Performance Assessment of Mergers and Acquisitions: Evidence from Denmark

Daojuan Wang
Centre for International Business (IVØ)
Department of Business & Management
Aalborg University, Denmark

Hamid Moini
Department of Finance and Business Law
University of Wisconsin–Whitewater, USA
And
Centre for International Business (IVØ)
Department of Business & Management
Aalborg University, Denmark

Abstract

Since the beginning of the 20th century several waves of corporate mergers and acquisitions (M&As) have led to substantial industrial restructuring in different parts of the world. And over the past two decades, there is a proliferation of cross-border mergers and acquisitions (CBM&A). However, the majority of research findings show failure rate (40-80 percent) has not significantly changed during this period. This “success paradox” prompts us to reflect on performance assessment of M&As: how the performance of M&As is measured? Whether using different measures or samples affect the results? What are the evidences from fieldwork? Following these questions, we first provide a literature review and then conduct a questionnaire survey of Danish firms. We found that the definitions of performance varied in terms of accounting, financial, operational and perceptual metrics. In addition, performance assessment is sensitive to the definition of performance, methodology selected, benchmarks construct, sample used, and observation time horizon.

Keywords: Mergers and Acquisitions; Cross-border M&As: Performance Measures; Event Studies, Accounting-based Measures

1 Introduction

Numerous waves of M&As have led to substantial industrial restructuring in different parts of the world (DePamphilis, 2012, pp.18). Since the beginning of the 1990s, an increasing share of M&As has taken the form of CBM&A (Bertrand and Betschinger, 2011). According to Thomson Reuters (2010), CBM&A have sharply increased from $97.3 billion in 1987 to $2400 billion in 2010. Over the past decades the USA, UK and Continental Europe have made their FDI predominantly through M&As rather than Greenfield investment. In addition, emerging countries, like China and India, have witnessed a rapid growth of market for corporate control, taking up roughly 1/3 of overall global M&As in 2010.

Paralleling with their popularity and practical importance, in both monetary and strategic terms, M&As have increasingly become the focus study across different disciplines since the 1960s. However, the majority of research findings show failure rate has not significantly changed for these decades (Bruner 2002; Cartwright et al., 2006). But other scholars report different results (Moeller et al., 2005; Dutta and Jog, 2009). In terms of failure rate or “success paradox”, it is said that the failure of M&As to meet expectations depends to a great extent on how the failure is defined (DePamphilis, 2012, pp.44). Under this circumstance, this paper aims to make a review of previous research on performance assessment of M&As and compare the academic findings with data collected from survey of Danish firms. Specifically, we focus on the following questions: how the performance of M&As is measured? What are the features of these measures? What are the results when using different measures or samples? What are the evidences from fieldwork? For investigating these questions, the methodology used in this paper is mainly literature review and survey study conducted in Denmark.

2 Literature Review

Study of M&A performance has been part of the strategic management, corporate finance, and organizational behavior literature for decades. Researchers have employed various criteria in their attempt to evaluate M&A performance. Zollo and Singh (2004), for example, found “there exists much heterogeneity both on the definition of the performance of M&As and on its measurement”. In an analysis of 88 empirical studies between 1970-2006, Zollo and Meier (2008) identified 12 different approaches for measuring the impact of takeovers. Approaches for assessing M&A performance vary along several dimensions: (1) subjective to objective assessments; (2) expected returns to realized returns; (3) short-term to long-term perspectives; (4) basing on public information to private information; (5) task level, to acquisition project level, and to firm level; and (6) returns to acquiring firms separately from returns to the combination. Basically, there are five commonly used performance evaluation
approaches in M&A field: (1) Event studies (stock-market-based measures), both in the short run and long run (Haleblian and Finkelstein, 1999; Sudarsanam and Mahate, 2006); (2) accounting-based measures (Lu, 2004; and Zollo and Singh, 2004); (3) managers’ subjective assessments (Brock, 2005; and Homburg and Bucerius, 2006); (4) expert informants’ assessment (Hayward, 2002); (5) divesture (Mitchell and Lehn, 1990). Cording et al. (2010) reported 92 percent of empirical studies used event study and accounting-based methods. Also, Zollo and Meier (2008) state while 41 percent of the total reviewed articles use short-term event study, only 28 percent of researches use accounting based measures. Within event study, evaluation designation varies on the length of event window, calculation of expected returns and the benchmarks. Researches differed on definition of operating performance, ratios chosen, benchmarks constructed, time frame and methodology design when they using accounting based method.

The conclusion reached from different measures also varied. For example, Tuch and O’Sullivan (2007) concluded that the announcement effect of takeovers is insignificant on short-run event study, and performance measured on long-run event studies is overwhelmingly negative, and results are mixed when using accounting methods. Therefore, “success paradox” and some ambiguous findings, such as culture-performance, experience-performance relationship, and diversification discount, can be attributed to flawed performance measures or incorrect application of them. At the same time, for accounting “success paradox”, some researchers shift their attention to the motives for M&As, based on the thoughts: first, disappointing or controversy performance may be due to impure initial motives (e.g. empire building) and irrational decision making (e.g., hubris and imitation); second, designation of performance measures should be connected to their initial motives, as the motives guide the acts and finally lead to different outcomes. Other researchers make performance assessment on subdivided samples so that they can see the differences. Dutta and Jog (2009), for example, stated value creation is mostly attributed to the deal factors and characteristics of the involved firms

3 A Comparison of Performance Measures

Unfortunately, performance measures have inherent limitations that should be discussed. One performance measure is superior to others only when its theoretic logic is more connected to the theoretic dimension of the question under investigation (Cording et al, 2010).

3.1 Event studies (stock-market-based measures)

Event study has been dominant approach since the 1970s (Martynova and Renneboog, 2008) and is broadly applied in M&A research. It is designed to measure whether there is an “abnormal” stock price effect associated with an unanticipated event (M&As), which holds that stock returns reflect quick, unbiased, rational, and risk-adjusted expectations of the value of the firm in forthcoming period based on the arrival of new information. The researcher usually defines a period (event window) over which the impact of the event will be measured. It can be classified into short-term and long-term event study. Short-term event study represents an ex-ante analysis, which could in principle help to predict the future profitability, since financial markets are supposed to be forward-looking. Long–term event study, on the other hand, is designed on the consideration that stock price cannot immediately capture the effect of this event effect as some uncertainties can be eliminated as M&A process going on. Both have their pros and cons. Whatever, the principle is used they try to gauge the acquiring firm’s success or failure in value capture for its shareholders from M&As.

3.1.1 Assumptions

The assumptions underlying this methodology are as follows: (1) Market is efficient, which implies that stock prices incorporate all relevant information that is available to market traders. However, investors are usually lack of necessary information to assess the effect of event (Oler et al., 2008). For acquisition, it takes time for some information being revealed to the investors, for example, the potential acquirers, and the evaluation techniques. Stock price then will adjust as additional information revealed. Besides, the investors usually react to the event irrationally, for example “Monday Effect” and “Size Effect” (Bromiley et al., 1988), and investors may overlook the integration challenges of acquisition. (2) The event under study is unanticipated. This is not always true, especially, M&As are usually part of the firms’ business strategy, which can be anticipated before announcement or information may leak because of rumor or insider trading (Lubatkin and Shrieves, 1986). (3) There were no confounding effects during the event window. This is also difficult to guaranteed, which strongly depends on the length of event window. If these assumptions are violated, empirical results may be problematic. Under these assumptions, abnormal stock returns (ARs) from event study will be potentially determined by five factors: (1) how new the information is revealed to the market; (2) how much information is disclosed in the observation window and how clear and persuasive they are; (3) how long it will take for the investors to get the information; (4)
how correctly investors will interpret these information; and (5) how can the investors’ reaction to the information of confounding effects be isolated.

3.1.2 Basic approaches

Central to this methodology is the measurement of ARs. They are usually calculated as the sum of the daily/monthly/yearly ARs within an event window spanning from some days/months/years before and after the merger event. ARs are equal to actual returns minus the expected returns (benchmarks) on the stock conditioned that the event does not take place. According to Cording et al. (2010), “Measures based on the event study method differ in terms of the length of the event window, the market portfolio benchmark used, allowance for stability of firm-specific betas and the method of calculating ARs”. The most common benchmarks are Market Model (M&M, Sharpe, 1963), Market-adjusted Model, Capital Asset Pricing Model (CAPM), and Fama–French Three-factor Model (Fama and French, 1993). Furthermore, three approaches are generally used to calculate actual returns, which are Cumulative ARs (CARs, Fama et al. 1969), Buy-and-Hold ARs (Lyon et al., 1999), and Calendar Time ARs (Fama 1998).

3.1.3 Application complication

Event window can be the most crucial research design in implementing event study. It centered on the event date. So it is critical to first define the event date. Most commonly, event date are defined as the announcement date. Alternatively, it is defined as the actual merger date (effective date) on which all uncertainties can be resolved (Halpern 1983). Others, for instance, Mitchell and Stafford (2000) defined the event date as the end of the completion month. A long window might help capture more important information and then make performance assessment of M&As more accurately but incorporate the impact of confounding events. And the requirement of stability of the expected stock price is a foundation of long-term event study, which is difficult to meet. Besides, the power of the test statistic will be severely reduced (Tuch and O’Sullivan 2007). The magnitude of M&A effect on the share prices is sensitive to the estimation method used to predict the benchmark returns, and thin tradingwill undermine the reliability of empirical evidence. Furthermore, long-term measures can be seriously distorted when the measurement interval is long (Dimson & Marsh 1986).

Schwert (1983) and Dimson & Marsh (1986) state event studies should give explicit consideration to size effect, especially when CAPM methodologies are used. McWilliams and Siegel (1997) pointed out five critical issues in event study: 1) sample size matters a lot, if small sample (fewer than 30 firms) is used, bootstrap test is needed. 2) Nonparametric tests are necessary to identify outliers, especially when the sample is small. 3) The length of the event window should be justified; 4) the confounding effects should be isolated. 5) Explanation of the ARs should be based on some theory. Taken these issues into consideration, they replicate three previous studies but to get quite different empirical results with original ones.

3.1.4 Advantages & disadvantages

Advantages of event studies can be summarized as: (1) It is relatively objective public assessment; (2) Data are easy to get publicly, allowing study on large sample; (3) Short-term event study can screen the influence of outside factors to large extent; (4) Abnormal return is calculated, therefore, data is not subject to industry sensitivity, enabling a cross-section of firms to be studied. However, its caveats cannot be overlooked: (1) The assumptions are difficult to be met; (2) It assess the expected synergy not the realized ones; (3) Although stock price is easy to get, its implementation is complicated; (4) It cannot be used for private firms, leading to the sampling bias; (5) It fails to take into consideration multiple motives for conducting M&A; (6) It constrains researchers to assess M&A performance on firm level, if M&As only influence a particular unit of a firm.

3.1.5 Empirical evidence

Event studies yield insights about market-based returns to target firm shareholders, buyers, or a combination of both. Given a successful takeover, using short-term event study, ARs to the target firms are large and positive, while returns to the acquirers are mixed (Papadakis and Thanos, 2010). These conclusions are accounted as: (1) Target firm’s shareholders obtain statistically significant gains due to the large premium paid (Bertrand and Zitouna, 2008). (2) Sometimes, before the merger, the acquiring firm already had some share ownership in the target firm. Any gains from the merger may have already been reflected in the acquirer’s stock price (Halpern, 1983). (3) “Size effect” also plays a role (Bruner, 2002).

1 Thin trade refers to extended period that a particular stock is not traded.
Result from long-term event study strongly depends on the estimation method used to predict the benchmark returns and the features of sample. Martynova and Renneboog (2008) concluded that studies employing M&M tend to reveal significantly negative CARs over the three years following the M&A announcement. The studies applying other estimation techniques, such as CAPM, yield inconsistent results. But the insignificance of the long-term ARs disappears when the sample is subdivided by means of payment, bid of status, and type of target firm. Tuch and O’ Sullivan (2007) give a review of empirical evidence conclude that using long-term event study, the majority of studies suggest either negative or insignificant ARs.

3.2 Accounting-based measures

Accounting-based measures of performance also take a long-term perspective of acquisition performance like long-term event study but embody ex-post, actual, realized returns. This usually consists of a comparison of accounting measures prior and subsequent to a takeover. The rationale behind these studies is that the strategic aim of a business is to earn a satisfactory return on capital, and any benefit arising from takeovers will finally reflected in the firm’s accounting statements (Tuch and O’Sullivan, 2007).

Accounting measures have a broad sense, such as profitability, employing earning-based measures and cash flow performance measures (Healy et al., 1992), productivity (Bertrand and Zitouna, 2008), innovation indicators (Bertrand, 2009), growth rate of sales, or assets (Gugler et al., 2003). A wide range of accounting ratios in M&A performance assessment can be found in Martynova and Renneboog (2008) research. Return on assets (ROA) is widely used in the M&A literature (Bertrand and Betschinger, 2011). Meeks (1981) compared profit/sales ratio, return on equity (ROE) and ROA and concluded that ROA is the most appropriate ratio for measuring M&A performance. However, Barber and Lyon (1996) stated operating cash flows is optimal in measuring the performance of firms after significant events, such as takeovers, as earnings can be easily manipulated. Studies then vary in term of definitions of operating performance, deflator choice (e.g., market value of assets or equity, book value of assets or sales), performance benchmarks, and methodology. And the empirical results are sensitive to these aspects.

3.2.1 Advantages & disadvantages

Advantages of accounting-based measures can be outlined as: (1) It captures the realized returns; (2) Similar to long–term event study, more valuable information can be gained to assess M&A effect; (3) It is relatively simpler to be implemented compared to event study; (4) effects of multiple motives can be covered. However, these advantages comes at some costs: (1) Like long-term event study, it also incorporate the impacts of outside factors; (2) It reflects the past rather than present performance expectation; (3) Accounting data can be distorted by manipulation; (4) Different accounting standards across countries and change overtime would make a serious limitation to the validity of using accounting data (Hult et al., 2008); (5) Accounting policy choice varies over time and between companies, which make it difficult to make comparison with their benchmarks; (6) Accounting data fail to evaluate the success of a specific acquisition as they provide aggregated data measuring the performance of the whole organization (Bruton et al., 1994); (7) Valid combined performance after M&A is difficult to get, as the financial reporting regime is different when the target is dissolved or be an independent subsidiary of the bidder (Powell and Stark, 2005); (8) Some financial ratios, like ROA, are affected by the method of accounting for the merger (purchase vs pooling accounting) and the method of financing the merger (cash, debt or equity).

3.2.2 Empirical evidence

In general, results of post-merger performance measured by accounting based approaches are ambiguous. The earliest study using accounting based measures of mergers in the UK conducted by (Meeks, 1977), examined the performance of 233 acquirers during 1964 and 1972, and found that profitability increased in the year of the takeover but decreased in each of the five subsequent years. Other studies for the UK have reached the opposite conclusion (Dickerson et al., 1997). The picture becomes even more blurred when one investigates the corporate assets growth (Mueller, 1980). Furthermore, it is stated that using the cash-flow-based metrics has identified positive returns, while earnings-based measures result in negative performance in the case of mergers (Martynova and Renneboog, 2008).

3.3 Managers’ perceived performance

Using this method, the executives are asked to rate to what extent they have realized their preliminary objectives several years after completing M&As. Their initial objectives are described using some financial and/or
non-financial ratios. Besides, usually, the executives are asked to give their “overall” rating about the entire performance of M&A to establish convergent validity (Schoenberg, 2006). Commonly, the respondents are the acquirers’ executives (Homburg and Bucerius, 2006) and sometimes views are collected from the targets’ executives (Brock, 2005). Zollo and Meier (2008) state management assessments have been used in 12 of the 87 papers (14 percent) that were reviewed.

3.3.1 Advantages & disadvantages

The advantages of using these measures are: (1) Private information can be used; (2) Reduce the outside noise; Performance can be assessed in a multidimensional way with financial and non-financial information (Brouthers et al., 1998); (4) Multiple motives of M&As can be taken into account; (5) It is suitable to use the managers’ perception of M&A performance, as their perception of success will influence their action (Papadakis and 2010); (6) It is applicable across all types of acquisitions (Schoenberg, 2006). Its disadvantages can also be identified: (1) This assessment may contain managerial bias (Schoenberg, 2006), as multiple respondents are needed (Bowman and Ambrosini, 1997); (2) Depends on their accurate recollection; (3) Results may be subject the respondents’ familiarity with the original objective of acquisition (Datta, 1991).

3.3.2 Empirical results:

A majority of empirical evidence under this metrics report that 44–53 percent of the managers interviewed appeared to be dissatisfied with their acquisition’s performance relative to the goals set before the deal closure (Schoenberg, 2006). Ingham et al. (1992) surveyed CFOs in 146 large firms in UK and 77 percent believed that profitability increased in the short run after merger and 68 percent believed that the improved profitability lasted for the long run. Bruner (2002) reviewed 13 studies, which had surveyed executive to assess M&A performance and found 6 out of 13 studies suggest negative results, and the remainder seems neutral or positive. He polled 50 business executives and asked them to give their opinion on the other firms’ deals, 37 percent of deals were said to create value for the buyers, and 21 percent of the deals achieve the buyers’ strategic goals. When come to themselves, 58 percent of them believed their M&A deals created value, and 51 percent believed they achieved their strategic goals. In contrast, only 23 percent believed their deals did not create value and 31 percent believed their deals did not achieve their strategic goal.

3.4 Expert informants’ assessment

The basic approach in expert informants’ assessment is like management assessment, but the respondents are shifted to expert informants. Some scholars use direct data from security analysts (Hayward, 2002), or directly via the ratings in financial reports and commentary (Schoenberg, 2006). Some scholars used multiple informants to improve the reliability of their findings. For example, Cannella & Hambrick (1993) collected both the security analysts’ and the executives’ assessment on the acquired firms’ performance for each acquisition, and each expert provided their assessments of both pre- and post-acquisition performance.

Apart from owning the similar pros and cons with management assessment, this approach provides external assessment, which can be applied when both managers’ and objective performance measures are unavailable (Cannella and Hambrick, 1993) and to offset their flaws. Besides, like management assessment, it enables us to assess the outcomes of acquisition on the project level, especially when the firms are multidivisional. However, this method may suffer from expert informants’ subjective bias and they may have limited information. Schoenberg (2006)’s study show, based on financial press commentary between two and four years post-acquisition, 44 percent of the acquisitions are described as poor or very poor.

3.5 Divestment measure

This approach assesses the outcomes of M&A by identifying whether an acquired firm has subsequently been divested or not. The logic of this measure is that merged companies deem to diversify if the acquired firm’ performance does not meet their expectations (Ravenscraft and Scherer, 1987). It is a relatively simple way to gauge success with no requirement of detail information. However, divestment in some instances signals successful restructure and profitable sale (Kaplan and Weisbach, 1992) or appropriate resource reconfiguration in response to environmental change (Capon et al., 2001) and these are confirmed by Schoenberg’s (2006) study.

Ravenscraft and Scherer (1987) report that 33 percent of acquisitions in the 1960s and 1970s were later divested, while porter (1987) finds that more than 50 percent of the acquisitions made by 33 firms in unrelated industries were subsequently divested. Mitchell and Lehn (1990) say 20.2 percent of 401 acquisitions, which took place
during 1982-1986, were divested by 1988. Kaplan and Weisbach (1992) concluded that 44 percent of the target companies acquired between 1971 and 1982 were divested by the end of 1989. However, only 44 percent of the acquirers who perform divestiture report a loss on sale.

3.6 Relationship among these measures

As was shown above, different metrics shed light on different aspect of complex acquisition activities, and they can offset each other’s flaw. Therefore, many studies have attempted to examine the relations between these measures. In the US, Healy et al. (1992) found significant and positive relation between the market’s assessment and post-takeover performance. Sirower and O’Byrne (1998) showed that ex-ante ARs were positively and significantly correlated with ex-post operating performance. This was confirmed by Uso et al. (2010) as they stated this was particularly true when using long pre-announcement event windows (25 or 50 days) before announcement. On the contrary, Ghosh (2001) failed to find a significant relationship between cash flow improvements and the market assessment of the gains. Schoenberg (2006) also did not find correlation between objective and subjective measures of acquisition performance apart from the relationship between managers’ and expert informants’ subjective assessments. Zollo and Meier (2008) study found short-term event study was not linked to any of the other performance metrics. Papadakis and Thanos (2010) also said capital market is not efficient enough to predict the long-term success of an acquisition. In summary, accounting-based measures, managers’ assessment and expert informants’ assessment are correlated with each other, whereas the relation among short-term, long-term event study and accounting based measures are blur, this mainly depends on to what extent the assumptions of event study can be met.

4 A Summary of Empirical Evidence

In this section, we offer extensive empirical evidence on the performance of M&As based on the characteristics of sample. As Bertrand and Zitouna (2008) stated the magnitude of these gains and their distribution between target and bidder shareholders vary across the decades and depend on the characteristics of each deal.

4.1 Evidence on country level

A majority of research has concentrated in USA and the UK. The general conclusion from short-term event study is acquirers’ shareholders either experience normal returns or significant losses around the announcement of acquisitions, while the target firms gain their performance. Considering that average target is much smaller than the average acquirer, the combined net economic gain at announcement is only barely positive (Alexandridis et al, 2010). Long-term returns to shareholders of acquiring firms tend to have significant negative CARs for acquirers (Campa and Hernando, 2004). Bruner (2002) found the empirical literature showed a slight tendency for returns to decline over time, except for deals in technology and banking sectors. And Kumar (2009) find companies from developing countries generate more value from takeovers than their counterparts from developed nations.

4.2 Domestic vs cross-border M&A

Gugler et al. (2003) did not find significant difference in profit between cross-border M&As and M&As. Goergen and Renneboog (2004) concluded that domestic M&As trigger higher wealth effects than cross-border M&As. Similarly, Moeller et al. (2005) found that US firms who conduct cross-border M&As experience significantly lower announcement stock returns of approximately 1 percent and significantly lower changes in operating performance. Conn et al. (2005) also found UK firms’ cross-border M&As resulted in lower announcement and long run returns than domestic M&As. But returns were higher than high-tech firms, whilst non-high-tech experience zero announcement returns in cross-border M&As. This was confirmed by Chari et al. (2010), who emphasized that the acquirers only experience a rise in post-merger performance in cross-border M&As only if they have intangible asset advantages that can be exploited abroad.

4.3 Hostile vs friendly

Generally it is reported that hostile takeovers produce more returns than friendly ones, and this may because cash is usually used in hostile takeovers (Franks and Harris, 1989). Servaes (1991) demonstrated that hostile bids trigger a CAR of almost 32 percent, whereas 22 percent for the friendly bids. Likewise, Franks and Mayer (1996) found post-announcement CARs of almost 30 percent for hostile UK bids versus 18 percent for friendly ones. Schwert (1996) found that target shareholders earned substantially higher premiums in tender offers. Tuch and Sullivan (2007) study also showed that the acquisition of hostile targets, cash-financed transactions and
acquisitions of larger targets are associated with superior (or at least less negative) performance.

4.4 Methods of payment

A study by Schwert (1996) identified that equity bids were more frequently used in tender offers compared to all-cash ones, and all-cash bids are more profitable for target shareholders than are all-equity ones. These findings were confirmed by Ghosh (2001) in the US and Carline et al. (2002) in the UK. Their empirical findings showed that the operating performance of all-equity acquisitions is significantly worse than of bids consisting of cash. Georgen and Renneboog (2004) also found strong evidence that the means of payment has a large impact on the wealth effect. All-cash offers trigger ARs of almost 10 percent upon announcement whereas all-equity bids or offers combining cash, equity and loan notes only generated a return of 6 percent. However, Alexandridis (2010) using global data of public M&As during 1990-2007 concluded that all-equity offers were at least non-value-destroying for the shareholders in the rest of countries apart from USA, UK and Canada.

4.5 Inside vs outside wave & at the beginning vs at the end of a wave

Bhagat et al. (2005) and Harford (2003) demonstrated that the total announcement returns of takeovers in waves are better than those outside. Both studies also revealed that the highest combined M&A gains are realized at the beginning of takeover waves. Moeller et al. (2005) also confirmed this for the fifth takeover wave during 1991-2001. Their findings showed acquiring-firm had the largest losses during the second half of the wave, from 1998 to 2001.

4.6 Related VS unrelated

Haugen and Udell (1972) and Eckbo (1986) both concluded that unrelated takeovers outperformed the related ones, but both studies refer to the conglomerate M&As wave. Seth’s (1990) empirical results found an opposite results. Also, Kaplan and Weisbach (1992) presented mixed evidence on the success of unrelated versus related acquisitions. However, significant body of evidence document that corporate diversification strategies destroy value (Berger and Ofek, 1995; Doukas et al., 2001). Akbulut and Matsusaka (2003) showed unrelated acquisitions in 1960s generated significant positive ARs to bidder shareholders but destroyed their value in the following decades. While other scholars stated the diversification discount appeared because the segments acquired were discounted prior to their acquisition, and the diversification, in itself, does not destroy value (Graham et al. 2002). Using two different databases, Villalonga (2004) reconstructs measures of diversification reveal that diversified firms actually trade at a large and significant premium, which is robust to variations in the sample, business unit definition, and measures of excess value and diversification. In conclusion, there is mixed evidence on the existence of diversification discount. But attention needs to be paid to definition and measure of diversification and also sample selection.

4.7 Experienced and non-experienced acquirers

Some scholars have found a positive relationship between experience and performance (Bruton et al. 1994; Barkema, Barkema et al. 1996). While, some scholars found a U-shaped relationship (Halebian & Finkelstein, 1999; Zollo & Reuer, 2006), others, found the CARs of serial acquirers are declining from deal to deal (Ismail 2008; Aktas et al., 2009). Recently, Rahahleh and Wei (2012) reported CARs decline over the deal order and it is more significant in civil-law countries than in common-law countries.

4.8 Private vs public targets

Bradley and Sundaram (2004) showed that the two-year post-announcement returns in takeovers of a public target were not significant, but significantly negative when the target is private. Draper and Paudyal (2006) concluded that acquiring a private company is an attractive option for maximizing shareholder wealth. Capron and Shen (2007) found acquirer returns from their target choice (private/public) were not universal but depend on their attributes and integration. Bargeron et al., (2008) find that public target shareholders receive a 63 percent higher premium when the acquirer is a public firm than the privately held acquirers. And the premium paid by public bidders increased with target managerial and institutional ownership.

4.9 Ownership structure

When the bidding management owns large equity stakes, bidding firms obtain higher returns (Agarwal and Mandelker, 1987). Bigelli and Mengoli (2004) found a non-monotonic relationship between the participation of
the dominant shareholder and the ARs for bidder shareholders in Italy. Ben-Amar and André (2006) did not find that separation of ownership and control has a negative impact on the performance, but stated governance mechanisms have a positive influence on the acquiring firm performance. Yen and André (2007) found a non-linear relationship between concentrated ownership and operating cash flow returns, higher levels of ownership were associated with positive post-acquisition performance. And the greater investor protection has a positive impact on operating performance from acquisitions. Dutta and Jog (2009) showed firms with more than 25 percent director ownership significantly outperformed firms with lower director ownership, and the same case about CEO ownership. Besides, they stated acquiring firms with more inside directors performed better than firms with more outside directors.

4.10 Glamor vs Value acquiring firms (Tobin’s Q)

Firms that have High Tobin’s Q (or market-to-book value, MB) are referred to glamor (or growth) company, the firms that have low one are referred to value firms. Early studies by Lang et al (1989) and Servaes (1991) presented evidence that shareholders of high Q bidders gain significantly more than the shareholders of low Q bidders. And the shareholders of low Q targets benefit more from takeovers than the shareholders of high Q targets. Rau and Vermaelen (1998) stated that the acquisition of firms with low Q generated high ARs for the shareholders, whereas the high Q firms generated substantially negative ARs. Goergen and Renneboog (2004) demonstrate a high MB for the target leads to a higher bid premium combined with negative ARs for the bidder. Similarly, Moeller et al. (2004) and Dong et al. (2006) find that the bidder’s Q and its close proxy- MB have negative effects on bidder returns. In general, high Q of both acquirer and target play negative role on the acquirers’ shareholder CAR, while target firms benefit from their high Q.

4.11 Relative size

Asquith et al. (1983) found that the larger the relative size of a bidder, the greater CARs to the bidder and target. This was also supported by Franks et al. (1991). However, Harris (1989) reported an ambiguous effect of relative size. Sudarsanam et al. (1996) found the bids involving smaller targets raised average ARs of 1 percent over -20 to +40 days centered on the announcement. Similarly, Moeller et al. (2005) found that mergers whose values exceed $1 billion eroded bidder shareholders value by $7.38 per $100 invested. Dutta and Jog (2009) found the relatively large acquisition underperformed in the long run (-49 percent over three years). Bertrand and Betschinger, (2011) stated large firm size reduced the negative impact to acquisitions, in particular, to domestic ones. In summary, the “size effect” can be positive as higher relative size of target can bring more synergy and economic benefits, but it can also destroy the synergy, as larger targets tend to bring more integration and management problems. Besides, larger target have stronger bargaining power and then can be more expensive. Table 1 reviews a selected literature in the field of mergers and acquisitions.

Please Insert Table 1 Here

5. Research Findings From Survey Questionnaire

In this section, we present our research findings and reflections according to results of survey questionnaire. The chief financial officers of thirty-three Danish companies, which have been involved in M&As in the period of 2001-2011, were randomly selected and asked to participate in the study. Seven firms agreed and filled the questionnaire for a response rate is about 21 percent. The 7 replies may not be persuasive to generalize the findings, but we still can get some meaningful insights, as these companies were randomly selected from Zephyr Database. Since most of these companies have given similar answers to our questions we can make some preliminary judgments. Besides, for a deeper understanding about their replies, we further collected additional information from their websites, financial statements, and other sources on the Internet.

In general, Danish firms prefer large high-performance private firms (6 out of 7) as their targets. They also prefer companies with asset size between €50 Million to €150 Million. The acquiring firms normally target firms which have complementary resources (intangible or tangible) to them, for example, they aim for technical knowledge and expertise, brand, sales tunnel or natural resources.

They normally use multiple performance measures and the suitable timeframe for assessing the outcomes of their merger is 1-4 years. They have multiple motives in almost every merger activity (We offered 18 types of motives and an open-end chioce for their selection and ranking), but with different level of importance. Moreover, from their replies, it is evident they apply some financial and non-financial metrics in evaluating their merger performance. Some even stated that success can only be assessed in long-term.
The respondents also supported the existence of “diversification discount”. The horizontal merger was their main choice. All of the respondents either strongly agreed or agreed that an acquisition in related industry is worth more than an acquisition in a non-related industry. And they all stated their firms were directly or indirectly involved in synergy-related (mainly operating synergy) mergers. Besides, we learned, from their financial statements, they use merger to improve their existing businesses, and they stressed to focus on their core business with the ambition to do best what they can do.

When asked if they agreed that most of M&A value generation is distributed among the shareholders of the target firms, 5 respondents disagreed. However, they agree or showed no opinion that M&A may increase shareholders’ wealth at the expense of bondholders.

With regard to cross-border M&As our respondents all agreed it can create value for their firms. They disagreed, however, on the previous research finding that failure rate of M&As is about 40-80 percent. They also identified cultural difference and change management were the thorniest issues in cross-border M&As. Therefore, it is reasonable to assume that short-term measures might not be appropriate in evaluating cross-border M&As as the post-announcement integration and management play a critical role in the outcomes. Furthermore, all of our respondents disagreed that higher premium was justified for the foreign targets.

It seems prior experience, “experience effect”, of acquisition offered help to our respondents, as, 6 of them selected it had some help, while one firm thinks it does little help. However, it seems they are indifferent to their experience and knowledge about M&As, as 6 of them stated they had no special team or sector in charge of M&As, neither maintained any database to store the experience and knowledge of M&A, nor offered any training program for relevant staff.

Finally, they agreed that cash or mixed payments required a higher premium in M&As than straight stock-exchange transactions, and agree with all-cash offer was more effective in a hostile merger than a friendly merger. Table 2 summarizes the findings from survey questionnaire.

Please Insert Table 2 Here

6. Conclusions

The definitions of performance varied in terms of accounting, financial, operational and perceptual metrics. Also performance assessment is sensitive to the definition of performance, methodology selected, benchmarks construct, sample used, and observation time horizon, which is the main reason for a vast body of controversial research findings. Therefore, research design on examining M&A effect needs to be more fine-grained on these aspects. The first and foremost thing is to well define the performance: stand on whose position, and assess these outcomes on what level, task, acquisition project or firm level. Time horizon need to be justified. Apart from the reasons that both short- and long-period have their pros and cons, but also because value creation process is strongly context-dependent. For example, cost efficiencies are more rapid than revenue growth to achieve, and acquisitions in high-tech industries must execute the business plan much faster than chemical industries. Attention should also be paid to the database where the sample was selected from (Netter et al. 2011).

There are different perspectives and benchmarks underlying the measures for judging whether M&As are successful or not. There is no perfect performance measure but the suitable one. The rule of thumb to select the measure is to make sure the theoretical logic behind the measures and questions under investigation is aligned (Cording et al, 2010).

It is necessary to make performance construct/definition close to the motives for performing M&As. If we only use one measure to assess the firms’ performance, it means we assume that all firms’ incentives in the sample for conducting M&As are homogeneous. However, if there are a variety of behavioral motives underlie M&As, this assumption is likely to be violated, and the empirical results from this measure become less reliable. For example, success of M&A judged by event study is based on the principle that the firms’ strategic motive for conducting M&A is to maximize its shareholder wealth. Performance assessed by managers themselves is to judge the success based on whether the managers’ initial motives are realized. On the other hand, research based on divestures focus their judgment on the success of M&A activities on whether the acquired firm is subsequently divested. So some acquisitions may be thought successful when using CARs, but unsuccessful when using some accounting ratios or managers’ subjective assessment, vice versa. Short-term event study may be suitable for some markets instead of the others, mainly depend on to what extent
the assumptions behind this methodology can be satisfied. From survey data we can see the firms’ later M&A activities can be predicted through their previous financial statement even for the public firms. M&As seem work as part of their long business plan and they have clear objectives for conducting M&As. Therefore, M&A effect may have already been reflected in their stock price before announcement, making conclusions invalid. Multiple measures are necessary not only because each approach has its limitations, but also because acquisition performance by its nature is extremely complex and multifaceted, no individual way can catch its different aspects (Cording et al. 2010; Zollo and Meier 2008). Still, the research field of performance assessment of M&As is a fertile ground needs to be cultivated. “More consistency is needed in how M&A outcomes are measured” (Marks and Mirvis, 2011).

7. References


<table>
<thead>
<tr>
<th>Sample Categories</th>
<th>Related Research</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Country Level Research</strong></td>
<td></td>
</tr>
<tr>
<td>Domestic vs cross-border</td>
<td>Seth et al. 2000; Gugler et al. 2003; Moeller et al. 2005; Santos et al. 2008; Bertrand and Zitouna, 2008; Chari et al. 2010</td>
</tr>
<tr>
<td>High vs low investor protection</td>
<td>Goergen and Renneboog 2004; Yen and Andre 2007</td>
</tr>
<tr>
<td>Developed vs developing (emerging) market</td>
<td>Kang, 1993; Kumar 2005; Chernykh et al. 2010; Chari et al. 2010; Bertrand and Betschinger, 2011</td>
</tr>
<tr>
<td>Common-law vs civil-law countries</td>
<td>Rahahleh and Wei, 2012</td>
</tr>
<tr>
<td>High vs low competition in takeover market</td>
<td>Alexandridis et al. 2010</td>
</tr>
<tr>
<td>English-origin countries or not</td>
<td>Yen and Andre 2007</td>
</tr>
<tr>
<td>Takeover regulation strong or weak</td>
<td>Goergen and Renneboog 2004</td>
</tr>
<tr>
<td><strong>Industry Level Research</strong></td>
<td></td>
</tr>
<tr>
<td>High-tech vs low-tech sectors</td>
<td>Cloodt et al., 2006; Ahuja and Katila, 2001</td>
</tr>
<tr>
<td>Manufacturing VS service sectors</td>
<td>Gurgler et al. 2003; Bertrand and Zitouna 2008</td>
</tr>
<tr>
<td>Regulated vs non-regulated</td>
<td>Seth 1990; Kaplan and Weisbach 1992; Akbulut and Matsusaka 2003; Villalonga 2004; Capron and Shen 2007</td>
</tr>
<tr>
<td><strong>Firm Level Research</strong></td>
<td></td>
</tr>
<tr>
<td>Friendly vs hostile deal</td>
<td>Franks et al.1991; Franks and Mayer 1996; Gregory, 1997; Loughran and Vijn, 1997</td>
</tr>
<tr>
<td>Relative size</td>
<td>Fowler and Schmidt, 1989; Mitchell and Stafford, 2000; Moeller et al., 2004</td>
</tr>
<tr>
<td>Glamour vs value acquirer</td>
<td>Lang et al., 1989; Rau and Vermaelen 1998; Mitchell and Stafford, 2000;Bouwman, Fuller, and Nain, 2009</td>
</tr>
<tr>
<td>Public vs private acquirer/ target</td>
<td>Bradley and Sundaram 2004 ; Draper P. and Paudyal K. 2006; Bargeron et al., 2008</td>
</tr>
<tr>
<td>Strong vs weak corporate governance</td>
<td>Shinn, 1999; Wright et al. 2002; Bigelli and Mengoli 2004; Yen and Andre, 2007; Dutta and Jog, 2009; Alexandridis, 2011</td>
</tr>
<tr>
<td>Vertical / horizontal / conglomerate</td>
<td>Chatterjee, 1991; Capron, 1999; Gurgler et al. 2003; Bertrand and Zitouna, 2008</td>
</tr>
<tr>
<td>Experienced vs non-experienced</td>
<td>Halebian and Finkelstein 1999; Hayward, 2002; Conn et al., 2004; Croci, 2005; Ismail (2008); Ahern, 2008; Aktas et al.,2009; Rahahleh and Wei ,2012</td>
</tr>
<tr>
<td><strong>Deal Level Research</strong></td>
<td></td>
</tr>
<tr>
<td>Method of payment  (cash/ stock / mixed financed)</td>
<td>Brown and Ryngaert,1991; Yook, 2000; Linn and Switzer 2001; Ghosh 2001; Carlino et al. 2002; Goergen and Renneboog 2004; Powell and Stark, 2005; Alexandridis 2010</td>
</tr>
<tr>
<td>Inside vs outside M&amp;A waves</td>
<td>Akbulut and Matsusaka, 2003; Harford, 2003; Bhagat et al., 2005 and Moeller et al. 2005</td>
</tr>
<tr>
<td></td>
<td>Firm 1</td>
</tr>
<tr>
<td>----------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>Legal Status</td>
<td>Public</td>
</tr>
<tr>
<td>Main Businesses</td>
<td>Cultures and</td>
</tr>
<tr>
<td></td>
<td>Enzymes; Health</td>
</tr>
<tr>
<td></td>
<td>and Nutrition;</td>
</tr>
<tr>
<td></td>
<td>Natural Colors</td>
</tr>
<tr>
<td>No. of CBM&amp;As</td>
<td>4-7</td>
</tr>
<tr>
<td>Target Average Assets Size</td>
<td>Less than €50 million</td>
</tr>
<tr>
<td>Legal Status of the Target Firms</td>
<td>Most of them are private firms</td>
</tr>
<tr>
<td>Mergy type</td>
<td>HM &amp; CM</td>
</tr>
</tbody>
</table>
Table 2 (Continued)
Survey Results on Performance Assessment

<table>
<thead>
<tr>
<th>Performance measures</th>
<th>No answer (No performance evaluation model, but set some initial evaluation indices sometimes)</th>
<th>Earn out threshold to be achieved (year 1-4) (have performance evaluation model, and usually set some initial evaluation indices)</th>
<th>Follow-up on budget for “target” (have performance evaluation model, and set some initial evaluation indices sometimes)</th>
<th>EBIT (have performance evaluation model, but set some initial evaluation indices sometimes)</th>
<th>Profit &amp; loss budget, mainly EBITDA (No performance evaluation model, but always set some initial evaluation indices)</th>
<th>Market share, gross profit and expected synergies vs obtained (no performance evaluation model or initial evaluation indices)</th>
<th>Multiples, we compare to investment base case (earnings and cash flow) and the specific synergy initiatives, (have performance evaluation model, and always set some)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excepted timeframe</td>
<td>1-2</td>
<td>3-4</td>
<td>3-4</td>
<td>3-4</td>
<td>1-2</td>
<td>3-4</td>
<td>1-2</td>
</tr>
<tr>
<td>How do they assess their success</td>
<td>No answer</td>
<td>Post merger plan actions (3-4 years performance)</td>
<td>Can only be assessed in long-term</td>
<td>Payback</td>
<td>Profit &amp; loss budget, mainly EBITDA</td>
<td>Market share, gross profit and expected synergies vs obtained</td>
<td>1. strategic position in the industry in expected timeframe 2. financial results (e.g., earnings, cash flow and synergies)</td>
</tr>
<tr>
<td>Success rate</td>
<td>61%-80%</td>
<td>Over 80%</td>
<td>41%-60%</td>
<td>41%-60%</td>
<td>21%-40%</td>
<td>61%-80%</td>
<td>61%-80%</td>
</tr>
<tr>
<td>Their opinion on suitable measures</td>
<td>Performing vis-à-vis laid out plan with updated view on market development</td>
<td>No opinion</td>
<td>Creating shareholder’s value</td>
<td>EBIT</td>
<td>1. EBITDA in the new company, economy of scale in old group. 2. Opotunities of growth and see activities going up.</td>
<td>Expected earnings VS obtained</td>
<td>1. strategic position in the industry in timeframe expected. 2. financial results (e.g., earnings, cash flow and synergies)</td>
</tr>
<tr>
<td>M&amp;A activity successful or not</td>
<td></td>
<td>No opinion</td>
<td>Creating shareholder’s value</td>
<td>EBIT</td>
<td>1. EBITDA in the new company, economy of scale in old group. 2. Opotunities of growth and see activities going up.</td>
<td>Expected earnings VS obtained</td>
<td>1. strategic position in the industry in timeframe expected. 2. financial results (e.g., earnings, cash flow and synergies)</td>
</tr>
<tr>
<td>Attitude to Cross-border M&amp;A (CBMA)</td>
<td>CBMA could create value for us</td>
<td>CBMA can help us create technology driven advantages</td>
<td>CBMA can create value for us</td>
<td>CBMA can create value for us</td>
<td>Increase of economy of scale and increase growth in the new markets. Without M&amp;A, there is a risk of value to decline</td>
<td>Increase market share and earning</td>
<td>Global footprint, purchase volume and faster capture of business in related segments</td>
</tr>
</tbody>
</table>

Note: 1. Vertical merger (VM); 2. Horizontal merger (HM); 3. Concentric merger (CM); 4. Conglomerate merger (CGM).