Financial Performance of M&A: Focusing on E-commerce Companies in China

Cong Zhang[1], Shanyue Jin[2*]
[1]Ph.D. Student, School of Business, Gachon University
[2]Associate Professor, School of Business, Gachon University

M&A 기업성과: 중국 전자상거래 기업을 중심으로

장총[1], 김산월[2*]
[1]가천대학교 경영대학 박사과정, [2]가천대학교 경영대학 부교수

Abstract With the rise and rapid development of the "Internet+" economic model, the internet is deeply integrated with the social economy and penetrates every corner of life. Compared with expanding the scale of business operations through internal investment and capital accumulation, e-commerce companies are more inclined to directly gain control of other companies through efficient merger and acquisition (M&A). The purpose of this study is to analyze changes in financial performance before and after M&A of Alibaba, China's largest e-commerce company in the Internet era. To present the impact of M&A events on Alibaba's stock price and shareholder wealth more intuitively, this study selected the market model in the event study method to measure abnormal returns. The results show that an M&A event led to a reduction in Alibaba's shareholder wealth in the short term. This study presents the theoretical basis for the M&A performance of e-commerce companies.

Key Words : Alibaba, e-commerce, M&A, financial performance, event study

요 약 "인터넷+" 경제 모델의 부상과 급속한 발전으로 인터넷은 사회 경제와 깊이 통합되어 삶의 구석구석을 파고든다. 전자상거래 기업은 내부 투자나 자본 축적을 통한 사업 규모 확대에 비해 효율적인 인수합병(M&A)을 통해 직접 타사를 지배하려는 경향이 강하다. 본 연구의 목적은 인터넷 시대 중국 최대 전자상거래기업인 알리바바의 M&A를 중심으로 M&A 전후의 재무실적 변화를 분석하고자 한다. 본 연구는 M&A가 알리바바의 주가와 주주 재산에 미치는 영향을 보다 직관적으로 제시하기 위해 사건연구 방식으로 시장모델을 선정해 비정상수익률을 측정했다. 연구결과 M&A 이벤트는 단기적으로 알리바바의 주주재산 감소로 이어졌음을 보여준다. 본 연구는 전자상거래기업들의 M&A성과에 대한 이론적 근거를 제시하고 있다.

주제어 : 알리바바, 전자상거래, M&A, 재무성과, 사건연구

1. Introduction

At present, the three internet giants, Baidu, which focuses on AI and web search engines; Alibaba, which focuses on e-commerce; and Tencent, which focuses on games and social media, represent the top level of the pyramid in China's Internet technology and innovation field [1]. According to the statistics of the Report of Market Demand and Invest Strategy Planning on China's Internet Advertising Industry (2018), only BAT accounted for 72.46% of the market share of Internet advertising revenue in 2018 [2].

As early as 2013, the rapid development of information technology accelerated the arrival of the internet era. At that time, the market structure was also changing quietly. The various walks of life are no longer limited to a single or a few fixed business areas that they were good at before but grab the flow of each subdivided field in advance by means of M&A integration, and M&A entered a golden period of development at the same time [3]. Therefore, to gain an absolute advantage in this white-hot competitive environment, Alibaba expanded and improved the local life service platform by acquiring Eleme for $9.5 billion in cash. Since then, Alibaba's business ecological layout of "Internet + New Retail" has been fully developed [4].

Why did Alibaba acquire Eleme? What are Alibaba's strategic intentions, and what kind of M&A effects will Alibaba and Eleme have after the M&A? These are worthy of in-depth analysis and discussion in this paper. Therefore, this study aimed to analyze the changes in the financial performance of the e-commerce company Alibaba after M&A, summarize its experience, and bring reference and enlightenment to the M&A of Internet companies.

To be specific, this study analyzed the changes in financial performance before and after the M&A of Alibaba and Eleme using the event study method, which provides a good reference for how to integrate resources better and achieve optimal allocation of resources for Internet companies in the future.

2. Related Theories

2.1 Synergistic Effect Theory

The synergistic effect refers to the positive or negative effects of resource integration on the overall enterprise after M&A between the two sides of the enterprise, which can be embodied in the synergy of efficiency, operation, finance and management of the acquiring companies [5]. After an M&A, both companies expect to have a positive synergistic effect of one plus one greater than two. The optimal allocation of resources and economies of scale can be realized through the effective integration of complementary resources. It can be said that realizing the positive effect of synergy to maximize profits is one of the main reasons many companies join the wave of M&A [6].

2.2 Information Asymmetry Theory

In the information transmission of the market economy, information asymmetry refers to the difference in understanding relevant transaction information due to the unequal information resources held by all parties [7]. For M&A enterprises, both parties may be in unequal positions. Generally, the information held by the acquiree (seller) is often better than that of the acquirer (buyer). This is because the complexity of the M&A process makes it difficult for the acquirer to understand the information of the acquiree fully, especially when the scale of the acquired company is large and the acquired party deliberately conceals the unfavorable information of M&A. The asymmetry between the transaction information is more obvious [8], which will further lead to a certain degree of

deviation in the valuation of the target acquiree for the acquirer in M&A [9]. At the same time, the opacity of information between the two parties in the M&A process also has an impact on stock market investors and other stakeholders [10].

3. M&A Motivation Analysis

The acquirer, the Alibaba Group, was co-founded in Hangzhou, China, in 1999 by Jack Ma and 17 other partners from different backgrounds. On September 19, 2014, Alibaba Group was officially listed on the New York Stock Exchange (NYSE) [11]. With the expansion of the company scale and the improvement of market share, as well as the need for market competition, in the same year, Alibaba began to accelerate its layout and build its Internet ecosystem; thus, the curtain of Alibaba's investment and M&A was officially opened. Nowadays, Alibaba is developing towards the direction of diversification. Its businesses cover various fields, including e-commerce, online payment, digital media, entertainment, local life services, cloud computing, etc. It has now become the largest domestic e-commerce platform and a world-renowned Internet brand [12].

The acquiree Eleme is a local life O2O platform jointly created by Zhang Xuhao and others in 2009. After a few years of exploration and development, the company's scale continued to expand, and Eleme has gradually become a leader in China's food delivery industry. Its main business is dedicated to online takeaway, new retail, and other fields. According to the Research Report on Corporate Social Responsibility of China (2017), Eleme users reached 260 million, and its platform business covered more than 2000 cities across the country as of December 2017 [13]. A unicorn enterprise as a famous O2O catering platform in China, Eleme has a perfect take-out logistics and distribution system that can achieve accurate and instant delivery services at both ends of the catering supply chain (Make Everything 30 min), which has accelerated the process of digital transformation and upgrading of catering and supermarket industry in China.

On April 2, 2018, Alibaba announced that it would complete a wholly-owned acquisition of Eleme with Ant Financial for $9.5 billion, which has also become the largest M&A case in China's Internet history.

Alibaba chose to acquire Eleme for the following reasons: First, M&A can expand the Alibaba ecosystem and achieve complementary advantages [14]. Second, Alibaba takes fancy to the huge potential and attractiveness of the food delivery market in China in the future [15]. Furthermore, Alibaba was interested in Eleme's huge user traffic and instant logistics delivery systems [16].

For Alibaba's M&A invitation, Eleme showed considerable willingness to be acquired. The main motivation can be attributed to the following: First, a synergistic effect can be achieved after M&A, and the economies of scale effect of Eleme can be enhanced. Second, an M&A can improve Eleme's market competitiveness and market share [17].

4. Policy Countermeasures

To analyze the specific impact of Alibaba's acquisition of Eleme on Alibaba's financial performance, this study adopted the event study method [18] to test how the securities market will respond to the announcement of new M&A information. Put simply, the impact on Alibaba's market value and financial performance was measured by comparing and analyzing the Alibaba stock price fluctuations before and after the M&A.

Combined with the efficient market hypothesis [19], this study assumed that financial markets are efficient; that is, the Alibaba share price can quickly absorb the disclosure of new M&A news and change accordingly. Accordingly, this study took the announcement date (April 2, 2018) of Alibaba's acquisition of Eleme as the event date t_0 ($t_0=0$), and the event window period for Alibaba stock price changes due to M&A is [t_1,t_2 and $t_1<0$, $t_2>0$]. At the same time, to avoid mixed effects or cross-influence caused by early leakage of M&A information and try to truly reflect the normal returns level of the company [20], the trading day of the event window period and the estimation window period cannot overlap or interact, so the estimation window selects the period [t3,t4] before the M&A event, as shown in the figure below:
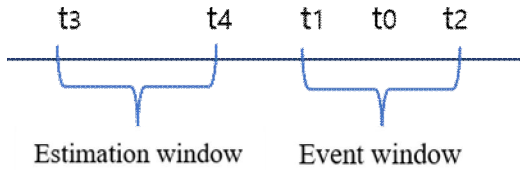

Fig. 1. Window Period for M&A Events

t_0 : Event day — April 2, 2018 ;

t_1-t_2 : Trading day of event window — [$-10,10$], that is, from March 16, 2018, to April 16, 2018 (a total of 21 NYSE trading days, and the suspension dates such as Saturdays, Sundays, and holidays are not included in the window period);

t_3-t_4 : Trading day of estimation window — [200,21], that is, from June 14, 2017, to March 1, 2018 (a total of 180 NYSE trading days and the suspension dates such as Saturdays, Sundays, and holidays are not included in the window period).

The data required for the event study method in this study are all from the wind database, such as "closing price in Alibaba (BABA) daily market data", "New York Stock Exchange (NYSE) daily closing composite index (NYA)".

The short-term event study method usually uses the modified market model based on the CAPM model [21] to estimate the normal rate of return of the company. Based on this, the market model of this paper is as follows:

$$Market \ Model: \ R_t = \alpha + \beta R_{mt} + \epsilon_t \quad (1)$$

Where R_t represents the normal rate of return of the security (BABA) at t, R_{mt} represents the normal rate of return of the market portfolio (NYSE) at t, α represents regression intercept, indicating that Alibaba's normal rate of return is independent of market changes, β represents the regression coefficient between the normal rate of return on Alibaba security (BABA) and the normal rate of return on the New York Stock Exchange market portfolio (NYSE), indicating the increment in Alibaba's expected normal rate of return for every 1% increase in the market portfolio normal rate of return, and ε_t represents a random disturbance term or error term or regression residuals.

To fully present the sample regression function, this study selected the daily rate of return of Alibaba stock (BABA) and the daily rate of return of the New York Stock Exchange market portfolio (NYSE) during the estimation window period to represent Rt and Rmt (normal returns) respectively. The specific conversion process utilizes the following two formulas:

$$R_t = \frac{CP_t - CP_{t-1}}{CP_{t-1}} \quad (2)$$

$$R_{mt} = \frac{MCP_t - MCP_{t-1}}{MCP_{t-1}} \quad (3)$$

Where CP_t = Alibaba (BABA) daily market data — closing price on day t (unit: yuan), CP_{t-1} = Alibaba (BABA) daily market data — closing price on day $t-1$ (unit: yuan), MCP_t = New York Stock

Exchange (NYSE) closing composite index value (NYA) on day $_t$ (unit: points), and MCP_{t-1} = New York Stock Exchange (NYSE) closing composite index value (NYA) on day $_{t-1}$ (unit: points).

This paper calculated the R_t and R_{mt} of the estimation window period by combining the above formulas. According to the relationship between the two variables, the data R_t and R_{mt} are used as the dependent and independent variables for linear regression. According to the results, the expected complete market model is finally determined as follows:

$$R_t = 0.0013 + 1.2465R_{mt} \qquad (4)$$

The essence of the short-term event study method is to measure the impact of the event on the company value and shareholder's wealth by comparing the difference (abnormal returns) between the expected normal returns $E(R_t)$ and the actual return Rt before and after the event [18]. This study used the following formulas to calculate the abnormal returns of Alibaba during the event window period before and after M&A to measure the impact of changes in Alibaba stock price.

$$E\ (R_t)\ = \hat{\alpha} + \hat{\beta}R_{mt} \qquad (5)$$

$$AR_t = R_t - E\ (R_t)\ = R_t - \hat{\alpha} + \hat{\beta}R_{mt} \quad (6)$$

$$CAR_t = \sum_{t=-10}^{t=10} AR_t \qquad (7)$$

Where $E\ (Rt)$ represents the expected normal rate of return of Alibaba stock on day t (the expected normal rate of return excluding the impact of the M&A event), R_t represents the actual rate of return of Alibaba stock on day t (the actual rate of return affected by the M&A event), represents the coefficient α = 0.0013 for passing the expected complete market model, represents the coefficient β = 1.2465 for passing the expected complete market model, AR_t

represents the abnormal rate of return of Alibaba stock on day t, and CAR_t represents the cumulative abnormal rate of return of Alibaba stock on day t.

Based on the data results of the abnormal returns (AR) and cumulative abnormal returns (CAR) during the 21-day event window period [(−10,10), that is, March 16, 2018, to April 16, 2018] that Alibaba acquired Eleme, this paper organizes and draws the following trend chart:
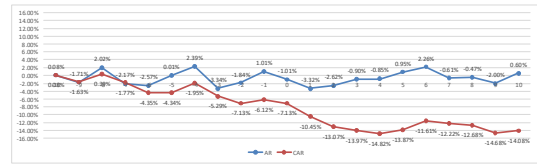

Fig. 2. Alibaba AR and CAR Trends During the Event Window Period

As shown in Figure 2, the abnormal returns of the Alibaba Group stock were generally stable before the event date and fluctuated randomly up and down around the zero axis, which means that there was no significant abnormal change. However, it should be noted that the day (April 1, 2018) before Alibaba announced a merger with Eleme, its abnormal returns were positive at 1.01. Still, on the day (April 2, 2018) of the announcement, the abnormal returns turned to negative at 1.01%, and then there were four consecutive negative stock trading days, especially on the day (April 3, 2018) after the announcement of the M&A; when the abnormal returns showed a large difference (−3.32%), suggesting that the actual returns of individual stocks of the Alibaba Group were affected by this M&A and that there was a significant difference from the expected normal returns in the short term. On the fifth day (April 7, 2018), after the announcement of the M&A news, the abnormal returns were pulled back to positive (0.95%) and then presented a smooth fluctuation in the remaining event window period. In contrast, Alibaba's cumulative abnormal returns, which

continued to decline during the entire event window period, accumulated to −14.08%, especially on the fourth day (April 6, 2018) after the announcement of the M&A news; the cumulative abnormal returns reached the lowest value (−14.82%) because the abnormal returns were negative for five consecutive days (including the day of the event date), which shows that the capital market was not optimistic about this M&A event in the short term.

Generally, the reasons for the stock price changes mentioned above during the entire period when Alibaba acquired Eleme can be attributed to the following: First, for 2 years before the announcement of the M&A, Alibaba has continuously been involved in Eleme's strategic investment. The market, as a result, anticipated that Alibaba will finally merge with Eleme; thus, the good news brought by M&A may have been absorbed in advance. Therefore, the abnormal returns did not show significant growth but showed normal and stable fluctuations during the period before the announcement of M&A. Secondly, the abnormal returns dropped from a positive 1.01% to a negative 1.01% between a day before the event date (April 1, 2018) and the event date (April 2, 2018), showing that Alibaba acquiring Eleme at a transaction price of $9.5 billion in cash was not an optimistic news to the market. Professionals in the industry have doubts about the rationality of such a high M&A price of 9.5 billion, especially in the form of cash payments. Will this affect the normal operation of the Alibaba capital chain and its solvency in the future? The market cannot provide a definite answer in the short term, which causes uncertainty and insecurity to investors. All kinds of negative views made investors believe that the occurrence of this M&A may have a bearish or negative impact. Alibaba then chose to sell stocks, which caused the stock prices to drop to a certain extent; it led to the decline of abnormal returns for 5 consecutive stock trading days (including the day of the event date) and the continuous decline of cumulative abnormal returns. Finally, market doubts were not maintained and gradually dissipated from the fifth day (April 7, 2018) after the announcement of the M&A. In addition, investors believed that the Alibaba Group had strong integration capabilities, so the abnormal returns rebounded and fluctuated slightly around the 0 axis during the subsequent trading days.

In short, the M&A did not have a bullish or positive policy impact on Alibaba stockholders and market participants. On the contrary, it caused the stock price to drop and the shareholders' wealth to decrease in the short term.

5. Conclusions and Implications

This study uses the event study method to analyze the financial performance of the acquirer (Alibaba) in the M&A that Alibaba acquires Eleme. The results showed that the M&A event did not bring any positive benefits to Alibaba investors and stockholders in the short term but led to a reduction in the wealth of its shareholders. Finally, an analysis of this M&A case has the following implications.

(1) It is necessary to enhance the accuracy of corporate valuation for Alibaba

Alibaba overestimated the value of Eleme in the M&A process, which led to the cumulative abnormal returns of Alibaba being −14.08% over the entire event window period. It also shows that the capital market or investors held a negative attitude towards this M&A event. Therefore, the acquirer should further evaluate the accuracy of valuation of the acquiree, especially before M&A; it is necessary to have a detailed understanding of the acquiree and fully grasp its internal (such as operating conditions, resources, technology, and services) and external (such as market and policy) situations to avoid

the adverse financial performance due to overvaluation or the failure of M&A due to undervaluation [22].

(2) It is necessary to choose flexible and appropriate M&A payment methods

Alibaba used a single high-value cash payment method instead of a mixed payment method to acquire Eleme, which impacted Alibaba's capital operation, solvency, and other financial aspects in the short term to some degree. Therefore, the acquirer should combine the development status of the company with flexible and appropriate payment methods to help it complete the strategic layout of new retail [23].

(3) It is necessary to do a full range of post-merger integration work fully

The realization of a positive synergistic effect critically depends on the integration results after M&A. Therefore, the acquirer needs to pay special attention to the integration problem after M&A and adjust its business strategy in time. Specifically, to improve integration efficiency after M&A and achieve the optimal allocation of resources, Alibaba needs to formulate detailed integration plans for personnel, management experience, corporate culture, sales channels, technology, market, and other aspects that must be rationally allocated. At the same time, Alibaba should seek common ground while reserving differences, take its essence, and give full play to the positive synergistic effect [23].

The limitation of this study is that it only analyzes the short-term financial performance of the acquirer without further analysis of long-term financial performance. Therefore, future research can be expanded to study the long-term effects of M&A through empirical analysis.

Reference

[1] L. Jia & D. Winseck. (2018). The Political Economy of Chinese Internet Companies: Financialization, Concentration, and Capitalization. *International Communication Gazette, 80(1)*, 30-59. DOI:10.1177/1748048517742783

[2] T. Y. Huang. (2018). R*eport of Market Demand and Invest Strategy Planning on China Internet Advertising Industry*. Shenzhen: Forward Publishing. (in Chinese)

[3] Q. Wei. (2019). Research and Suggestions on Financing Ways of M&A Transactions in China's Internet Industry. In *2nd International Conference on Economy, Management and Entrepreneurship (ICOEME 2019)* (pp.581-584). Paris: Atlantis Press Publishing.

[4] S. Tang. (2019). Investors' Psychological Expectation of Retailers under the New Retail Model. In *4th International Conference on Humanities Science, Management and Education Technology (HSMET 2019)* (pp.756-765). Paris: Atlantis Press Publishing.

[5] S. Garzella & R. Fiorentino. (2017). M&A Success and Failure: The Role of Synergy Management. In *Synergy Value and Strategic Management* (pp.9-34). Berlin: Springer International Publishing.

[6] C. Y. Chung, S. K. Hur & C. Liu. (2020). When Is One Plus One More Than Two? Theory and Evidence of Merger Motivations. *International Review of Finance, 20(3)*, 771-779. DOI:10.1111/irfi.12270

[7] G. A. Akerlof. (1978). The Market for "Lemons": Quality Uncertainty and the Market Mechanism. In *Uncertainty in Economics* (pp.235-251). New York: Academic Press Publishing.

[8] I. Dierickx & M. Koza. (1991). Information Asymmetries How not to 'Buy a Lemon' in Negotiating Mergers and Acquisitions. *European Management Journal, 9(3)*, 229-234. DOI:10.1016/0263-2373(91)90002-8

[9] P. Borochin, C. Ghosh & D. Huang. (2019). Target Information Asymmetry and Takeover Strategy: Insights from a New Perspective. *European Financial Management, 25(1)*, 38-79. DOI:10.1111/eufm.12199

[10] C. Y. Chung. (2014). What Do Abnormal Investor Trading Patterns around Corporate Mergers Indicate? Further Evidence from the Korean M&A Market. *Applied Economics Letters, 21(15)*, 1045-1049. DOI:10.1080/13504851.2014.907471

[11] J. P. Simon. (2016). *How to Catch a Unicorn. An Exploration of the Universe of Tech Companies with High Market Capitalisation* (JRC Technical Reports). Luxembourg: EU Science Hub Publishing, 10-16.

[12] B. Tan. (2015). *Alibaba. com. Managing Organizational Complexities with Digital Enablement in China: A Casebook*. Singapore: World Scientific Publishing, 1-12.

[13] Q. H. Huang, H. W. Zhong, E. Zhang & J. Wang. (2017). *Research Report on Corporate Social Responsibility of China*. Beijing: Social Sciences Academic Press

Publishing. (in Chinese)

[14] H. R. Zhao. (2019). Research on Motivation and Financial Risk of Merger and Acquisition of Eleme by Alibaba. *Market Modernization*, *14(1)*, 164-165. DOI:10.14013/j.cnki.scxdh.2019.14.077 (in Chinese)

[15] Y. Jiang. (2018). Fourth Industrial Revolution Changes and Challenges to the Economy Development of China. *Journal of International Business*, *10(2)*, 1-18. DOI:10.15050/jaibs.10.2_1

[16] J. J. Yun, X. Zhao, K. Park & L. Shi. (2020). Sustainability Condition of Open Innovation: Dynamic Growth of Alibaba from SME to Large Enterprise. *Sustainability*, *12(11), 4379. DOI:10.3390/su12114379

[17] H. Ma, X. Zhang, Y. Sun & X. Cai. (2021). Declaration of Sharism. In *The Chinese Sharing Economy* (pp. 123-144). Singapore: Palgrave Macmillan Publishing.

[18] N. Rani, S. S. Yadav & P. K. Jain. (2015). Impact of Mergers and Acquisitions on Shareholders' Wealth in the Short Run: An Event Study Approach. *Vikalpa: The Journal for Decision Makers*, *40(3)*, 293-312. DOI:10.1177/0256090915600842

[19] E. F. Fama. (1991). Efficient Capital Markets: II. *The journal of finance*, *46(5)*, 1575-1617. DOI:10.1111/j.1540-6261.1991.tb04636.x

[20] Y. Ding, X. Zhang & Z. Liu. (2021). Differences in Returns to Cross-border M&A in the Short and Long Run: Evidence from Chinese Listed Firms. *Journal of Asian Economics*, *74*, 1-14. DOI:10.1016/j.asieco.2021.101299

[21] J. Binder. (1998). The Event Study Methodology Since 1969. *Review of Quantitative Finance and Accounting*, *11(2)*, 111-137. DOI:10.1023/A:1008295500105

[22] M. J. Epstein. (2005). The Determinants and Evaluation of Merger Success. *Business Horizons*, *48*(1), 37-46. DOI:10.1016/j.bushor.2004.10.001

[23] Y. Yan & K. Li. (2009). The Study of Financial Risk in M&A. *International Journal of Business and Management*, *4(1)*, 70-72. DOI:10.5539/ijbm.v4n1p70

장 총(Cong Zhang)   [정회원]

· 2016년 6월 : 중국 청도대학 (경영학 학사)
· 2018년 1월 : 영국 라이세스터대학교 (이학석사)
· 2020년 9월 ~ 현재 : 가천대학교 경영학과 박사과정
· 관심분야 : ESG, 기업혁신, 자본조달, 리스크투자
· E-Mail : 380008233@qq.com

김 산 월(Shanyue Jin)   [정회원]

· 2004년 8월 : 중국 난카이대학교 (경제학학사)
· 2013년 8월 : 연세대학교(경영학박사)
· 2013년 9월 ~ 2014년 2월 : 연세대학교 경영연구소 연구원
· 2014년 3월 ~ 2018년 2월 : 국민대학교 국제학부 조교수
· 2018년 3월 ~ 현재 : 가천대학교 경영학부 부교수
· 관심분야 : 기업재무, 기업지배구조, ESG, 기업혁신
· E-Mail : jsyrena0923@gachon.ac.kr