Performance Assessment of Mergers and Acquisitions: Evidence from Denmark

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Topics

Research Background

- Numerous waves of mergers and acquisitions (M&As) have led to substantial industrial restructuring in different parts of the world. Global M&As sharply increased from $97.3 billion in 1987 to $2740 billion in 2011 (The Economic Times, 12/30/2011).
- M&As become the focus study from different disciplines since the 1960s. A majority of research findings show that the failure rate has not significantly changed for these decades, ranging from 40%-80% (Datta et al, 1992; Bruner, 2002; King et al 2004; Cartwright et al, 2006).
- 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).
- ‘There exists much heterogeneity both on the definition of the performance of M&As and on its measurement’ Zollo and Singh (2004).
- The empirical evidence mainly come from American or large European countries, there are rare studies on M&A activities of Danish firms.

Problem Formulation

- How the performance of mergers and acquisitions (M&As) is defined, measured, and what are the features of these measures?
- How is the performance when using different measures or samples?
- What are the practices and opinions from the fieldwork (i.e., Danish companies)?

Research Design

Literature Review — STEP 1

Questionnaire Survey — STEP 2

Conclusions — STEP 3

Research Process

Literature Review - summary

- A summary and comparison of primary measures of M&A performance are made (Please see the next slide).

- The categories of subsamples used and the relevant empirical findings are summarized (Please see the slide 12).

Literature Review: a comparison of primary M&A performance measures

Event studies (stock-market-based measures) both in short- and long- run	Accounting-based measures (e.g., ROA, ROE, Operating Cash Flows)	Managers' subjective assessments	Expert informants' assessments	Divestment measure
Basic approach: The outcome of M&As is assessed by calculating the "abnormal" change of stock price caused by the unexpected event (M&As).	***Basic approach:*** *Usually*, compare accounting measures prior and subsequent to a merger event.	***Basic approach:*** The executives are asked to rate to what extend they have realized their preliminary objectives several years after completing M&As.	***Basic approach:*** The same with the above.	***Basic approach:*** To check whether an acquired firm has subsequently been divested or not.
Rationale: This method is to gauge the acquiring firm's success or failure in value capture for its shareholders from M&As.	***Rationale:*** The strategic aim of a business is assumed to earn a satisfactory return on capital, and any benefit arising from M&As will finally reflected in the firm's accounting statements	***Rationale*:** The top executives' perception of success determine their acts and then the outcomes.	***Rationale*:** Their assessment is more objective then the previous one.	***Rationale*:** The merged companies deem to diversify if the acquired firm' performance does not meet their expectations

Literature Review: a comparison of primary M&A performance measures (continued) – their advantages, disadvantages and the empirical results (Part 1)

	Advantages	Disadvantages	Empirical Results
Short Term Event Study (STES)	(1) Objective; (2) data are easy to get; (3) STES can screen the influence of outside factors; (4) no industry sensitivity, enabling a cross-section of firms to be studied.	(1) Rigorous assumptions; (2) Expected synergy; (3) complicate implementation (4)sampling bias, not for private firms; (5) ignore multiple motives for M&As; (6) assesses M&As only on firm level.	Abnormal returns to the targets are large and positive, while returns to the acquirers are mixed.
Long Term Event Study (STES)	Besides the above advantages, a long window might help capture more important information.	(1) Suffer the impact of confounding events; (2) it requires the stability of the expected stock price, which is difficult to meet; (3) T-test will be severely reduced. (4) Thin trading effect. (5) Long-term measures can be seriously distorted with long measurement interval.	Result from long-term event study strongly depends on the estimation method used to predict the benchmark returns and the features of sample.
Accounting-based Measures (ABM)	(1) It captures the realized returns; (2) more valuable information can be gained to assess M&A effect; (3) It is relatively simpler to be implemented; (4) effects of multiple motives can be covered.	(1)suffer from the impacts of outside factors; (2) It reflects the past rather than present performance expectation; (3) Accounting data can be manipulated; (4) different and changing accounting standards (5) Different accounting policies; (6) assess the performance of the whole organization; (7) Valid combined performance after M&As is difficult to get, when the target is dissolved or be an independent subsidiary of the bidder; (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.	Results of post-merger performance are ambiguous.

Literature Review: a comparison of primary M&A performance measures (continued)- their advantages, disadvantages and the empirical results (Part 2)

	Advantages	Disadvantages	Empirical Results
Managers' assessments	(1) Private information can be used; (2) reduce the noise outside; (3) use financial and non-financial information; (4) multiple motives; (5) suitable method, as the managers' perception of success will influence their acts and the outcomes; (6) applicable across all types of acquisitions. (7) Enable us to assess the M&A on the acquisition project level.	(1) it may contain managerial bias, multiple respondents are needed; (2) depend on their accurate recall; (3) Results may be subject to the respondents' familiarity with the original objectives for acquisitions.	A majority of empirical evidence show more than 50% of the interviewed managers believe M&As create value for them or strategic goals have been achieved.
Expert informants' assessment	(1) It provides external assessment and can help offset the other methods' flaws. (2) It enables us to assess the outcomes of acquisition on the project level, especially when the firms are multidivisional.	(1) Subjective bias (2) Limited information (3) Depend on accurate recall	Around 50% acquisitions are descried as poor or very poor.
Divestment measure	It is a simple way to gauge success	It is not quite reasonable to as divestment in some instances signals successful restructure and profitable sale or appropriate resource reconfiguration in response to environmental change.	About 20%- 40% acquired companies were divested several years later.

Literature Review: a comparison of primary M&A performance measures (continued) - their relationship

- Different metrics shed light on different aspects of the outcomes of acquisitions, and they can offset each other’s flaws.

- Results from accounting-based measures, managers' and expert informants’ assessment are positive correlated, whereas the relations between event study and the rest measures are blur, this may mainly depend on to what extent the assumptions of event study can be met.

Literature Review:

a summary of the attributes of M&A performance measures

- Approaches for assessing M&A performance vary along these dimensions:

  (1) Subjective or objective assessments
  (2) Expected returns or realized returns
  (3) Short-term or long-term perspectives
  (4) Public information or private information
  (5) Task level, acquisition project level, or firm level
  (6)Returns to the acquiring firms separately or to their combination

Literature review: sample categories and empirical findings

Country Level Research			
Domestic VS Cross-border M&As	High VS Low Investor Protection	Developed VS Developing (emerging) Market	Common-law VS Civil-law Country
High VS Low Competition in Takeover Market	English-origin Countries or Not	Strong VS Weak Takeover Regulation	
Industry Level Research			
High- VS Low-tech Industries	Manufacturing VS Service Industries	Regulated VS Non-Regulated Industries	
Firm Level Research			
Friendly VS Hostile Deals	Relative Size of The Target to The Acquirers	Glamour VS Value Acquirers	Public VS Private Acquirers/ Targets
Strong VS Weak Corporate Governance	Vertical, Horizontal, Conglomerate	Related VS Unrelated Acquisition	Experienced VS Non-experienced Acquirers
Deal Level Research			
Method of payment (cash/stock/mixed)	Inside VS Outside M&A waves		

Questionnaire Survey: general information of the participants

	Firm1	Firm 2	Firm 3	Firm 4	Firm 5	Firm 6	Firm 7
Year Established	1874	1961	1897	1990	1981	1918	1987
Legal Status	Public	Private	Public	Private	Private	Former Publicly	Private
Main Businesses	Cultures and Enzymes; Health and Nutrition; Natural Colors	Refrigeration & Air Conditioning; Heating & Water; Motion Controls	Foods Moving & Relocation Services	Seafood products	Light metal packaging products	Fish feed products	Industrial and marine boiler manufacturer
Total asset (mil EUR, 2010)	1,316 mil	3,980 mil	562 mil	502 mil	135 mil	262 mil (2006)	259 mil
No. of CBM&As	4-7	Above 10	Above 10	4-7	4-7	1-3	1-3
Target Average Assets Size	Less than €50 million	€151 million – €1 billion	€50 million - €150 million	Less than €50 million	Less than €50 million	€50 million - €150 million	Less than €50 million
Legal Status of the Target Firms	Most of them are private firms	Most of them are private firms	Most of them are private firms	Most of them are private firms	Most of them are private firms	Most of them are public firms	Most of them are private
Merge type*	HM & CM	HM	VM & HM	HM	CGM	HM	HM

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

Questionnaire Survey (continued): Danish firms' practice

	Firm1	Firm 2	Firm 3	Firm 4	Firm 5	Firm 6	Firm 7
Performance measures	No answer *(No performance evaluation model , but set some initial evaluation indices sometimes)*	Earn out threshold to be achieved (year 1-4) *(have performance evaluation model, and usually set some initial evaluation indices)*	Follow-up on budget for "target" *(have performance evaluation model, and set some initial evaluation indices sometimes)*	EBIT *(have performance evaluation model, but set some initial evaluation indices sometimes)*	Profit & loss budget, mainly EBITDA *(No performance evaluation model, but always set some initial evaluation indices)*	Market share, gross profit and expected synergies VS obtained *(no performance evaluation model or initial evaluation indices)*	Multiples, compare to investment base case (earnings and cash flow) and the specific synergy initiatives. *(have performance evaluation model, and always set some initial evaluation indices)*
Excepted timeframe for success	1-2 years	3-4 years	3-4 years	3-4 years	1-2 years	3-4 years	1-2 years
How do they assess their success	No answer	Post merger plan actions (3-4 years performance)	Can only be assessed in long-term	Payback	Profit & loss budget, mainly EBITDA	Market share, gross profit and expected synergies VS obtained	1.strategic position in the industry in expected timeframe 2. financial results (e.g., earnings, cash flow and synergies)
Success rate	61%-80%	Over 80%	41%-60%	41%-60%	21%-40%	61%-80%	61%-80%
Their opinion on suitable measures for judging whether an M&A activity successful or not	Performing vis-à-vis laid out plan with updated view on market development	No opinion	Creating shareholder's value	EBIT	1. EBITDA in the new company, economy of scale in old group. 2.Opportunities of growth and see activities going up.	Expected earnings VS obtained	1. strategic position in the industry in timeframe expected. 2. financial results (e.g., earnings, cash flow and synergies)
Attitude to Cross-border M&A (CBMA)	CBMA could create value	CBMA can help to create technology driven advantages	CBMA can create value	CBMA can create value for us	Increase economy of scale and growth in the new markets. Without M&A, there is a risk of value to decline	increase market share and earning	Gain global footprint, purchase volume and faster capture of business in related segments

Questionnaire Survey (continued): findings

- Danish firms' M&As target at private firms with multiple motives.
- Multiple performance measures are used and the suitable timeframe for assessing the outcomes of their M&As is 1-4 years.
- The respondents also supported the existence of "diversification discount.
- 5 of 7 respondents disagreed that most of M&A value generation is distributed among the shareholders of the acquiree, but they agree or show no opinion to the statement that M&A increase shareholders 'wealth at the expense of bondholders.
- All of them agreed international M&As can create value, and they disagreed that failure rate of M&As is about 40-80 percent.
- About 'experience effect', 6 of them stated it had some help, while one firm said it did little help. And they show indifferent attitude about their M&A experience.
- They agreed that cash or mixed payments required a higher premium in M&As than straight stock-exchange transactions, and all-cash offer was more effective in a hostile merger.

Conclusions

- The definitions of performance varied in terms of accounting, financial, operational and perceptual metrics. Performance assessment is sensitive to the definition of performance, measures selected, benchmarks construct, samples used, and observation timeframe, which are the main reasons for a vast body of controversial research findings.
- 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.
- It is necessary to make performance construct/definition connect to the motives for performing M&As.
- Short-term event study may not be suitable for some markets.
- Multiple measures are necessary.
- Overall, the research field of performance assessment of M&As is a fertile ground which needs to be cultivated. “More consistency is needed in how M&A outcomes are measured” (Marks and Mirvis, 2011)