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ORIGINAL ARTICLE

How and Why Does Corporate Reputation Moderate Mass Media News' Impact On Market Value?

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Abstract In this study, we investigate whether corporate reputation reduces or amplifies mass media news' impact on market value. We conceptualize reputation as comprising a prior knowledge, prominence, and favorability component. Additionally, we theorize about its role in moderating news' effect on market value. Using 11 semesters' data from 38 publicly listed German companies, we offer evidence of corporate reputation amplifying both negative and positive mass media news'

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impact on market value. We further find that positive media mentions could reduce negative mentions' negative impact up to the point that it loses its significance. Finally, our empirical analysis suggests that reputation's moderating effect is mostly due to the favorability mechanism. Our results contribute to the literature by empirically assessing the role that reputation's multiple dimensions play in shaping investors' response to positive and negative mass media news. Our results also show that ensuring the media's positive coverage of the company is an effective strategy to mitigate bursts of negative news' negative consequences.

Keywords Mass media news · Corporate reputation · Market value · News valence

1 Introduction

The search for drivers of market value is (at least) as old as the stock-market, while a plethora of academic papers has investigated what this value depends on and under which conditions it does so. In general, the literature agrees that a company's market value depends on investors' expectations about its future performance (Lane and Jacobson 1995; Solomon 2012). Investors use their knowledge and external information to form these expectations.

One stream of research has scrutinized the impact of media coverage on firms' market value. This literature stream maintains that, in financial markets, the media's main role is to disseminate information about companies (Graf-Vlachy, Oliver, Banfield, König, and Bundy 2020), which could change investors' expectations about their future performance. These changed expectations could trigger changes in companies' valuation.

Another stream of research has examined the role of intangible assets, like corporate reputation, as drivers of financial performance (Pham and Tran 2020; Raithel and Schwaiger 2015). Corporate reputation is understood as an overall evaluation of a company's past actions and future prospects (Wei et al. 2017), therefore also shaping investors' expectations about companies' future performance.

Although the literature has studied the impacts of mass media news and reputation on market value separately, little is known about the mode of co-existence between the two when both constructs are simultaneously linked to market value. This knowledge is important to further our understanding of the consequences of developing corporate reputation. In this paper, we study the impact of negative and positive news on companies' market value, suggesting that the magnitude of the impact depends on the company's reputation.

Higher-reputation companies enjoy greater prominence in their organizational fields, stakeholders know them better, and favor such companies more than those whose reputations are lower (Lange et al. 2011). Corporate reputations are therefore presumed to moderate mass media news' impact on market value, because they determine companies' level of exposure to the media, as well as providing investors with an interpretative frame allowing them to make sense of new company-related information (Pfarrer et al. 2010). Although we have clear reasons to believe that this moderation effect exists, multiple theoretical reasons lead to different predictions

about the effect's direction. Consequently, it is not a priori clear whether corporate reputation amplifies or mitigates media news' impact on market value.

In this article, we theorize that reputation's moderating effect on mass media news' impact on market value might be due to mechanisms that are prominence related, knowledge related, and favorability related. To provide empirical evidence of the moderating effect's magnitude and sign, we use 5.5 years of biannual data on corporate reputation, market value, and positive and negative mass media news from a sample of 38 blue chip companies operating in Germany. The results not only allow us to assess the moderating effect of reputation but also to study whether positive news help alleviating the negative consequences of negative news. Finally, in a follow up empirical analysis, we decompose reputation into its prominence, prior knowledge, and favorability components, and present evidence of the mechanisms that drive the above-mentioned moderating effect.

We study the moderating role that reputation has on media news' impact on market value in order to make the following contributions to the literature. First, we provide a deeper understanding of the relationship between mass media news and market value. Specifically, we propose and demonstrate that mass media news does not homogeneously impact companies' market value and that this impact depends on companies' reputation. In doing this, we complement prior research on reputation by documenting that it moderates the impact of other important market value drivers (i.e., mass media news).

Second, prior literature has argued that having a high reputation[1] generally helps companies (Garbett 1988; Grewal et al. 1998; Milgrom and Roberts 1986; Rindova et al. 2005; Turban and Cable 2003). However, there is only limited work on the negative consequences of, or the risks associated with, high reputations (George et al. 2016). We show that negative news has a more negative impact on higher-reputation companies, suggesting that the commonly held belief that high reputations help reduce bad news' negative effects does not hold in the context of blue chip companies' valuations.

Third, the literatures on corporate reputation and communications have paid a great deal of attention to specific negative events' impact (e.g., product recalls, wrongdoing, labor scandals) on companies' performance (Liu and Shankar 2015; Rhee and Haunschild 2006; Zavyalova et al. 2016; Wei et al. 2017). Nevertheless, little attention has been paid to positive news' impact. In this paper, we take a closer look at positive news' impact, documenting that its positive impact is greater on high-reputation companies. Moreover, we show that a strategy designed to promote positive news effectively alleviates negative news' negative consequences.

Finally, we not only provide an exhaustive set of explanations for corporate reputation moderating mass media news' impact on market value, but also present empirical evidence of the dominating mechanisms. In doing so, we provide a more nuanced understanding of the mechanisms behind high corporate reputations' con-

[1] "Throughout the paper, we use the term 'high reputation' as a synonym for good reputation, positive reputation, and favorable reputation. In turn, we use 'low reputation' as a synonym for bad reputation, negative reputation, and unfavorable reputation.".

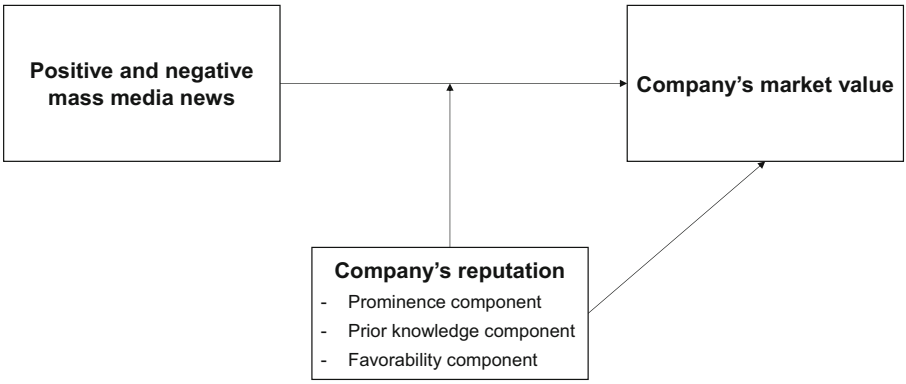


Fig. 1 Conceptual Framework

sequences and respond to strategy scholars' calls for more research on reputation's different dimensions (Lange et al. 2011).

2 Theory and Hypotheses

In line with the conceptual framework in Fig. 1, we study mass media news' and reputation's direct impacts on market value. We focus on positive and negative mass media news, because information's valence determines how people perceive and respond to such information. Furthermore, we argue that reputation moderates positive and negative mass media news' impact on market value. In line with Lange et al. (2011), we conceptualize reputation as a combination of three components. The prominence component is related to a firm's generalized visibility, the previous knowledge component refers to organizational outcomes' perceived predictability (e.g., behaving in a socially desirable way), while the favorability component refers to overall attitudes toward an organization. As we subsequently explain, different theoretical reasons based on the different components lead to different predictions about the direction (positive or negative) of reputation's moderating effect. Consequently, an important objective of the paper is to assess the effect's direction and to identify the dominant mechanisms.

Next, we discuss mass media news' and reputation's direct effects on market value, thereafter postulating hypotheses on reputation's moderating effect.

2.1 Mass Media News and Its Impact On Companies' Market Value

Mass media news is one of the primary ways in which stakeholders learn about organizations (Einwiller et al. 2010). In financial markets, the media disseminates information and expands information sets (Graf-Vlachy et al. 2020). Before trading,

investors must first select the options to consider from thousands of potential listings[2] and, subsequently, decide which ones to trade (Barber and Odean 2008). The media is important for investors, because it selects, restructures, and broadcasts information. The structured information that the press provides, also helps investors reduce the complexity and uncertainty about companies' attributes and characteristics. In addition, the press directs investors' attention to specific companies, reducing their search costs (Barber and Odean 2008; Drake et al. 2012; Fang et al. 2014). Since the press provides important information that investors use to assess companies' future prospects (Tetlock et al. 2008), news has an impact on stock prices (Fang and Peress 2009; Griffin et al. 2011) and, therefore, on companies' market value.

In the conceptual framework, we distinguish between positive and negative news. People generally evaluate information as either good or bad (Ajzen 2001), consequently, the valence of the information contained in news stories provides an indication of whether companies behave in a desirable way or not. As such, information's valence has an important impact on the information under scrutiny's evaluation, on the knowledge associated with a company, and on the degree to which this knowledge is regarded favorably (Dawar and Pillutla 2000). In line with this argument, we expect negative and positive news to respectively have a negative and a positive impact on market value.

2.2 Corporate Reputation and Its Impact On Companies' Market Value

In line with prior research (Rindova et al. 2005), we define corporate reputation as an intangible asset that derives its value from the broad public recognition of a company's ability to create value relative to its competitors. Stakeholders' reputation assessments form because of social exchanges between social actors (Rindove and Fombrun 1999). These social exchanges include information transfer between the media and different publics. Journalists are considered independent intermediaries who collect and disseminate information on firms, so their reports enjoy higher credibility than information stemming directly from organizations (Eisend and Kuster 2011). Therefore, media coverage is an important driver of stakeholders' reputation assessments of companies. Note that the definition above implies that stakeholders' reputation assessments are driven not only by companies' prominence in their institutional environments (Lange et al. 2011; Rindova et al. 2005), but also by stakeholders' knowledge of, and the degree to which they regard them favorably (Deephouse 2000; Lange et al. 2011; Ramos and Casado-Molina 2021; Schwaiger 2004). Therefore, next we discuss how these three components can affect companies' market values.

Higher-reputation companies enjoy greater *prominence* (or salience) in their organizational fields, meaning that stakeholders are more exposed to their information as compared to that of companies with lower reputations. A process of information generation, exchanges, and dissemination to different actors in an organizational field,

[2] Investors face this complexity when they buy and when they sell. Investors can sell stocks that they own or do not own (short selling). When they engage in short selling, the number of alternatives from which they can choose is as large as the number of alternatives when they want to buy.

forms corporate reputations (Deephouse 2000; Rindova et al. 2005). Stakeholders infer reputations not only from signals that organizations send, but also from influential third parties' actions, such as those of the media (Ravasi et al. 2018). Stakeholders are more likely to consume information from high-reputation companies than lower-reputation companies (Frieder and Subrahmanyam 2005; Grullon et al. 2004). Since higher-reputation companies are more relevant for stakeholders, the media is, in turn, also more likely to cover them, which gives them more prominence and visibility in the media than low-reputation companies.

Higher-reputation companies also enjoy higher *favorability* than lower-reputation ones. Favorability refers to companies' attractiveness and the regard in which stakeholders hold them (Barnett et al. 2006; Lange et al. 2011). In other words, favorability represents the valence of stakeholders' attitudes toward companies. People tend to anthropomorphize organizations and develop positive attitudes toward those with desirable character traits and whose practices are socially desirable (Love and Kraatz 2009). Similarly, they develop negative attitudes toward companies that exhibit undesirable social traits. As such, general assessments of a company's reputation depend on stakeholders' affective evaluations of it (Cable and Graham 2000; Rhee and Valdez 2009). High reputation companies are generally valued by stakeholders because they develop high quality products and are responsible community stewards. Therefore, stakeholders generally see these companies more favorably than lower-reputation ones.

Stakeholders are also likely to have more extensive *prior knowledge* about higher reputation than lower reputation companies (Deephouse 2000; Schwaiger 2004). This knowledge is related to the firms' demonstrated ability to create and deliver value (Pfarrer et al. 2010), allows stakeholders to judge and predict their future organizational outcomes (Lange et al. 2011), and could originate from direct and indirect experience with the relevant company (Alba and Hutchinson 1987; Kent and Allen 1994). Consumers, organizations, and investors should have more direct experience with high-reputation companies than with low-reputation ones. Consumers prefer to purchase from companies that provide high-quality products and services. Organizations prefer to do business with reliable companies. Investors are more likely to hold stocks of high-reputation companies, because their stock returns outperform those of low-reputation firms (Raithel and Schwaiger 2015). Stakeholders should also have higher indirect knowledge about high-reputation companies. Given stakeholders' broader and deeper exchange of information about higher-reputation companies, they are more likely to have heard about them through, for instance, advertisements, their peers, or the press.

In line with the previous arguments, we expect that increases in corporate reputation will lead to increases in market value. Furthermore, as we discussed, corporate reputations provide stakeholders with an interpretative frame allowing them to make sense of new company-related information (Pfarrer et al. 2010). Accordingly, we expect corporate reputation to influence the way in which investors react to news and, therefore, to moderate mass media news' impact on market value. We subsequently provide theoretical arguments about the reasons for corporate reputations attenuating or increasing investors' reactions to mass media news.

2.3 Why a High Corporate Reputation Could Attenuate News' Impact On Market Value

Corporate reputation could attenuate mass media news' impact on market value due to the differences in investors' prior knowledge and degree of favorability toward the company. As we argued before, shareholders have more extensive *knowledge* about higher-reputation companies than about lower-reputation ones. Psychology research has shown that prior knowledge has an effect on people's attitudes and behaviors when they are subjected to new information. One literature stream argues that the more knowledge people have, the more likely their attitudes are to be resistant to change, to persist over time, and to influence thinking and action (Holbrook et al. 2005; Krosnick and Petty 1995; Stammerjohan et al. 2005). When prior knowledge about companies is high, people are likely to discount new information, because they are likely to perceive it as redundant and uninteresting (Campbell and Keller 2003; Dawar and Pillutla 2000). However, when prior knowledge is low, people are likely to process and consider new information, because their goal is to learn and form accurate impressions (Dawar and Pillutla 2000; Hilton and Darley 1991). According to these arguments, the processing of new information is less extensive and more confirmatory with regard to well-known companies than less-known ones. Consequently, *positive* and *negative* media news' effect should be less on high-reputation companies than on low-reputation ones.

The higher *favorability* associated with higher-reputation companies could also help explain why *negative* news has a smaller impact on their market value than on that of lower-reputation companies. People with positive attitudes are more likely to counter negative information related to their attitudes (Ahluwalia et al. 2000). This is in line with prior literature stating that the goodwill that positive attitudes create becomes corporate credit, allowing companies to occasionally deviate from social norms without harming people's perception of them (Ashforth and Gibbs 1990; Suchman 1995; Vanhamme and Grobben 2009). The favorability argument also supports prior studies stating that the general public might be more willing to forgive a company with a positive performance history than one with a history of problems (Barton 1993; Klein and Dawar 2004).

The higher *favorability* associated with higher-reputation companies might also attenuate investors' reactions to *positive* news. Given the higher favorability of higher-reputation companies, investors might regard positive news about them redundant, meaning such news might fail to attract their attention. In addition, high favorability could create a ceiling effect, such that new positive information cannot improve an already positive evaluation (Dawar and Pillutla 2000). In line with the previous arguments, we hypothesize:

Hypothesis 1a. Negative news' impact on market value is less negative for higher-reputation companies than for lower-reputation ones.
Hypothesis 1b. Positive news' impact on market value is less positive for higher-reputation companies than for lower-reputation ones.

2.4 Why a High Corporate Reputation Could Amplify News' Impact On Market Value

Corporate reputation could amplify the mass media news' impact on market value due to the differences in investors' prior knowledge of such companies, in the degree of favorability with which these investors regard them, and in these companies' prominence in the media. Another stream of psychology literature supports the idea that when people have more prior *knowledge* about a subject, they pay more attention to new information related to it, and understand this information better (Brucks 1985; Dawar and Pillutla 2000). Given that investors know more about higher-reputation companies than lower-reputation ones, they are probably more likely to actively pay attention to the news about higher-reputation companies, because these are more relevant for them. Moreover, since prior knowledge facilitates understanding of new, related knowledge, investors should be better able to assess the future financial consequences and act upon such news about companies they know better. Consequently, both *positive* and *negative* news' impact on market value should be higher with regard to higher-reputation companies than for lower-reputation ones.

Corporate reputation could amplify mass media news' impact due to a *prominence*-related mechanism. As we stated before, the media is more likely to focus its attention on higher-reputation companies' news than on that of lower-reputation companies (Core et al. 2008; Fombrun and Shanley 1990; Rhee and Haunschild 2006). Additional media attention makes it likely high-reputation companies' news will be repeated (either in the same medium or across multiple media) than that of low-reputation companies. A repeated message provides more opportunities to consider its content (MacInnis et al. 1991) and to influence investing decisions. In addition, a story's repetition is likely to increase the investors' credibility in the story as well as its perceived importance (Solomon 2012). News covering high-reputation companies are therefore more likely to be processed and to be perceived as more credible, leading to stronger investor reactions to such news than to that of low-reputation firms.

Investors' *favorability* regarding higher-reputation companies is higher, they might therefore expect higher-reputation companies to behave in a more socially desirable manner than lower-reputation companies. According to the expectancy violation theory (Burgoon and Le Poire 1993), the higher the mismatch between expectations and a negative action, the more negative people's evaluations about this action are. Negative news from higher-reputation companies should therefore lead to more negative investor reactions than such news from lower-reputation companies. In addition, higher-reputation companies' higher favorability can also increase investors' reactions to positive news, because information that is highly consistent with existing attitudes is more easily processed and recalled than that which is only moderately consistent (Judd and Kulik 1980). Finally, research also shows that when people read information about positive risks, they tend to trust more attitude-consistent messages than attitude-inconsistent ones (White et al. 2003). Given the previous arguments, we formally propose:

Hypothesis 2a. Negative news' impact on market value is more negative for higher-reputation companies than for lower-reputation ones.
Hypothesis 2b. Positive news' impact on market value is more positive for higher-reputation companies than for lower-reputation ones.

3 Data and Methods

3.1 Sample

We constructed the sample for this study by, first, obtaining corporate reputation data on 85 blue chip companies operating in Germany from TNS Infratest (now Kantar Media). These data cover the period December 2005 to December 2011, were collected bi-annually at the end of the semester via computer-assisted telephone interviews, and comprise the answers of a representative sample of the German population aged 14 and older.

Second, we obtained daily mass media news data, covering the period July 2006 to December 2011, from PRIME Research, an international research company specializing in media analysis. Trained human coders, who analyze and categorize news, collected the data. The coding unit was a company mentioned in an article/report. The coders categorized such mentions by topic (product, strategy, management, financial performance, positioning, and corporate social responsibility) and valence (positive, negative, and neutral). The data comprise company mentions by 198 German outlets, ranging from the Handelsblatt (a well-known daily economic newspaper), the ARD Tagesschau (Germany's most important TV news program), and to popular webpages like t-online.de and yahoo.de. From the data, we selected 44 outlets, which comprise 99.5% of the data's total number of mentions. These outlets represent 20 print media outlets, 15 TV news programs, and 9 news websites.

Finally, we complemented the previous data with publicly traded companies' financial information from DataStream. Some of the 85 companies in the reputation survey are not traded publicly, whereas PRIME Research does not monitor others. We merged the three datasets, which yielded a final dataset containing information on 38 publicly traded German blue chip companies during 11 semesters covering the period from December 2006 to December 2011.[3] This sample of firms is relevant for several reasons. First, blue chip companies are highly valued by investors (Chen 2023), so studying the interaction between media and reputation in this context is relevant for them. Second, large companies have an important impact on the economy. Due to their relevance, prior research on corporate reputation has also focused on large companies. For instance, Basdeo et al. (2006) and Pfarrer et al. (2010) use samples from Fortune's most admired companies, whereas Gamache and McNamara (2019) use a sample from the S&P500. Finally, large firms are widely

[3] The reporting of some companies' TNS data only started a semester after July 2006. Our data are therefore not balanced and the total number of observations in our result tables is smaller than 418 (38 companies × 11 semesters).

covered by the media, which makes it possible to study the impact of media coverage on firms' value. Without variation in media coverage, it would be more challenging to assess its impact.

3.2 Dependent Variable: Market Value

We obtained the market value from DataStream, which calculates market value as the number of ordinary shares in issue multiplied by a firm's closing stock price at the end of the semester. We chose market value as our dependent variable for the following two reasons. First, since it depends on the stock price, it represents a forward-looking performance metric that captures investors' expectations about the long-run prospects of a company's future cash flows (Kumar and Shah 2009; Luo 2008). Second, prior research has widely used market value as a measure of firm value (e.g., Kim, Boyd, Kim, and Cheong 2016; Luo et al. 2012).

3.3 Independent Variables

3.3.1 Corporate Reputation

We used reputation directly from the dataset of TNS Infratest, which measures corporate reputation using the scale that Schwaiger (2004) proposed. The survey measures corporate reputation using the following items: (1) [Company name] is a top competitor in the market; (2) [Company name] is a company I can identify with better than other companies; (3) As far as I know, [company name] is recognized worldwide; (4) I believe that [company name] performs at a premium level; (5) [Company name] is a company that I would miss more than other companies if it were to disappear; (6) I regard [company name] a likeable company. Subsequently, these items enter a factor analysis that extracts two components labeled competence and likability. The final reputation scores result from averaging the two components and normalizing the outcome to a range between 0 and 1. This reputation metric has been evaluated favorably in terms of convergence and criterion validity (Sarstedt et al. 2013), adheres to the definition of reputation as an attitudinal construct (as recommended by Veh et al. (2019)), and has been used in prior academic research (Raithel and Hock 2021; Raithel and Schwaiger 2015). Note that, although in the original scale the six items are classified into competence and likeability, the items also capture respondents' assessment of the company's prominence (item 3), the knowledge they have about the company (items 1 and 4), and their favorability toward the company (items 2, 5, and 6). Therefore, the reputation metric captures the different mechanisms we discuss in the theory section.

Table 1 Summary Statistics

	Mean	Std. Dev	Min	Max
Market value (million euros)	25,626	21,125	227	145,698
Negative news	364,000,000	421,000,000	0	3,100,000,000
Positive news	530,000,000	521,000,000	0	3,650,000,000
Reputation	0.582	0.083	0.392	0.773
Shareholder Equity	17,200,000	14,100,000	252,396	57,500,000
Total Assets	198,000,000	380,000,000	1,715,452	2,190,000,000
Sales	44,500,000	34,800,000	1,294,279	159,000,000
Debt	34,800,000	99,600,000	–184,000,000	607,000,000
Industry growth	0.043	0.203	–0.540	1.084
Market instability	0.217	0.203	0.024	0.856
Industry concentration	0.124	0.109	0.006	0.593
Employees	127,943	122,773	2966	536,350

3.3.2 Mass Media News

We operationalized negative (positive) mass media news as the weighted sum of negative (positive) mentions across media outlets within a given semester, with the weights representing the media outlets' reach. Mathematically:

$$\text{Negative News}_{it} = \sum_{\tau \in t} \sum_{o=1}^{O_{it}} X_{io\tau}^{\text{Negative}} R_o, \text{ and Positive News}_{it} = \sum_{\tau \in t} \sum_{o=1}^{O_{it}} X_{io\tau}^{\text{Positive}} R_o,$$

where $X_{io\tau}^{v}$ is a dummy variable indicating whether a mention for company i, in outlet o, and day τ has valence v (v = negative, positive)[4], and R_o represents the reach of the media outlet mentioning the company. The multiplicative term $X_{io\tau}^{v} R_o$ is an indicator of the potential number of exposures for a particular mention. The sum across media outlets (O_{it}) and days belonging to the same semester (t) represents the potential number of exposures to mentions from firm i, with valence v, in semester t. According to Zhang (2016), this is the most appropriate way of describing companies' media coverage. When operationalizing positive news, we included neutral news, which aligns with the logic that mere exposure to an object increases familiarity with it and generates subsequent favorability regarding this object (Fang et al. 2007).

3.4 Control Variables

To control for factors that impact investors' expectations about a firm's financial performance, we included company- and industry-specific variables. To control for firm resources and financial strength, we collected from DataStream shareholders' equity (the company's assets' monetary value held by the owners), net sales (rev-

[4] In other words, these variables identify whether a mention is negative (0: no; 1: yes) or positive (0: no; 1: yes).

enues), and total debt (which includes short- and long-term debt). To control for changes in company sizes over time, we included their number of employees and total assets, also collected from DataStream.

To control for different types of industry environments and competition intensity in the market, we included an industry growth variable, defined as the average net sales growth of all the firms in the industry during the last year to date (Kim et al. 2016); a market instability metric, calculated as the standard deviation of the five-year average net sales growth across the firms in the industry (Luo et al. 2012); and an industry concentration measure, operationalized as the Herfindahl index based on net sales (McAlister et al. 2007). In Table 1, we provide summary statistics of the variables we considered in the analysis.

3.5 Model

Our data contain observations at the company level and across semesters. Thus, we specify a panel data model for the logarithm of market value. We use the logarithm because firms are different in size and taking the logarithm reduces inference problems associated with heteroscedasticity and outliers (Wooldridge 2020, p. 187). Accordingly, the model for company i's logarithm of market value in semester t is:

$$\begin{aligned}\ln(\text{MarketValue}_{it}) = {} & \alpha_i + \beta_1 \ln(\text{MarketValue}_{it-1}) + \beta_2 \ln(\text{NegativeNews}_{it}) \\ & + \beta_3 \ln(\text{NegativeNews}_{it}) \times \text{Reputation}_{it} + \beta_4 \ln(\text{PositiveNews}_{it}) \\ & + \beta_5 \ln(\text{PositiveNews}_{it}) \times \text{Reputation}_{it} + \beta_6 \text{Reputation}_{it} \\ & + \beta_7 \ln(\text{ShareholderEquity}_{it}) + \beta_8 \ln(\text{TotalAssets}_{it}) + \beta_9 \ln(\text{Sales}_{it}) \\ & + \beta_{10} \ln(\text{Debt}_{it}) + \beta_{11} \text{IndustryGrowth}_{it} + \beta_{12} \text{MarketInstability}_{it} \\ & + \beta_{13} \text{IndustryConcentration}_{it} + \beta_{14} \ln(\text{Employees}_{it}) + \varepsilon_{it},\end{aligned} \tag{1}$$

where α_i represents company-specific fixed effects that account for heterogeneity across firms and help controlling for firm-specific unobserved variables that might bias parameter estimates. As an independent variable, we also included market value's lagged value to account for persistence in market value. The lagged dependent variable also reduces potential autocorrelation in the error term. To facilitate the interpretation of the coefficients, we standardized the reputation and news variables before creating their two-way interactions.

The interactions between mass media news and reputation allow us to use Eq. 2 to explore the moderating effects of reputation on the impact of mass media news on market value. Note that this interaction could also be used to explore how mass media news moderate the impact of reputation on market value. However, changes in corporate reputation take a longer time to materialize than changes in what media outlets report. Therefore, from a managerial point of view, it is more relevant to anticipate the impact of news given a level of reputation than the impact of reputation given the current news. The same holds for investors, who might benefit more from anticipating how mass media news will affect the market value of a company given its reputation, than from how reputation affects market value given the current news.

Also note that mass media news can affect the level of a company's reputation so there is a theoretical correlation between these independent variables. This multicollinearity does not bias the parameters so the model correctly recovers the impact (coefficients) of reputation and mass media news on market value (Lindner et al. 2020). Multicollinearity only leads to inflation in the standard errors which makes our statistical inferences conservative.

3.6 Endogeneity and Model Estimation

Although we include fixed effects and control variables to capture the effect of unobserved variables that could biased the estimated parameters, the model in Eq. 1 can still suffer from other endogeneity sources. First, the lagged dependent variable' coefficient will be biased because the demeaning in the lagged dependent variable created by the fixed effects creates correlation with the error term (Nickell 1981). Second, the model assumes that mass media news causes changes in market value. However, it could also be that market value causes changes in the amount of news a company receives. Third, the model also assumes that reputation causes changes in market value, but changes in market value could also lead to changes in reputation.

To solve this problem, we estimate a first-differences model specification using the generalized method of moments (GMM, Arellano and Bond 1991). This approach handles fixed effects, dynamic panel bias, and the endogeneity of multiple independent variables (Roodman 2009), as we subsequently explain. We start by specifying the following first-difference model:

$$\begin{aligned}\ln(\text{MarketValue}_{it}) &= \beta_1\Delta\ln(\text{MarketValue}_{it-1}) + \beta_2\Delta\ln(\text{NegativeNews}_{it})\\ &+ \beta_3\Delta(\ln(\text{NegativeNews}_{it}) \times \text{Reputationit}) + \beta_4\Delta\ln(\text{PositiveNews}_{it})\\ &+ \beta_5\Delta(\ln(\text{PositiveNews}_{it}) \times \text{Reputation}_{it}) + \beta_6\Delta\text{Reputation}_{it}\\ &+ \beta_7\Delta\ln(\text{ShareholderEquity}_{it}) + \beta_8\Delta\ln(\text{TotalAssets}_{it}) + \beta_9\Delta\ln(\text{Sales}_{it})\\ &+ \beta_{10}\Delta\ln(\text{Debt}_{it}) + \beta_{11}\Delta\text{IndustryGrowth}_{it} + \beta_{12}\Delta\text{MarketInstability}_{it}\\ &+ \beta_{13}\Delta\text{IndustryConcentration}_{it} + \beta_{14}\Delta\ln(\text{Employees}_{it}) + \Delta\varepsilon_{it},\end{aligned} \tag{2}$$

where $\Delta x = x_t - x_{t-1}$. Note that by differencing, we have removed the fixed effects. However, note also that $\Delta\ln(\text{MarketValue}_{it-1})$ and $\Delta\varepsilon_{it}$ are correlated. Thus, $\Delta\ln(\text{MarketValue}_{it-1})$ is endogenous. To account for this, Arellano and Bond (1991) propose using past levels of the lagged dependent variable as instruments for its first-differences. The levels' lags (two and further) are valid instruments because they are correlated with their first-differences but are uncorrelated with $\Delta\varepsilon_{it}$.

Likewise, the difference of the mass media news and the reputation variables are correlated with $\Delta\varepsilon_{it}$, so they are also endogenous. One approach would be to find variables that are correlated with mass media news and reputation but uncorrelated with the error term (e.g., external instruments). Given the difficulty of finding external instruments that are valid and exogenous, we exploit the panel structure of our data and use lagged values of these endogenous variables as (internal) instruments for their first-differences.

Table 2 Models for the Logarithm of Market Value

	OLS	Main model. GMM	Robustness 1. GMM different lags as instruments	Robustness 2. GMM and lagged control variables	Robustness 3. Simultaneous equations with heteroscedasticity-based instruments	Robustness 4. GMM excluding Total Assets	Robustness 5. GMM excluding Employees
$Ln(MarketValue_{it-1})$	0.582***	0.819***	0.477***	0.746***	0.566***	0.810***	0.705***
	(0.097)	(0.149)	(0.126)	(0.132)	(0.058)	(0.142)	(0.115)
$Ln(NegativeNews_{it})$	–0.774***	–0.619***	–0.920**	–0.605***	–0.804***	–0.696***	–0.608***
	(0.211)	(0.183)	(0.418)	(0.203)	(0.268)	(0.173)	(0.186)
$Ln(NegativeNews_{it}) \times Reputation_{it}$	–0.423***	–0.349**	–0.749**	–0.337**	–0.416***	–0.396***	–0.355**
	(0.096)	(0.14)	(0.348)	(0.148)	(0.138)	(0.133)	(0.141)
$Ln(PositiveNews_{it})$	0.861***	0.529**	1.099***	0.532**	0.953**	0.591***	0.585***
	(0.260)	(0.229)	(0.395)	(0.237)	(0.409)	(0.21)	(0.219)
$Ln(PositiveNews_{it}) \times Reputation_{it}$	0.486***	0.290*	0.857**	0.301*	0.497**	0.330**	0.308*
	(0.129)	(0.163)	(0.354)	(0.166)	(0.198)	(0.152)	(0.166)
$Reputation_{it}$	0.038	0.026	0.031	–0.011	0.112	0.019	0.025
	(0.050)	(0.075)	(0.167)	(0.074)	(0.258)	(0.076)	(0.073)
$Ln(ShareholderEquity_{it})$	0.273***	0.276**	0.253**	–	0.264***	0.192	0.252***
	(0.050)	(0.112)	(0.119)	–	(0.091)	(0.122)	(0.096)
$Ln(TotalAssets_{it})$	0.028	–0.231***	–0.069	–	0.041	–	–0.120*
	(0.022)	(0.089)	(0.085)	–	(0.055)	–	(0.072)
$Ln(Sales_{it})$	0.018	–0.404**	–0.292**	–	0.003	–0.469***	–0.210**
	(0.102)	(0.175)	(0.124)	–	(0.129)	(0.176)	(0.097)
$Ln(Debt_{it})$	0.141***	0.096	0.094	–	0.142***	0.124	0.13
	(0.046)	(0.159)	(0.119)	–	(0.032)	(0.145)	(0.16)
$IndustryGrowth_{it}$	0.237	0.183**	0.254***	0.198**	0.235**	0.183**	0.199**
	(0.146)	(0.083)	(0.078)	(0.078)	(0.097)	(0.083)	(0.079)

Table 2 (Continued)

	OLS	Main model. GMM	Robustness 1. GMM different lags as instruments	Robustness 2. GMM and lagged control variables	Robustness 3. Simultaneous equations with heteroscedasticity-based instruments	Robustness 4. GMM excluding Total Assets	Robustness 5. GMM excluding Employees
$MarketInstability_{it}$	–0.392*	–0.571***	–0.530***	–0.541**	–0.435**	–0.606***	–0.547***
	(0.200)	(0.198)	(0.167)	(0.217)	(0.212)	(0.198)	(0.18)
$IndustryConcentration_{it}$	–1.076*	–1.755***	–1.314**	–1.816***	–1.095**	–1.817***	–1.690***
	(0.532)	(0.558)	(0.521)	(0.559)	(0.473)	(0.577)	(0.536)
$Ln(Employees_{it})$	–0.168***	0.229	0.035	0.001	–0.163**	0.144	–
	(0.059)	(0.14)	(0.098)	(0.088)	(0.075)	(0.123)	–
$Ln(ShareholderEquity_{it-1})$	–	–	–	0.054	–	–	–
	–	–	–	(0.178)	–	–	–
$Ln(TotalAssets_{it-1})$	–	–	–	–0.026	–	–	–
	–	–	–	(0.118)	–	–	–
$Ln(Sales_{it-1})$	–	–	–	–0.232	–	–	–
	–	–	–	(0.193)	–	–	–
$Ln(Debt_{it-1})$	–	–	–	0.339**	–	–	–
	–	–	–	(0.149)	–	–	–
Observations	331	320	320	320	331	320	320
Company fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of instruments	–	32	32	32	–	31	31
Hansen statistic	–	24.76	25.07	23.98	–	24.63	26.25
Hansen statistic (*p*-value)	–	0.132	0.123	0.156	–	0.135	0.094
AR2	–	–0.188	0.065	–0.721	–	–0.326	–0.538
AR2 (*p*-value)	–	0.851	0.949	0.471	–	0.744	0.59

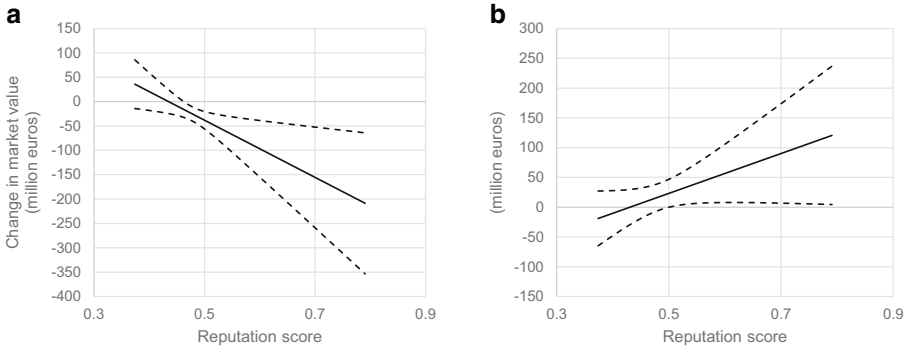
Note 1: The market value logarithm is the dependent variable
Note 2: Standard errors in parentheses
Note 3: To facilitate interpretation, we standardized the interacted variables before creating the interactions

Although we could use all available lags as instruments, this large instrument set would lead to overfitting the endogenous variables. In this case, the endogenous component of the endogenous variables would not be expunged, and the parameters would be biased (Roodman 2009). To avoid the instrument proliferation problem, and as suggested by Roodman (2009), we collapse the instrument matrix and restrict the number of past lags. Specifically, we use market value's lags two to five as instruments for $\Delta\ln(\text{MarketValue}_{it-1})$, and the lags one to four of negative news, positive news, and reputation as instruments for $\Delta\ln(\text{NegativeNews}_{it})$, $\Delta\ln(\text{PositiveNews}_{it})$, and $\Delta\text{Reputation}_{it}$, respectively. We also consider the interactions between mass media news and reputation as endogenous and add their lagged values (one to four) as instruments to the instrument set. As we can see on Table 2, a non-significant Hansen test of overidentifying restrictions supports the null that the instruments are valid ($p > 0.1$). Additionally, a non-significant Arellano-Bond test for the second order differenced error terms (AR2) supports the notion that the error term in Eq. 2 is not autocorrelated ($p > 0.1$). To account for potential problems associated with heteroscedasticity, we used HAC robust standard errors (Hoechle 2007).

4 Results

Table 2 shows the market value equation's results. The second and third columns show the results of using the ordinary least squares (OLS) and GMM estimators, respectively. The results for the focal variables are relatively consistent in terms of statistical significance. In the following discussion, we focus on the GMM estimation results that account for the endogeneity issues we previously discussed.

As expected, at an average value of reputation, negative news' volume has a negative and significant impact on market value ($\beta_2 = -0.619$; $p < 0.01$). We also found



Notes: We define a burst of negative news as an increase in exposure to negative mentions equal to twice its standard deviation (over its mean). Dashed lines denote 95% confidence intervals.

Fig. 2 Effects on Market Value after a Burst in Media Mentions at Different Reputation's Levels. **a** Change in market value due to a burst in exposure to negative mentions. **b** Change in market value due to a burst in exposure to positive mentions

that, at an average value of reputation, positive news' volume has a positive and significant impact on market value ($\beta_4 = 0.529$; $p < 0.05$).

We can further observe that the interaction between negative news and reputation is negative and significant ($\beta_3 = -0.349$; $p < 0.05$), providing evidence for H2a stating that the negative impact of negative news on market value increases in magnitude as reputation increases. Additionally, the interaction between positive news and reputation is positive and significant ($\beta_5 = 0.290$; $p < 0.1$), providing evidence for H2b stating that the positive impact of positive news on market value increases as reputation increases.

To assess the economic impact of our findings, we use the model's results to plot the impact of a burst in mass media news on market value at different levels of corporate reputation. We define a burst in mass media news as an increase of two standard deviations over the average level of mass media mentions received by an average company in a semester. We show the analysis's results in Fig. 2. Panel a shows that negative news' impact on market value becomes more negative when corporate reputation is higher. A burst in negative company's mentions is associated with a reduction of 0.15% (€37.7 M) in the market value of a company with a reputation score of 0.5. However, the same change in mentions leads to a reduction of 0.82% (€208.9 M) in the market value of a company with a reputation score of 0.8.

Panel b shows that positive news' impact on market value becomes more positive when corporate reputation is higher. A burst in positive company's mentions is associated with an increase of 0.09% (€22.9 M) in the market value of a company with a reputation score of 0.5. However, the same change in mentions leads to an increase of 0.47% (€120.5 M) in the market value of a company with a reputation score of 0.8.

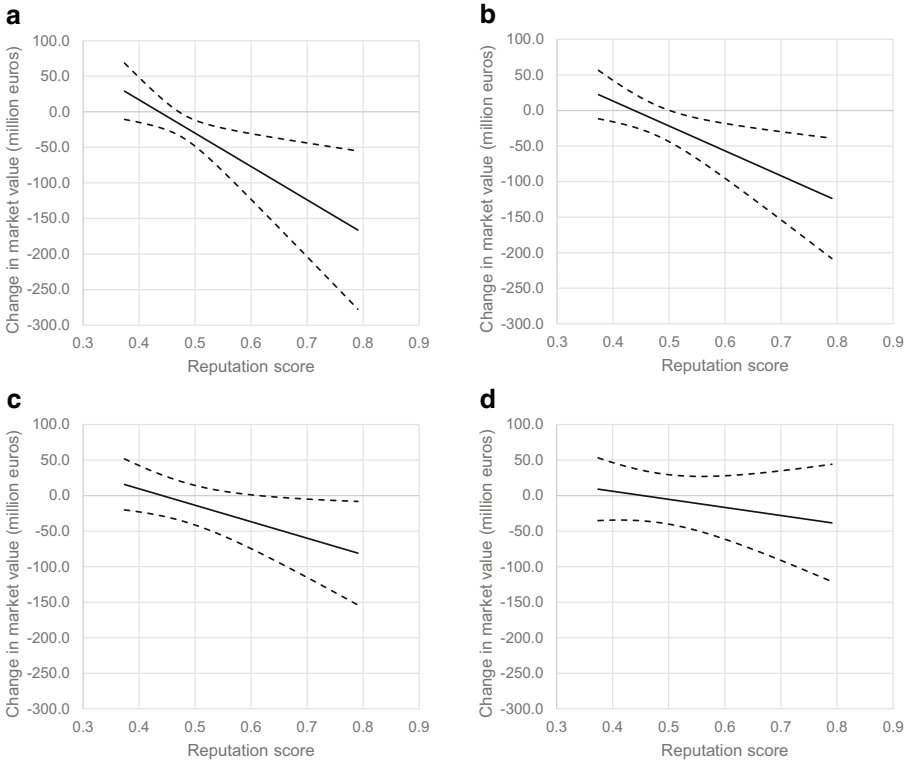
5 Robustness Checks

We run five additional models to assess whether our results are robust to some of our model specification decisions. First, we calculated the model using different lags for the endogenous variables' instruments. Specifically, we use market value's lags three to six as instruments for $\Delta\ln(\text{MarketValue}_{it-1})$, and the lags two to five of negative news, positive news, and reputation as instruments for $\Delta\ln(\text{NegativeNews}_{it})$, $\Delta\ln(\text{PositiveNews}_{it})$, and $\Delta\text{Reputation}_{it}$, respectively. The results on Table 2's fourth column are consistent with our main results. Second, we run the model using lagged values of some of the control variables. The lagged control variables should be more exogenous than their non-lagged values, so this robustness check allow us to assess whether our results are affected by potential endogeneity in the control variables. The results on Table 2's fifth column agree with our main results. Third, we model market value using a system of equations containing also equations for reputation and mass media news. In the system, we modeled market value as a function of news and reputation; reputation, as a function of market value (lagged) and news (lagged); and news (negative and positive) as a function of reputation and market value (both lagged). To identify the system, we used heteroscedasticity-based instruments, which we constructed using the procedure explained in Baum and Lewel

(2019). We estimated the equations simultaneously in line with a Full Information Likelihood (FIML) framework. The results on Table 2's sixth column are in line with our main results (we present the results for the reputation and mass media news equations in Web Appendix A). Finally, the number of employees and total assets are both proxies for firm size. We run our main model excluding each one of them from the model to assess whether our results are sensitive to including them together. The results in Table 2's last two columns confirm that our results are robust to this modelling choice.

6 Using Positive News as a Recovery Strategy

Companies generally use public relations efforts to generate positive news and overcome negative publicity's effects. Analyzing how positive news moderates negative



Notes: We define a burst of negative news as an increase in exposure to negative mentions equal to twice its standard deviation (over its mean). Dashed lines denote 95% confidence intervals.

Fig. 3 Recovery Strategy: Impact of a Burst of Negative News on Market Value at Different Volumes of Exposure to Positive Mentions and at Different Reputation's Levels. **a** Impact of negative news when the proportion of positive to negative news is 25%. **b** Impact of negative news when the proportion of positive to negative news is 50%. **c** Impact of negative news when the proportion of positive to negative news is 75%. **d** Impact of negative news when the proportion of positive to negative news is 100%

news' impact is especially relevant in our analysis, because negative and positive news can coexist during a specific semester. We used our model to simulate different scenarios in order to assess the latter assertion. The first scenario considered a situation where the positive mentions' increase is 25% of the burst of negative mentions. In the second, third, and fourth scenarios, we increased the volume of exposures to positive mentions to 50%, 75%, and 100% of the burst of negative mentions. We show the results in Fig. 3.

Panel a in Fig. 3 shows that when the ratio of positive to negative mentions is 0.25, the burst of negative news' negative impact only represents a decrease of 0.12% in a low-reputation company's market value (reputation = 0.5) and a decrease of 0.65% in a high-reputation company's market value (reputation = 0.8). Panel b shows that the previous effects decrease to respectively, 0.08% and 0.49% when ratio of positive to negative mentions is 0.5. Panel c shows that with an increase in positive mentions equal to 0.75 times the number of negative mentions, the burst in negative news' negative effect still lingers, although it is much less prominent (0.05% and 0.32% for a company with a reputation of 0.5 and 0.8, respectively). Panel d shows that the burst of negative news's negative effect becomes non-significant with a similar increase in positive news.

In summary, our analyses suggest that a recovery strategy based on influencing the media to broadcast positive news helps in reducing the negative impact of negative news. However, this recovery strategy requires extensive positive news coverage to lessen negative news' negative consequences.

7 Mechanism: Prior Knowledge, Prominence, or Favorability?

In the theory section, we suggested that different mechanisms could drive our main results. To empirically identify the relevant mechanism(s), we divided reputation into three components (prominence, prior knowledge, and favorability), using the methodology that Raithel and Schwaiger (2015) proposed (for details please see Web Appendix B). Subsequently, we include the components in the equation:

$$
\begin{aligned}
\ln(\text{MarketValue}_{it}) = {} & \alpha_i + \beta_1 \ln(\text{NegativeNews}_{it}) \\
& + \beta_2 \ln(\text{NegativeNews}_{it})\,\text{Prominence}_{it} + \beta_3 \ln(\text{NegativeNews}_{it})\,\text{PriorKnowledge}_{it} \\
& + \beta 4 \ln(\text{NegativeNews}_{it})\,\text{Favorability}_{it} + \beta_5 \ln(\text{PositiveNews}_{it}) \\
& + \beta_6 \ln(\text{PositiveNews}_{it})\,\text{Prominence}_{it} + \beta_7 \ln(\text{PositiveNews}_{it})\,\text{PriorKnowledge}_{it} \\
& + \beta_8 \ln(\text{PositiveNews}_{it})\,\text{Favorability}_{it} + \beta_9 \text{Prominence}_{it} + \beta_{10} \text{PriorKnowledge}_{it} \\
& + \beta_{11}\,\text{Favorability}_{it} + \beta_{12} \ln(\text{ShareholderEquity}_{it}) + \beta_{13} \ln(\text{TotalAssets}_{it}) \\
& + \beta_{14} \ln(\text{Sales}_{it}) + \beta_{15} \ln(\text{Debt}_{it}) + \beta_{16} \text{IndustryGrowth}_{it} + \beta_{17} \text{MarketInstability}_{it} \\
& + \beta_{18} \text{IndustryConcentration}_{it} + \beta_{19} \ln(\text{Employees}_{it}) + \beta_{20} \ln(\text{MarketValue}_{it-1}) \\
& + \varepsilon_{it}
\end{aligned}
\tag{3}
$$

Table 3 Models to Explain the Reputation Components that Amplify Mass Media News' Impact on Market Value

	Model 1. Prominence	Model 2. Knowledge	Model 3. Favorability	Model 4. Full model
$Ln(MarketValue_{it-1})$	0.767***	0.799***	0.699***	0.806***
	(0.148)	(0.150)	(0.135)	(0.213)
$Ln(NegativeNews_{it})$	–0.650**	–0.512**	–0.557***	–0.704**
	(0.288)	(0.254)	(0.190)	(0.340)
$Ln(NegativeNews_{it}) \times Prominence_{it}$	0.334*	–	–	0.162
	(0.182)	–	–	(0.258)
$Ln(NegativeNews_{it}) \times Prior\ knowledge_{it}$	–	–0.253**	–	0.114
	–	(0.108)	–	(0.221)
$Ln(NegativeNews_{it}) \times Favorability_{it}$	–	–	–0.369**	–0.473**
	–	–	(0.151)	(0.237)
$Ln(PositiveNews_{it})$	0.377	0.201	0.462**	0.401
	(0.329)	(0.290)	(0.220)	(0.377)
$Ln(PositiveNews_{it}) \times Prominence_{it}$	–0.161	–	–	0.203
	(0.230)	–	–	(0.287)
$Ln(PositiveNews_{it}) \times Prior\ knowledge_{it}$	–	0.022	–	–0.086
	–	(0.147)	–	(0.165)
$Ln(PositiveNews_{it}) \times Favorability_{it}$	–	–	0.237	0.662**
	–	–	(0.184)	(0.274)
$Prominence_{it}$	–0.025	–	–	–0.092*
	(0.035)	–	–	(0.051)
$Prior\ knowledge_{it}$	–	–0.053	–	0.081
	–	(0.047)	–	(0.067)
$Favorability_{it}$	–	–	–0.087	0.054
	–	–	(0.067)	(0.092)

Table 3 (Continued)

	Model 1. Prominence	Model 2. Knowledge	Model 3. Favorability	Model 4. Full model
$Ln(ShareholderEquity_{it-1})$	0.236**	0.303***	0.230**	0.314**
	(0.117)	(0.113)	(0.109)	(0.129)
$Ln(TotalAssets_{it-1})$	–0.169**	–0.253***	–0.197**	–0.171*
	(0.080)	(0.086)	(0.077)	(0.103)
$Ln(Sales_{it-1})$	–0.293	–0.354*	–0.283	–0.326*
	(0.182)	(0.197)	(0.177)	(0.176)
$Ln(Debt_{it-1})$	0.093	0.044	0.107	–0.002
	(0.144)	(0.157)	(0.140)	(0.073)
$IndustryGrowth_{it}$	0.200**	0.185**	0.221***	0.206**
	(0.090)	(0.091)	(0.081)	(0.105)
$MarketInstability_{it}$	–0.527***	–0.576***	–0.569***	–0.530***
	(0.180)	(0.186)	(0.215)	(0.190)
$IndustryConcentration_{it}$	–1.706***	–1.785***	–1.704***	–1.652***
	(0.462)	(0.533)	(0.545)	(0.573)
$Ln(Employees_{it})$	0.087	0.181	0.150	0.143
	(0.138)	(0.154)	(0.135)	(0.128)
Observations	320	320	320	320
Company fixed effects	Yes	Yes	Yes	Yes
Number of instruments	32	32	32	32
Hansen statistic	27.52	26.30	23.99	18.34
Hansen statistic (*p*-value)	0.070	0.093	0.155	0.106
AR2	–1.093	–0.624	0.028	–0.918
AR2 (*p*-value)	0.274	0.533	0.977	0.359

Note 1: The market value logarithm is the dependent variable. Standard errors in parentheses
Note 2: Standard errors in parentheses
Note 3: To facilitate interpretation, we standardized the interacted variables before creating the interactions
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

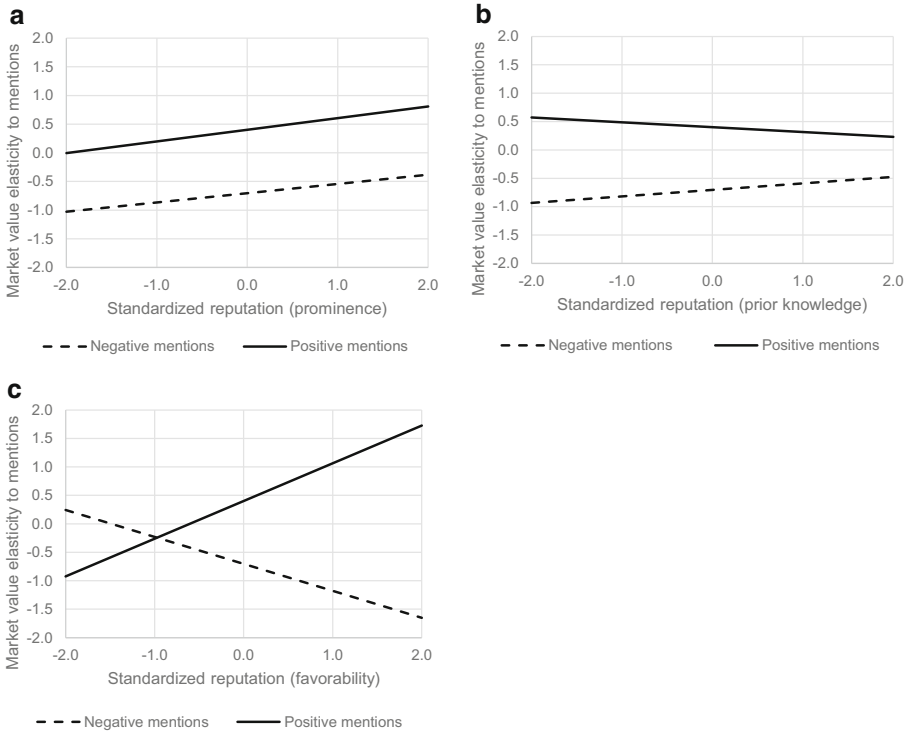


Fig. 4 Elasticity of Market Value to Media Mentions at Different Levels of Reputation's Components. **a** Moderating effect of the "prominence" component of reputation. **b** Moderating effect of the "prior knowledge" component of reputation. **c** Moderating effect of the "favorability" component of reputation

To account for the endogeneity of the lagged dependent variable and the reputational components, we use the GMM estimator introduced before. The results of the full model (in Table 3), which includes all the reputation components' moderating effects, support the idea that favorability is the reputation component driving the impact of mass media news on market value. This model's results show that negative news' negative effect becomes significantly more negative when companies' favorability increases ($\beta_4 = -0.473$; $p < 0.05$). In addition, the positive news' positive effect becomes significantly more positive when companies' favorability increases ($\beta_8 = 0.662$; $p < 0.05$). The coefficients for the interactions between news and prominence, and between news and prior knowledge are not significant. This suggests that reputation's favorability component mostly drives corporate reputation's amplifying effect on mass media news' impact on market value.

To examine the different components' moderating effects on the news' impact on market value, we plotted the elasticity of market value with respect to media mentions at different reputational component levels.[5] Panels a, b, and c in Fig. 4

[5] According to Eq. 3, the elasticity of market value with respect to negative and positive mass media mentions is respectively given by (Guitart and Stremersch 2021): (4) η_{it} = d(ln(MarketValue$_{it}$)) /

show the respective effects of the prominence, prior knowledge, and favorability components. By comparing the different panels, we observed that favorability's effect (slope) on the market value elasticity to mentions is stronger than that of prior knowledge and prominence. This analysis provides visual confirmation that reputation's favorability component drives reputation' amplifying effect of on mass media news' impact on market value.

8 Discussion and Managerial Implications

8.1 Discussion

How does corporate reputation moderate positive and negative mass media news' effects on market value? There are compelling theoretical arguments supporting that corporate reputation can either reduce or amplify these effects. In this paper, we provide empirical evidence showing that corporate reputation amplifies both negative and positive mass media news' effect on market value. In addition, we provide empirical evidence of the mechanism behind this amplifying effect. This study, therefore, identifies a meaningful boundary condition for mass media news' effect on market value and sheds light on the reasons for corporate reputation moderating this effect. This study also responds to a call for research to examine the contingencies related to reputation in management research (George et al. 2016), and contributes to the literature by providing insights into how the interaction between corporate reputation and news affects investors' reactions.

Our results suggest that negative news has a more negative effect on higher-reputation companies, and that an expectancy violation mechanism drives this effect. Reputations help determine the public's expectations about companies' future behavior, and violations of these expectations should lead to stronger public reactions (Burgoon and Le Poire 1993; Mishina et al. 2010; Rhee and Haunschild 2006). Since investors expect higher-reputation firms to behave in a more socially desirable manner (compared to lower-reputation firms), negative news leads to larger decreases higher-reputation companies' market value. Investors may surmise that high-reputation firms have more to lose in terms of their intangible assets, such as their brand loyalty and brand equity, and may therefore suffer more in terms of their future profitability. This finding shows that reputation might be a double-edged sword and, therefore, higher-reputation companies should set an example and behave in a responsible manner in order to meet stakeholders' expectations and avoid negative media attention.

Our results also suggest that positive news has a more positive effect on higher-reputation companies than on those with lower reputations. Furthermore, our analysis reveals that reputation's favorability component drives the previous conclusion, which is in line with the idea that investors are likely to consider positive news about companies they like more than they do with that of companies they do not

$d(\ln(\text{NegativeNews}_{it})) = \beta_1 + \beta_2\ \text{Prominence}_{it} + \beta_3\ \text{PriorKnowledge}_{it} + \beta_4\ \text{Favorability}_{it}$, (5) $\eta_{it} = d(\ln(\text{MarketValue}_{it})) / d(\ln(\text{PositiveNews}_{it})) = \beta_5 + \beta_6\ \text{Prominence}_{it} + \beta_7\ \text{PriorKnowledge}_{it} + \beta_8\ \text{Favorability}_{it}$.

like. This supports research showing that relevant information's processing, recall, and credibility increase when the congruence between the attitudes and the information increases (Judd and Kulik 1980; White et al. 2003). Consequently, our results suggest that the interaction between positive attitudes and positive news seems to boost investors' confidence in a company's future financial performance, which leads to increases in a company's value.

Finally, our analyses also help broaden our understanding of recovery strategies based on positive news' release. Our results suggest that using positive news is an effective strategy to lessen unexpected negative news' negative impact on market value. However, even at high volumes of exposure to positive information, negative news' effect still lingers. Since the latter effect is hard to change, our results again imply that firms should do their best to comply with institutional norms in order to avoid negative publicity. Based on our results, we also recommend managers to engage in exchanges with the media in order to obtain positive news coverage after an unexpected news crisis.

8.2 Implications for Practitioners

Our results also have implications for managers. First, they suggest that high-reputation companies may need greater efforts (e.g., higher budgets) to lessen negative news' negative financial consequences. An alternative to keep negative news' effects under control could be to hire investor relations firms (Solomon 2012). Companies could also try to strengthen their relationships with media outlets by, for instance, engaging in commercial relationships (e.g., advertising) (Stäbler and Fischer 2020), using press releases to influence the information journalists have about the company (Petkova et al. 2013; Rindova et al. 2006), or by having managers engage directly in relationships with journalists with the aim of providing information that is positive for the company and relevant to the different media outlets' audiences. Higher-reputation firms should also try to be more proactive regarding avoiding negative news than lower-reputation companies. They could achieve this by, for instance, designing clear codes of conduct for their employees, ensuring that their employees are familiar with this code, and regularly promoting the code within the organization.

Our results also provide recommendations for investors. Given that news' impact depends on a company's reputation, investors might benefit from tracking the reputations of the companies in their portfolios, and considering these when making a news-triggered purchase or selling decision. Since reputational information is relevant for investors, it might also be convenient for companies to provide this information in their investor reports.

Finally, our results suggest that the resources that companies allocate to the media's management should change, depending on their reputation. When companies grow their reputations, they should reduce their investments in generating positive news, because, as their reputation grows, a smaller number of news will lead to a positive effect of the same magnitude on market value. However, as their reputation grows, companies should also prepare to allocate larger amounts of resources in order to mitigate negative news' negative effect. Managers should therefore constantly monitor their corporate reputations and update their contingency plans accordingly.

8.3 Limitations and Future Research

We discuss this research's limitations next. First, our empirical analysis is based on a sample of large publicly traded companies with medium to high reputations. As such, our findings might change if we include low-reputation companies in our analysis; consequently, investors should exercise caution when extrapolating our results to such companies. Future research could also extend our study's scope to low-reputation companies.

Second, we find that favorability is the main driver of our results (as compared to salience and prior knowledge). This result might be driven by our sample of large publicly traded companies. Blue chip companies are well-known companies, so information provision intensity (salience) and stakeholders' prior knowledge might not vary much during our period of analysis. Future research could explore if our findings generalize to smaller companies.

Third, in this research we do not investigate how reputation affects the duration of news' effects on market value. Higher-reputation companies might recover faster from negative news' negative effects than lower-reputation ones. Future research could try to assess if this is the case or not. We hope that this study spurs further interest in the interaction between mass media and reputation's different dimensions.

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