

Klein, Sascha P.; Spieth, Patrick; Ricart, Joan Enric; Noble, Charles H.

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How media coverage elicits strategic change: The moderating role of the business model design

Sascha P. Klein¹ | Patrick Spieth²  | Joan Enric Ricart³ | Charles H. Noble⁴

¹University of Vechta, Vechta, Germany

²University of Kassel, Kassel, Germany

³IESE Business School, University of Navarra, Barcelona, Spain

⁴Haslam College of Business, The University of Tennessee, Knoxville, Tennessee, USA

Correspondence

Patrick Spieth, University of Kassel,
Nora-Platiel-Str. 4, 34109 Kassel,
Germany.
Email: spieth@uni-kassel.de

Abstract

Research Summary: Prior research indicates that negative media coverage of business activities encourages a firm to engage in strategic change, but the conditions for this strategic focus have drawn less scholarly attention. Considering a firm's business model design (BMD) with distinct sources for value creation, we argue that the effect of negative media coverage on strategic change is contingent on the BMD. An analysis of longitudinal data from 96 established firms shows that novelty-centered BMDs reduce strategic change in response to negative media coverage. We contribute to research regarding strategic change in response to outside evaluations by explaining an important contingent factor related to strategy. We also expand on previous research indicating that managerial behaviors and attributes moderate the main effect of negative media coverage and provide a more nuanced understanding of this effect from a business model perspective.

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Managerial Summary: Our study explores how negative media coverage affects strategic changes in large firms, focusing on the role of the BMD. We found that firms with a novelty-centered BMD prioritizing innovation are less likely to alter their strategies in response to negative media coverage, suggesting that these firms are confident in their innovative approaches despite external criticism. Conversely, efficiency-centered BMDs, which focus on operational efficiency, did not show a meaningful moderating effect. For managers, this implies that firms with innovation-oriented business models may need less frequent strategic adjustments in the face of negative media. However, they should still communicate strategically to address potential long-term reputational risks.

KEYWORDS

business model design, innovation, media coverage, panel data, strategic change

1 | INTRODUCTION

In response to negative media reports (Deephhouse, 2000), firms frequently engage in strategic change—that is, discrete changes to the content and scope of their current strategy (Herrmann & Nadkarni, 2014), to build or maintain legitimacy (Bednar et al., 2013). For instance, Bayer (2019), facing extensive media criticism in 2018 for its acquisition of Monsanto, responded by announcing a 5 billion-euro investment in the development of sustainable alternatives to glyphosate. Researchers have confirmed this relationship between media reports and business strategies with empirical insights (Bednar et al., 2013; Gamache & McNamara, 2019; Graf-Vlachy et al., 2020). Moreover, prior studies drawing from insights into performance feedback based on the behavioral theory of the firm (Cyert & March, 1963; Gavetti et al., 2012; Greve, 1998) have focused primarily on managerial attributes such as CEO age or aspects of tenure and cognition such as a CEO's temporal focus (Gamache & McNamara, 2019) as moderators of the strategic response to negative media coverage. Given this well-established relationship between negative media coverage and strategic change, we have some understanding of how differences in competitive strategies affect this link, primarily through the cognitive view that strategies represent how executives “see the world” (Mintzberg, 1987). Because a competitive strategy aims to increase long-term performance, and negative media coverage might threaten organizational legitimacy and performance, we deem this interrelationship to be a promising research opportunity to expand the considered set of influential factors.

Because prior researchers have typically focused on managerial attributes as drivers of strategic change, accounting for firms' different business model design (BMD) activities can extend knowledge in this field. Therefore, we investigated the moderating influence of a firm's BMD on the relationship between negative media coverage and strategic change. Here, the business

model concept might extend our understanding of the antecedents of strategic change, comprising the boundary-spanning system of activities for creating and capturing value and highlighting the activities' interdependencies (Amit & Zott, 2001; Zott & Amit, 2007). In contrast to a planned strategy, a firm's business model reflects a realized strategy based on actual, observable choices made by strategic leaders (Casadesus-Masanell & Ricart, 2010). Thus, the strategy and the business model can be different (Leppänen et al., 2023), and two firms with similar product market strategies can compete with different BMDs (Zott & Amit, 2008).

In this study, we consider novelty-centered BMDs (creating value from innovation) and efficiency-centered BMDs (creating value from efficiency) that determine the interdependence of activities with customers, partners, and other stakeholders (Amit & Zott, 2015). Because media coverage influences how stakeholders view a focal firm (Pollock & Rindova, 2003), negative media coverage can damage a firm's perceived legitimacy. Such challenges to its legitimacy can adversely affect a firm's access to resources and contract terms with exchange partners (Deephouse, 1999). The BMD represents the value creation sources underlying a firm's competitive advantage (Zott & Amit, 2008). We argue that the BMD reflects the extent to which a firm favors differentiation over legitimacy as a strategy for gaining a competitive advantage (Deephouse, 1999). We argue that the importance of building legitimacy in response to negative media coverage relies on the BMD for creating and capturing value effectively.

Our quantitative study of large multinational companies makes important contributions to the research by clarifying the effects of media coverage on performance feedback (Graf-Vlachy et al., 2020). First, we demonstrate that the effect of negative media coverage on strategic change is contingent on a firm's BMD. We extend prior research that found that managerial and behavioral attributes moderate the effect of negative media coverage on strategic change (Bednar et al., 2013; Gamache & McNamara, 2019). We provide a more nuanced perspective on this effect, considering that firms compete with different strategies with variable mitigating effects. Consistent with our expectations, the empirical data support the moderating effect of novelty-centered BMDs—that is, the marginal effect of negative media coverage meaningfully decreases with an increasingly novel BMD. Furthermore, the results do not show a meaningful effect for the efficiency-centered BMD, suggesting that the moderating influence of BMDs on the marginal effect of negative media coverage stems from their novelty.

Given these results, we add to the discussion of the complex interaction of drivers that foster strategic change, providing evidence that the BMD explains the heterogeneity in responses to negative media coverage beyond managerial attributes. We extend the prior findings of Bednar et al. (2013) and Shipilov et al. (2019) on the influence of negative media coverage on strategic change and the literature regarding drivers of strategic change in general, using a new BMD-based perspective that explains heterogeneous reactions.

2 | LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1 | Negative media coverage and strategic change

In this study, we focus on strategic change initiation (hereafter “strategic change”), defined as “discrete changes in the content and scope of a firm's existing strategies in response to environmental changes” (Herrmann & Nadkarni, 2014, p. 1320), as the firm aims for alignment with its external environment. We view *strategy* as a pattern of decisions and actions observable across



different functions like marketing or R&D (Geletkanycz & Hambrick, 1997). A general conclusion from strategy research is that executives prefer persistence in strategy, especially when the firm is performing well (Greve, 1998). Despite different internal events like CEO turnover or succession that cause strategic change, external constituents' assessments of firm behavior, which are often reflected in the tone of a firm's media coverage (Rowley et al., 2017), also influence strategic change.

The media reflects the social expectations and external evaluations of firms (Deephouse, 2000), creating a platform for outside constituents to influence firm behavior (Bednar et al., 2013) and evaluate the legitimacy of a firm (Pollock & Rindova, 2003), defined as the "generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within a social system" (Suchman, 1995, p. 574). Organizations usually favor persistence in times of high legitimacy and good performance and react with strategic change in times of weakened legitimacy due to negative media coverage (Bednar, 2012). Negative media coverage highlights issues, including disagreement with a firm's activities (Desai, 2014). To build legitimacy, firms need to demonstrate actions and produce concrete outcomes visible to outside evaluators. At the same time, executives might fear negative consequences such as losing their good reputation and future employment opportunities. Therefore, executives' characteristics shape the extent of strategic change in response to negative media. For instance, CEO narcissism has been shown to increase risk-taking behavior (Chatterjee & Hambrick, 2011), whereas a CEO's temporal focus on the past, present, or future when making decisions also shapes their reaction to negative media coverage (Gamache & McNamara, 2019). In sum, the behavioral theory of the firm explains the influence of negative media coverage on strategic change (Cyert & March, 1963; Gavetti et al., 2012), and is well supported by empirical studies (e.g., Bednar et al., 2013; Gamache & McNamara, 2019; Shipilov et al., 2019). For an excellent review of media coverage and firm behavior, please see Graf-Vlachy et al. (2020).

2.2 | Moderating effect of the BMD

As firms select strategies for future success (Deephouse, 1999), strategic configurations can build on diverse value sources to create a competitive advantage that manifests in the BMD (Zott & Amit, 2008). Hence, two firms might compete with similar product market strategies but can do this with different BMDs (Massa et al., 2017; Zott & Amit, 2008). Amit and Zott (2001) found that firms can create new value from different sources by the way they enable transactions. The authors define a BMD as a depiction of "the content, structure, and governance of transactions designed" (p. 511). Our argument for this moderating effect primarily rests on a firm's specific emphasis on repairing its legitimacy in response to negative media coverage (i.e., legitimacy threats), which we propose differs among BMDs.

The BMD emphasizes interdependencies among a focal firm, partners, customers, and other stakeholders relevant to value creation and capture (Leppänen et al., 2023). Firms differ in their activities and sources of value creation and capture and the ways these are connected, resulting in different BMD themes (Zott & Amit, 2007). Amit and Zott (2001) identified four BMD themes that connect and coordinate the elements of an activity system but are not mutually exclusive (Leppänen et al., 2023): novelty, efficiency, lock-in, and complementarities. We focus on the two design themes that influence performance the most: novelty-centered and efficiency-centered (Massa et al., 2017; Zott & Amit, 2007, 2008). Past research suggests that novelty-centered BMDs in particular increase the performance of new ventures

(Zott & Amit, 2007) and enable firms to generate high-performance output with various product market strategies (Zott & Amit, 2008). Recently, Leppänen et al. (2023) found that a novel BMD alone is not sufficient for high performance, although it is especially effective in combination with efficiency and a differentiation strategy in competitive industries, pointing to the fit between BMD activities and strategy as the key driver of performance (Snihur & Eisenhardt, 2022).

According to Zott and Amit (2007), a novelty-centered BMD aims to find and adopt new approaches to economic transactions, fostering a logic of value creation through innovation by connecting previously unconnected parties and reorganizing the links between activities or by designing new activities, enabling firms to create novel value offerings (Casadesus-Masanell & Zhu, 2013). A prominent example of a novelty-centered BMD in the movie rental business is Netflix, which introduced novel content by shipping DVDs, novel governance by becoming a new partner for DVD delivery, and new structure by enabling online orders (Snihur & Zott, 2020). Similarly, Netflix later introduced novel content, structure, and governance with their streaming offerings and movie productions. With such innovations, firms compete through differentiation (Deephouse, 1999) and strive to gain a unique competitive position (Navis & Glynn, 2011) via superior customer value (Leppänen et al., 2023). Highly distinct firms sacrifice legitimacy for reduced competition, which can increase performance (McNamara et al., 2003). Consequently, we argue that firms that use new BMDs as their primary value driver are less concerned about “correcting” their actions in response to negative media coverage.

Thus, we propose that novelty-seeking BMDs reduce the influence of negative media coverage on the extent of strategic change for two reasons. First, competition in general and competition for resources in particular are lower for differentiated firms (Deephouse, 1999). In turn, these firms are less likely to be concerned about negative media coverage because it does not threaten their primary source of value creation or the effective execution of the BMD's transactions. Consequently, novelty-based value creation logic fosters deviation from rather than conformity to industry norms. A “correction” primarily aims at reducing risks and rectifying prior wrongdoing (Bednar et al., 2013), which is not the primary strategic target of novelty-based BMDs (Zott & Amit, 2007) because constant innovation and novel activities require risky strategic decisions. Thus, negative media coverage might even strengthen perceptions of a focal firm's distinctiveness when it does not conform to expectations.

Second, a focal firm's executives might interpret negative media coverage as a confirmation of their differentiation, because the media does not acknowledge the firm's vision or understand the novelty of the focal firm's activities. Thus, they might not interpret negative media coverage as a failure needing mitigation because they are confident in choosing a superior BMD. For instance, after several media outlets negatively reported on Tesla in 2018 concerning workplace conditions and autopilot crashes, Tesla CEO Elon Musk attacked the media with several posts on Twitter (now X), questioning their integrity and motivation (The New York Times, 2018). For instance, on May 23, 2018, he wrote: “The holier-than-thou hypocrisy of big media companies who lay claim to the truth, but publish only enough to sugarcoat the lie, is why the public no longer respects them” (@elonmusk). Although this is an extreme example, it bolsters the argument that changing the strategy is not a likely response for a firm with a novelty-oriented BMD when facing negative media coverage. There are even prominent examples of companies resisting the media's negative reporting about novelty (e.g., Lee Iacocca's championing of Chrysler's minivans and Elon Musk's championing the return of electric cars). Therefore, we hypothesize the following:



Hypothesis 1. The effect of negative media coverage on the extent of strategic change will be weaker for firms with a novelty-centered business model.

In contrast to a novelty-based BMD, the efficiency-centered BMD aims less for innovation than for emulating other firms by imitating existing BMDs, but in a more efficient way (Amit & Zott, 2001; Zott & Amit, 2007). Rooted in transaction cost theory (Williamson, 1979), efficiency-centered BMDs aim to increase the activity system's efficiency by reducing the transaction costs for their participants (Zott & Amit, 2007). This reduction of transaction costs may result from the reduced complexity and transaction risk achieved by lowering information asymmetry (Wei et al., 2014). For example, digital platforms like Amazon reduce information asymmetries and enhance transaction transparency with order-tracking features and price comparisons. Exhibiting another form of efficiency-based BMD, Ryanair imitates the business model of established airlines but drops certain services (e.g., onboard catering and seat assignment) to increase operational efficiency. Consequently, this logic determines the adoption of certain activities such as developing routines, speeding up transactions, and reducing inventory costs to maximize performance (Amit & Zott, 2001; Zott & Amit, 2007). Efficiency-centered BMDs allow for demand aggregation and scalability and address a large pool of customers.

We argue that all these characteristics in efficiency-centered BMDs point toward the high relevance of building legitimacy to successfully create value. As firms with efficiency-centered BMDs imitate existing business models, they are likely to face high levels of competition (Deephouse, 1999). In such a context, legitimacy represents a decisive strategic asset influenced by the media (Pollock & Rindova, 2003). Deephouse (1999) outlines two implications associated with legitimacy challenges: first, the firm's acceptance by potential exchange partners and access to resources may be challenged; and second, less favorable contract terms with exchange partners may result. Having access to resources and favorable contract terms between exchange partners is essential for efficiency-centered BMDs, because the value logic of efficiency primarily emphasizes the reduction of transaction costs (Zott & Amit, 2008). Hence, the contract terms with exchange partners decisively contribute to this objective. However, legitimacy challenges increase transaction costs because exchange partners may request higher risk premiums, whereas trust between exchange partners lowers the cost of transactions (Williamson, 1979). Negative media coverage creates a risk of reducing a firm's performance because they might fail to deliver the value proposition associated with this BMD. By meeting expectations, firms reduce risk and support the organization's long-term survival (Deephouse, 2000). Consequently, a firm with an efficiency-centered BMD will likely strive to correct actions when facing negative media coverage, resulting in strategic change:

Hypothesis 2. The effect of negative media coverage on the extent of strategic change will be stronger for firms with an efficiency-centered business model.

3 | DATA AND METHODS

3.1 | Sample and data collection

We applied a quantitative approach by assessing secondary data for publicly traded firms to examine the research question. To test the hypotheses, we investigated the BMDs of large

multinational firms from Germany and the United States with available archival data. Thus, we identified and selected 102 companies from the German stock exchange (DAX, MDAX, and TecDAX) and the S&P 500 based on their BMDs. In line with Zott and Amit (2007), we chose firms with significant media coverage, archival data, and BMDs that generate revenues at least partly from the internet because the scale was developed for those settings. We collected data from 2015 to 2019 to analyze temporal effects, using the LexisNexis database to identify media articles. To measure strategic change, we relied on data retrieved from RavenPack News Analytics (Connelly et al., 2017). We collected information on firm age, CEO turnover, CEO tenure, and other required information for the assessment of the BMD from the company's websites, annual reports, and other company documents. At the same time, we used data from COMPUSTAT for the financial control variables. We needed to exclude six firms from the sample due to a lack of media and RavenPack coverage or missing data. This resulted in 96 firms and $n = 384$ observations from lagging the independent variables.

3.2 | Dependent variable

The dependent variable *strategic change* is the extent of change in a firm's strategy over time (Finkelstein & Hambrick, 1990), with strategy consisting of patterns of decisions made and actions taken (Mintzberg, 1978). Although prior researchers have examined the change in resource allocation patterns of firms as a form of strategic change (Bednar et al., 2013; Crossland et al., 2014), these measurements rely on ratios like change in R&D intensity (R&D expenditures and sales). Because ratios can bias estimations (Certo et al., 2020), we chose to rely on an established measurement that accounts for competitive actions decided by managers (Connelly et al., 2017; Ndofor et al., 2011). Competitive actions are "externally directed, specific, and observable newly created moves initiated by a firm to enhance its competitive position" (Ferrier et al., 1999, p. 378). From the range of competitive actions, we chose those likely to be associated with a response to media coverage: new product introductions, capacity-related actions, promotional actions, pricing actions, acquisitions, strategic alliances, market expansions, and legal actions (Connelly et al., 2017). To identify these actions, we relied on the RavenPack News Analytics database, which scans more than 22,000 newswires for competitive actions and uses an algorithm to classify these articles (for a detailed description, see Connelly et al., 2017).

In line with Connelly et al. (2017), we created a measure of change in strategic actions, capturing the difference between the firm's strategic actions in the focal year and the prior year. For calculation, we used the Euclidean distance between the strategic actions of 2 years:

$$D_{(t-1)t} = \text{SQRT} \left[(A1_{(t-1)} - A1_t)^2 + (A2_{(t-1)} - A2_t)^2 \dots (A8_{(t-1)} - A8_t)^2 \right],$$

where A1–A8 represent the number of actions in each category. In sum, the Euclidian distance (ED) captures the change of strategic actions—that is, how much the actions from the prior year repeat in the focal year. We standardized the measures and winsorized the dependent variable at the 99% and 1% levels to mitigate the potential influence of outliers (Certo et al., 2020).



3.3 | Explanatory variables

For analyzing media coverage for the sample firms, we gathered articles in a leading daily paper (*Die Welt*) and two leading business papers (*Handelsblatt* and *Manager Magazin*) from Germany and from several news and business papers in the United States (*The New York Times*, *Forbes*, *Los Angeles Times*, *Washington Post*, and *Financial Times*¹). With their focus on business news, these sources are essential references for managers collecting information on the business environment. Thus, we assume these newspapers represent suitable data sources for this study. We used the company's name and the “company search” feature in LexisNexis to identify and extract relevant full-text articles. Furthermore, we included only articles that mentioned the firm in the title, headline, or leading paragraphs and excluded articles with fewer than 50 words. This procedure ensured that only relevant and significant content related to the firms was captured. In sum, we identified 31,970 articles that fulfilled the search criteria.

In preparation for the analysis, we converted each article into a single text file for processing and analyzed the reports with the Linguistic Inquiry Word Count 2015 software (LIWC2015).² The software calculates a score for negative emotion in each article. We calculated this score from the extent (percentage) of negative emotional words (as included in the corresponding dictionaries) that each article contains. Subsequently, we took the average of all articles for each firm and year to estimate the overall evaluation of firms by the media within a year.

For assessing BMDs, an academic expert on BMDs and one of the authors trained MBA students (July–August 2020) to evaluate novelty-centered and efficiency-centered BMDs using the scale suggested by Zott and Amit (2007). The scale (Table A1) includes different items that need to be assessed on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). The academic experts on BMDs interviewed the students to test and select the most qualified student raters from a large pool of students, then trained the selected students prior to assessment (Zott & Amit, 2007, 2008). This procedure ensured the appropriateness of the raters. Thus, the selected MBA students who were unfamiliar with the hypothesized relationships searched for and analyzed secondary data sources such as annual reports and websites to familiarize themselves with and assess the BMDs. After understanding a firm's BMD comprehensively, the raters completed each assigned firm's survey items. During the assessment, the academic expert assisted in answering questions but never participated in the rating procedure. All in all, we selected 13 raters for the evaluation. For reliability reasons, we randomly assigned BMDs to two raters to compare the raters' assessments. We validated inter-rater reliability by comparing ratings pair-wise, yielding a Pearson correlation coefficient of 0.64, similar to the ratings of prior studies (Zott & Amit, 2008). We validated and assessed the internal consistency of each subscale using Cronbach's alpha, which was .755 for the scale for the efficiency-centered BMD and .816 for the novelty-centered BMD. Thus, both scales showed appropriate internal consistency. For

¹Although the *Financial Times* is published in London, it is a widely recognized business paper among US executives.

²The software, developed by Pennebaker et al. (2001) and improved by Pennebaker et al. (2015), relies on specific dictionaries to measure different constructs. We used the negative emotion dictionary to measure negative media coverage and the positive emotion dictionary for the positive media coverage variable (Bednar, 2012). For instance, the positive emotion dictionary comprises 620 different words, whereas the negative emotion dictionary includes 744 words (Pennebaker et al., 2015). The LIWC dictionaries have been validated by researchers and translated into German (see <http://liwc.wpengine.com> for further information on the internal and external validity of the dictionaries used by LIWC).

all firms in the final sample, the raters recognized continuity in their BMDs, indicated by a lack of significant alterations.³

3.4 | Control variables

We included several control variables that could influence strategic change. We used LIWC's positive emotion dictionary to control for *positive media coverage*. We controlled for *firm size* (log of employees) because large companies generally receive more media attention. Therefore, we also controlled for *total media coverage* (articles per firm per year). This accounts for the media coverage imbalances between more and less publicly salient firms. Research suggests that the CEO influences strategic decisions and change. Thus, we controlled for *CEO turnover* because new executives might implement strategic actions to demonstrate willingness to shape the organization (Bednar et al., 2013). We measured CEO turnover in the prior year with a binary variable. *CEO tenure* (measured as the number of years the current CEO had been in office) influences the propensity for strategic change because CEOs tend to prefer the status quo the longer they hold the position (Bednar et al., 2013). Furthermore, we controlled for *CEO's temporal focus*, which influences how CEOs react to media reports (Gamache & McNamara, 2019). An executive's temporal focus refers to their attention to the past, present, and future and has been shown to influence their focus and interpretation of media coverage (Shipp & Cole, 2015).⁴ We controlled for *firm performance* (ROA),⁵ influencing reactions to performance feedback (Bednar et al., 2013) and for *resource slack*, which was measured as cash and short-term securities divided by gross assets in the prior year (Souder & Bromiley, 2012). We included year dummies for macroeconomic conditions and industry dummies to control for *industry differences*. Although we included multinational firms with headquarters in “Western” environments, we controlled for the country.

3.5 | Analysis

Given the diverse variables (time-varying, time-invariant, continuous, and binary), we tested the hypotheses using generalized estimating equations (GEEs; Liang & Zeger, 1986). The GEE model produces efficient and unbiased regression estimates (Ballinger, 2004) and controls for autocorrelation and heteroscedasticity (Fitzmaurice et al., 2011). The GEE regression model measures within- and between-firm variance while generating robust estimates of standard

³The raters thoroughly verified that the BMDs did not substantially change within the time frame of our research. This does not mean that the specific activities within the business model did not change. However, the design of these activities—whether novel or efficient—represents the value drivers of the business model, which did not substantially change. For instance, although Netflix changed the specific activities within its business model (as explained in the example above), the extent of novelty in the design did not substantially change, because the activities were still designed to be novel. Because the sample consisted of incumbent firms with established BMDs, the empirical observations are also in line with theoretical arguments that incumbents often struggle to change well-designed business models.

⁴We collected letters to shareholders for each CEO per firm. We analyzed the past, present, and future focus with a dictionary using LIWC 2022 software, resulting in a score per CEO per year. We similarly controlled for a CEO's cognitive insight language (i.e., cognitive processing of information; Pennebaker et al., 2015).

⁵We also calculated the models with different control variables for past performance like ROE and ROI and for firm size. These models also provided consistent results, which are available upon request from the authors.



errors (Fitzmaurice et al., 2011). We specified the models with a Gaussian distribution and an identity link function. We used an exchangeable correlation structure to account for any correlation between the observations. We used the Huber–White sandwich estimator and cluster-robust standard errors to account for wrongly specified correlation structures and serial correlation.

GEE models estimate within-firm and between-firm effects, whereas our hypothesized mechanisms should operate equally within firms over time and between firms (Certo et al., 2017). However, we disentangled within and between-firm effects using the hybrid approach (Allison, 2009), which combines the advantages of fixed and random-effects models (Certo et al., 2017; Schunck, 2013). Although we were mainly interested in the between-firm effects from the BMD, the hybrid approach allowed us to explore the direct effect in a more fine-grained way and estimate effects that are unbiased by potential correlations of Level 1 variables with Level 2 errors (Schunck, 2013), producing consistent and unbiased estimates for two-level models (Antonakis et al., 2021). For the hybrid approach, we split the independent variables into a group-centered variable representing within-firm effects and a group-mean variable representing between-firm effects (Certo et al., 2017). Consequently, we split each time-varying variable in our models. We lagged the explanatory variables to ensure that prior media coverage predicted future firm action.

4 | RESULTS

Table 1 presents the descriptive statistics and correlations, whereas Table 2 presents the results of the models. Consistent with prior research, novelty-centered and efficiency-centered BMDs were correlated ($r = .245$) because efficiency-centered BMDs can also be novel (Zott & Amit, 2008). Furthermore, both BMDs correlated with total media coverage, but the correlation with novelty-centered BMDs was higher ($r = .273$). This is also consistent with prior literature in that novelty receives more attention from news media because these innovations deviate from industry norms and provide “interesting narratives” (Graf-Vlachy et al., 2020). We calculated several models to test the hypotheses. The first model included only the direct effects of the independent variable, moderator, and controls. The model showed meaningful influences of firm size ($\beta = 0.319$; $p = .000$) and total media coverage ($\beta = 0.001$; $p = .000$).

We did not find a substantive relationship between negative media coverage and strategic change in the first model, which we will discuss later. However, both the within-firm and the between-firm effects of negative media coverage showed a positive and meaningful influence in the second model,⁶ whereas the within-firm effect was still meaningful in the full Model (4) when taking the moderation of the BMD into account.⁷ As suggested, we interpreted the interaction effects in the fully specified model (Busenbark, Graffin, et al., 2022).

⁶Although the hypothesized mechanisms should operate equally for the within-firm and between-firm effects of negative media coverage, for our hypothesis testing, we considered the within-firm effect of negative media coverage, because this reflects a change in strategy owing to a change in recent media coverage, whereas the between-firm (i.e., cluster mean) effect represents the effect of differences between firms concerning historical negative media coverage. However, a comparison of the effects yielded additional inferences and insights. Nonetheless, the interaction effects represent a between-firm comparison.

⁷The direct effect of the between-firm effect of negative media coverage on strategic change in model four was not meaningful ($\beta = .695$; $p = .145$).



TABLE 1 Descriptives and correlations.

Variables	Mean	Standard deviation	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1 Strategic Change	-0.085	0.540	1																		
2 Negative media between-firm	1.052	0.278	0.088	1																	
3 Negative media within-firm	0.000	0.313	-0.023	0.001	1																
4 Novelty-centered BMD	4.373	1.214	0.273	-0.020	-0.002	1															
5 Efficiency-centered BMD	5.311	0.816	0.116	-0.094	-0.002	0.245	1														
6 Positive media between-firm	2.129	0.315	-0.020	-0.034	-0.001	0.109	-0.039	1													
7 Positive media within-firm	0.000	0.297	-0.022	-0.002	-0.009	0.001	0.002	0.001	1												
8 Total media between-firm	51.852	108.135	0.654	0.245	-0.001	0.273	0.130	0.111	0.000	1											
9 Total media within-firm	0.000	52.726	0.062	0.000	0.060	0.000	0.001	0.000	-0.028	0.000	1										
10 Firm size between-firm	4.662	0.614	0.425	-0.119	-0.001	-0.001	-0.076	-0.210	0.002	0.079	0.000	1									
11 Firm size within-firm	0.000	0.077	0.000	-0.001	0.024	0.003	-0.006	-0.003	0.034	0.005	0.230	0.001	1								
12 CEO tenure between-firm	8.477	8.062	-0.014	-0.092	-0.001	-0.119	0.134	0.067	-0.001	0.043	0.000	-0.089	0.012	1							
13 CEO tenure within-firm	0.000	2.733	-0.007	-0.003	0.104	0.003	0.004	0.000	0.023	0.001	0.071	0.002	0.073	0.003	1						
14 Resource slack between-firm	0.153	0.139	0.233	0.139	-0.002	0.463	0.350	0.142	0.001	0.333	0.000	-0.264	0.011	0.066	0.004	1					
15 Resource slack within-firm	0.000	0.044	-0.041	0.000	-0.105	0.000	0.000	0.000	0.032	0.000	-0.047	-0.001	-0.195	0.001	0.070	0.000	1				
16 Performance (ROA) between-firm	0.000	0.824	0.184	0.022	0.000	0.257	0.172	0.072	0.001	0.224	0.022	-0.057	0.002	0.091	0.004	0.468	-0.006	1			
17 Performance (ROA) within-firm	0.000	0.566	-0.005	-0.007	0.073	0.002	-0.007	0.000	-0.015	-0.012	0.099	0.006	0.088	0.001	0.024	-0.004	-0.066	0.004	1		



TABLE 1 (Continued)

Variables	Mean	Standard deviation	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
18 Past focus between-firm	2.266	0.715	-0.078	0.255	0.000	-0.056	-0.090	0.107	0.000	0.045	0.000	-0.163	0.003	-0.030	0.000	-0.067	0.000	-0.124	-0.007	1		
19 Past focus within-firm	0.000	0.541	0.027	0.001	0.012	-0.002	0.004	0.002	0.023	-0.004	-0.007	-0.001	-0.065	-0.009	-0.014	-0.008	0.077	-0.001	0.020	-0.002	1	
20 Present focus between-firm	3.059	1.280	0.165	0.302	0.001	0.218	-0.026	-0.095	-0.001	0.075	0.000	0.057	0.008	-0.080	-0.001	0.186	0.000	0.024	-0.008	-0.234	-0.006	
21 Present focus within-firm	0.000	0.771	-0.031	0.001	-0.090	0.000	-0.003	-0.002	-0.020	0.001	-0.104	-0.002	-0.031	0.005	-0.092	0.004	-0.023	-0.003	-0.063	0.001	-0.053	
22 Future focus between-firm	1.379	0.495	-0.102	0.301	0.002	-0.013	-0.359	-0.023	-0.004	-0.022	0.000	0.025	0.010	-0.134	-0.004	-0.159	0.000	-0.125	-0.010	-0.025	-0.007	
23 Future focus within-firm	0.000	0.461	0.002	-0.003	0.041	0.004	-0.007	0.005	0.028	0.004	-0.060	0.011	-0.078	-0.008	-0.031	-0.006	0.008	-0.001	0.037	0.003	-0.047	
24 Cognitive insight between-firm	1.867	0.588	0.101	0.252	0.000	0.210	-0.156	0.003	0.001	0.111	0.000	-0.150	-0.007	-0.226	0.000	0.236	0.000	-0.003	-0.001	0.265	0.005	
25 Cognitive insight within-firm	0.000	0.485	-0.031	0.000	0.020	-0.002	0.005	0.002	-0.075	-0.004	0.011	0.000	-0.102	-0.010	0.009	-0.008	0.040	0.006	0.051	-0.002	0.168	
26 Industry	4.667	1.737	0.080	-0.069	-0.001	0.072	0.315	0.079	0.000	0.170	0.000	-0.193	0.006	0.230	0.002	0.230	0.000	0.314	0.002	-0.047	-0.004	
27 CEO turnover	0.101	0.302	-0.002	0.001	-0.041	-0.001	-0.031	-0.044	-0.003	-0.040	-0.021	-0.030	0.030	-0.215	-0.221	-0.027	0.034	-0.063	0.020	0.017	-0.006	
20 Present focus between-firm	1																					
21 Present focus within-firm	0.003		1																			
22 Future focus between-firm	0.493		0.006		1																	
23 Future focus within-firm	0.005		0.219		-0.002		1															
24 Cognitive insight between-firm	0.308		-0.004		0.144		0.005		1													
25 Cognitive insight within-firm	-0.008		0.118		-0.009		0.196		0.006		1											
26 Industry	0.064		0.002		-0.260		-0.004		-0.004		-0.041		-0.005		1							
27 CEO turnover	-0.036		-0.019		0.096		-0.042		-0.004		-0.143		1									

Abbreviation: BMD, business model design.

TABLE 2 Influence of negative media coverage on strategic change.

Variables	Model 1	Model 2	Model 3	Full Model 4
Negative media coverage between-firm	−0.031 (0.078) [0.694]	0.761 (0.292) [0.009]	0.137 (0.438) [0.754]	0.695 (0.476) [0.145]
Negative media coverage within-firm	−0.049 (0.038) [0.196]	0.325 (0.126) [0.010]	0.184 (0.152) [0.224]	0.346 (0.155) [0.025]
Novelty-centered BMD	0.017 (0.022) [0.459]	0.239 (0.093) [0.010]	0.016 (0.022) [0.463]	0.240 (0.093) [0.009]
Efficiency-centered BMD	−0.004 (0.036) [0.912]	0.004 (0.036) [0.920]	0.031 (0.099) [0.750]	−0.011 (0.088) [0.897]
Positive media coverage between-firm	0.001 (0.073) [0.994]	0.004 (0.075) [0.956]	0.001 (0.073) [0.993]	0.004 (0.075) [0.956]
Positive media coverage within-firm	−0.041 (0.029) [0.155]	−0.042 (0.029) [0.143]	−0.045 (0.028) [0.105]	−0.042 (0.029) [0.143]
Total media coverage between-firm	0.000 (0.000) [0.000]	0.000 (0.000) [0.000]	0.000 (0.000) [0.000]	0.000 (0.000) [0.000]
Total media coverage within-firm	0.000 (0.000) [0.007]	0.000 (0.000) [0.003]	0.000 (0.000) [0.004]	0.000 (0.000) [0.003]
Firm size between-firm	0.332 (0.068) [0.000]	0.318 (0.067) [0.000]	0.330 (0.069) [0.000]	0.319 (0.067) [0.000]
Firm size within-firm	−0.150 (0.151) [0.323]	−0.151 (0.153) [0.324]	−0.138 (0.152) [0.364]	−0.149 (0.154) [0.333]
CEO tenure between-firm	0.001 (0.004) [0.889]	0.001 (0.004) [0.732]	0.001 (0.004) [0.898]	0.001 (0.004) [0.730]
CEO tenure within-firm	0.001 (0.003) [0.781]	0.001 (0.003) [0.704]	0.001 (0.003) [0.769]	0.001 (0.003) [0.703]
Resource slack between-firm	0.174 (0.268) [0.516]	0.232 (0.263) [0.377]	0.176 (0.270) [0.513]	0.232 (0.264) [0.380]
Resource slack within-firm	−0.422 (0.238) [0.076]	−0.430 (0.239) [0.072]	−0.447 (0.242) [0.064]	−0.433 (0.240) [0.071]
Performance (ROA) between-firm	0.017 (0.039) [0.662]	0.000 (0.039) [0.991]	0.017 (0.039) [0.658]	0.000 (0.039) [0.993]
Performance (ROA) within-firm	−0.008 (0.018) [0.668]	−0.005 (0.017) [0.756]	−0.011 (0.017) [0.527]	−0.006 (0.017) [0.737]
Past focus within-firm	0.030 (0.030) [0.318]	0.033 (0.030) [0.264]	0.029 (0.030) [0.328]	0.033 (0.030) [0.271]
Present focus within-firm	−0.013 (0.018) [0.476]	−0.012 (0.018) [0.512]	−0.014 (0.018) [0.438]	−0.012 (0.018) [0.509]
Future focus within-firm	0.026 (0.037) [0.476]	0.033 (0.036) [0.364]	0.028 (0.036) [0.447]	0.033 (0.036) [0.364]
Cognitive insight within-firm	−0.053 (0.031) [0.090]	−0.054 (0.031) [0.081]	−0.055 (0.031) [0.079]	−0.054 (0.031) [0.079]
CEO turnover	0.086 (0.052) [0.094]	0.091 (0.050) [0.071]	0.084 (0.052) [0.105]	0.091 (0.051) [0.074]
Negative media coverage between-firm × novelty-centered BMD		−0.217 (0.083) [0.009]		−0.219 (0.083) [0.009]
Negative media coverage within-firm × novelty-centered BMD		−0.096 (0.035) [0.006]		−0.092 (0.039) [0.019]
Negative media coverage between-firm × efficiency-centered BMD			−0.034 (0.091) [0.712]	0.014 (0.081) [0.859]
Negative media coverage within-firm × efficiency-centered BMD			−0.049 (0.035) [0.167]	−0.007 (0.038) [0.852]

Note: $N = 96$, observations = 384. Year, industry, and country dummies are included in the models, but not presented. The coefficients of the between-firm variables concerning temporal focus and cognitive insight are included in the model but not presented, because the interpretation concerns the time-varying component of temporal focus and cognitive insight. Clustered, robust standard errors are in parentheses. The p -values are in brackets. The constant is estimated but not reported.

Abbreviation: BMD, business model design.

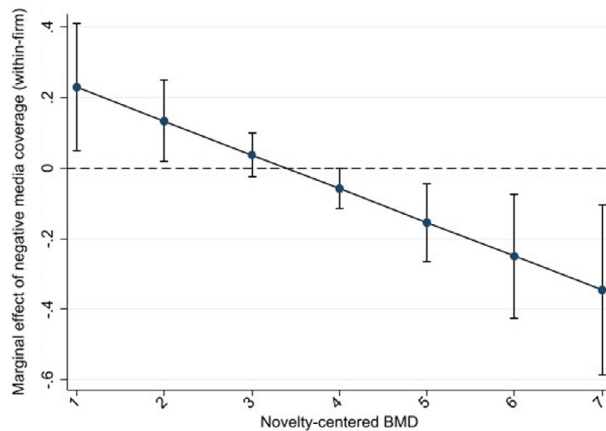


FIGURE 1 Interaction with novelty-centered business model design (BMD).

Hypothesis 1 predicted that the positive effect of recent negative media coverage would be weaker for firms with a novelty-centered BMD. The fully specified model in Table 2 supports this hypothesis, whereas the hybrid approach indicates a moderating effect of novelty-centered BMDs concerning the within-firm effect of negative media coverage ($\beta = -0.092$; $p = .019$) and the between-firm effect ($\beta = -0.219$; $p = .009$). Thus, the results showed that the novelty-centered BMD decreases strategic change with increasing negative media coverage within a firm, as hypothesized. However, we did not find support for Hypothesis 2, which states that the positive effect of negative media coverage on the extent of strategic change is stronger for firms with a dominant efficiency-centered BMD (Models 3 and 4).

We followed prior suggestions for interpreting interaction effects by calculating and graphing the marginal effects of the meaningful interaction effect (Busenbark, Graffin, et al., 2022). This approach offers a more nuanced interpretation because we can examine the relationship between negative media coverage and strategic change for different levels of BMD. In Figure 1, we plot the marginal effects of negative media coverage for different values of novelty-centered BMDs ranging from 1 to 7 on a Likert scale. The graph shows the marginal effect estimates for each value (i.e., the relationship between the within-firm parameter of negative media coverage and strategic change) and the confidence intervals, indicating a negative moderating effect that is substantive for both low and high values of novelty in the BMD. The relationship between negative media coverage and strategic change was thus positive for low-novelty BMDs but decreased meaningfully for more novelty-oriented BMDs, supporting Hypothesis 1.

In our sample, increasing from low (−1 standard deviation [SD]) to high values (1 SD) of the within-firm parameter of negative media coverage correlated to a 10.90% increase in strategic change when the novelty of the BMD was low (−1 SD) but to a 464.56% decrease when novelty was high (1 SD).⁸ Given that the average ED in the sample measuring strategic change was about 10, these values would equate to an ED of 2.15. Under the assumption of equal distribution of changes across strategic action categories, this represents a decrease from a change of about seven activities per category to about two activities when changes occurred in only two

⁸Figure A2 shows the marginal effects for values of negative media coverage (within-firm) at one standard deviation below and one standard deviation above the mean for reflecting low and high values of negative media coverage and the novelty-centered BMD. We calculated the effects similarly to Malhotra and Harrison (2022).

categories. For example, a firm with a low novelty-centered BMD that changes its strategic actions between the focal and the prior year in two categories (e.g., pricing actions and new product introductions, all else being equal) would change the number of actions in both categories by seven in response to negative media coverage. In contrast, a firm with high levels of novelty-centered BMD would change in both categories by two actions.

Accordingly, when changes occurred in four categories, the results indicated a decrease from a change of five activities to one activity per category. Given these values, we infer a large interaction effect size. The marginal plot for the between-firm parameter of negative media coverage on strategic change shows similar results (see Figure A1).⁹

To assess whether multicollinearity might threaten our results, we followed the guidelines by Kalnins (2018). We accordingly checked first for the correlations between an independent variable supporting a hypothesis and control variables exceeding a threshold of ± 0.3 , then for positive and negative correlations and the signs of the beta coefficients of the variables identified in the first step, and finally for the correlations of the variables supporting the hypotheses and dependent variable based on the full model. We identified two pairs of correlated variables exceeding the threshold of ± 0.3 , fulfilling the first criterion for a potential threat to the results (Kalnins, 2018), namely “present focus between-firm/negative media coverage between-firm” and “resource slack between-firm/novelty-centered BMD.” However, the second criterion was not fulfilled by both pairs because both were positively correlated and showed beta coefficients with the same sign (positive). We thus concluded that collinearity did not bias the results.

4.1 | Endogeneity

Although we tried to mitigate potential endogeneity issues by lagging the independent and control variables while media and the focal firms were independent, it was still possible that omitted (Level 1) variables might have biased our estimates. Therefore, we calculated the impact threshold for a confounding variable (ITCV), which allows the potential impact of an omitted variable to be tested (Busenbark, Yoon, et al., 2022). We estimated the ITCV with the STATA *-konfound-* command, which yielded an ITCV of 0.200 for the within-effect of negative media, meaning that potential omitted variables needed to be correlated at $r > .2$ ($\alpha = .10$) with both the independent variable and the dependent variable to confound our results. Despite accounting for several possible influences with our control variables, the analysis revealed that none of the covariates exhibited correlations stronger than an omitted variable would require for invalidating the causal inference regarding the within-firm effects of negative media coverage. In line with prior researchers who used the ITCV for assessing the potential bias of omitted variables (Gamache & McNamara, 2019), our results showed that there is unlikely to have been an omitted variable that would invalidate our findings, given our reasonable integration of controls. Considering the sensitivity of the interaction effect between negative media coverage (within-firm) and the novelty BMD, we relied on the Robustness of Inference to Replacement (RIR) approach (Frank et al., 2023), which was also calculated with the *-konfound-* command in STATA. The RIR suggested that 12.92% of the coefficient of the interaction effect would need to be biased to

⁹Given the general result that the BMD influences the relationship between media coverage and strategic change, we also conducted a supplemental analysis. We tested the interaction of both BMDs with positive media coverage. In line with the behavioral theory of the firm, positive media coverage had a negative relationship with strategy ($\beta = -1.221$; $p = .047$). However, the analysis showed no meaningful interactions with novelty-centered or efficiency-centered BMDs.



invalidate the inference. We followed Busenbark, Yoon, et al.'s (2022) suggestion to determine whether including control variables changed the coefficient of the interaction effect by a percentage exceeding the RIR value.¹⁰ However, the highest percentage change was due to *CEO Turnover* at 6.66%, far below the threshold. Therefore, the RIR approach, representing a sensitivity analysis foregrounding potential outcomes, further supports the robustness of the inference regarding the interaction effect. Furthermore, the hybrid estimation approach allows for controlling for within-firm effects, reducing potential issues caused by omitted variables (Antonakis et al., 2021).

4.2 | Robustness checks

To check the robustness of our results, we conducted several additional tests. First, we conducted a Hausman test, which did not show a meaningful difference between fixed and random effects. We then ran a random effects model, which provided similar results to the hybrid approach, supporting Hypothesis 1, whereas there was no support for Hypothesis 2. Second, we calculated GEE models with a nontransformed dependent variable, showing consistent results (Table A2). Third, we checked for difference between the within and between-firm effects of negative media coverage by conducting a Wald test (Certo et al., 2017). The results ($\chi^2 = 0.47$) indicated that the within and between-firm effects of negative media coverage on strategic change do not meaningfully differ.¹¹

5 | DISCUSSION

We aimed in this research to explain a firm's strategic responses to negative media coverage by investigating the interaction with the BMDs (novelty-centered and efficiency-centered). We tested the hypotheses with panel data of large multinational firms. We found a suppressing influence, indicating that the positive effect of negative media coverage on the extent of strategic change was weaker for firms with a novelty-centered BMD. Conversely, the results did not show a meaningful influence of efficiency-centered BMD on this relationship. However, the interaction analysis results allowed for a more nuanced understanding of the relationship between negative media coverage and strategic change, indicating that the type of BMD decisively influenced the extent of strategic change in response to negative media.

5.1 | Theoretical implications

We integrated insights from the strategic change and business model literature to reach a deeper understanding of the circumstances under which negative media coverage influences

¹⁰We also conducted sensitivity analysis using the RIR approach for the within-effect of negative media coverage on strategic change. The RIR estimated that 26.24% of the coefficient of the within-firm parameter of negative media coverage needs to be biased to invalidate the inference. Although some control variables (*industry* with 21.02% and *CEO Turnover* with 18.65%) induced a strong percentage change, these remained below the RIR value. Thus, the analysis further showed the robustness of the inference.

¹¹We also conducted a Wald test for the interaction effects concerning novelty-centered BMD, which also showed that the interaction effect did not meaningfully differ for the within and between-firm effects of negative media coverage ($\chi^2 = 1.85$). Thus, we also calculated GEE models without splitting media coverage in its within and between-effects, which also provided consistent results (Table A3).

the extent of strategic change. We use BMDs to shed light on a complex issue in strategic management and explain heterogeneous responses to legitimacy pressures, highlighting an understudied and exciting finding.

First, we contribute an intriguing, strategic contingency to a well-established relationship in the strategic change literature (Bednar et al., 2013; Rowley et al., 2017; Shipilov et al., 2019). This adds to previous research on contingency factors for this relationship, including CEO age, CEO temporal focus, tenure, managerial cognition, and organizational factors like past performance. Accordingly, we included these previously studied factors as controls in our model, and the results confirmed the influence of firm size and total media coverage. Though important, these previous findings do not explain the strategic concerns associated with the legitimacy-challenging influence of negative media. We shifted the focus from individual managers' behavior to the strategy and use of a novel BMD that emphasizes value creation and capture mechanisms. We provide additional insights into the relationship between negative media coverage and strategic change, arguing that this relationship is more complex than previously conceived.

The results of our analysis point to the high relevance of BMDs in explaining this relationship. Although the model without the interaction effect did not show a meaningful direct effect of negative media coverage, we found this effect meaningful when considering the interaction with a novelty-centered BMD. In the baseline model without the interaction effect, all variations of BMDs mitigated the main effect's meaningfulness, reinforcing the interaction's relevance with the BMD, because the main effect turned substantive with moderation in the full model. Thus, we extend research on the influence of negative media coverage with the notion that despite the behavioral attributes assigned to CEOs and TMTs (Bednar et al., 2013; Shipilov et al., 2019), the BMD matters. We extend prior research on performance feedback (Bednar et al., 2013; Greve, 1998) by advocating a more strategy-based view, considering that firms choose different competitive BMDs, which can influence the response to negative media coverage. Moreover, we did not measure strategic change in terms of resource allocations (Bednar et al., 2013) based on ratio measures that could have biased the results (Certo et al., 2020), responding to a recent call by Graf-Vlachy et al. (2020) to "use immediately observable reactions by firms, such as acquisitions, [and] product launches" (p. 62) to examine the consequences of media coverage in more detail. To the best of our knowledge, this perspective is a new and important extension of recent findings on the effect of negative media coverage (Bednar et al., 2013; Gamache & McNamara, 2019; Shipilov et al., 2019). This approach adds a more nuanced understanding of the well-established influence of negative performance feedback from a strategy perspective.

Second, strategic balance theory suggests that firms deliberately choose differentiation strategies, which may lead to challenges to their legitimacy (Deephouse, 1999). However, existing research regarding the effect of negative media coverage mainly asserts that negative media can influence firms in similar ways despite managerial differences, prompting firms to build legitimacy. Improving on this assumption, we extend research concerning the effect of negative media coverage on firm behavior by specifying the direction of the influence of different BMDs. We found a negative interaction with novelty-centered BMDs, indicating that the positive effect of recent negative media coverage on strategic change diminishes for firms with high levels of novelty-centered BMDs. The marginal effect of negative media coverage dependent on the novelty-centered BMD shows that the effect is positive and meaningful for low levels of novelty. However, the positive relationship decreases meaningfully with the increasing novelty of the BMD, so this novelty compensates for the main effect. Although the findings of Bednar et al.



(2013) indicated that past performance moderates the relationship between unfavorable media coverage and strategic change, we extend this finding to firms with high novelty-centered BMDs that seem to trust their business model or strategy. We argue that these firms create value from innovation and depend less on favorable media and legitimacy to conduct the BMD's activities effectively. Although we cannot infer that the efficiency-focused BMD changes the direction of the main effect, we can nevertheless infer that the BMD reinforces the main effect from its meaningful positive effect in the full model, which remains stable across different values of efficiency-focused BMDs. This finding suggests that legitimacy-building is relevant across the full range of efficiency-centered BMDs, whereas all the moderating influence stems from the novelty in BMDs.

Therefore, our findings rest on a novel theoretical perspective that highlights the intriguing and understudied notion that the BMD captures the degree to which firms rely on building legitimacy for effectively executing the BMD, suggesting that the influence of negative media coverage on firm behavior depends (despite behavioral explanations) on the competitive strategy. This adds to the findings of Shipilov et al. (2019), who discovered that the industry spillover effects of negative media coverage influenced behavior at the focal firm. Consequently, with this notion of BMDs either emphasizing the relevance of building legitimacy or of differentiating, we further enrich the understanding of why firms differently interpret the urgency of changing strategies in response to soft performance feedback (Gamache & McNamara, 2019). Thus, we suggest considering the reciprocal relationship between media and firm behavior more from a competitive, relational perspective, depending on how firms create competitive advantages with their BMDs. We also add to the findings of Chandler et al. (2020), who found that firms' different reputations influence media coverage. To the best of our knowledge, this study is the first to consider the strategic relevance of legitimacy-building (Deephouse, 1999) in response to legitimacy-threatening negative media coverage by taking a business model perspective.

5.2 | Managerial implications

Managers should consider the business model when reacting to negative media coverage. Firms with high levels of novelty in their BMDs tend to change less in their strategic actions in response to negative media coverage. Thus, the results relax the assumption that firms should always react by taking strategic action in response to negative media. Instead, managers may decide they do not need to change their strategy because the firm competes with a superior business model. Nevertheless, firms with novelty-centered BMDs should not ignore negative media. Although we explained that firms focusing on differentiation are less in need of favorable media coverage, their indifference might nevertheless induce faulty thinking and inertia, while extended periods of negative media coverage point to severe issues identified by stakeholders. Despite the strategic change, these firms can respond with proper strategic communication aligned with the BMD's focus on novelty. Thus, strategic communication must protect the company's innovative image and strategic interests, turning negative media reports into opportunities to reinforce the company's market position.

Additionally, executives should pay attention to media coverage not only of their firms but also of firms in the same industry, because competitors with efficiency-based business models may be primed to enact strategic changes when facing negative media coverage. These strategic changes might suggest impending opportunities in vacated market spaces. Hence, we recommend that top managers consider the underlying mechanisms of value creation and capture, namely BMDs, when examining negative media coverage of their own firm or competing firms.

5.3 | Limitations and future research

Although we conducted this study as rigorously as possible, it has limitations that may lead to future research opportunities. We thoroughly explained the theoretical mechanisms associated with BMDs that interact with negative media coverage, but we did not empirically disentangle the specific mechanisms but instead highlighted an intriguing finding. Although we conducted several robustness tests and sensitivity analyses, we cannot entirely rule out the possibility that other factors (e.g., CEO overconfidence¹²) might drive both the choice of a BMD and the choice of a strategic change. Given that our sample firms did not substantially change their BMDs during this study's time frame, we could not test the effects on firms that changed their BMDs. Future researchers need to investigate the role of BMD changes in the context of external feedback in emerging industries. Future researchers can also investigate smaller firms that receive less media attention. Possible spillover effects of media coverage of larger firms in the same industry might also affect the reactions of smaller firms (Shipilov et al., 2019).

This study provides several additional future research avenues. First, we found that a novelty-centered BMD weakens the effect of negative media coverage on strategic change. Thus, future researchers can analyze directly how firms with different BMDs strive for legitimacy. Second, we analyzed the media's influence by collecting data from major newspapers and business newspapers. However, building on recent insights regarding the impact of heterogeneous stakeholders using social media (Illia et al., 2023), future researchers could investigate whether and how firms react to specific stakeholder groups with strategic changes. Third, negative media reports represent soft performance feedback, whereas hard performance feedback like performance below expectations might have different strategic relevance for legitimacy-building (Deephouse, 1999) based on the BMD. Finally, because prior researchers have assessed the influence of negative media coverage on firm behavior without disentangling the within- and between-firm effects, we encourage researchers to build on our results to investigate further the differences between historical and more recent media coverage.

This research adds important considerations to the research stream examining the effects of media coverage on strategic change. We reveal that the nature of the business model can have meaningful contingent effects in these settings, which managers can use and researchers can expand on in future work.

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DATA AVAILABILITY STATEMENT

The data that support the findings of this study are openly available. 102 companies from the German stock exchange (DAX, MDAX, and TecDAX) and S&P 500 were identified and selected based on their BMDs. We collected data from 2014 to 2018 for analyzing temporal effects, using

¹²Prior researchers have found that overconfident CEOs prefer innovation and are less sensitive to negative feedback. However, the firms in our sample used robust and stable BMDs that might have been designed prior to the time frame concerning the negative media coverage and strategic change. Although we cannot fully rule out the possibility that CEO overconfidence influences both the BMD and the reaction to media coverage, the sample characteristics reduced the possibility that the same CEO was in charge of designing the business model and also of the response to media coverage in the time frame of this study.



the LexisNexis database for identifying media articles. For measuring strategic change, we relied on data retrieved from RavenPack News Analytics (Connelly et al., 2017). The information on firm age, CEO turnover, CEO tenure and the required information for the assessment of the BMD was collected from the company's websites, annual reports, and other available company documents, while we used data from COMPUSTAT for the financial control variables.

ORCID

Patrick Spieth  <https://orcid.org/0000-0002-4408-1768>

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