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The Impact of Social Media Sentiment on Corporate Valuation in Capital Markets

Liangchao Diao

School of Accountancy, Anhui University of Finance and Economics, Bengbu, Anhui, 233000, China.

3119263213@qq.com

Abstract

This study investigates the impact of social media sentiment on the valuation of companies listed on China's A-share market, focusing on the period from 2019 to 2023 for firms listed on the Shanghai and Shenzhen stock exchanges. Empirical analysis reveals that social media sentiment has a significant positive effect on corporate market value. Specifically, positive social media sentiment not only enhances corporate public image directly but also indirectly drives value growth by increasing media attention and reducing risk exposure. A heterogeneity analysis further indicates that the influence of social media sentiment on corporate valuation varies significantly across different types of companies. This research provides a new perspective for understanding the role of social media sentiment in modern corporate governance and market performance, offering key insights for corporate managers on effectively leveraging social media to enhance market performance in the digital era. It is recommended that companies prioritize social media sentiment management and optimize social media strategies to improve transparency and market value.

Keywords

Social media; Sentiment value; Corporate valuation.

1. Introduction

In the context of a flourishing digital economy and the rise of social media, social media has increasingly become a vital platform for companies to engage with consumers, investors, and other stakeholders. The sentiment expressed by users on social media, referred to as "social media sentiment value," potentially exerts a profound impact on corporate market performance and public image. Previous research indicates that social media sentiment not only reflects public attitudes toward companies but also influences corporate market value to a certain degree. One study found a significant positive correlation between a company's deep engagement on social media and its value, as this engagement aids in better stakeholder communication, enhances corporate image, and strengthens brand loyalty [1]. Similarly, from a dynamic capabilities perspective, another study suggests that social media usage can indirectly promote organizational performance by strengthening social CRM capabilities and customer engagement, underscoring the importance of social media sentiment in corporate value creation [2].

While the positive impact of social media on corporate market performance has gained wide recognition, there remains a lack of in-depth research on how social media sentiment indirectly enhances corporate value by influencing media attention and risk-bearing capacities. One study highlights that social media can improve a company's branding and innovation capabilities, which are crucial to enhancing corporate performance [3]. Another study, from an impression management perspective, analyzes the role of social media in improving corporate financial

performance [4]. These studies collectively suggest that social media sentiment value may impact corporate performance through multiple pathways. However, the role of social media sentiment value differs across industries and companies, and the specific mechanisms of its influence on risk management and public attention have yet to be fully explored.

In modern corporate theory, a firm's capacity to bear risk is a critical factor influencing its value. Social media sentiment may significantly affect corporate valuation by modulating investors' perceptions of corporate risk. Positive social media sentiment can help reduce investors' perceptions of future uncertainties associated with a company, thereby lowering the firm's risk premium and enhancing its market value; conversely, negative social media sentiment may heighten investor concerns over corporate risk, potentially leading to a decrease in market value. Furthermore, social media sentiment value may also indirectly affect corporate value by increasing media attention. As an essential channel for information dissemination, media coverage and attention levels directly influence investors' evaluations of companies. Positive social media sentiment often attracts more favorable media attention, thereby boosting corporate public image and visibility, ultimately exerting a positive influence on corporate value.

The core objective of this study is to explore how social media sentiment value influences corporate market value by modulating corporate risk-bearing and media attention. Through empirical analysis of data from A-share listed companies in China between 2019 and 2023, this paper examines the pathways by which social media sentiment value impacts corporate value. It further posits the hypothesis that social media sentiment value has a significant positive effect on corporate valuation in capital markets. This study aims to enrich existing theoretical research on social media sentiment value and offer important insights for companies on effectively leveraging social media to enhance market performance in the digital era.

2. Literature Review and Hypothesis Development

2.1. Literature review

2.1.1. Review of studies on social media sentiment value

Social media sentiment value refers to the potential impact of user sentiment expressed on social media platforms on corporate value. This concept has become particularly significant in the digital economy era, as platforms such as Facebook, Twitter, and LinkedIn have become essential channels for companies to communicate with consumers, investors, and other stakeholders. Previous research has demonstrated a significant positive correlation between the depth of social media engagement and corporate value, suggesting that deep engagement on social media has a beneficial impact on corporate value [1]. Empirical findings indicate that what correlates positively with corporate value is not merely the presence of a social media account or broad participation in social media activities but rather in-depth engagement. This implies that through deep engagement on social media, companies can communicate effectively with stakeholders, enhance their image, and strengthen brand loyalty, thereby increasing corporate value.

Further studies from a dynamic capabilities perspective have explored how social media usage contributes to organizational performance via intermediary variables—specifically, social customer relationship management (Social CRM) capabilities and customer engagement capacities [2]. These findings suggest that social media usage does not directly impact organizational performance but indirectly influences it by enhancing Social CRM and customer engagement capacities. This further substantiates the importance of social media sentiment value in corporate value creation.

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2.1.2. Review of studies on corporate value determinants

Corporate value is a multidimensional concept encompassing various aspects such as financial performance, market competitiveness, and management quality. Traditionally, corporate value has been measured primarily through financial indicators like profitability, growth potential, and risk level. However, with the evolution of the knowledge and digital economy, the scope of corporate value has expanded to include non-financial dimensions such as brand value, customer relationships, innovation capability, and human resources.

Empirical studies provide evidence of the positive impact of social media activities on corporate value in industries like the U.S. restaurant sector, emphasizing the role of social media in enhancing corporate market value [5]. Findings indicate that social media activities directly influence corporate value by boosting consumer engagement and brand recognition. Previous research on digital transformation highlights its value-enhancing effect, showing that digital transformation enhances corporate value by improving resource allocation efficiency, strengthening corporate governance capabilities, and enhancing financial stability [6]. These studies suggest that corporate value is influenced not only by traditional financial factors but also by emerging factors like digital transformation and social media activities.

2.1.3. Review of studies on social media sentiment value's impact on corporate value

Previous research has highlighted the positive relationship between social media usage and corporate performance, noting the intermediary role of marketing capabilities, particularly brand and innovation capacities, in linking social media usage to corporate performance [3]. Findings show that effective social media use can enhance a company's marketing capabilities, thereby boosting corporate performance. Other studies, from an impression management perspective, have examined social media's impact on financial performance, providing evidence of social media's role in enhancing corporate financial outcomes [4]. Collectively, these studies indicate that social media sentiment value impacts corporate value through multiple pathways, including direct effects and indirect effects via intermediary variables.

2.2. Hypothesis development

In the digital era, social media has become an essential platform for information dissemination and public sentiment expression. With the growing influence of social media, its impact on the corporate value of publicly listed companies has become increasingly significant. In modern corporate theory, a firm's risk-bearing capacity is a critical factor influencing its value [7]. Social media sentiment value may affect corporate value by influencing corporate risk-bearing. Positive social media sentiment value may reduce investors' perception of future uncertainties regarding a company, thereby lowering the firm's risk premium and increasing corporate value [8]. Conversely, negative social media sentiment value could heighten investor concerns about corporate risk, leading to a decline in corporate value. As a reflection of public sentiment, social media sentiment value may serve as an external indicator for corporate risk management. Positive social media sentiment may indicate favorable corporate operations and lower risk, thus attracting investors and enhancing corporate value. Conversely, negative sentiment may indicate potential risks, reducing investor confidence.

Media attention is a key indicator of corporate public image and market influence. Social media sentiment value also affects corporate value by influencing the level of media attention a company receives. As an essential channel for information dissemination, the media's coverage and focus significantly impact investors' assessment of corporate value [9]. Social media sentiment value may affect corporate value by increasing media attention. Positive social media sentiment value often attracts more media attention, thereby raising corporate visibility and public image, ultimately enhancing corporate value [10]. Increased media attention not only helps enhance corporate visibility and brand image but may also attract more investors and partners, thus driving corporate value growth. Furthermore, increased media attention may

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prompt companies to place greater emphasis on image and reputation management, thereby further maintaining and enhancing corporate value.

Based on the above analysis, we propose the following hypothesis:

H1: Social media sentiment value positively influences corporate valuation in capital markets.

3. Research Design and Descriptive Statistics

The fundamental approach of this study is to construct a social media sentiment index by analyzing the sentiment expressed in posts on the Eastmoney Guba forum and examining its impact on corporate valuation in capital markets.

3.1. Data sample and sources

This study focuses on A-share companies listed on the Shanghai and Shenzhen stock exchanges from 2019 to 2023. To ensure the representativeness and stability of the sample data, the following filtering criteria were applied: (1) Excluding financial firms; (2) Excluding companies marked as "ST" or "*ST"; (3) Excluding companies with missing key data. After these exclusions, the final sample consists of 20,144 observations from 4,546 listed companies. Social media sentiment value data were sourced from Eastmoney's "Guba" forum and organized through sentiment analysis, while corporate value and control variable data were collected from the CSMAR and Wind databases.

3.2. Variable design

This study focuses on A-share companies listed on the Shanghai and Shenzhen stock exchanges from 2019 to 2023. To ensure the representativeness and stability of the sample data, the following filtering criteria were applied: (1) Excluding financial firms; (2) Excluding companies marked as "ST" or "*ST"; (3) Excluding companies with missing key data. After these exclusions, the final sample consists of 20,144 observations from 4,546 listed companies. Social media sentiment value data were sourced from Eastmoney's "Guba" forum and organized through sentiment analysis, while corporate value and control variable data were collected from the CSMAR and Wind databases.

3.2.1. Independent variable: social media sentiment value

Given the prevalence of individual investors in China's stock market, smaller investors often rely on social media for decision support. Various social media platforms, such as Weibo, WeChat, Douban, and Xueqiu, offer forums for daily discussions on key trading topics. However, these platforms do not primarily serve as venues for individual investors to share stock information. Stock message boards, particularly the Eastmoney "Guba" forum, provide a unique space for retail investors to exchange views. This forum includes a message board for each listed company, allowing investors from diverse backgrounds to gather and discuss companies and trades of interest. Consequently, this study measures social media sentiment value using discussions on the Eastmoney "Guba" forum. Drawing from prior studies [11], we used Python's Jieba module for Chinese word segmentation of forum posts, conducting word frequency analysis; sentiment was analyzed using a lexicon-based approach, classifying words as either positive or negative [12]. Following the methodology of previous work, we constructed a social media sentiment value index (Sentiment) as follows:

$$\text{Sentiment}_{i,t} = \ln[(1+\text{Positive}_{i,t})/(1+\text{Negative}_{i,t})] \quad (1)$$

3.2.2. Dependent variable: corporate value (TobinQ)

Corporate value is often measured using financial and market-based indicators. Considering the potential collinearity of financial indicators, Tobin's Q has become a preferred measure for

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capturing corporate value more accurately [13]. The TobinQ formula used in this study is as follows, with data obtained from the CSMAR database, excluding outliers in the calculation:

TobinQ=Market Value / (Total Assets−Net Intangible Assets−Net Goodwill) (2)

3.2.3. Control variables

Following previous studies [14][15], control variables include company size (Assets, defined as the natural logarithm of total assets), leverage ratio (Leverage, calculated as the ratio of total debt to total assets), ownership concentration (TopTenSquare, defined as the shareholding ratio of the top ten shareholders), debt coverage (Coverage, calculated as net cash flow from operating activities divided by interest expenses), ownership type (SOE, with a value of 1 if the ultimate controlling entity is state-owned, otherwise 0), and profitability (ROA, defined as EBIT * 2 / (initial total assets + ending total assets) * 100%). To control for industry and time effects, this study also includes industry (Industry) and year (Year) fixed effects in the empirical analysis.

3.3. Descriptive statistics

The descriptive statistics reveal a mean of 0.336 for the independent variable, social media sentiment value (Sentiment), with a standard deviation of 0.524, a maximum of 4.461, and a minimum of -1.681, indicating significant variation in sentiment across different companies on the Eastmoney Guba forum. Corporate value (TobinQ) ranges from a maximum of 34.06 to a minimum of 0.605, with a mean of 2.636 and a standard deviation of 2.140, reflecting substantial variation in corporate development among Chinese companies, thereby supporting the representativeness of the sample. Descriptive statistics for other variables are generally consistent with existing literature, and all fall within reasonable ranges.

Table 1 Descriptive statistics of key variables

Variable	N	Mean	p50	SD	Min	Max	Range
TobinQ	20144	2.636	2.031	2.140	0.605	34.06	33.45
Sentiment	20144	0.336	0.226	0.524	-1.681	4.461	6.143
Assets	20144	22.32	22.09	1.348	17.95	28.70	10.74
Leverage	20144	0.408	0.399	0.203	0.0130	1.957	1.943
Coverage	20144	51.60	10.90	1398	-10918	191983	202901
TopTenSquare	20144	0.151	0.119	0.113	0.00100	0.810	0.808
SOE	20144	0.280	0	0.449	0	1	1
ROA	20144	0.0430	0.0470	0.0900	-1.535	0.831	2.366

3.4. Model specification

To examine the relationship between social media sentiment value and corporate value in capital markets, we construct the following model for regression analysis:

$$\text{TobinQ}_{i,t} = \alpha_0 + \alpha_1 \text{Sentiment}_{i,t} + \alpha_2 Controls_{i,t} + \mu_i + \varepsilon_{i,t} \quad (3)$$

This study employs panel data analysis, where *i* represents the firm, *t* represents the year, the dependent variable is corporate value (TobinQ), the core explanatory variable is social media sentiment value (Sentiment), *Controls* represents the set of control variables, μ_i indicates fixed effects for firms and years in the model, and ε represents the error term.

4. Results and Discussion

4.1. Main regression

Table 2 presents the regression results for the impact of social media sentiment value on corporate valuation in capital markets. Column (1) reports the results of a bidirectional fixed-effect regression between social media sentiment value and corporate value, controlling only

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for industry and year. The results show a significant positive correlation at the 1% level, indicating that companies with higher social media sentiment value are able to generate greater corporate value. After adding control variables, as shown in column (2), the positive effect of digital transformation on corporate value remains significant at the 1% level, consistent with hypothesis H1.

Table 2 Baseline regression and robustness tests

	(1) Baseline regression	(2) With control variables	(3) Alternative dependent variable	(4) Company-level clustering	(5) Firm fixed effects
	TobinQ	TobinQ	PB	TobinQ	TobinQ
Sentiment	0.444***	0.290***	0.386***	0.290***	0.314***
	(14.80)	(10.19)	(5.29)	(6.62)	(9.83)
Assets		-0.418***	-1.331***	-0.418***	-1.681***
		(-22.59)	(-12.40)	(-13.54)	(-21.55)
Leverage		-0.351***	8.505***	-0.351**	1.153***
		(-3.06)	(9.55)	(-1.99)	(5.74)
Coverage		0.000**	0.000***	0.000***	-0.000***
		(2.56)	(2.73)	(2.61)	(-4.15)
TopTenSquare		0.592***	0.950***	0.592***	0.703
		(4.67)	(3.20)	(2.76)	(1.64)
SOE		-0.317***	-0.619***	-0.317***	-0.050
		(-11.23)	(-5.94)	(-6.37)	(-0.96)
ROA		3.175***	3.670***	3.175***	3.120***
		(9.60)	(2.81)	(7.56)	(13.37)
_cons	2.487***	11.873***	29.552***	11.873***	39.368***
	(163.97)	(30.72)	(13.90)	(18.31)	(23.10)
Year、Industry	YES	YES	YES	YES	YES
Firm	NO	NO	NO	NO	YES
N	20142	20142	20103	20142	20110
R2	0.145	0.228	0.096	0.228	0.800
Adj. R2	0.141	0.225	0.092	0.225	0.741

4.2. Robustness tests

1. Alternative Dependent Variable: Following prior research [16], the dependent variable TobinQ, which measures corporate value, is replaced with the price-to-book ratio (PB). As shown in column (3) of Table 2, the effect on corporate value remains significantly positive at the 1% level, consistent with the study's hypothesis.

2. Company-Level Clustering: The results in column (4) of Table 2 show that the coefficient for the explanatory variable (Sentiment) is 0.290 and significantly positively correlated with the dependent variable (TobinQ) at the 1% level, robustly supporting the main hypothesis of this study.

3. Addition of Firm Fixed Effects: To control for the influence of firm-specific factors on the results, industry and province fixed effects are added. As shown in column (5) of Table 2, the findings remain consistent with the baseline hypothesis.

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4.3. Mechanism testing

External pressure channel: As a large stock investor community, the Eastmoney "Guba" forum may attract the attention of analysts, media, and regulatory bodies, thereby increasing external regulatory pressure on companies.

Regression model (4) is used to test the mechanism, with the results shown in column (1) of Table 3. The coefficient for social media sentiment value (Sentiment) on the mediating variable, media attention (Report), is significantly positive, indicating that higher social media sentiment value is associated with greater media attention. Media, as an important channel for information dissemination, significantly impacts investors' evaluations of corporate value through its coverage and focus. High media attention can increase corporate transparency, reduce information asymmetry, and thereby enhance investor trust and corporate value [17].

$$\text{Report}_{i,t} = \alpha_0 + \alpha_1 \text{Sentiment}_{i,t} + \alpha_2 \text{Controls}_{i,t} + \mu_i + \varepsilon_{i,t} \quad (4)$$

Table 3 Mechanism testing

	(1) Media attention	(2) Risk suppression	(3) Risk suppression	(4) Risk suppression
	Report	CRT1	CRT2	CRT3
Sentiment	0.133***	-0.038***	-0.065***	-0.081***
	(6.65)	(-7.52)	(-13.35)	(-5.25)
Assets	0.542***	-0.095***	-0.079***	-0.022***
	(54.45)	(-35.26)	(-33.08)	(-2.67)
Leverage	-0.050	0.093***	0.235***	0.473***
	(-0.80)	(5.25)	(15.09)	(7.96)
Coverage	0.000	-0.000	-0.000**	-0.000
	(0.80)	(-0.35)	(-2.43)	(-1.27)
TopTenSquare	0.519***	0.113***	0.018	-0.420***
	(5.13)	(3.94)	(0.74)	(-4.36)
SOE	-0.052**	-0.081***	-0.074***	-0.024
	(-2.06)	(-12.48)	(-12.01)	(-1.51)
ROA	0.715***	0.327***	0.212***	0.006
	(5.97)	(9.67)	(7.01)	(0.07)
_cons	-8.931***	-1.482***	-1.162***	-1.934***
	(-42.43)	(-25.81)	(-23.00)	(-10.72)
Year、Industry	YES	YES	YES	YES
N	17437	20017	20017	20017
R2	0.726	0.253	0.236	0.024
Adj. R2	0.725	0.250	0.233	0.020

Risk suppression: Theoretical analysis suggests that positive social media sentiment can enhance corporate reputation, lower external risk exposure, encourage more aggressive investment strategies, and increase corporate value. Conversely, negative social media sentiment may elevate reputational risk and reduce risk-bearing capacity, thus restraining corporate value growth. Unlike financial indicators, stock return volatility—measured as the log of annualized daily, weekly, and monthly return standard deviations (CRT1, CRT2, CRT3)—reflects company risk-bearing behavior effectively and is commonly used to gauge corporate risk exposure. Using models (5), (6), and (7) to test this mechanism, the results, shown in columns (2), (3), and (4) of Table 3, reveal that social media sentiment value (Sentiment) is

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significantly negative with respect to CRT1, CRT2, and CRT3, indicating that social media sentiment value promotes corporate value growth by reducing corporate risk [18].

$$CRT1_{i,t} = \alpha_0 + \alpha_1 Sentiment_{i,t} + \alpha_2 Controls_{i,t} + \mu_i + \varepsilon_{i,t} \quad (5)$$

$$CRT2_{i,t} = \alpha_0 + \alpha_1 Sentiment_{i,t} + \alpha_2 Controls_{i,t} + \mu_i + \varepsilon_{i,t} \quad (6)$$

$$CRT3_{i,t} = \alpha_0 + \alpha_1 Sentiment_{i,t} + \alpha_2 Controls_{i,t} + \mu_i + \varepsilon_{i,t} \quad (7)$$

4.4. Endogeneity tests

In this study, a fixed-effect model is applied to control for individual differences, time variations, and other factors that may influence the analysis, thereby mitigating some endogeneity issues associated with model errors. The primary endogeneity concerns are addressed in the following two ways:

First, there is a potential bidirectional relationship between the explanatory variable, social media sentiment value (Sentiment), and the dependent variable, corporate value (TobinQ). Positive evaluations on social media can enhance a firm's value creation capability, while firms with strong market performance are more likely to receive positive feedback on social media. To address this endogeneity issue, we perform a fixed-effect regression using a one-period lagged core explanatory variable. As shown in column (1) of Table 4, the one-period lagged results remain consistent with prior findings, with the coefficient for social media sentiment value (Sentiment) on corporate value (TobinQ) remaining significantly positive.

Table 4 Endogeneity tests

	(1) Lagged one-period	(2) Nearest neighbor matching	(3) Caliper matching	(4) Kernel matching
	TobinQ	TobinQ	TobinQ	TobinQ
Sentiment	0.350***	0.249***	0.245***	0.290***
	(9.63)	(6.24)	(6.72)	(10.55)
Assets	-0.373***	-0.406***	-0.409***	-0.418***
	(-20.91)	(-14.24)	(-16.97)	(-32.16)
Leverage	-0.339***	-0.371**	-0.297*	-0.351***
	(-2.96)	(-2.08)	(-1.95)	(-4.15)
Coverage	0.000***	0.000	0.000	0.000
	(4.30)	(1.31)	(1.47)	(1.21)
TopTenSquare	0.477***	-0.165	0.210	0.592***
	(3.38)	(-0.61)	(0.91)	(4.60)
SOE	-0.297***	-0.277***	-0.289***	-0.317***
	(-9.55)	(-3.51)	(-4.38)	(-9.20)
ROA	3.656***	4.569***	4.362***	3.175***
	(9.24)	(11.25)	(13.46)	(19.14)
_cons	10.796***	11.569***	11.596***	11.873***
	(28.88)	(19.27)	(22.91)	(43.44)
Year、Industry	YES	YES	YES	YES
N	15485	4377	6073	20142
R2	0.223	0.252	0.245	0.228
Adj. R2	0.218	0.237	0.234	0.225

Additionally, given that corporate value is influenced by multiple factors, this study employs the Propensity Score Matching (PSM) method to address potential endogeneity biases.

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Specifically, the covariates include ownership type (SOE), profitability (ROA), debt coverage (Coverage), company size (Assets), and ownership concentration (TopTenSquare), along with controls for industry and year fixed effects. Three matching methods are applied: kernel matching, caliper matching, and 1:2 nearest neighbor matching, with matched observations obtained as follows: nearest neighbor matching yields 4,377 observations, caliper matching yields 6,073 observations, and kernel matching yields 20,142 observations.

Columns (2) through (4) in Table 4 report the regression results for 1:2 nearest neighbor matching, caliper matching, and kernel matching, respectively. The results show that for 1:2 nearest neighbor matching, the coefficient for social media sentiment value (Sentiment) is 0.249, significantly positive at the 1% level. For caliper matching, the coefficient for social media sentiment value (Sentiment) is 0.245, also significantly positive at the 1% level. For kernel matching, the coefficient for social media sentiment value (Sentiment) is 0.290, likewise significantly positive at the 1% level. These findings collectively confirm that the main hypothesis of this study remains valid, even when controlling for potential endogeneity factors.

4.5. Further analysis

4.5.1. Heterogeneity analysis based on ownership type

Due to differences in governance structures, business objectives, and resource accessibility, state-owned enterprises (SOEs) and private enterprises may respond to and leverage social media sentiment value differently. Additionally, significant differences in corporate positioning, capital structure, governance level, and technological advancement between SOEs and non-SOEs can lead to varying impacts of social media sentiment on corporate value. The market's evaluation of SOEs and private firms also carries distinct sentiment tones. SOEs do not solely prioritize maximizing corporate profits but place substantial emphasis on social benefits and market reputation.

To explore these differences, we conduct a segmented regression analysis for SOEs and private enterprises. As shown in Table 5, column (1), the coefficient for social media sentiment value (Sentiment) for SOEs is 0.078, which is significant at the 10% level. This suggests that due to their more stable operating environments and decision-making processes, the impact of social media sentiment value on corporate value is relatively modest for SOEs. In contrast, column (2) of Table 5 shows that for private enterprises, the coefficient for social media sentiment value (Sentiment) is 0.35, significant at the 1% level. This finding indicates that in private enterprises, which adopt more flexible business strategies and are more market-oriented, the influence of social media sentiment value on corporate value is more pronounced, as private firms are more sensitive to positive and negative evaluations on social media. A coefficient difference test between the two groups confirms that there is indeed a significant difference in the impact of social media sentiment value between SOEs and private enterprises.

Table 5 Heterogeneity analysis based on ownership type

	(1) SOE	(2) Non-SOE
	TobinQ	TobinQ
Sentiment	0.078*	0.350***
	(1.74)	(10.13)
Assets	-0.377***	-0.443***
	(-16.29)	(-16.90)
Leverage	0.025	-0.489***
	(0.17)	(-3.29)
Coverage	0.000	0.000***
	(0.72)	(2.58)
TopTenSquare	0.617***	0.478***

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	(4.02)	(2.71)
ROA	3.693***	2.999***
	(6.09)	(8.09)
_cons	10.375***	12.510***
	(20.84)	(22.87)
Year、Industry	YES	YES
N	5632	14506
R2	0.310	0.196
Adj. R2	0.300	0.191
P - value	0.000	

4.5.2. Heterogeneity analysis based on industry classification

Following prior research [19], this study classifies all sample industries based on the China Securities Regulatory Commission's 2012 industry classification standards, segmenting them by factor intensity into three types: technology-intensive, asset-intensive, and labor-intensive. After segmenting industries by factor intensity, regression analyses are conducted separately for each type, with the results shown in Table 6.

As observed in Table 6, the relationship between social media sentiment value and corporate value varies across industries with different factor intensities. For technology-intensive industries, the coefficient of social media sentiment value (Sentiment) on corporate value (TobinQ) is 0.369, significant at the 1% level. This finding indicates a significantly positive impact of social media sentiment value on corporate value in technology-intensive industries. This may be because these industries are highly dependent on innovation, R&D, and brand-building, where social media serves as a crucial channel for information dissemination and brand image shaping, amplifying the role of sentiment in enhancing corporate value.

In asset-intensive industries, the coefficient of social media sentiment value on corporate value is 0.380, also significant at the 1% level. This suggests that social media sentiment value also positively affects corporate value in asset-intensive industries. Although asset-intensive industries rely primarily on assets and capital investment, social media sentiment value plays a vital role in enhancing brand awareness and fostering consumer trust, thereby positively influencing corporate value.

However, in labor-intensive industries, the coefficient of social media sentiment value on corporate value is 0.064 and does not pass the significance test. This indicates that social media sentiment value has no significant impact on corporate value in labor-intensive industries. This may be because labor-intensive industries primarily rely on labor input and cost control, areas where the influence of social media sentiment value is relatively limited. Additionally, consumers in labor-intensive sectors may focus more on price and value-for-money considerations, where social media sentiment plays a smaller role.

In conclusion, there is a notable heterogeneity in the impact of social media sentiment value on corporate value across industries. In technology-intensive and asset-intensive industries, social media sentiment value has a significant positive effect on corporate value, whereas in labor-intensive industries, this effect is not significant. This result offers key insights into the role of social media sentiment value across different industry contexts. Future research could further explore the reasons and mechanisms underlying the varying impacts of social media sentiment value across industries and develop effective social media strategies tailored to the characteristics of each industry.

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Table 6 Heterogeneity analysis based on industry characteristics

	(1) Technology intensive	(2) Asset intensive	(3) Labor intensive
	TobinQ	TobinQ	TobinQ
Sentiment	0.369***	0.380***	0.064
	(9.15)	(5.49)	(1.39)
Assets	-0.338***	-0.444***	-0.481***
	(-12.83)	(-17.26)	(-13.48)
Leverage	-1.162***	0.099	0.608***
	(-7.01)	(0.51)	(2.90)
Coverage	-0.000	0.000*	0.000***
	(-0.62)	(1.85)	(8.34)
TopTenSquare	0.792***	0.523***	0.545***
	(3.55)	(2.83)	(2.88)
SOE	-0.312***	-0.369***	-0.252***
	(-7.05)	(-7.74)	(-5.16)
ROA	3.056***	3.611***	2.771***
	(5.96)	(6.65)	(5.45)
_cons	10.539***	11.929***	12.787***
	(19.27)	(22.11)	(17.14)
Year、Industry	YES	YES	YES
N	10396	3336	6172
R2	0.175	0.276	0.266
Adj. R2	0.172	0.269	0.258

5. Conclusion

This study empirically examines the relationship between social media sentiment value and corporate valuation in capital markets, using a sample of Chinese listed companies from 2019 to 2023. The findings are as follows: First, there is a significant positive correlation between social media sentiment value and corporate valuation, indicating that positive social media sentiment enhances corporate value. This conclusion remains robust across various tests, including Propensity Score Matching (PSM), alternative dependent variables, and firm-level clustering. Second, social media sentiment value can add corporate value by increasing media attention and reducing corporate risk exposure. Third, heterogeneity analysis reveals that the impact of social media sentiment value on corporate value is more pronounced in private enterprises, as well as in technology-intensive and asset-intensive industries. This study contributes a new perspective to the field of corporate valuation in capital markets and provides empirical support for the relationship between social media sentiment value and corporate value.

The theoretical contributions of this study lie in advancing the understanding of how social media sentiment affects corporate value, offering new insights for academia. Building on prior research on the impact of social media, this study delves into the mechanisms through which social media sentiment influences corporate value, particularly through risk management and media attention. While prior studies have predominantly focused on the direct influence of social media sentiment on brand image or marketing, they have often overlooked how sentiment value indirectly impacts corporate financial performance. This study fills this theoretical gap by highlighting the moderating role of social media sentiment on corporate risk-bearing and its potential to increase media exposure and public attention. The findings also

provide empirical support for related theories, enriching the research framework surrounding the relationship between social media sentiment and corporate market performance.

In terms of practical applications, this study offers actionable guidance for digital marketing and risk management strategies. Companies can optimize their social media strategies to effectively guide public sentiment, enhancing their positive brand image and visibility. By leveraging positive sentiment feedback, companies can also reduce perceived market risk, reinforcing their market position and capital market value. Specifically, firms can strengthen social media engagement and transparency to foster better communication with consumers and investors, thereby transforming sentiment value into a long-term competitive advantage. The findings of this study suggest that in the context of digital transformation, companies should integrate social media sentiment management into their overall risk management and brand strategy, using it as a powerful tool to enhance market competitiveness. This insight is crucial for companies aiming to maintain steady growth amid the wave of digitalization and information economy.

Despite offering new insights into the mechanisms underlying social media sentiment value, this study has some limitations. First, the data is limited to China's A-share market, which may not fully apply to other national or regional markets. Differences in market environments, legal systems, and cultural contexts may lead to variations in the impact of social media sentiment on corporate value. Future research could expand the scope to other countries and regions to verify the effects of social media sentiment under different market conditions. Second, this study's measure of social media sentiment value primarily relies on text sentiment analysis, which may not capture the full diversity and complexity of sentiment. Future research could incorporate multi-dimensional sentiment data, such as sentiment expressed through images, videos, and audio on social media, to better reflect public sentiment comprehensively. Furthermore, employing more refined sentiment measurement techniques could improve the accuracy and generalizability of the results.

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