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The Impact of Market Information Asymmetry on Chain Merger and Acquisition Effect Information

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Abstract

Market changes may lead enterprise groups to conduct a series of systematic mergers and acquisitions for specific purposes in order to obtain the resources needed by the enterprise. This study explores the motives of M&A from different angles and whether the expected M&A benefits can be achieved and analyzes whether the M&A cases brought benefits to the business groups successfully through a number of financial indicators and stock price performance. The research results found that if the information is asymmetric or the information is hidden, the wealth effect will not be obtained.

Keywords: M&A, Information Effects, Chain of Mergers and Acquisitions, Information Asymmetry

JEL Classification: C22, D83

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1. Introduction

Taiwanese businesses are typically small- and medium-sized enterprises (SMEs), and merger and acquisition (M&A) activities were relatively rare before 1988. Since 1998, Taiwan's stock exchange entered into the bull market, and the foreign exchange market has also grown. Local listed companies and OTC companies have taken the opportunity to conduct cross-border M&As. Because of internationalization, the importance of global competition has gained considerable attention from enterprises and governments, and M&A has been adopted as a feasible means for enterprises to maintain their competitiveness. In 2002, Taiwan entered the World Trade Organization (WTO). Changes in the market conditions have led business groups to promote liberalization, diversification, and internationalization, in order to acquire the technology needed to reduce costs, gain new market channels, increase their profit, and enhance the competitiveness. Therefore, intra-industry M&A has been widely adopted. This study explores the motives of M&A from different angles and whether the expected M&A benefits can be achieved and analyzes whether the M&A cases brought benefits to the business groups successfully through a number of financial indicators and stock price performance.

2. Research method

2.1 Sample Collection and Description

The M&As studied in this study cover mainly listed and OTC companies in Taiwan durning 1991-2018. This study focuses on companies under the same group having unassociated names, and serial M&As, in order to explore whether the lack of connection between the name of the group and its subsidiaries would produce information asymmetry, whether the enterprise has achieved its expected effect, and the impact it has on investors

and the stock market. This study takes M&As taken place in Taiwan durning 1991-2018 as a sample. The sample data are based on the special event database of the Taiwan Economic Journal (TEJ). Because some announcement dates are incomplete, some of the data are taken from the Taiwan M&A activity reasearch of TEJ with the benchmark dates of the M&A transaction data used as the merger event dates. This study sources 825 samples of acquiring companies and 1286 samples of target companies.

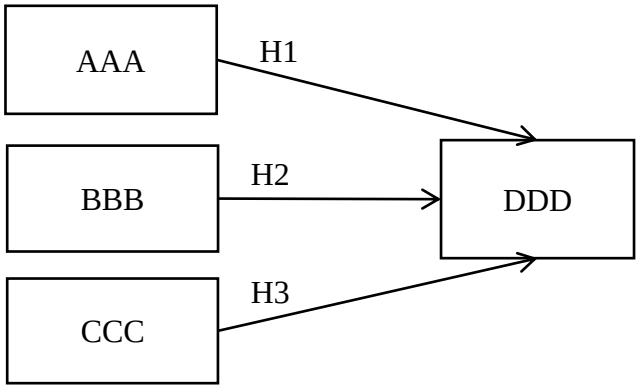

Figure 1. Research framework

2.2 Abnormal Returns (AR)

The event study method was first proposed by Fama, Fisher, Jensen, and Roll (1969), taking the announcement of the stock split event as an example to observe whether the stock split affects the company's stock price and observing the efficiency of the capital market.

$$AR_{it} = R_{it} - E(R_{it}) \quad (1)$$

AR_{it} is the abnormal returns of i^{th} stock durning event period of t, R_{it} is

the actual returns of i^{th} stock durning event period of t and $E(R_{it})$ is expected returns of i^{th} stock durning event period of t.

2.3 Scholes-Williams OLS Risk Adjustment Model

$$\hat{\beta}_i^* = \frac{\hat{\beta}_i^- + \hat{\beta}_i + \hat{\beta}_i^+}{1 + 2\hat{\theta}_m} \tag{2}$$

Where, $\hat{\beta}_i^-$ ($\hat{\beta}_i^+$) are respectively the minimum square method estimate of the company's return and the pre- (post)-market return, and $\hat{\theta}_m$ is the self-correlation coefficient of market return.

3. Empirical results

This study takes the case of the survival and elimination of M&A companies during 1991-2008 with Taiwan's listed and OTC companies as the research sample. We divide them into three categories: listed companies with acquired companies eliminated and surviving, OTC companies with acquired companies eliminated and surviving, and listed/OTC companies with acquired companies eliminated and surviving. These three categories are further divided into group serial M&A events and subsidiaries for separate discussion. This study has two screening criteria, and the analysis tables are integrated into four tables, respectively: AR and CAR of the first category of samples screened and the second category of samples screened. This study uses the Scholes-Williams OLS risk adjustment model to explore the information difference of M&A information for these categories.

Table 1. The AR of the first type of samples screened

Event Day	Listed-Group	Listed - Subsidiary	OTC-Group	OTC-Subsidiary	All sample (Group)	All sample (Subsidiary)

-3	0.0520	0.1503		0.2848		0.5430		0.0672		0.1076	
-2	0.0357	0.0859		0.8632	*	0.9223	***	0.2617		0.1528	
-1	0.1857	0.2880	**	0.2073		0.1241		0.3090	*	0.2865	**
0	0.1330	0.1418		0.3076		0.2103		0.1509		0.1965	
1	0.1041	0.2233	*	1.1497	**	0.3909		0.2160		0.1924	
2	-0.0518	-0.2957	**	0.6871		-0.2810		0.1273		-0.2593	**
3	0.0438	-0.0449		0.0811		0.2079		0.0842		-0.0340	

Note：* significant level of 10%, ** significant level of 5%, *** significant level of 1%

4. Conclusion

Under the advancement of Internet technology, the spread of news online makes the wealth effect even more significant. This study discusses whether serial M&As exhibit the expected effect, using Scholes-williams to explain AR and CAR, the information asymmetry between the parent company (group) and invesors, and the asymmetrical relationship between the name associations of the comapnies. This study also probes into serial M&A of companies that do not show affiliation in their names. The results, as shown in in Table 2, indicate an abnormally significant correlation between the name relevance of subsidiaries under the group and their parent companies.

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