A Study on Overseas Mergers and Acquisitions Performance of Chinese Media Enterprises: The Acquisition of Forbes by DMG Media as an Example

Yinghui Wei

Xian University of Technology, Xian, China

weiyinghui1998@163.com

Abstract. In the context of economic globalization, Chinese corporations have resorted to overseas mergers and acquisitions (M&A) to obtain capital expansion and to optimize resource allocation within the industry. With the gradual tightening of China's regulatory policies on overseas mergers and acquisitions, along with the increasingly intricate global economic situation, it is now crucial to scrutinize the performance of such M&As and recommend or suggest improvements wherever necessary. This article utilizes the event study method and the financial indicator method to scrutinize the market and long-term performance of Chinese corporations' overseas mergers and acquisitions, as demonstrated by the acquisition of Forbes Media by DMG Media. Subsequently, the outcomes show that the M&A event announcement is beneficial news for DMG Media in the short run. However, in the medium and long term, all the financial indicators and economic value added have decreased considerably. Consequently, the performance achieved by these M&As is incapable of compensating for the damage caused by inadequate enterprise operations. Therefore, this paper offers recommendations for Chinese firms' mergers and acquisitions, as well as the integration of overseas assets, considering the policy and regulatory environment, industry environment, and corporate governance.

Keywords: Overseas Mergers and Acquisitions, Event Study, Financial Indicator Method, Economic Value Added, Performance Study

1 Introduction

With the development of the Chinese economy, expanding the market scale, enhancing competitiveness and scaling up, overseas mergers and acquisitions have become an important way for Chinese businesses to expand, develop and move towards the global market. In 2016, Chinese enterprises executed 729 overseas mergers and acquisitions worth US$331.8 billion, representing a substantial rise in the number and volume of such transactions. Recent supervision increases and the introduction of regulations, such as the Enterprise Outbound Investment Administrative Measures and the Catalogue of Industries for Encouraging Foreign Investment, have led China's enterprises to rationalize overseas mergers and acquisitions, resulting in a substantial decrease in

F. Cao et al. (eds.), *Proceedings of the 2023 5th International Conference on Economic Management and Cultural Industry (ICEMCI 2023)*, Advances in Economics, Business and Management Research 276,
https://doi.org/10.2991/978-94-6463-368-9_92

their volume and scale. Starting from 2017, the escalation of tensions between China and the US and the implementation of the EU's foreign investment review system have made it more complex for Chinese enterprises to enter the European and American markets. Due to the continuous tightening of foreign mergers and acquisitions policies, the global economic situation has become increasingly complicated. This paper analyzes the economic effects of Chinese firms' overseas mergers and acquisitions and proposes relevant policy recommendations.

Numerous researchers have analyzed the overseas M&A performance of Chinese corporations. The market performance evaluations demonstrate that cross-border M&A can generate surplus returns for businesses, and increase their stock prices and value. This is supported by scholars, whether one uses case analysis or empirical analysis. For example, Gu and Robert (2011)[1] analyzed 157 cross-border M&A cases in China and discovered that the abnormal returns of M&A on the day of the announcement were substantially positive, and in the medium and long term, the overall business performance of corporations attained a non-negative extraordinary rate of return. It should be noted, however, that the study solely discloses the overall impact of the M&A and does not examine variability. On the other hand, Huang et al. (2022)[2] provided a case study of the cross-border M&A of Boten shares with J-STAR and discovered that the M&A would have an adverse impact on the share price in the short term. The research results of business performance evaluation show that in the short term of overseas M&A behavior, the firms' profitability level and operational capacity decreased, while debt risk increased (Guan and Liu, 2020)[3]. Over time, the positive effect of cross-border M&A on the firms' performance gradually weakened (Xue, 2017)[4]. In addition, after one year of the cross-border M&A transaction, the performance of less than half of the corporations improved (Miao, 2016)[5]. Grigorieva et al. (2016) [6]used an economic profit model to analyze and found that mergers and acquisitions damaged the corporation, causing a decline in performance and economic profit.

In general, cross-border mergers and acquisitions (M&A) differ across various industries, situations and orientations. Therefore, their conclusions may not be universally applicable. This paper employs the event study method, financial indicator method, and economic value-added (EVA) method to investigate the market performance and long-term performance of Chinese enterprises' overseas M&A in the media industry. To exemplify this research, we consider the acquisition of Forbes by DMG Media.

2 Methodology

The article follows the research outline as Figure 1: Firstly, the literature review is conducted and a case is selected for analysis based on research objectives. Secondly, the study utilizes the event study method and financial indicator analysis to examine the performance change of this M&A case. Finally, the study concludes the market performance and long-term performance achieved by overseas M&A and makes relevant recommendations to prevent adverse economic consequences for media enterprises.

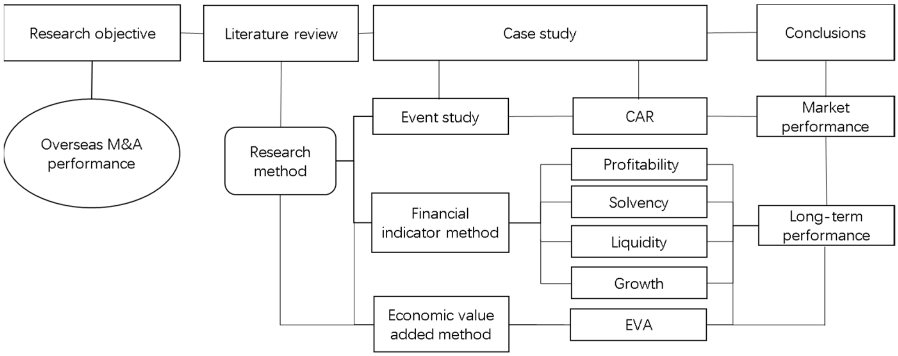

Fig. 1. Research Framework

The raw data, comprising stock prices, individual stock returns, various financial indicators, and economic value added (EVA), were obtained from the CSMAR database. The expected normal rate of return was calculated by regressing these data, and the abnormal return and cumulative abnormal return were then estimated.

To conduct an event study, an appropriate window period must be selected. The article selects the estimation window period and the event window period through the method described below. The announcement of the merger and acquisition was declared on October 16, 2017. The article chooses the estimated window period [-229, -189], i.e., [03/01/2017,04/10/2017], spanning 41 days for the analysis. The period of suspension of the company's trading from March 13 to March 20 and weekends were excluded, leaving a remaining period of 22 days. The event window period, covering 206 days, was from April 11, 2017, to November 2, 2017. The period usually encompasses a few days before and after the announcement date. However, due to the prolonged suspension of major asset restructuring, the window period was extended forward. The effective dates between April 11 to April 17, and October 27 to November 2, were selected while removing the weekend, giving five days each for the effective dates before and after the event date. The above information is illustrated in Figure 2:

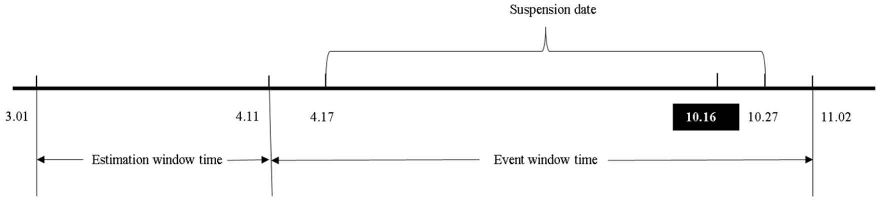

Fig. 2. Window Time

3 Merger and Acquisition Performance Study

3.1 Short-Term Performance - Event Study Method

To begin with, Figure 3 illustrates the trend in DMG's stock price from January 2017 to June 2019. Before the announcement was made, the stock price had already fallen as the company halted trading on April 17 for a major asset reorganization. When it was resumed on July 19, it plummeted from \$24.93 per share to \$15.93 per share, which is a 36% decline. The trading was suspended again until the merger and acquisition announcement came on October 27. The stock price fell again, this time from \$15.53 per share to \$14.2 per share, resulting in a 9% decline. The price remained relatively unchanged thereafter, remaining lower than pre-announcement levels. From a short-term perspective, the announcement had no significant adverse effect; in the medium to long term, however, the merger and acquisition had a negative impact. Overall, the stock price has trended downward since Q2 2017, and at times, it has seen staggering declines. From a short-term perspective, the announcement of merger and acquisition did not have a negative impact. However, from a medium to long-term view, the merger and acquisition had a negative impact. The price experienced no significant fluctuations after the initial decline and consistently remained below the pre-announcement levels. In summary, the stock price has trended downward since Q2 2017 with some substantial declines at times.

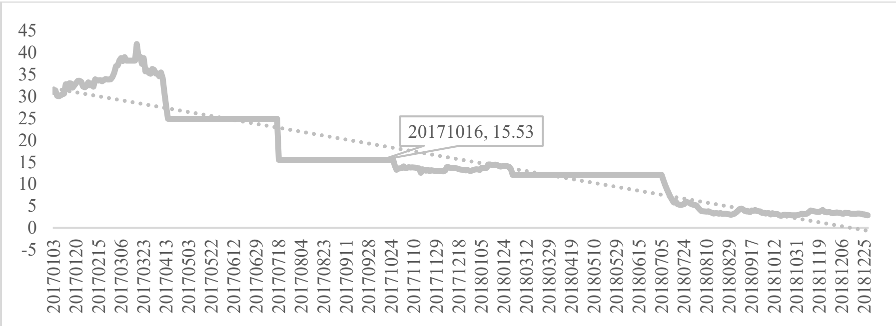

Fig. 3. DMG Media Stock Price Change

Next, stock volatility is further analyzed using the event study method. Specific calculation steps:

1. The capital market pricing model was developed to regress the data for the estimation period as a sample, with market returns as the explanatory variable (daily returns on the SSE index) and individual stock returns as the explanatory variable, and the regression equation was shown as Formula (1):

$$R_t=\alpha+\beta R_{mt}+\varepsilon_t \quad (1)$$

Where: R_t is the daily return on individual stocks, R_{mt} is the daily return on the market index and ε_t is the systematic risk of the stock. Assuming that α and β remain stable over the test period for the sample data, the expected normal return is shown as Formula (2):

$$\hat{R}_t=0.00085+0.63R_{mt} \quad (2)$$

2. Calculate the abnormal return (AR) by subtracting the expected rate of return from the actual rate of return for the event period, using the Formula (3):

$$AR_t = R_t - \hat{R}_t \tag{3}$$

3. Calculate the cumulative abnormal return (CAR), the abnormal returns for each day of the entire event period are summed to obtain the cumulative abnormal return, calculated as Formula (4):

$$CAR = t\ \Sigma AR_t \tag{4}$$

Figure 4 shows the short-term impact of DMG Media's acquisition of Forbes using the event study method. Before the suspension of trading due to the major asset reorganization, both the abnormal return and cumulative abnormal return were declining, especially the latter which was decreasing considerably. After the market reopened on 27 October, the abnormal return began to increase, gradually moving from negative to positive, with significant growth in the initial three trading days. Furthermore, the cumulative abnormal return began to increase as well. This indicates that the M&A of DMG Media has led to positive short-term performance.

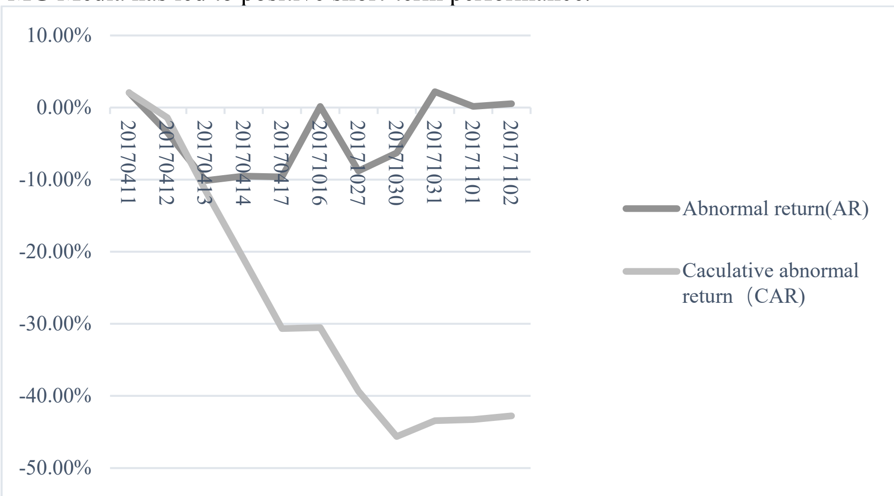

Fig. 4. AR and CAR of DMG Media

3.2 Long-Term Performance

Financial Indicators Method.

Profitability.

The profitability analysis, shown in Figure 5, reveals that DMG's profitability performance remained relatively stable in the first three-quarters of 2017. However, mergers and acquisitions took place in the last quarter of 2017, leading to a net profit margin of 34.7860%. Subsequently, in the first quarter of 2018, the margin surged to 36.1759% and then fell sharply to 4.3330% in the second quarter of the same year. The analysis demonstrates that the profitability initially increased marginally and later plunged quickly.

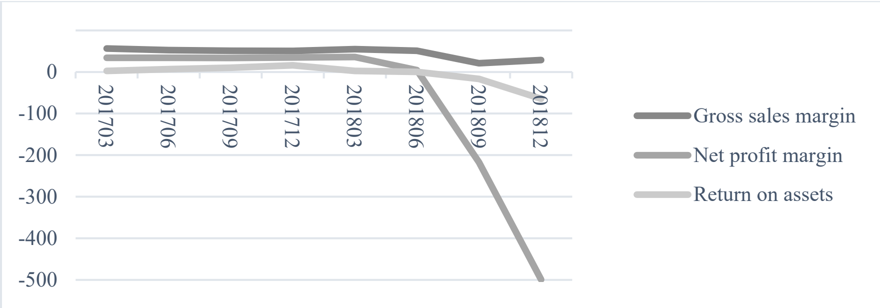

Fig. 5. DMG Media Profitability Analysis

When compared with other companies in the media industry (Figure 6), the gross sales margin fluctuation status of DMG Media follows a similar trend and exhibits a downward trajectory in 2018, which could be due to external factors such as market changes or policies.

Fig. 6. Comparison of Gross Sales Margin in the Media Industry

Solvency.

As depicted in Figure 7, the enterprise's gearing ratio experienced a subtle increase in the fourth quarter of 2017. Then, it sharply decreased in the first quarter of 2018 and swiftly rose in the second quarter, eventually returning to its highest point.

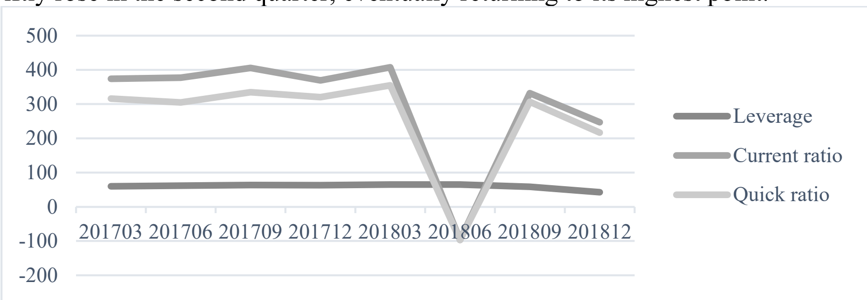

Fig. 7. DMG Media Solvency Analysis

The comparison of industry data shown in Figure 8 reveals that the trend of DMG and other companies was similar as they all experienced a decline during the fourth quarter of 2017. This finding suggests that the industry's solvency has improved. Compared to others, the leverage of DMG increased sharply, indicating that DMG faced a debt crisis during the last two quarters of 2018.

Fig. 8. Comparison of Leverage in the Media Industry

Operating Capacity.

Analyzing the operating capacity as Figure 9, we observe an increase in inventory turnover, total asset turnover, and accounts receivable turnover of the enterprise before the M&A quarter. However, in the late phase of the M&A, the inventory turnover, fixed asset turnover, current asset turnover, and total asset turnover of the enterprise decreased notably. This high level of inventory occupancy indicates that liquidity is not strong, and it takes time to convert inventory into cash or accounts receivable. This could lead to a decrease in the enterprise's solvency and profitability, which in turn would suggest that the enterprise's product market competitiveness weakens or the sales ability of the enterprise becomes weaker.

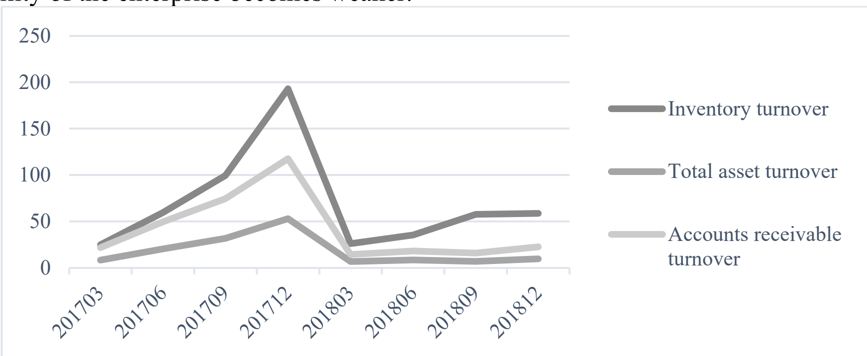

Fig. 9. DMG Media Operating Capacity Analysis

Comparison with industry data shown in Figure 10 shows that the total asset turnover ratio of the industry increased in Q4 2017 and decreased significantly in Q1 2018. DMG was consistent with the industry's overall trend. However, it had a low operational capacity in the media industry after 2018.

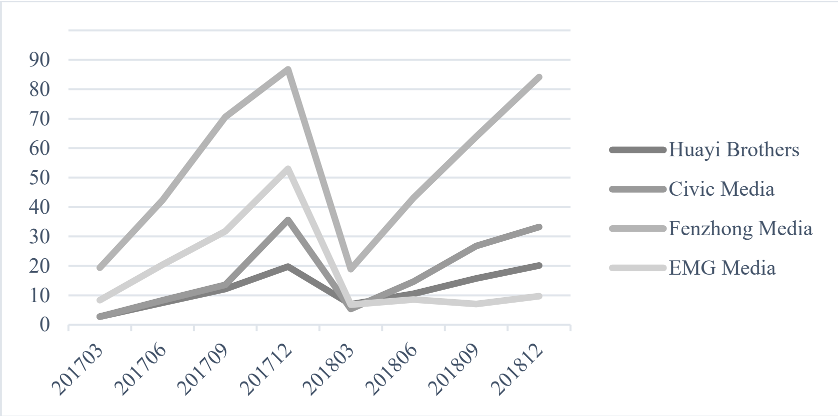

Fig. 10. Comparison of Total Asset Turnover Ratio in the Media Industry

Growth Capacity.

According to the growth capacity chart as Figure 11, the net profit growth rate and operating profit growth rate of DMG remained steady in 2017 with slight changes but declined sharply by 2018. However, the quarter in which the M&A was announced had no noticeable effect on the long-term growth capacity of the company. Furthermore, the company's profits continued to decline in 2018 and it is not anticipated that the situation will improve in the future. This decline is attributed to management reasons, not just the M&A.

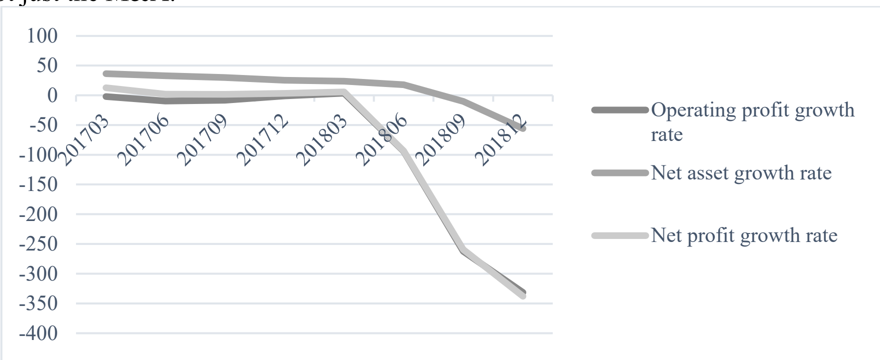

Fig. 11. DMG Media Growth Capacity Analysis

And comparison with the industry data (Figure 12) can be seen that the net asset growth rate of DMG in 2018 was weaker, compared with 2017, and gradually fell to the low level of the industry. There was a downward trend in the media industry, which was related to the environment of the market as well as its situation, and the future development of DMG is worrying.

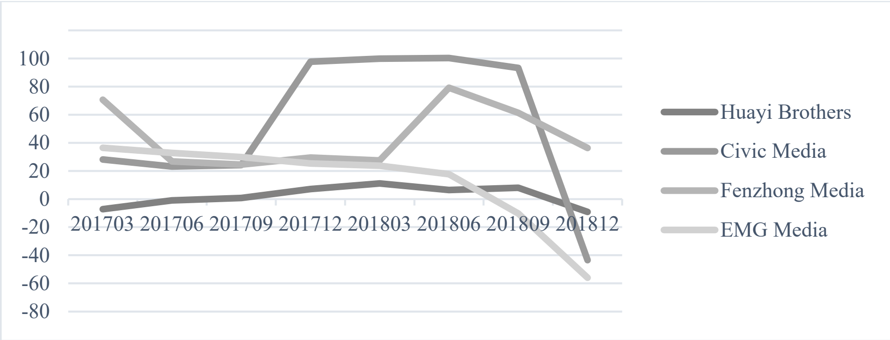

Fig. 12. Comparison of Net Asset Growth Rate in the Media Industry

Economic Value Added (EVA) method.

According to Figure 13, the economic value added of DMG was relatively stable with a slight upward trend before the merger and acquisition. However, in the two months following the merger and acquisition, there was a significant increase in the economic value added. The economic value added sharply declined after 2018 and even turned negative during the second quarter. However, it returned to positive during the third quarter and was higher than the previous years. In the short term after the merger and acquisition, DMG was able to increase wealth for its shareholders. This suggests that the merger and acquisition were able to achieve better short-term performance. In 2018, DMG's performance declined significantly during the first half of the year. Operating income fell by 49% year-on-year, and the net profit of shareholders decreased by 92% compared to the previous year, which the company attributes to the impact of the overall market environment. To summarize, the company's economic value added significantly declined during the first half of 2018.

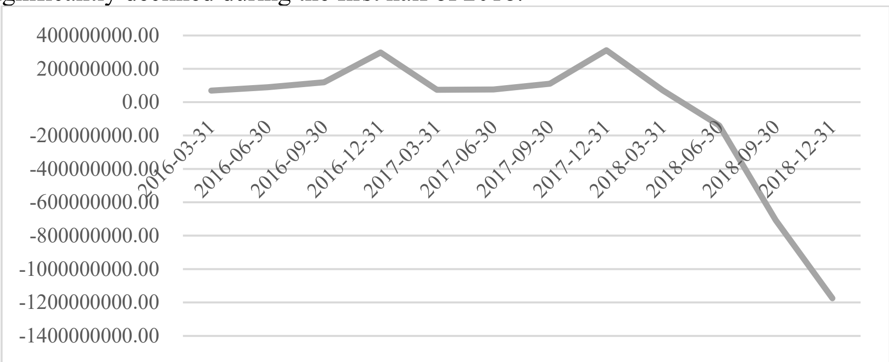

Fig. 13. Economic Value Added of DMG by Quarter 2016-2018

Overall, from the examination of all aspects of economic performance at the enterprise level, it was found that the operating performance of DMG showed a trend of rising and then falling under the influence of M&A activities, i.e., Operating capacity showed a trend of rising and then falling under the influence of M&A activities, which showed a certain merger and acquisition effect, but it was not sustainable; whether from the perspective of basic financial indicators or the perspective of EVA indicators, the overall trend was first rising and then falling, which shows that M&A activities improved the company's earnings in the short term, but it was not sustainable.

4 Conclusions

This article employs three methods to examine the economic consequences of an acquisition event, and the findings indicate that based on short-term performance analysis conducted through cumulative abnormal return, the announcement of the merger and acquisition event is beneficial to DMG and results in a significant market impact. In terms of medium- and long-term performance, DMG's financial indicators for operating capacity, profitability, solvency, and growth capacity have significantly decreased. Comparative analyses of the corresponding indicators in the same industry from 2016 to 2018 indicate that DMG experienced more performance decline than the industry average after the merger and acquisition. After gathering information, we identified the reasons for DMG's unsatisfactory performance: firstly, the policy and market environment in that year harmed the entire media industry. Secondly, due to the departure of five directors one after another, DMG experienced major personnel losses and the business operations were nearly halted, leading to the enterprise facing liquidity constraints and enormous losses. DMG's merger and acquisition achieved the synergy effect but the performance it brought didn't compensate for the damage caused by the enterprise's mismanagement during the successive strikes.

The article suggests that media companies need to consider the following three aspects before embarking on overseas M&A: First, media companies need to pay attention to the policy and regulatory system related to overseas M&A, choose the right time for M&A, and develop relevant programs to mitigate the potential risks involved. To avoid sensitive terms, DMG designed the mezzanine fund and M&A fund to leverage its acquisitions, which put considerable pressure on its finances. Secondly, considering the market and the industry's perspective, the growth of the film and television sector in recent years has not been ideal. Additionally, there has been a receding effect over the last two years. Many film and television companies have experienced a decline in performance, with some even reporting losses. This can be attributed mainly to market adjustments and underwhelming market expectations. The print media has not been immune to market forces, and companies must strategize on how to navigate the industry's downturn, avoiding blind investments. Lastly, corporate governance is essential. DMG has not only encountered management issues but has also experienced an exodus of its professional team, dealing a heavy blow to its development. To attain long-term growth, stable management and an adept operation team are vital to ensure effective business operations.

Despite the best efforts to select a representative case for analysis, the small sample size, immature methods and means, inherent limitations of the case study itself, and the complex economic environment in which the company operates limit the generalizability of the findings of this study. Consequently, further examination and extension of this paper's findings through analyses of more similar cases is necessary. Lastly, due to inadequate capacity, this study fails to provide a thorough understanding of the specific internal measures of DMG that resulted in a reduced operating profit post-merger, which could inform future research in this direction.

References

1. Gu, L.L., Robert, R. (2011) Have Chinese Companies Failed in Overseas Mergers and Acquisitions? Economic Research, 46(07): 116-129. https: //kns. cnki. net/ KCMS/ detail/detail.aspx?dbcode=CJFD&dbname=CJFD2011&filename=JJYJ201107012&v=
2. Huang, H.B., Du, Y.N., Niu, Y.W. (2022) Research on the Performance of Cross-border Mergers and Acquisitions of Enterprises with Technological Synergy Orientation--A Case Study Based on the Cross-border Merger and Acquisition of J-STAR by Boateng Stock. Friends of Accounting, 20: 79-85. https: //kns. cnki. net/ KCMS/ detail/detail. aspx? Dbcode = CJFD&dbname=CJFDLAST2022&filename=KJZY202220011&v=
3. Guan, H.M., Liu, L, G. (2020) Performance Evaluation of Chinese Enterprises' Overseas Mergers and Acquisitions-Based on Overseas Merger and Acquisition Cases of A-share Listed Companies. Henan Social Sciences, 28(07): 44-52. https: //kns. cnki. net/ KCMS/ detail/detail. aspx? dbcode= CJFD& dbname =CJFDLAST2020 &filename = HNSH202007006&v=
4. Xue, A.E. (2017) Have Cross-border Mergers and Acquisitions Improved Corporate Performance - An empirical analysis based on Chinese listed companies. Economist, (06):88-95. DOI: 10.16158/j.cnki.51-1312/f.2017.06.011.
5. Miao, J.C. (2016) An empirical analysis of short-term performance of cross-border mergers and acquisitions of Chinese enterprises. Journal of Nantong University (Social Science Edition), 32(01): 112-118. https: //kns. cnki.net/ KCMS/ detail/ detail.aspx? dbcode= CJFD& dbname=CJFDLAST2016&filename=NTSX201601017&v=
6. Grigorieva, S., Petrunina, T. (2015) The performance of mergers and acquisitions in emerging capital markets: new angle. Journal of Management Control,26:377-403. https: //doi. org/ 10.1007/s00187-015-0219-9