The Influence of Listed Company's Ownership Structure on M&A Performance

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ABSTRACT

This paper selects the listed companies in China that successfully completed M&A in 2016 as samples to investigate the influence of ownership structure on corporate M&A performance-Tobin's Q Ratio. The empirical regression results show that the degree of ownership concentration and the degree of ownership balance have a positive impact on the value of a company after M&A; The negative effect of state shares ratio on the value of the company after M&A is not significant; However, corporate shares ratio have a significant positive effect; At the same time, management shareholding can also have a positive impact on the short-term M&A performance.

Keywords: Ownership structure, M&A, Tobin's Q Ratio, M&A performance

1. INTRODUCTION

As an economic behavior of enterprises, M&A is not only a strategic choice, but also an inevitable result of industrial structure adjustment and upgrading [1]. In 2016, the wave of M&As among Chinese enterprises reached a new high, with the total number of transactions rising to 11,409. Obviously, whether M&A activity can exactly improve corporate performance is closely related to the decision-making mechanism of the company itself, which in turn is related to its own governance structure [2]. Therefore, it is of great significance to explore the relationship between ownership structure and M&A performance to improve the operational efficiency of enterprises.

2. HYPOTHESIS

2.1. The Role of Shareholding Structure Ratio

According to the benefit synergy effect, in those enterprises with relatively concentrated ownership structure, the largest shareholder usually has the right of supervision and final decision, which can reduce the principal-agent cost and improve the operating efficiency [3]. McConnell and Servaes [4] also believe that there is a positive relationship between the concentration degree of ownership and Tobin's Q value. And this view coincides with the research by Kroll et al. [5]. Also, the higher the degree of ownership balance is, the stronger the supervision power of other shareholders over the largest shareholder will be, and the more positive effect of

ownership balance on the improvement of company value after M&A will be played. It is supported by the empirical researches of Luwei Ouyang et al. [6] and Yanli Chen et al. [7]. So the following hypotheses can be put forward:
Hypothesis 1: the degree of ownership concentration has a positive effect on the value of the company after M&A;
Hypothesis 2: the degree of ownership balance has a positive effect on the value of the company after M&A.

2.2. The Role of the Controlling Shareholder Attribute

In China, the control power of most state-holding listed companies does not match the residual claim right, which leads to the problem of "owner vacancy" and may negatively affect the performance of M&A. This is confirmed in the research of Dazhi Liu [8] and Yinxuan He er al. [9]. As for the corporate shares, it is generally believed that it has a positive effect on M&A and M&A performance. Therefore, the following two assumptions can be made:
Hypothesis 3: the proportion of state shares has a negative impact on the value of the company after M&A;
Hypothesis 4: the corporate shares ratio has a positive effect on the value of the company after M&A.

2.3. The Role of Management Shareholding

Generally, there is a conflict of interests between the shareholders and the management, and when the management has both of these two identities, the conflict can be effectively avoided, so as to improve the

performance of the company. Yunhui Li et al. [10] and Caiqun Zhu [11] demonstrated this positive effects through empirical researches. Thus, the fifth research hypothesis can be proposed:

Hypothesis 5: management shareholding has a positive effect on the value of the company after M&A.

3. RESEARCH DESIGN

3.1. Sample Selection

In this paper, the A-share listed companies that had M&As in Shanghai and Shenzhen stock market in 2016 were taken as the original samples, and 2015-2019 was selected as the time window to explore the role of the pre-merger ownership structure on the performance of the merger year and the subsequent years. All relevant data are from CSMAR database and RESSET database.

After obtaining the samples of M&A events, sort it out according to the following principles: (1) select successful events, that is, the first announcement of M&A news and the announcement of the completion of M&A were both issued in 2016; (2) choose companies that retain only A shares; (3) delete "ST" companies, that is, listed companies with abnormal financial or other conditions that need special treatment; (4) excluding financial and insurance companies; (5) choose companies that are actively acquiring; (6) excluding companies that are both the acquirer and the acquired; (7) companies that had a material reorganization event were excluded; (8) choose the way of acquisition of assets, and the transaction amount is more than 10 million yuan; (9) for companies that have made several M&A in 2016, only those with the largest transaction amount are selected; (10) delete companies with missing or abnormal data.

Thus, a total of 179 M&A events were obtained as samples for subsequent empirical research.

3.2. Variable Definition

For the dependent variable, I use the Tobin's Q Ratio to evaluate the enterprise M&A performance, it reflects the market's evaluation of the company's value in the context of the existing company's assets [12].

At the same time, five independent variables are defined: (1) degree of ownership concentration(CR1): the shareholding ratio of the first largest shareholder in the year before M&A; (2) degree of ownership balance(BALANCE): the ratio of total shareholding of the second to fifth largest shareholders to that of the first largest shareholder in the year before M&A; (3) state shares ratio(DS): state shares ratio in the year before M&A; (4) corporate shares ratio(DAP): corporate shares ratio in the year before M&A; (5) management shareholding(PM): the dummy variable is equal to 1 when the management holds shares in the year before M&A, and 0 if not. And

learn from Zheng Gong et al. [13], there are four control variables: (1) the enterprise scale(SIZE): the natural log of total assets in the year before M&A; (2) capital structure(LEV): the ratio of total assets to total liabilities in the year before M&A; (3) M&A relevance(GL): the dummy variable is equal to 1 when associative M&A occurs, and 0 if not; (4) return on equity(ROE): return on equity in the year before M&A.

3.3. Model Construction

In this article, two models will be constructed to test the five hypotheses on the influence of "quantity" and "quality" of ownership structure on the M&A performance proposed above. The two models are constructed as follows (Where, i = -1,0,1,2,3; ε_i is the random interference term).

$$TobinQ_i=\beta_0+\beta_1*CR1+\beta_2*BALANCE+\beta_3*SIZE$$
$$+\beta_4*LEV+\beta_5*GL+\beta_6*ROE+\varepsilon_i; \quad (1)$$

$$TobinQ_i=\beta_0+\beta_1*DS+\beta_2*DAP+\beta_3*PM+\beta_4*SIZE$$
$$+\beta_5*LEV+\beta_6*GL+\beta_7*ROE+\varepsilon_i. \quad (2)$$

4. RESULTS

4.1. Descriptive Statistics

Table 1 shows the descriptive statistics of dependent variable, independent variables and control variables. It can be seen that the mean value of Tobin's Q Ratio is gradually decreasing from the year before M&A, and the standard deviation is also decreasing, indicating that Tobin's Q Ratio will gradually decrease after the announcement of the merger and after the completion of the acquisition. Meanwhile, the difference of Tobin's Q Ratio between companies is also narrowing.

Moreover, it can be seen that, on average, the ownership structure of companies is relatively concentrated. A few companies have much high degree of ownership balance. And the proportion of state-holding enterprises is small, the proportion of corporate-holding enterprises is not high, but that of management shareholding companies is higher.

4.2. Variables Correlation

Table 2 shows the correlation results among variables. It can be seen that the mostly correlation coefficients among variables are small, indicating that the model constructed is less likely to be multicollinearity, which is more suitable for multiple linear regression. And the control variables are more or less correlated with Tobin's Q Ratio, so the selection is considered reasonable. In the correlation between independent variables and the dependent variable, only the coefficient of CR1 is inconsistent with the

hypothesis, so it needs to be further explored through regression analysis.

4.3. Regression Results

Table 1 Descriptive statistics of variables

	N	Min	Max	Mean	Median	Std. Dev.
$TobinQ_{-1}$	179	0.983	29.46	5.614	4.59953	4.1714
$TobinQ_0$	179	0.739	15.81	3.737	3.26600	2.0638
$TobinQ_{+1}$	179	0.829	11.78	2.753	2.37126	1.4585
$TobinQ_{+2}$	179	0.719	7.111	1.911	1.60777	0.9566
$TobinQ_{+3}$	179	0.739	8.992	2.135	1.7151	1.3372
CR1	179	0.038	0.731	0.339	0.33528	0.1398
BALANCE	179	0.027	3.189	0.769	0.53821	0.6157
DS	179	0	0.591	0.023	0	0.0883
DAP	179	0	0.750	0.111	0.015	0.1798
PM	179	0	1	0.670	1	0.4714
SIZE	179	19.91	25.94	21.90	21.6594	1.0400
LEV	179	1.117	50.80	4.080	2.72886	4.5952
GL	179	0	1	0.207	0	0.4061
ROE	179	0.002	0.280	0.085	0.07706	0.0534

Table 2 Variables correlation

	CR1	BALANCE	DS	DAP	PM	SIZE	LEV	GL	ROE
$TobinQ_{-1}$	-0.0515	0.3861^{**}	-0.0672^{**}	0.134^{**}	0.07015	0.01396	0.46271	-0.264^{**}	0.0386^{**}
$TobinQ_0$	0.0122	0.085936	-0.0367^{***}	0.076^{***}	0.08489	-0.02956	0.58441	-0.192^{***}	0.0134
$TobinQ_{+1}$	0.0090	0.019872	-0.0222^{**}	0.041^{**}	0.0993^{*}	0.2365^{**}	-0.04314	-0.115^{***}	0.00664
$TobinQ_{+2}$	-0.0010	0.06654	-0.0121^{*}	0.025^{**}	0.04254	0.1227^{*}	-0.08926	-0.0369	0.00327

	CR1	BALANCE	DS	DAP	PM	SIZE	LEV	GL	ROE
TobinQ$_{+3}$	-0.0023	0.052553	-0.01516*	0.0321*	0.04071	0.06978	0.03497	-0.0496	0.00538
CR1		-0.0638***	0.00166*	0.005**	-0.00714	-0.00719	0.01851	0.00544	-0.00038
BALANCE			-0.00469	0.0018	0.01809	-0.00917	0.16551	-0.02425	-0.00049
DS				-0.0015	-0.0057*	0.00714	-0.02937	0.007***	0.00019
DAP					-0.022***	-0.042***	0.259***	-0.0099*	-0.00021
PM						0.1195***	-0.10099	-0.0101	-0.00292
SIZE							-1.302***	0.03208	0.011***
LEV								-0.19432	-0.0357*
GL									0.00025

*,** and *** represents the significance level of 10%, 5% and 1% respectively.

Table 3 The influence of shareholding structure ratio on M&A performance(model 1)

	TobinQ$_{-1}$	TobinQ$_0$	TobinQ$_{+1}$	TobinQ$_{+2}$	TobinQ$_{+3}$
CR1	2.4853	3.4916**	1.8744*	1.4051*	0.9640
BALANCE	1.3597*	0.7426**	0.3273*	0.4039**	0.2857
SIZE	-0.0384	0.0030	0.2456**	0.1226*	0.0680
LEV	0.0180	0.0177	0.0051	-0.0017	0.0032
GL	-1.4825*	-1.182***	-0.761***	-0.2395	-0.3048
ROE	14.6792**	5.6422*	1.8592	0.9510	1.8892
N	179	179	179	179	179
R^2	0.07869	0.09976	0.085673	0.057762	0.030635
AdjustR^2	0.04655	0.06836	0.053778	0.024893	0.00307
F	2.44840	3.17682	2.686084	1.757336	1.11136

*,** and *** represents the significance level of 10%, 5% and 1% respectively.

As can be seen from the value of "F" in the Table 3, the linear relationship between the dependent variable and the independent variables is generally significant in the first three sets of equations, but that of the latter two sets of equations are not. And it can be seen that CR1 has a significant positive impact on the value of the company in the year of M&A and the following two years, the effect was particularly significant in the year of M&A. Similarly, the impact of BALANCE on M&A performance is also significantly positive. Thus, hypothesis 1 and 2 are verified. These shows that to coordinate the shareholding ratio of the top five shareholders, make them restrict each other and urge the management to promote specific matters of M&A, can promote the value of the company to some extent.

Table 4 The influence of ownership attribute on M&A performance(model 2)

	TobinQ$_{-1}$	TobinQ$_0$	TobinQ$_{+1}$	TobinQ$_{+2}$	TobinQ$_{+3}$
DS	-6.7850*	-3.1483*	-1.9995	-1.2620	-1.5264
DAP	4.2927**	2.4022***	1.724***	1.0827**	1.2102*
PM	0.7040	0.5829*	0.4396*	0.2016	0.2407
SIZE	0.0064	-0.0113	0.2343*	0.1247*	0.0715
LEV	-0.0209	-0.0023	-0.0109	-0.0102	-0.0080
GL	-1.0464	-0.8738**	-0.542**	-0.1282	-0.1722
ROE	14.915**	5.8093**	2.0880	0.9396	1.9849
N	179	179	179	179	179
R^2	0.11115	0.140637	0.13751	0.08288	0.05383
AdjustR^2	0.07476	0.105458	0.1022	0.04534	0.01510
F	3.05478	3.99780	3.89464	2.20759	1.38981

*,** and *** represents the significance level of 10%, 5% and 1% respectively.

Table 4 shows that, except the third year after M&A, the linear relationship between regression equation variables in other years is significantly established. Moreover, the coefficient of DS is negative in every year, but it is significantly negative only in the year of M&A and the year before, indicating that the negative influence of state shares on the M&A performance is limited. So that hypothesis 3 has not been well tested. On the contrary, the coefficient of DAP is significantly positive in each regression equation, shows that the higher corporate shares ratio, the higher the performance of M&A. And PM has a significant positive effect in the year of M&A and the first year after M&A. Therefore, hypothesis 4 and 5 are verified. As for control variables, it can be seen that related M&A are not conducive to the improvement of the company's M&A performance, while the positive ROE will bring some benefits.

5. CONCLUSION

This article mainly draws the following conclusions: (1) the ownership concentration of listed companies in China has a positive effect on their M&A performance; (2) the degree of ownership balance also has a positive impact; (3) the negative effect of the proportion of state shares on the M&A performance is not very significant; However, the corporate shares ratio has a significant positive effect; (4) management shareholding have a positive impact in the short term.

In view of the above findings, I would like to make some suggestions: (1) information disclosure system should be more improved, as well as laws and regulations related to M&As; (2) the company should maintain an appropriate degree of ownership concentration and the degree of ownership balance, implement the corporate-holding pattern, and gradually implement the management shareholding; (3) strategic M&A should be developed and associated M&A should be reduced.

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