

NEGATIVE MEDIA COVERAGE AND TMT TURNOVER*

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Abstract

The important influence of the media in the capital market has received increasing attention. This paper investigates the effect of negative media coverage on TMT turnover and its boundary conditions. The results show that negative media coverage has a significant positive impact on TMT turnover. Further tests show that equity concentration and the nature of property rights positively moderate the positive correlation between negative media coverage and TMT turnover, CEO shareholding negatively moderate the positive correlation between negative media coverage and TMT turnover. The research helps to reveal the importance of media coverage in a more profound and comprehensive way, but also provide a reference for the effectiveness of media coverage and corporate governance.

Keywords: Negative Media Coverage, TMT Turnover, Equity Concentration, Nature of Property Rights, CEO Shares

Introduction

Top Management Team (TMT) turnover is regarded as a form of dynamic evolution of organizational adaptation, and it is also an important indicator to measure the efficiency of corporate governance mechanisms (Jensen, 1993). Existing research focuses on combining the individual characteristics of top managers from internal governance mechanisms such as equity structure and board size, and external institutional environments such as the market for organizational control rights, macroeconomic policies, and organizational performance that is the most direct manifestation of top manager decision-making behavior to explore the triggering mechanism of the antecedents of TMT turnover. Few studies have examined organization's more basic decision-making of TMT turnover and possible process mechanisms from the perspective of media coverage. With the continuous advancement of the informatization and the rapid development of the Internet, the rise of the media has become a social phenomenon that cannot be ignored (Tian, Feng, & Yu, 2016), and its important influence of the media in the capital market has received increasing attention. Under the background of the emerging and transitional economy in China, we investigate whether media coverage influences TMT turnover.

This article selects the top 1,000 listed companies by total market value of A shares in the Shanghai and Shenzhen Stock Exchange from 2018 to 2020 as the research sample, theoretically deduces and empirically examines the real impact of negative media coverages on TMT turnover, and further examines the relationship between this impact Boundary conditions. We find that negative media coverage has a significant positive impact on TMT turnover. Further tests show that equity concentration and the nature of property rights positively moderate the positive correlation between negative media coverage and TMT turnover, CEO shareholding negatively moderate the positive correlation between negative media coverage and TMT turnover.

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The possible contributions of these findings are as follows. Firstly, Enriching empirical evidence of media coverage. This article embeds media coverage into the analysis framework of micro-enterprise issues to examine the company's more basic and important decisions, examines the mechanism of negative media coverage affecting TMT turnover, and refines the dynamic path of the media negative coverage, supervise and ultimately improve corporate governance efficiency, and provide the evidence support for the further exploration of the impact effects of media coverage.

Secondly, Enrich the empirical evidence of the antecedent mechanism of TMT turnover. This article focuses on the dynamic path of negative media coverage, triggering audience feedback, internal governance mechanisms to play a role, and TMT turnover decision-making, and examines how negative media coverage as an external shock form external governance and affect internal governance efficiency. We provide evidence of how the important role of external governance mechanism in TMT turnover decision-making, but also deepens the antecedent mechanism of TMT turnover.

Finally, In the context of Chinese transitional economy, we examine the boundary conditions of media coverage from the perspectives of equity concentration, property rights and CEO shareholding, explore the interactive effects of the external governance mechanism and the internal governance mechanism of media, and contribute to a more comprehensive understanding of the complex interaction between internal and external governance mechanisms. The overall effectiveness of the governance mechanism formed by the conflict and coupling between the governance mechanisms in the transitional economic environment may have a unique effect on TMT turnover. According to media coverage, this external governance mechanism and internal governance mechanism may be manifested as a substitute relationship or as a complementary relationship. We find that in the TMT turnover decision, negative media coverage and equity concentration, the nature of state-owned enterprises show complementary effect, while negative media coverages and CEO shareholdings show substitution effect. From the perspective of TMT turnover, our findings demonstrate that media coverage and internal governance mechanisms exhibit a very different nature of interaction, which is helpful for a more comprehensive interpretation of the way the media plays an external governance role.

Literature review and research hypotheses

1. Literature review

1.1 Prior research on Media coverage and corporate governance

Corporate governance is an institutional arrangement to ensure that investors get reasonable returns (Shleifer & Vishny, 1997). If the media plays an external governance role, it means that media coverage can protect the interests of investors from infringements or improve the benefits of investors, or media coverage can improve the company's internal governance (Yang & Zhao, 2012). However, the media is only a vehicle for information collection, processing and dissemination, and cannot have the right to make decisions about the company's business operations, let alone the right to claim residuals. How can media coverage affect corporate governance? The continuous advancement of the informatization, the increasing popularity of the Internet and a social phenomenon that the rise of media, has solved

the motivation and mechanism of external media governance (Dyck & Zingales, 2004; Miller, 2006; Joe et al. al., 2009).

The media plays an influential role as an information intermediary in capital market (Bushee, Core, Guay, & Hamm, 2010; Frank & Sanati, 2018). The media uses capable teams and professional models to collect and filter information from multiple channels, such as from securities analysts, auditors, lawyers, and other intermediary (Yang, Wu, Gao, & Zhang, 2018), tailoring and packaging into understandable and valuable information (Yu, Wang, & Wang, 2019), and passing the information to market participants who are in weak information or key nodes of the information network (Long, Mao, Guan, & Cui, 2019). Eventually expand the sources of information acquisition for market participants (Yan & Zeng, 2018), optimize the information acquisition methods of market participants (Ding, Lu, & Huang, 2018), improve information transmission efficiency (Wu & Lin, 2017), adjust the distribution of information (Sun, Wang, & Xiao, 2020; Li, Tian, Zhao, & Si, 2018), alleviate the degree of information asymmetry (Dang, Dang, Hoang, Nguyen, & Phan, 2020).

The supervisory role of the media is considered to be an important external governance mechanism that effectively replaces the imperfect legal system in the capital market (Dyck, Volchkova, & Zingales, 2008). Based on the institutional environment and the effectiveness of the capital market, the media as an external supervisory force independent of investors and managers, leveraging capital market pressure mechanisms (Yang, Chen, & Liu, 2017; Song et al., 2019), influence the degree of intervention of regulatory agencies (Li & Shen, 2010; Zhou & Ying, 2016), and the reputation of companies and executives to suppress corporate self-interest (Kim, Li, & Zhang, 2017; Baloria & Heese, 2018; Ru, Xue, & Zhang, 2019), to improve corporate earnings manipulation (Zhang, Xue, & Zhao, 2017), executive compensation chaos (Zeng, Li, Zhou, & Xiao, 2018), Shareholders' illegal Reduction (Wu & Zheng, 2021), excess employees (Yang & Zhao, 2016), management tax avoidance (Liu & Li, 2018; Cheng, Xu, & Lin, 2021) and other agency issues, improve the company's internal governance mechanism (Nguyen, 2015; Geng & Wang, 2016; Borochin & Cu, 2017; Bonsall, Green, & Muller, 2020).

The key reason why the media can play the role of corporate governance is that the information transmitted by the media can arouse the attention and response of the public, investors and regulatory authorities, increasing corporate reputation risks, market pressures, and regulatory risks (Ru, Xue, Zhang, & Zhou, 2020), thereby acting on the company's capital market performance and corporate value, and this role depends on the objectivity and neutrality of media coverage (Gurun & Butler, 2012). In reality, the media cannot always play the role of objective and neutral "gatekeeper" based on the concept of social contracts (You, Wu, & Yang, 2021), it may deviate from the true and objective judgment standards based on their own interests and the needs and preferences of stakeholders (John, Core, Wayne, & Guay, 2008; Xue & Ru, 2020; Xiong, Wei, & Li, 2020), or pursuit of explosive, defamatory and emotional effects (Xiong 2011; Liang, 2017), deliberate or unintentional consideration, selection, and narrative cut on the source, tone, and content of the coverage, produce "media coverage bias" (Yao et al, 2019; Shao & Cai, 2020), weaken the credibility and authority of the media (Huang, Huang, & Lin, 2019), affect the role of media governance (You, Zhang, & Zhang, 2018). In the context of China's emerging and transitional economy, whether the media effectively play the role of corporate governance has become the focus of the theoretical and practical circles.

1.2 Antecedent Research on TMT Turnover

Company performance as the most direct measure of the agent's management ability, is regarded as an important factor influencing TMT turnover (Ge, Yu, & He, 2016; Yu, Wang, & Huang, 2019). Specifically, after excluding normal turnover factors such as death and retirement, scholars found that the decline in market performance constitutes an early warning signal for TMT turnover (Kaplan, 2000; Kaplan & Minton, 2012; Wang & Shi, 2018; Lu, Peng and Feng, 2018). Some scholars believe that market performance distorted reflects the management behavior and management capabilities of top managers in an environment of lack of market supervision and excessive speculation (Gilson, 1989). And that market performance is determined by investors' expectations and beliefs about the company's future development prospects (Tetlock et al., 2008), the most important part of the expectation is the current operating status of the company, that is operating performance or book performance (Shi, Guo, Zhang, & Chen, 2019). Therefore, operating performance is used to measure the management capabilities of top managers is more logical (Zhang & Zhang, 2017; Zhou & Liu, 2018; Jenter & Lewellen, 2021), and should also be used as a personal performance evaluation indicator for TMT turnover decision-making (Kang & Shivdasani, 1995; Nuscheler, 2018). However, more and more studies have found that there is ambiguity between the absolute performance level and the TMT turnover (Love, Lim, & Bednar, 2017). The change of absolute performance is not the main evaluation indicator for perceiving agency problems and TMT turnover (Visintin, Pittino, & Minichilli, 2017), TMT turnover decision-making derives from comparative reference under bounded rationality (Luo, Wang, & Shu, 2019). The relative performance gap between expected goals and actual performance has become the basis for perceiving agency issues and making decision for TMT turnover (Jenter & Kanaan, 2015), the negative performance gap formed by the expected target as a reference will increase the probability of TMT turnover (Liu & Zhang, 2019).

In fact, TMT turnover is a complex interactive process of multiple factors, the company's external institutional environment will control the agency problem between shareholders and managers along with the company's internal governance mechanism (Jensen, 1993). In the internal governance mechanism, the nature of equity (Li & Yamada, 2015; Zhu & Ding, 2016; Mei, Zhao, & Qian, 2017; Luo, 2018; Yan & Xiao, 2019), the degree of equity concentration and other ownership system (Kato & Long, 2005), the size of the board of directors (Chakraborty & Sheikh, 2008), the independence of the board (Weisbach, 1988; Fich & Shivdasani, 2006; Guo, Ronald, & Masulis, 2015; Li, Li, & Zhang, 2017), the leadership structure of the board of directors and other board governance mechanisms (Goyal & Park, 2002; Xu, Xu, & Liu, 2020; Sun & Zhang, 2018), as well as executive compensation incentive system will also greatly affect the results of the organization's investigation of executive capabilities (He, Shaw, & Fang, 2017; Zhu & Li, 2018; Wei & Wang, 2019). The external institutional environment is an important background for micro-organizational behavior, which profoundly influences organizational behavior and decision-making. The supervisory environment composed of supervisory institutions such as stock exchanges and supervisory mechanisms including securities analysts and the media (Wiersema & Zhang, 2011; Cu & Li, 2012; E & Lu, 2017; Deng, Li, & Chen, 2020), and the control market are important external mechanisms that affect TMT turnover (Hadlock & Lumer, 1997; Cesari, Gonenc, & Ozkan, 2016; Li, Liu, & Song, 2020).

According to the high-level echelon theory, the individual differences of top managers will greatly affect organizational behavior, individual inherent characteristics, thinking styles and

cognitive modes will affect the quality of decision-making. When discussing the antecedent mechanism of TMT turnover, gender (Elsaid & Ursel, 2018; Pan & Liu, 2021), tenure (Allgood & Farrell, 2003; Li, Liu, & Zhu, 2016), educational background, professional background and other individual characteristics should also be considered (Wei, Liu, & Che, 2013).

2. Research Hypotheses

2.1 Negative media coverage and TMT turnover

First, from the perspective of traditional regulatory mechanisms, media coverage on the company's negative events led to hidden violations and governance defects rapidly spread and the public opinion fermented (Liang, 2017), which increased the possibility for regulatory authorities to pay attention and intervene in investigations (Zhou & Ying, 2016). The intervention of regulatory authorities will bring high administrative costs to companies, such as persuade, condemnation, fines, removal of duties from administrative agencies (Chen, 2017). If the violations are serious, it will also trigger judicial intervention and court trials (Dyck et al., 2008). Meanwhile, the public opinion pressure and sensation caused by the media coverage of company's negative issues will cause the higher-level administrative department to assume the reputation of ineffective supervision (Kong, Liu, & Ying, 2013), affect the prestige and political promotion of government officials, and to a certain extent, improve the degree of diligence and governance efficiency of the administrative department. Governance efficiency (Nguyen, 2015). Therefore, companies are forced by the intervention of regulatory agencies and the pressure from higher-level administrative departments, choose to turnover TMT to send self-correction signals (Cu & Li, 2012), and reduce potential costs caused by negative coverages (Yang & Zhang, 2021).

Second, from the perspective of the reputation mechanism, reputation as an alternative to explicit contracts can incentivize and punish company behavior (Zeng et al., 2018), and media coverage has the basic conditions for establishing or destroying reputation, prompting companies respond to media coverage (Luo, 2018). On the one hand, media coverage has brought intangible incentives and constraints to the company through reputation building (Borochin & Cu, 2017). The instrumental effect of reputation emphasizes that a good corporate reputation essentially constitutes a guarantee and mortgage of high-quality information (Tadelis, 1999; Focke, Maug, & Niessen, 2016), and the information effect of reputation emphasizes that the formation of corporate reputation is regarded as a signal transmission activity that continuously transmits the high-quality development of the company to the outside world (Herbig & Milewicz, 2004; Weng & Chen, 2016). When the media coverages negative news of the company, the company's good reputation delivered to the outside world in the early stage is regarded as an "protective umbrella" (Zhang et al., 2018), the company can provide a positive signal to the market to maintain a good reputation by TMT turnover (Baloria & Heese, 2018). On the other hand, the damage to the reputation of negative media coverage is a source of risks for the company's potential reputational threats and reputational punishments (Dyck & Zingales, 2004). The asset attribute of reputation emphasizes that the intangible asset of corporate reputation has long-term and vulnerable characteristics (Milgrom & Roberts, 1982). Negative media coverage increases the risk of reputational capital damage (Kim et al., 2017), and reputational capital damage is a credible punishment for enterprises (Joe et al, 2009). Negative media coverage more or less reflect that the company has problems such as poor operating performance and financial fraud (Zhang & Zhang, 2017). TMT turnover can transfer

part of the reputation costs and reputation risks to the replaced executives (Liu, Li, & Sun, 2017), and avoid the negative impact of reputation depreciation on resource acquisition ability and long-term reputation gains (Hao, Huang, Ning, & Ge, 2020).

Third, from the perspective of market pressure mechanism, some scholars define corporate market pressure as groups or individuals that can directly or indirectly affect the realization of corporate goals (Song et al., 2019). On the one hand, the public market pressure caused by negative media coverage has brought into question the internal and external legitimacy of enterprises (Dai, Shen, & Zhang, 2020). Huge market pressure will stimulate enterprises' demand for legitimacy (Yang et al., 2020), and take measures to restructure internal organizational to reshape organizational legitimacy (Jenter & Lewellen, 2015), and TMT turnover is often regards as determination and commitment to change the organizational structure (Kang & Shivdasani, 1995). At this time, the company uses the media to "change packaging" and eliminate the "bad factors" of the company through TMT turnover, to help organization reshape legitimacy (Hannan & Freeman, 1977). On the other hand, negative media coverage put the company on the stage of public opinion (Ding et al., 2018). The company may unilaterally pay a large amount of non-strategic costs, such as advertising expenses, crisis public relations fees, litigation costs, compensation for victims and other additional expenses). (Li, Wang, Qin, 2018). Companies have no time to take care of normal production and operation, even trigger the termination of cooperation between customers and suppliers in the upstream and downstream of the supply chain due to negative coverage, resulting in difficulties in capital turnover as well as the cliff-like decline in sales revenue (Yao, Liang, & Ning, 2011), which aggravated the risks of enterprises in production, operation and financing (Tausch & Zumbuehl, 2018). Meanwhile, negative media coverage has led to the exposure of measures to improve the company's stigma under the supervision of the audience (Wang, Wang, & Liu, 2021). This expected pressure on the market will affect the management's work status and capabilities, and even lead to the so-called "retirement" Phenomenon (Liu & Li, 2020). In order to avoid "company inaction" and pressure to defend the company and manager caused by negative media coverage (Shan & Song, 2019), TMT turnover will be regarded as a positive signal of corporate governance improvement and future development (Xue & Ru, 2020). Accordingly, the following hypothesis is proposed:

H1: Negative media coverage has a positive correlation with TMT turnover.

2.2 The moderating effect of equity concentration

The higher the degree of equity concentration, the stronger the motivation and ability to TMT turnover. First, the realization of the control of major shareholders is significantly related to TMT turnover (Kato & Long, 2005), that is mean, personnel arrangement such as the appointment of top managers to the company is an important form of realizing and protecting the control of major shareholders (Sun & Zhang, 2018), especially in the "one share dominance" phenomenon and the "one speech hall" decision-making process prevailing in Chinese listed companies (Shi, 2009). Second, the higher the degree of equity concentration, the greater the decision-making power and control power it has (Zhao, 2017), the easier it is for owners to coordinate their actions, and the more significant the supervisory effect on the decision-making and behavior of top managers. When the company is caught in the dilemma of public opinion caused by negative media coverage, the sense of ownership, strong decision-making power and control power of the largest shareholder will help promptly remove

incompetent senior managers and play an active supervisory role. Accordingly, the following hypothesis is proposed:

H2: Equity concentration positively moderates the positive correlation between negative media coverage and TMT turnover.

2.3 The moderating effect of the nature of property rights

In the context of a transitional economy, the important feature of Chinese capital market is that of the state-owned economy. The state-owned attributes of listed companies are not only formal institutional arrangements, but also indicate their innate inheritance. The innate inherited characteristics of government holding will have important moderating and intervention effects on acquired decisions and behaviors. (Park & Luo, 2001). First, negative media coverage has a more significant supervisory effect on state-owned enterprises. Starting from the scarce resources enjoyed by state-owned enterprises and policy preferences (administrative approval, loan guarantees, et al.), as well as the social goals and political tasks undertaken by state-owned enterprises (Li & Yamada, 2015), state-owned enterprises undertake the important mission of the government to regulate the economic lifeline (Yan & Xiao, 2019). At the same time, the political, statutory, mandatory nature of state-owned enterprises and the social nature of negative issues (Luo & Du, 2014) mean that “political factors” are the key factors affecting the appointment and dismissal of executives in addition to traditional factors such as performance (Zhang, Chen, & Huang, 2018). Non-state-owned enterprises pay more attention to their reputation in the industry, their bargaining power in the capital market, and the development opportunities and performance returns (Geng & Wang, 2016), and the above conditions mainly depend on the economic benefits or value appreciation created by the enterprise (Shi, 2019). Therefore, the media has a stronger motivation to coverage state-owned enterprises and state-owned enterprises has a stronger motivation to respond to negative media coverage (Li et al., 2017). Second, the exposure of negative coverage from state-owned enterprises indicates that the negative events have far-reaching and serious impacts (Liu et al., 2017). The nature of the property rights of state-owned holding means that negative media coverage are more likely to attract the attention and intervention of regulatory Authorities and even higher-level administrative departments (Zhou, Yang, & Wu, 2016). When state-owned enterprises are faced with negative media coverage and the pressure of public opinion and market pressure caused by negative media coverage, the higher-level government authorities question state-owned enterprises and related responsible persons, the local government and regulatory authorities consider their political achievements, the government officials’ pursuit of political promotion, and the doctrine of “do not seek merits, but seek no demerits” will affect state-owned enterprises (Zhou & Liu, 2016; Liu & Li, 2018). State-owned enterprises will turnover TMT to maintain their leading role in economic reform and social stability (Lei & Zhang, 2019), and minimize the negative impact. Accordingly, the following hypothesis is proposed:

H3: The nature of state-owned enterprises positively moderates the positive correlation between negative media coverage and TMT turnover.

2.4 The moderating effect of CEO shareholding

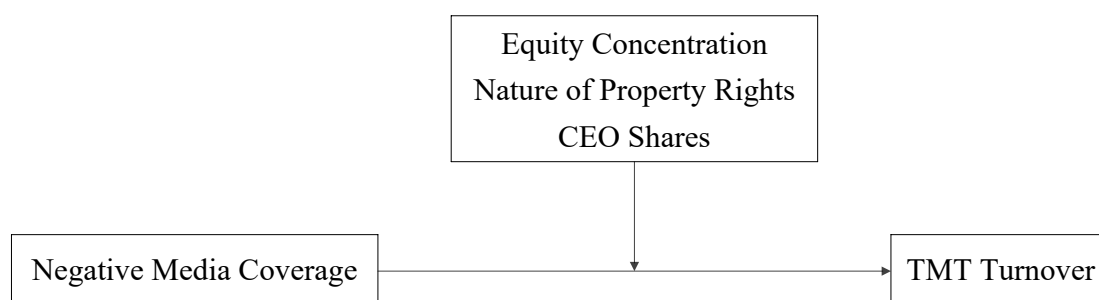
As an important internal governance mechanism of an enterprise, executive shareholding restricts and balances the institutional arrangements for the interest relationship between

owners and operators (Qian & Zhao, 2017). Whether the CEO's high shareholding ratio improve the effectiveness of TMT turnover in the context of negative media coverage remains to be explored. First, CEO shareholding has the natural advantage of building a "trench", which provides the possibility for the formation of a trench effect (Flickinger, Wrage, Tuschke, & Bresser, 2016). The increase in CEO shareholding ratio will breed excessive management power, and CEOs is usually regarded as the backbone of top management team (Zhu & Li, 2018), the co-protective effect of "big roots and deep roots" brought about by the CEO's high shareholding ratio (Quigley & Hambrick, 2015), virtually provides a protective umbrella for the stability of the position of himself and the "on a rope" management team (Zhang & Zhou, 2019). Driven by the motivation of job retention and management defense, "job trenches" are used to weaken the effectiveness of the manager market and corporate governance's supervision and restraint of top managers (Davids, Kreps, Paul, & Milgrom, 1982). Second, executives are the key resource, TMT turnover will weaken the company's ability to exchange resources and sustainable competitiveness (Rao & Xu, 2017; Liu & Zhang, 2019; Wang, 2020), and the top managers' social capital conveys obvious "signal recognition" and "signal recognition" to the market and social economy (Love et al, 2017). Third, TMT turnover will cause fluctuations in the stability of the team, which will affect the reliability of the continuation and execution of the strategic decisions (Cao & Feng, 2018; Zhang, Zeng, & Liu, 2020), and ultimately affect the sustainable and stable development of company (Zeng, Dong, & Chen, 2020). When an enterprise is faced with huge public opinion pressure and market pressure caused by negative media coverage, in order to avoid TMT turnover in CEO's strong position, team stability and joint turnover of "pull out the carrot and bring out the mud" that will have a negative impact on the stable development of the enterprise (Zhang, Cao, & Zhang, 2018; Li, 2021). The CEO's high shareholding ratio will reduce the effectiveness of TMT turnover decisions in the context of negative media coverage (Goyal & Park, 2002). Accordingly, the following hypothesis is proposed:

H4: CEO shareholding negatively moderate the positive correlation between negative media coverage and TMT turnover.

The theoretical framework of this article is shown in Figure 1.

Figure 1 the theoretical framework of negative media coverage and TMT turnover



Research design

1. Sample selection and data sources

The research objects of are the top 1,000 listed companies by total market value of A shares in the Shanghai and Shenzhen Stock Exchange from 2018 to 2020, using Stata16.0 to

carry out empirical analysis. In order to ensure the validity and the comparability of the research sample, the following data are rejected: (1) Financial listed companies; (2) Listed companies of ST and *ST; (3) Samples with no negative media coverage or less than 20 negative coverages; (4) Samples with incomplete information disclosure and data missing. Meanwhile, all continuous variables are winsorized at the 1% level in both tails of the distribution to eliminate the influence of extreme values. Our final sample contains 837 valid observation samples.

The data of negative media coverage from CNKI "Chinese Important Newspaper Full-text Database" and CSMAR "Market Information Series Database", and is collected and sorted with the help of the public opinion monitoring system terminal. The data of TMT turnover from the CSMAR "Chinese Listed Company Governance Structure Research Database" and RESSET "Financial Series Database", some field information is manually Supplement a through professional websites such as listed company announcements, annual report, Shenzhen Stock Exchange website and Cninfo (www.cninfo.com.cn). Financial data from the CSMAR.

2. Variable setting

(1) Independent variable: Negative media coverage. We refer to the research of Miller (2006), Fang and Peress (2009), Xue & Ru (2020), the specific measurement method is as follows: the natural logarithm of (the number of negative media coverage from the first day to the third day + 1).

(2) Dependent variable: TMT turnover. Combining the research theme of this article, and referring to the research of Zhang et al. (2019), Wang (2020), the research objects are defined as the top managers, directors and supervisors disclosed in the annual report. The resignation of top managers caused by "job transfer", "resignation", "dismissal", "personal reason", "involved in the case or violation", and "other" disclosed in the CAMAR is defined as TMT turnover. The specific measurement method is as follows: within the first day to 3 months of negative media coverage, any turnover or simultaneous turnover of any position of a top manager is assigned of 1, no turnover is assigned of 0.

(3) Moderating variables: Ownership concentration (Top1) is the proportion of the largest shareholder; the nature of property rights (SOE) is a dummy variable, and the state-owned holding company is assigned of 1, otherwise it is 0; CEO shareholding (CEOhold) is the ratio of CEO shares to the company's total shares.

(4) Control variables: We refer to the research of Rao & Xu (2017), Wang & Shi (2018), Song (2019), Deng et al. (2020), defines listing age, company size, financial leverage, profitability, growth opportunity, board size, board of supervisors, board independence, board supervision, two-time integration and management compensation as control variables. Listing age (Age) is the number of years from the company's listing to the current period plus 1, company size (Size) refers to the natural logarithm of the company's total assets, financial leverage (Lev) refers to asset-liability ratio, profitability (ROA) refers to the return on total assets, growth opportunity (TobinQ) refers to Tobin's Q value, board size (BS) refers to the total number of the board of directors, board of supervisors (SS) refers to the total number of the board of supervisors, board independence (DD) refers to the ratio of independent directors to the total number of board members, board supervision (Meeting) refers to the number of board meetings, two-time integration (Dual) is a dummy variable, the chairman and general manager is the same person is assigned of 1, otherwise it is 0; management compensation (Lnmag) is the natural logarithm of the total annual compensation of the management

(directors, supervisors and top managers). We defines annual dummy variables and industry dummy variables to control the annual and industry effects.

Results and discussion

1. Descriptive Statistics

Table 1 presents descriptive statistics for all variables used in our tests. As can be seen from Table 1, after the natural logarithm process, negative media coverage's average value is 4.4397 indicates that the number of media coverage of the sample company in the first 3 days is about 84 times, the average value of TMT turnover (TO) of 0.4241 indicates that the proportion of TMT turnover in the sample companies is 42.41%, the average value of CEO shareholding ratio is only 3.70% means that the CEO of the sample listed companies still receive monetary rewards. The descriptive statistical results of other variables are basically consistent with common sense judgments and existing literature, and the distribution results are reasonable.

Table 1 Descriptive Statistics

variable	N	mean	median	sd	min	max
Media	837	4.4397	4.1589	1.0522	3.1355	8.2754
TO	837	0.4241	0	0.4945	0	1
Top1	837	35.2840	32.7300	15.2573	9.0300	78.2900
SOE	837	0.3584	0	0.4798	0	1
CEOhold	837	3.7031	0.0018	9.6675	0	53.4276
Age	837	15.7103	14.7479	7.8300	2.0082	28.9343
Size	837	23.7069	23.4896	1.4471	21.1112	27.7837
LEV	837	0.4667	0.4756	0.1988	0.0750	0.8520
ROA	837	0.05873	0.0509	0.0694	-0.1842	0.2559
TobinQ	837	1.9380	1.5051	1.2877	0.8192	7.7323
Lnmag	837	16.1252	16.0675	0.7572	14.2391	18.2553
SS	837	2.7216	3	2.1533	0	9
BS	837	8.7730	9	2.0270	5	16
DD	837	0.3868	0.3636	0.0621	0.3333	0.6000
Meeting	837	11.2461	10	4.8955	4	28
Dual	837	0.2401	0	0.4274	0	1

2. Correlation Analysis

Table 2 presents the Pearson correlation coefficient matrix and significance level between the variables. The correlation coefficient between negative media coverage (Media) and TMT turnover (TO) is 0.1825 ($p < 0.01$), and the preliminary test meets the expectations of Hypothesis 1. In addition, although the variables are significantly correlated, the correlation variables are less than 0.5 and have statistically significant independence, indicating that there will be no serious multicollinearity problem.

Table 2 Correlation Analysis

Variable	TO	Media	Top1	SOE	CEOhold
TO	1				
Media	0.1825***	1			
Top1	-0.0350	0.0401	1		
SOE	0.0694**	-0.0217	0.2565***	1	
CEOhold	-0.0474	-0.0202	-0.0094	-0.2714***	1
Age	0.0813**	-0.0198	0.0583*	0.4581***	-0.3198***
Size	0.0688**	0.1384***	0.1929***	0.3602***	-0.2949***
LEV	-0.0070	-0.0186	-0.0324	0.1216***	-0.1096***
ROA	0.0323	0.1213***	0.2012***	-0.0964***	0.1517***
TobinQ	-0.0565*	0.1141	-0.0796**	-0.1514***	0.1647***
Lnmag	0.0308	0.1741***	-0.0798	-0.0369	-0.1039***
SS	0.0481	0.0829**	-0.0924***	-0.0573*	0.0682**
BS	-0.0291	-0.0254	0.0055	0.2117***	-0.1408***
DD	0.0772**	0.0832**	0.1739***	0.1283***	0.0002
Meeting	0.0571*	0.0467	-0.1651***	-0.0962***	-0.0705**
Dual	-0.0184	0.0652*	0.0001	-0.2510***	0.4926***

Table 2 Correlation Analysis

	Age	Size	LEV	ROA	TobinQ	Lnmag
Age	1					
Size	0.3609***	1				
LEV	0.1888***	0.5793***	1			
ROA	-0.0567***	-0.1842***	-0.4782***	1		
TobinQ	-0.1234***	-0.3879***	-0.4421***	0.4230***	1	
Lnmag	0.0633*	0.3857***	0.1714***	0.0359	-0.0082	1
SS	-0.0975***	-0.0369	-0.0167	-0.0591*	0.0632*	0.1089***
BS	0.2060***	0.0940***	0.0380	-0.0753**	-0.0898***	0.1220***
DD	-0.0097	0.1661***	0.0728**	0.0965***	0.0113	-0.0227
Meeting	0.0041	0.1860***	0.2773***	-0.2007***	-0.1355***	0.1487***
Dual	-0.2662***	-0.1571***	-0.0982***	0.1042***	0.1119***	0.0257

Table 2 Correlation Analysis

	SS	BS	DD	Meeting	Dual
SS	1				
BS	0.0077	1			
DD	0.0434	-0.4371***	1		
Meeting	0.1699***	-0.0198	0.0539	1	
Dual	0.0714**	-0.0972***	0.0816**	-0.0843**	1

3. Regression Results

Table 3 presents empirical regression results in our tests. Model (2) adds negative media coverage on the basis of model (1). The regression coefficient of negative media coverage (Media) is 0.3467 ($P < 0.01$), indicating that negative media coverage have a significant positive impact on TMT turnover, thus verifying the hypothesis H1..

Model (3) adds an interaction term (Media_Top1) on the basis of model (2), the regression coefficient of interaction term (Media_Top1) is 0.0086 ($P < 0.1$), it shows that equity concentration strengthens the positive correlation between negative media coverages and TMT turnover. Hypothesis 2 is empirically supported.

Model (4) adds an interaction term (Media_SOE) on the basis of model (2). The regression coefficient of interaction term (Media_SOE) is 0.3289 ($P < 0.05$), it shows that the nature of property rights strengthens the positive correlation between negative media coverages and TMT turnover. In other words, under the nature of state-owned property rights, the intensity of negative media coverage has a stronger positive impact on TMT turnover. Hypothesis 3 is empirically supported.

Model (5) adds an interaction term (Media_CEOhold) on the basis of model (2), and the regression coefficient of interaction term (Media_CEOhold) is -0.0226 ($P < 0.01$), it shows that CEO shareholding weakens the positive correlation between negative media coverage and TMT turnover. Hypothesis 4 is empirically supported.

At the same time, we further use the number of negative media coverage from the first day to the seventh day as an independent variable for regression, the signs and significance levels of the regression coefficients of the core variables and product terms are still consistent with the hypotheses. Shows that the empirical results of this article are relatively robust. Due to space limitations, relevant results are not listed.

Table 3 Correlation Analysis

	M1	M2	M3	M4	M5
	TO	TO	TO	TO	TO
_cons	-3.5892 (-1.58)	-3.2232 (-1.41)	-3.2628 (-1.42)	-2.8361 (-1.23)	-2.9794 (-1.31)
Age	0.0101 (0.83)	0.0125 (1.02)	0.0135 (1.10)	0.0120 (0.98)	0.0123 (1.00)
Size	0.1136 (1.32)	0.0549 (0.63)	0.0499 (0.57)	0.0435 (0.49)	0.0456 (0.52)
LEV	-0.5404 (-0.94)	-0.5318 (-0.91)	-0.5229 (-0.89)	-0.5209 (-0.89)	-0.4251 (-0.72)
ROA	1.6306 (1.20)	1.3046 (0.95)	1.2992 (0.95)	1.3044 (0.95)	1.3502 (0.97)
TobinQ	-0.1318* (-1.86)	-0.1789** (-2.40)	-0.1789** (-2.41)	-0.1876*** (-2.49)	-0.1693** (-2.26)
Lnmag	0.0487 (0.43)	0.0124 (0.11)	0.0202 (0.17)	0.0440 (0.38)	0.0245 (0.21)
Dual	-0.0274 (-0.14)	-0.0800 (-0.40)	-0.0768 (-0.38)	-0.0705 (-0.35)	-0.0892 (-0.44)
SS	0.0142 (0.38)	0.0070 (0.18)	0.0019 (0.05)	0.0037 (0.10)	0.0066 (0.18)
BS	-0.0262 (-0.60)	-0.0242 (-0.56)	-0.0243 (-0.56)	-0.0307 (-0.70)	-0.0278 (-0.64)
DD	2.1991 (1.58)	2.0377 (1.44)	2.1210 (1.48)	1.7418 (1.21)	1.8961 (1.32)
Meeting	0.0171 (1.03)	0.0159 (0.95)	0.0165 (1.00)	0.0169 (1.02)	0.0172 (1.02)
Top1	-0.0107* (-1.90)	-0.0107* (-1.86)	-0.0107* (-1.84)	-0.0096* (-1.66)	-0.0104* (-1.79)

	M1	M2	M3	M4	M5
	TO	TO	TO	TO	TO
SOE	0.2403 (1.19)	0.2868 (1.40)	0.2977 (1.45)	0.3188 (1.54)	0.2991 (1.45)
CEOhold	-0.0015 (-0.16)	0.0004 (0.04)	0.0003 (0.03)	-0.0001 (-0.01)	-0.0013 (-0.14)
Media		0.3467*** (4.65)	0.3424*** (4.59)	0.2367*** (2.54)	0.3254*** (4.20)
Media_ Top1			0.0086* (1.77)		
Media_ SOE				0.3289** (2.17)	
Media_ CEOhold					-0.0226*** (-2.57)
Ind	Control	Control	Control	Control	Control
Year	Control	Control	Control	Control	Control
adj. R-sq	0.0547	0.0740	0.0766	0.0777	0.0797

t statistics in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Conclusion

1. Research Conclusion

Based on Chinese special institutional environment, this study provides evidence of how negative media coverage influences TMT turnover. Research conclusions are as follows: (1) Negative media coverage positively affect TMT turnover; (2) Equity concentration positively moderates the positive correlation between negative media coverage and TMT turnover; (3) The nature of property rights positively moderates the positive correlation between negative media coverage and TMT turnover; (4) CEO shareholding negatively moderate the positive correlation between negative media coverage and TMT turnover.

2. Management Implications

We provide references for listed companies to standardize operations and improve internal governance practices. Listed companies need to pay attention to and rationally use the media, which is an important role of information intermediary and external governance mechanisms. we also recommend that listed companies standardize their operations and improve the management mechanism of top managers and internal governance mechanism, such as governance of the board of directors.

In addition, we provide references for the media industry to improve the industry's ecological environment and increase credibility. If the wants to better, it is necessary for media strengthen industry self-discipline, correctly guide public opinion, and enhance credibility serve, as to better as an objective and effective "watcher" in promoting the standardization of the socialist market economy system. Meanwhile, the media needs to innovate concepts, content, genres, methods, formats, and mechanisms.

Finally, we provide references for the government to realize the rule of law in the supervision of media and public opinion, and strengthen media construction. The government and regulatory agencies need to simultaneously establish a political and legal environment that is conducive to the media's performance of supervision, such as improving the information disclosure system, realizing the legalization of media and public opinion supervision, and promoting the development of media integration.

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