The Impact of Media Public Opinion Pressure on a Company's Stock Price - the Case of Xiaomi su7 Deflagration as an Example

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Abstract. In this digital era with the rapid development of the Internet, authoritative voices represented by traditional news media reports are intertwined with massive user-generated content on social media platforms, jointly constructing a highly penetrating public opinion force. This force not only profoundly affects individuals' cognition, decision-making and lifestyle, but also forms a powerful influence in the business field, exerting a non-negligible and significant impact on the shaping of enterprises' brand images, the maintenance of market reputation, and the direction of business development. In this article, taking a case of Xiaomi SU7 spontaneous combustion that occurred on March 29, 2025, on the De Shang highway in Anhui Province as an example, case analysis and quantitative analysis methods are adopted to explore the impact of media public opinion pressure on the company's stock price after the Xiaomi SU7 incident. This article finds that there is a significant negative correlation between the number of negative reports and Xiaomi's stock price. Moreover, the scope of public opinion dissemination can affect the fluctuation amplitude of Xiaomi's stock price. This case study provides relevant reference for investors in personal decision-making and for listed companies to deal with external emerging factors such as media public opinion.

1 Introduction

Nowadays, information and public opinion fill every aspect of our lives. Changes in such technologies broaden access to information and save costs. Catherine and Han's study talks about the significant correlation of news sentiment to social media sentiment, and how some media outlets may report events one-sidedly or exaggerate them in the pursuit of traffic [1]. According to the research by Daou, emotions can form a powerful force of dissemination,

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and emotional expressions by some members of the public on social media are relatively prominent [2]. The media is divided into traditional media and new media. Nowadays, traditional media are gradually declining, and new media have become the main channel for the public to obtain news information. Most people use social media such as WeChat and TikTok to get information. With the development of social platforms, breaking down the barriers to access to information, not only enriching the variety of information, expanding the dissemination of information, but also amplifying the emotions of information.

Most participants in today's stock market are individual investors. Yuan, Sapkota, and Bhandari's study points out that compared to institutional investors, individual investors have limited access to information from the market and are prone to make irrational decisions, which leads to the deviation of stock prices from their true value [3,4]. Through the study of the case, on the one hand, taking Xiaomi company as an example, look for measures to deal with the huge impact of external emerging factors such as media public opinion on the company's stock price. On the other hand, it gives investors suggestions on how to rationally view the negative information outside the company and helps investors make better use of external information to make decisions.

Based on the impact of media sentiment on stock prices, previous research has probably looked at these areas. There is a two-way relationship between social media sentiment and the stock market. For example, Srinivasan and Mian's research suggests that positive sentiment is related to rising stock prices, while negative sentiment is the opposite [5]. Agung et al. studied this two-way relationship from the perspective of emotional contagion [6]. The study by He et al. mentioned that positive reports on companies were conducive to improving stock returns [7]. In addition, based on the predictive ability of media sentiment indicators to stock returns, Ma et al. used to analyze the trend of stock prices by quantifying media sentiment [8]. This article will use case analysis and empirical analysis to study.

2 Case analysis

2.1 Basic information of Xiaomi

Founded in March 2010, Xiaomi is an enterprise integrating smartphone manufacturing, consumer product production and logistics network construction. At first, Xiaomi quickly captured the market through cell phone development. Since 2020, the market share of Xiaomi mobile phones has been gradually rising, and by 2024, the market share has reached 15.89%.

On March 30, 2021, Xiaomi officially announced its entry into the neighborhood of automobile manufacturing industry, with an initial investment of 10 billion yuan. On March 28, 2024, Xiaomi launched its first model, the Xiaomi SU, and for the full year 2024, deliveries reached 136,854 units. Xiaomi SU7 has technologies such as autopilot, smart cockpit, and more. According to Figure 1, after Xiaomi launched Xiaomi su7, the revenue of this sub-business reached 8.95%.

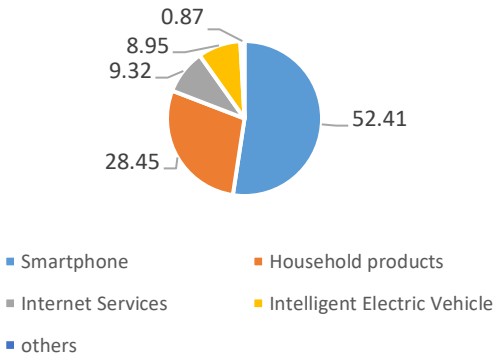

Fig. 1. Xiaomi's business revenue in 2024.

2.2 The process and impact of su7 case

The case occurred on March 29, 2025, a Xiaomi SU7 was involved in an accident on a highway in De Shang, Anhui Province, where it hit a concrete barrier pile at 97km/h and burst into flames. 2 seconds before the impact, the vehicle in the accident was in the NOA (Navigate on Autopilot) state, and the collision could not be averted even after the driver took over. Before the accident the roadway was closed due to construction on the original lane, the vehicle needs to be rerouted to the reverse lane, but due to the lack of Xiaomi SU7's ability to recognize static obstacles, it failed to recognize the construction obstacles in front of it in advance and incurred an early warning, which led to the accident. On April 1, 2025, the official of Xiaomi automobile released details of the accident on Weibo to respond to the concerns of netizens. Lei Jun, CEO of Xiaomi, promised netizens on Weibo on the same day that he would not recuse and would actively cooperate with the police investigation. After the accident, the case was upgraded by the media as “Xiaomi car safety design has fatal loopholes”, placing Xiaomi in the center of the storm of public opinion. Consumers have developed a trust gap regarding the quality issues of Xiaomi's SU7. As a result, they will be more cautious when choosing to purchase Xiaomi vehicles, leading to a contraction in the market demand for Xiaomi automobiles. In addition, Xiaomi will increase its R&D expenditure to make up for and enhance its technology, and may even face the risk of legal proceedings, increasing expenses.

2.3 The peculiarities of the Xiaomi SU7 case and the reasons for its impact on the share price

Compared with traffic accidents in the past, the particularity of Xiaomi su7 case is that after this is the first traffic accident, media public opinion will focus on the case of the automobile companies. At the beginning of the case, some social media platforms quickly pushed the accident to the center of public opinion through hot searches, creating a “forced attention effect”. After the accident, the focus is no longer on the cause of the accident, but on criticizing and holding accountable automobile manufacturers and questioning intelligent driving technology.

Before the accident, Xiaomi had been on the cusp of public opinion. Since the launch of SU7, the product has received a lot of attention from consumers. As well as Lei Jun, as the walking spokesman of Xiaomi, shuttling across social platforms and maintaining close interaction with users, has deeply won the love and trust of consumers. According to the

brand personification theory mentioned in Esra and Volkan's study, giving a brand a human personality allows consumers to connect with the brand emotionally [9]. Consumers associate Lei Jun's image with Xiaomi's brand image. But after the accident, Xiaomi and Lei Jun failed to respond in time on social platforms, resulting in a 64-hour information vacuum. According to Benoit's image restoration theory, enterprises should communicate effectively and actively respond to the public in times of crisis to reduce the negative impact on enterprises [10], and Xiaomi's crisis public relations is exposing the above problems.

From the perspective of the investor's point of view, the vast number of people posting their comments on social media platforms extends their reach. According to statistics, negative comments accounted for 34%, which directly caused panic among investors, affected their predictions of Xiaomi's future earnings and industry prospects, and led them irrational selling behavior under adverse events.

From the perspective of the industry, the accident made society aware of the shortcomings of the intelligent driving automobile industry in terms of safety and technology. The strengthening of the supervision of the intelligent driving automobile industry by the regulatory authorities has led to an increase in Xiaomi-related costs and operational risks. In addition, the decline in investor confidence in the industry will lead to an outflow of funds from the industry, and the stock price of smart cars, as an important business of Xiaomi, will be affected by the overall trend of the industry.

3 Quantitative analysis

3.1 Hypothesis proposed

The more critical role of media opinion is to magnify social sentiment. The results of Fekrazad and others show that the more negative information a company has, the lower the return of stocks, and strong media pessimism predicts a downward trend in market prices [11]. Based on the above analysis, this study proposes two hypotheses：

Hypothesis 1: an increase in the number of negative media reports about the high-speed explosion of Xiaomi su7 will lead to a decline in Xiaomi's share price.

Hypothesis 2: the higher the reprint volume of media reports and the discussion heat on social media, the greater the volatility of stock prices.

3.2 Data sources and sample selection

The millet stock price data studied in this paper comes from Yingwei finance，the number of negative reports comes from financial news websites, social platform post volume data comes from Weibo, redbook obtained with Python crawler technology, and search engine search volume data comes from Baidu Index. The high-speed collision of Xiaomi su7 occurred on March 29 and attracted wide public attention after April 1. Therefore, the sample selection time range of this study is from April 1 to April 30, 2025.

3.3 Variable definition and modeling

This article focuses on the change of Xiaomi Group's stock price, that is, using Xiaomi Group's daily yield as the explanatory variable. Using the number of negative reports, the number of social platform posts, and the number of search engine searches as explanatory variables. The number of social platform posts can reflect the public's participation in the event, and the number of search engine searches can reflect the spread of the event. In

addition, this article selects the new energy automobile industry index, the millet group P/E ratio and P/B ratio as control variables.The details of all variables are shown in Table 1.

Table 1. variable names and symbols.

	variable name	symbol
Explained variable	Xiaomi daily yield	Yield
Explanatory variable	Number of negative reports	QNeg
	Social platform posts	Post
	Search engine searches	Volume
control variable	New energy automobile industry index	Index
	P/E ratio	PE
	P/B ratio	PB

Starting from the negative media reports and the scope of media communication, this paper explores the impact of media public opinion pressure on the stock price of Xiaomi group, and constructs the regression model as follows:

$$Yield = \beta_0 + \beta_1 Q_{Neg} + \gamma_1 Index + \gamma_2 PE + \gamma_3 PB \quad (1)$$

$$Yield = \beta_0 + \beta_2 Post + \gamma_1 Index + \gamma_2 PE + \gamma_3 PB \quad (2)$$

$$Yield = \beta_0 + \beta_3 Volume + \gamma_1 Index + \gamma_2 PE + \gamma_3 PB \quad (3)$$

$$Yield = \beta_0 + \beta_1 Q_{Neg} + \beta_2 Post + \beta_3 Volume + \gamma_1 Index + \gamma_2 PE + \gamma_3 PB \quad (4)$$

4 Analysis of results

4.1 Variable correlation analysis

According to Table 2, from the results of key variables, the correlation between the daily return of stocks and qneg is significantly negative at the level of 1%, which means that for every unit of qneg increase, the daily return of stocks will fall by 0.3 units. The correlation between post and volume and the daily return of stocks is significant at the level of 5%, and shows a negative correlation. From the results of the control variables, the correlation between PE and Pb and the daily return of stocks is significant at the level of 1%, which shows that these two control variables have a certain impact on the change of the daily return of stocks. The correlation coefficient between the index and daily yield of the millet group is 0.779, which is large, so it can be seen that the correlation between the two variables is strong, and can be used as a control variable to study.

Table 2. results of variable correlation analysis

	Yield	QNeg	Post	Volume	Index	PE	PB
Yield	1						
QNeg	-0.320***	1					
Post	-0.288**	0.712**	1				
Volume	-0.366**	0.583**	0.367**	1			
Index	0.779	-0.246***	-0.012**	-0.472	1		
PE	0.403***	-0.467***	0.083	-0.408	0.537***	1	
PB	-0.157***	0.728***	0.531*	0.511	-0.239***	-0.312***	1

4.2 Analysis of regression results

Table 3 shows the results of the regression of three explanatory variables on the daily yield of Xiaomi group. According to the theory of behavioral finance, the stock market has a delayed response to information, so when building the regression model, the explanatory variables are delayed by two days to reduce the impact of the delayed response of the stock market.

According to table 3, qneg and post have a significant negative impact on the yield of the millet group at 5%, and volume has a significant impact on the daily yield of millet group at 1%.This can prove that the increase in the number of negative reports will lead to the decline of Xiaomi group's share price; When the number of social platform posts and search engine searches increases, it means that the influence of su7 events will expand, and stock prices will also be affected.

Table 3. Results of variable regression analysis

Explanatory variable	T-test			
	T-value	P-value	R2	R2（8）
QNeg	-2.2800	0.0417	−0.0092	0.5530
Post	-2.4530	0.0304	−0.0005	0.4540
Volume	4.4390	0.0008	0.0001	0.5570

5 Conclusion

Starting from a single specific event, this paper studies the impact of media and public opinion pressure on Xiaomi's stock price after the Xiaomi su7 case. Through research and analysis, it is concluded that with the increase of the number of negative reports, the reprint of media reports and the discussion heat on social media, Xiaomi's share price will fall and the volatility will increase. After the accident, the problems exposed by Xiaomi public relations and the spread of negative emotions on the media and on social platforms caused investors to panic and make irrational decisions. It fills the gap of previous research on the impact of media public opinion on the company's stock price, and is conducive to listed companies to deal with negative media information and investors to make rational decisions.

Therefore, I will put forward the following suggestions: when an unexpected adverse event occurs, the company should improve and enhance its public relations response ability and timely grasp the trend of public opinion. The media should adhere to the principle of objective and fair reporting, reduce the number of misleading reports, and take the initiative to maintain contact with enterprises to reduce the impact of information asymmetry. Investors should improve their ability to judge information and avoid extreme comments on social platforms. This study lacks research on the impact of positive reporting on stock price rebound, and there are some deviations in emotional analysis. Stock prices are affected by many factors, and factors other than media opinion are not excluded. Future research hopes to study whether the effect of response measures of listed companies is conducive to the rise of stock price returns from the impact of response measures on the speed of stock price recovery.

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