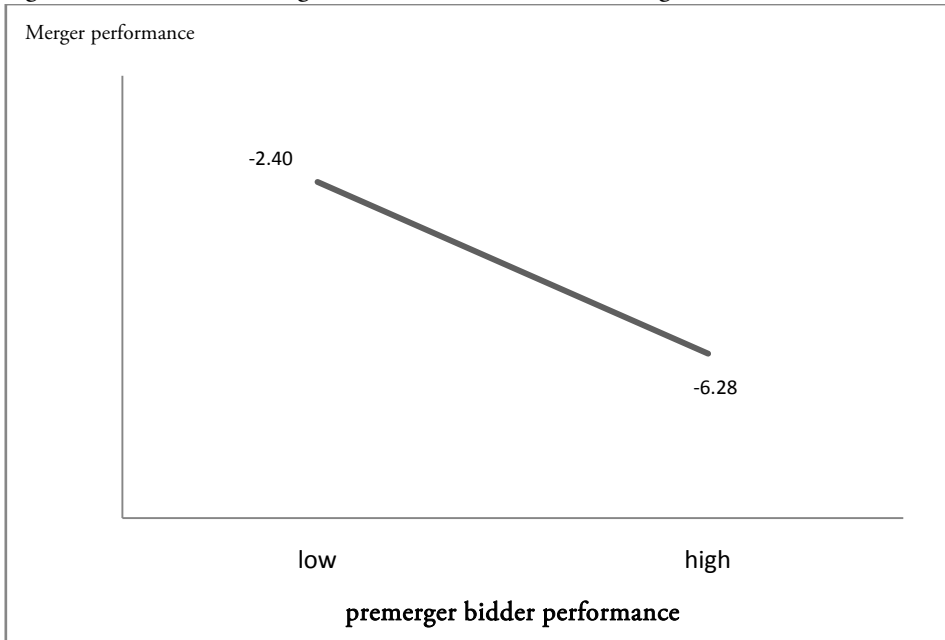
The second model brings the same effect of the control variables and proves the effect of acquisition strategy, explaining additional 42% of the variance. Results also show that related mergers have better merger scores than unrelated mergers (Figure 2).

Figure 2. Effect of Acquisition Strategy on Merger Performance
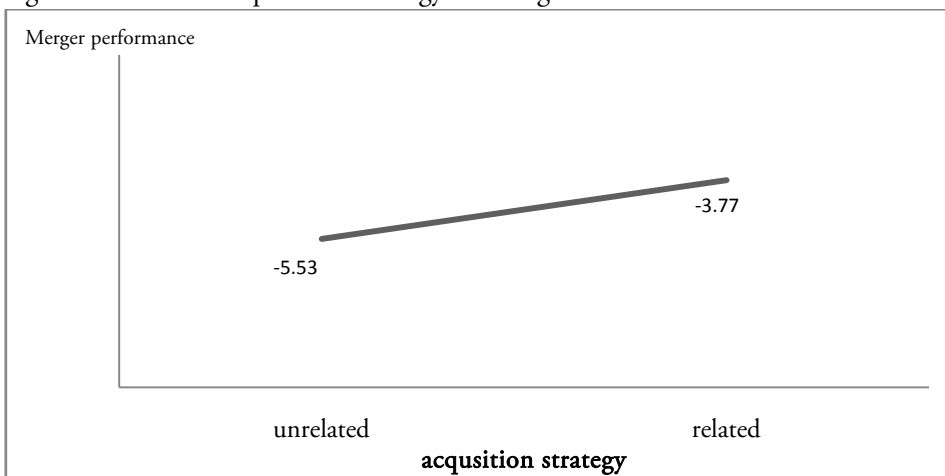
Hypothesis 1 predicts that relatedness between merging companies has a positive impact on merger performance. Model 2 tests this hypothesis and coefficient for the acquisition strategy is negative and strongly significant (b = -0.54; p < .001) which indicates support for Hypothesis 1.

Hypothesis 2 in our research predicts a negative interaction between relatedness of merging companies and premerger bidder performance expecting that the most successful mergers will be among related companies with low premerger bidder performance. Results show positive interaction (b = 1.12; p < .001) and therefore hypothesis 2 is supported. Figure 3 graphically shows interaction among acquisition strategy and premerger bidder performance that was not predicted by the Hypothesis 2.

Figure 3. Two-Way Interaction between Acquisition Strategy and Premerger Bidder Performance

Merger performance

1.56

low premerger bidder performance

-3.45

-4.24

high premerger bidder performance

-8.49

unrelated   related

acquistion strategy
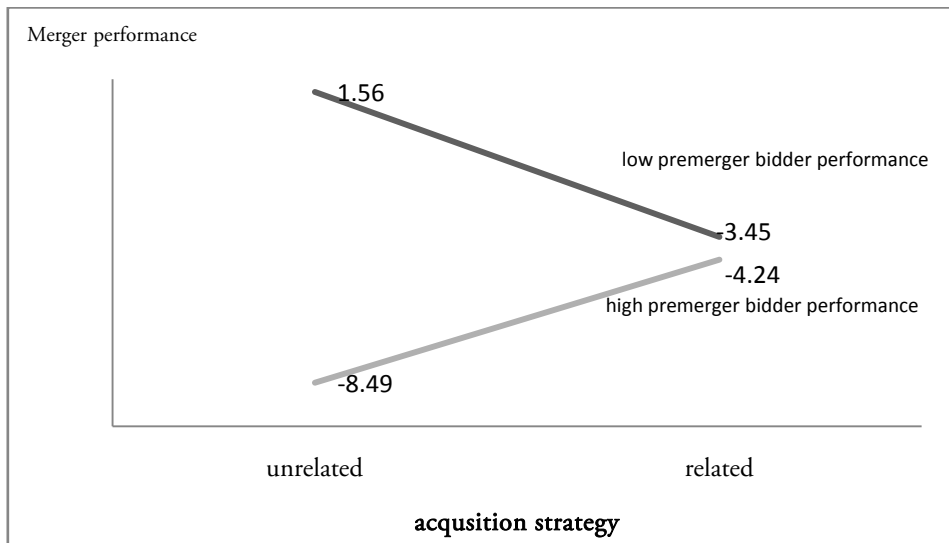
Discussion and Conclusion

One purpose of this research was to deal with found gaps in previous researches. Selection of mergers was geographically put in EU countries and Switzerland, only completed mergers in 2008 were included in the sample and premerger and post merger success was measured in a two year frame prior to and after the merger.

Results of the hierarchical regression analysis show that independent variables in the second model can explain a significant variance in merger performance. Acquisition strategy has an impact on merger performance and generally the more successful are companies that are merging with target companies in the same industry. This can be explained by creation of collusive and operational synergies in related mergers (Chatterjee, 1986). Since related acquisition may involve utilization of economies of scale and/or scope both in production and distribution, this may lead to reduced costs (i.e. operational synergies), as well as achievement of collusive gains, i.e. advantages based on the market power.

Our study also shows that related acquisition strategy and lower premerger performance has a positive effect on the merger's performance as well. On the other hand, unrelated strategies combined with lower premerger performance have an even better impact on merger performance than related ones do. Our results provide the answer that the most successful companies in mergers are those that had lower premerger bidder performance and that had unrelated diversification strategy.

These results can be explained by previous research which showed that in unrelated acquisitions, value creation occurs and is associated with the coinsurance effect (Seth, 1990). Some other empirical evidence shows coinsurance effect for conglomerate mergers (Kim and McConnell, 1977; Asquith and Kim, 1982; Choi and Philippatos, 1983; Shrieves and Pashley, 1984). Coinsurance effect appears in merger between companies whose earnings streams are less than perfectly correlated i.e. unrelated mergers. In effect, one company can supply funds following the merger to make up for the other's concurrent deficiency and thus creating higher cash flows (Seth, 1990).

Also better performance of unrelated mergers combined with low premerger bidder profitability may be explained with exploiting more financial synergies in unrelated mergers than operational and collusive synergies in related acquisitions. According to Chatterjee (1986) unrelated mergers are likely to have one form of synergy present, i.e. financial synergy. That means that on average a large company has cheaper access to capital than a small company does. Unrelated mergers may create financial diversification when a company acquires another with a different business cycle to its own, its income stream will be stabilized and the variance of the firm's returns reduced (Steiner, 1975).

Limitations

There are certain limitations which have to be discussed. First problem we will mention is the problem of conceptualization and measurement of relatedness. In our paper we defined relatedness on the basis of the same macro industry in the Thompson One Banker data base because of the availability of this statistic. Also, although readily available and widely used, the Standard Industrial Classification (SIC) and Federal Trade Commission (FTC) classifications of mergers into groups such as horizontal, vertical, product, conglomerate, are limited in their ability to provide insights into the complex nature of relatedness (Lubatkin, 1983, 1987). Besides of standard product-based definitions of relatedness, it implies connectivity of critical organizational and strategic factors such as resource allocation patterns (Harrison et al., 1991), management philosophy (Datta, Grant, & Rajagopalan, 1991), and organizational culture (Chatterjee et al., 1992; Jemison & Sitkin, 1986; Nahavandi & Malekzadeh, 1993), but a problem arises when researchers have to decide on measurements of relatedness and availability of data.

Also, as Meeks and Meeks (1981) also stressed in their research, limitation arise when using accounting measures as a metric of merger success. The central issue is distinguishing the effect of the profit of efficiency changes, resulting from a merger, from that of changes in bargaining power. For instance, if the participants' bargaining power is on average enhanced by a merger, then profitability could rise even though efficiency remained unchanged or actually fell.

One of the limitations could be the number of mergers used. As noted earlier, in our research we only focused on 49 mergers out of 81 because for the remaining number of mergers we could not find the needed data. If we would have this data, maybe the results would show some other effects.

Finally, limitation may be related to the measurement time frame. It can be argued that two years is not long enough for synergistic gains of merger to materialize, but we were forced to limit the time frame to two years to limit probability of further mergers in the sample. Therefore, adding additional years would have violated the "clean data" criterion suggested by Choi and Philipatos (1983) and Lubatkin (1987). Future research could compare different regions and countries during a longer period of time to give a more conclusive result.

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