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Employer Responsiveness to Online Reviews: A Signal of Caring About Employees

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ABSTRACT

Employer reviews (i.e., online workplace ratings authored by employees) attract broad interest and shape the opinions of potential employees. Thus, companies face the challenge of dealing with these workplace judgments that are outside their direct control. While prevailing theoretical perspectives suggest that responding to third-party judgments may be an effective way for companies to deal with them, they focus on responses to negative judgments that threaten companies' reputations. Based on signaling theory, we argue that employer responsiveness, signaled by an employer's first response to an employer review, serves as a mechanism of indirect control over employer reviews. Applying a difference-in-differences approach—a statistical technique to estimate the causal effect of the treatment (i.e., responsiveness) by comparing it to a control group without the treatment—on a sample of 298,269 reviews of 21,099 employers over 45 quarters posted on the employer review website Kununu, we hypothesize and find that compared to nonresponsive employers, responsive employers receive more diverse (i.e., variety of topics covered) and extensive (i.e., amount of information provided) employer reviews. These effects are especially pronounced in the case of negative employer reviews. Our findings can serve as a guide for employers in dealing with third-party judgments by demonstrating that employer responsiveness is a valuable signal enhancing online review quality. We contribute to the growing body of HRM research on employer reputation on social media, a critical factor influencing recruitment and retention outcomes. Our study opens new avenues for research to explore the role of responsiveness as a strategic signal in employer brand management.

1 | Introduction

Employer reviews published by current and former employees on websites like Glassdoor, Kununu, and Indeed attract broad interest and shape the opinions of millions of potential employees (Dube and Zhu 2021). Surveys suggest that 36% of Internet users have read a review on Kununu (Brehme and Brandau 2018) and that 52% of job seekers in the United States read reviews before applying (Westfall 2017). Furthermore, experimental studies consistently demonstrate that employer reviews can shape potential employees' attitudes and intentions toward employers (Carpentier and Van Hoye 2020; Evertz et al. 2021; Könsgen et al. 2018; Melián-González and Bulchand-Gidumal 2016; Stockman et al. 2020). Against this backdrop, studies have increasingly explored how organizations can proactively manage third-party judgments like employer reviews (George et al. 2016), and thought leaders, such as the Society for Human Resource Management, recommend that employers carefully monitor and respond to employer reviews (e.g., Bates 2016; Grensing-Pophal 2019; Lewis 2019; Maurer 2017). Here, an employer response refers to a free-text comment that is publicly displayed under the corresponding employer review (see Figure 1).

However, despite growing academic interest, our understanding of the consequences of responding to online employer reviews is limited. The prevailing theoretical perspectives focus on the reactions of companies to negative third-party judgments, such as sending repair signals to address potential

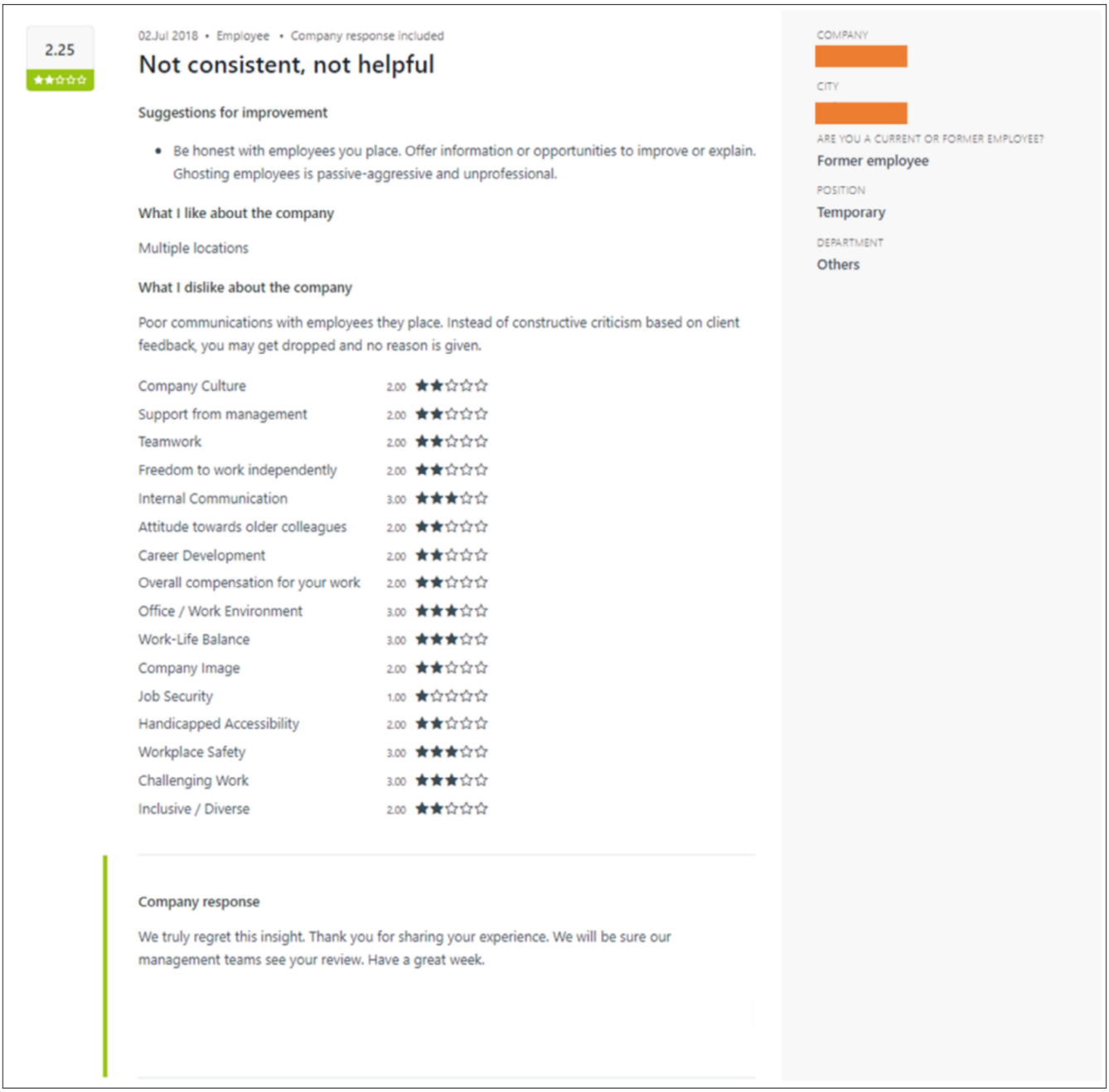

FIGURE 1 | Example of an employer review including an employer response on Kununu's US website.

reputational threats (see Dineen et al. 2019; Etter et al. 2019; George et al. 2016; Ki and Nekmat 2014; Pfarrer et al. 2008; Ravasi et al. 2018; Wang et al. 2016). With this narrow focus, the prevailing theoretical lenses (e.g., threat management perspective) do not consider the interactive relationships between the signaler and the signal receiver (Connelly et al. 2024). Thus, extant research has neglected the potential reactions of the signal receiver to employer review responses. As a result, current theorizing has treated signaling as a unidirectional process, thus failing to capture the interactive nature of the communication between the signaler (i.e., firm) and the signal receiver (i.e., reviewing employee). Hence, there is a need to go beyond the perspective of threat management to develop a theory-driven understanding of the consequences of employers responding to employer reviews. Based on signaling theory (Connelly et al. 2011, 2024), we theorize that by responding to employer reviews, employers send a signal of care toward their employees (the signal). In turn, such "responsive employers" will receive reviews that, compared to reviews received by nonresponsive employers, present more diverse and extensive employer information (signaling feedback, also termed "counter signal"; Connelly et al. (2011)). A text mining-based analysis of approximately half a million employer reviews posted on the employer review website Kununu between May 2007 and June 2018 supports our theorizing. Specifically, we apply the text-mining technique of topic modeling to derive review-level measures for information diversity and extensiveness and subsequently explore

the impact of employer responsiveness on these measures by applying a difference-in-differences design.

Our work makes three major contributions to the literature. First, we extend theoretical perspectives that emphasize the role of responses to third-party judgments in threat management (see Dineen et al. 2019; Etter et al. 2019; George et al. 2016; Pfarrer et al. 2008; Ravasi et al. 2018; Wang et al. 2016) by adding that employer responsiveness may also indirectly control such judgments. Critically, we show that responsiveness is particularly vital to exerting indirect control over negative third-party judgments. Showing that employer responsiveness exerts indirect control over third-party judgments is relevant because such responsiveness bears potential benefits for employers. Specifically, employers may benefit from elaborated, justified employer reviews as they provide job seekers with detailed information for job application decisions and reduce information ambiguity about organizations as potential employers (see Dineen and Noe 2009; Van Hoye 2014), thereby helping improve the quality of the applicant pool.

Second, we contribute to the employer branding and image literature (Lievens and Slaughter 2016; Theurer et al. 2018) by exploring the impact of employer responses using actual employer review data instead of exploring perceptions and intentions in online experiments (see Carpentier and Van Hoye 2020; Könsgen et al. 2018). In this vein, our study also responds to open calls for a deeper understanding of information about employers disseminated online (Dineen et al. 2019; Lievens and Slaughter 2016; Theurer et al. 2018).

Third, we contribute to signaling theory (Bergh et al. 2014; Connelly et al. 2011; Spence 1973) by theorizing on and testing a model of employer responsiveness as a signal of care in the context of employer reviews. As extant theory development on signaling theory focuses on the investigation of signals (Connelly et al. 2011), we advance theory by examining the implications of employer signals for the resulting reaction—that is, the signaling feedback (Connelly et al. 2011, 2024). In this vein, we theorize and show that as a result of employer responsiveness (i.e., employer signal), employer reviews become more diverse and extensive. We thereby advance signaling theory by explaining how initial signals are interpreted and result in improved employer review quality. Relatedly, by showing that employer responsiveness functions as a signal of care and enhances employer review engagement, we advance the literature on caring human resource management (HRM) and respond to outstanding calls to investigate the relationship between caring employers and the resulting employee engagement (Saks 2022).

2 | Theoretical Framework and Hypotheses

2.1 | Employer Reviews in the Context of Employer Image Research

The employer image literature has so far focused on the information cues that organizations disseminate themselves to shape individuals' perceptions of these organizations as places to work (i.e., employer image perceptions; e.g., Kanwal and Van Hoye 2023; for review, see Lievens and Slaughter 2016; Theurer et al. 2022). More recent theories have also dealt with third-party employer (TPE) branding, which refers to "communications, claims, or status-based classifications generated by parties outside of direct company control that shape, enhance, and differentiate organizations' images as favorable or unfavorable employers" (Dineen et al. 2019, 176). A prominent example of TPE branding can be seen in reviews posted by current and former employees on employer review websites. Online reviews typically include quantitative ratings on five-point Likert scales and open text comments (Fainmesser et al. 2021; Fang 2022; Hollenbeck 2018). A salient characteristic of any employer review is its favorability rating, which indicates the reviewer's positive or negative judgment of the employer. Research suggests that, depending on their favorability rating, employer reviews can positively or negatively affect potential employees' attitudes and intentions toward potential employers (Carpentier and Van Hoye 2020; Evertz et al. 2021; Könsgen et al. 2018; Marinescu et al. 2021; Melián-González and Bulchand-Gidumal 2016; Stockman et al. 2020).

Despite the potential of employer reviews to attract or repel potential employees (Carpentier and Van Hoye 2020; Evertz et al. 2021; Könsgen et al. 2018; Melián-González and Bulchand-Gidumal 2016; Stockman et al. 2020), our understanding of how employers should deal with employer reviews is very limited. Employers cannot directly control employer reviews (Dineen et al. 2019; Lievens and Slaughter 2016), and they cannot present thoroughly constructed employer information to potential applicants, employees, and the broader public via employer reviews as they can in, for example, job advertisements (e.g., Walker and Hinojosa 2013). However, they can decide to respond or not respond to employer reviews (Dineen et al. 2019). In this context, the prevailing theoretical perspectives consider primarily the reaction of companies to negative third-party judgments that potentially threaten the companies' reputation (see, e.g., Dineen et al. 2019; Etter et al. 2019; George et al. 2016; Ki and Nekmat 2014; Pfarrer et al. 2008; Ravasi et al. 2018; Wang et al. 2016). For instance, in their model of organizational reintegration, Pfarrer et al. (2008) stress the role of repair signals that companies may send to repair their reputation when it is threatened or damaged by third-party judgments. Consequently, the few studies concerned with how companies can deal with employer reviews explore responses to negative employer reviews (Carpentier and Van Hoye 2020; Kollitz et al. 2022; Könsgen et al. 2018).

Drawing from recent empirical work in the marketing field showing that customers review responsive hotels differently than nonresponsive hotels (e.g., Chevalier et al. 2018; Proserpio and Zervas 2017; Wang and Chaudhry 2018), we note that the prevailing theoretical perspectives, which consider companies' reactions to third-party judgments mainly from a threat management perspective (e.g., Pfarrer et al. 2008), seem insufficient to explain employer responsiveness to employer reviews. We further note that while the literature suggests that responding to employer reviews can be beneficial for companies (Carpentier and Van Hoye 2020; Könsgen et al. 2018), the findings to date have been based on online experiments, and the literature does not provide any empirical evidence of the effects of employer responses in a field setting. Consequently,

we seek to develop a theory-driven understanding of responses to employer reviews by using an extensive dataset of actual employer reviews.

2.2 | Employer Responsiveness as a Signal of Care

We integrate signaling theory (Bergh et al. 2014; Spence 1973) with the literature on caring HRM (e.g., Barsade and O'Neill 2014; McAllister and Bigley 2002; Saks 2022) to develop and test a model of employer responsiveness—that is, an employer's likelihood of evaluating employer reviews and responding to reviews based on this evaluation—as a signal of care and employee focus. Responsiveness has mainly been considered in marketing research in terms of responsive hotels in the context of hotel review platforms (e.g., Chevalier et al. 2018; Proserpio and Zervas 2017; Wang and Chaudhry 2018). For instance, extant findings show that responsiveness increases review activity and volume (Chevalier et al. 2018; Proserpio and Zervas 2017) and leads to improved organizational attractiveness when responding to negative reviews (Carpentier and Van Hoye 2020; Wang and Chaudhry 2018).

We theorize on and apply the notion of responsiveness in the context of employer reviews. Responsiveness is at the heart of caring organizations and caring HRM, as recently conceptualized by Saks (2022). Specifically, caring employers are those "that care about their employees" and "are responsive to the needs, interests, concerns, and well-being" of those employees (Saks 2022, 4). Building on this conceptualization, we theorize that becoming responsive on employer review sites may serve as a signal of employer care and concern. Thus, from a signaling theory perspective (Connelly et al. 2011), by becoming responsive, employers signal that their values and principles center on care, concern, and valuing the contributions of employees (Carpentier and Van Hoye 2020; McAllister and Bigley 2002). In so doing, employers highlight their desire to respond to employee concerns and suggestions for improvement, thereby signaling that employee opinions and evaluations are taken seriously (Chuang and Liao 2010; Saks 2021). Hence, employer responsiveness communicates the employer's openness to feedback, which signals a corresponding organizational climate (Mowbray et al. 2015).

Signaling theory describes the communication between a signaler and a receiver under asymmetric information access (Connelly et al. 2011). Originating from an HRM perspective (Spence 1973), signaling theory shows how job applicant behavior can reduce information asymmetry in hiring processes. Extant HRM research has developed theory on signaling in various contexts, such as recruitment processes (e.g., Banks et al. 2019; Campion et al. 2019; Celani and Singh 2011) and TPE branding (e.g., Dineen and Allen 2016; Dineen et al. 2019). Signaling can occur at both the individual level (e.g., Cho and Jiang 2022; Grimpe et al. 2018) and the organizational level (e.g., Butts et al. 2013; Huettermann and Bruch 2019). Most commonly, analyses focus on the employee-employer relationship, with employees serving as signalers and employers as signal receivers (e.g., Contigiani et al. 2018) or vice versa (e.g., Dineen and Allen 2016). Hence, existing research has identified conditions that increase signaling strength (Polidoro 2013; Sajjadiani et al. 2023) and signaling interpretation (Rodell and Lynch 2016). Thus, extant research shows that employers use signals in their employer branding to promote their firms as attractive places to work (e.g., Baum and Kabst 2014; Carpentier and Van Hoye 2020; Carpentier et al. 2019). While important and insightful, existing signaling theory research has focused on the role of signals while largely overlooking the role of signaling feedback—that is, the process of "sending information back to signalers about the effectiveness of their signals" (Connelly et al. 2011, 55). Hence, we lack knowledge on the implications of employer signals (i.e., responsiveness) for the resulting signaling feedback (i.e., reviews written about responsive employers).

Based on signaling theory, we argue that regarding employer responsiveness, employers are the signalers, while users of the employer review platforms are the signal receivers. Employers can either respond to or not respond to employer reviews. Once employers become responsive, employees recognize the employer as part of the audience and may expect evaluations of and consequences from their reviews. A positive consequence would be a positive response from an employer, such as an acknowledging response (in which the employer thanks the employee for making the effort to provide the review with detailed written justifications) or an accommodating response (in which the employer apologizes, takes responsibility, and identifies actions for improvement; see Carpentier and Van Hoye 2020). Meanwhile, a negative consequence would be a negative response from an employer, such as a denying response (in which the employer denies responsibility for the points raised in the review and offers counterevidence; see Carpentier and Van Hoye 2020) or a rejecting response (in which the employer rejects the review because of inadequate justifications). In any case, by publishing a first response to an employer review, an employer indicates that they are responsive to employee concerns. Thus, as a central premise of this study, we argue that when employers become responsive on employer review websites, they signal that they care about their employees and thus exert indirect control over the TPE images disseminated in reviews.

By becoming responsive on employer review sites, employers incorporate two integral signal characteristics in their signals as employee-focused employers. The first characteristic is the *signal observability*, referring to the extent to which signals are noticeable (Connelly et al. 2011). When employers are responsive on websites like Glassdoor, Kununu, and Indeed, their signals (i.e., review responses) are observable.

The second—and central—characteristic of a signal is the *signal cost*, referring to the costs the signaler incurs to produce a signal (Akstinaite et al. 2024; Bergh et al. 2014; Connelly et al. 2011). Responsiveness on employer review websites is a costly endeavor for employers, as there are multiple costs involved in producing a signal. First, responsive employers need to pay membership fees for employer review sites to be able to interact and be responsive. Second, employers have high personnel costs when producing a signal of care. To become responsive, employers need to actively observe, screen, and manage their companies' employer review sites for new reviews and evaluations. Since these platforms attract broad interest from current, former, and potential employees, such

monitoring requires significant effort from employers (Brehme and Brandau 2018; Evertz et al. 2021; Könsgen et al. 2018; Westfall 2017). Thus, due to the rising number of users on employer review sites (Dube and Zhu 2021; Glassdoor 2024) and increasing user expectations regarding response time, employers have to invest time and resources to actively manage their employer reviews. This investment includes establishing specific roles and, consequently, staff personnel to deal with the reviews. Third, employers face potential penalty costs when sending signals, the most common of which are reputational losses (Bafera and Kleinert 2023). Because an employer response is visible to all review website visitors (e.g., potential employees), posting a response carries the risk of reputational loss for employers, which can, in turn, decrease their applicant pool quality (Turban et al. 1998). Hence, when employers become responsive on employer review websites and aim to, for example, merely invalidate a negative review, the employer response can actually reinforce the initial negative review if the audience views the response as inadequate.

Overall, theorizing on and investigating the implications of employer responsiveness signals on employer review websites is particularly relevant for employers for several reasons. First, responding to employer reviews may benefit employers by increasing organizational attractiveness and trustworthiness (Carpentier and Van Hoye 2020). Second, through the indirect control over employer reviews gained as a result of being responsive, the resulting elaboration and justification to existing reviews may benefit employers by offering a more solid foundation on which job seekers can base their application decisions (see Dineen and Noe 2009). Eventually, consistent responsiveness can decrease information ambiguity about organizations, thus contributing to an adjusted applicant pool (Van Hoye 2014). Third, employers can draw upon extensive and diverse employer reviews as a valuable source of feedback for improvement. Based on such reviews, organizations can launch targeted initiatives to tackle perceived weaknesses of their work environments and improve the employee experience.

2.3 | Employees as Receivers of the Signal of Care

As discussed above, responsive employers send signals of care and concern for employees through their responsiveness. As such, we expect that employees' reviews of these employers will differ from their reviews of nonresponsive employers. Specifically, we hypothesize that reviews of responsive employers present more diverse and extensive employer information compared to reviews of nonresponsive employers. Information diversity (i.e., the variety of information) and information extensiveness (i.e., the quantity of information) are two key elements of individuals' information processing in judgment situations (see, e.g., Hwang and Lin 1999; Iselin 1988). We base our theorizing on signaling theory research that deals with sending feedback to initial signalers (e.g., Gulati and Higgins 2003; Gupta et al. 1999). Hence, we conceptualize employer reviews written by signal receivers (i.e., employees) to responsive employers as signaling feedback. We argue that employees receive and interpret the costly employer signal of responsiveness and, subsequently, show appreciation for the signal by providing feedback through more elaborate (i.e., diverse and extensive) employer reviews compared to their reviews of nonresponsive employers.

In the employer review context, employees exert cognitive effort to analyze employer information they have gathered through personal experience or stories from others to form their judgments of employers (see Cable and Turban 2001). Extant findings show, for instance, that high media richness and social presence of employer websites relate to an improved employer reputation (Baum and Kabst 2014; Carpentier et al. 2019). Thus, we argue that when evaluating their employers, employees notice and consider employer efforts and signal costs involved in responsiveness in their judgments. Given that employees can observe that responsiveness is a costly signal for employers, we argue that employees interpret this signal as trustworthy communication of employer care and concern for employees (Carpentier and Van Hoye 2020). We therefore posit that once employees receive a costly employer signal of care, they engage more in forming their judgments of their employers than they do in response to employers that do not engage in sending such signals. Thus, employees' appreciation of the employer signal will manifest in signaling feedback to responsive employers.

In their reviews, employees may provide specific information about their employers to highlight the employers' shortcomings (e.g., bad image, dissatisfied customers) or strengths (e.g., timely pay) to ultimately justify their negative or positive judgments of these employers. The information available to substantiate a judgment of an employer spans a variety of topics. For instance, Jung and Suh (2019) identify 65 topics—including organizational culture, work intensity and efficiency, and reputation—in an exploratory analysis of 204,659 employer reviews on a Korean employer review website. Thus, we propose the following hypotheses:

Hypothesis 1. *Employer responsiveness is positively associated with employer information diversity in employer reviews.*

Hypothesis 2. *Employer responsiveness is positively associated with employer information extensiveness in employer reviews.*

Furthermore, we hypothesize that, in particular, the *negative* reviews of responsive employers present more diverse and extensive employer information compared to the negative reviews of nonresponsive employers. There are several reasons why this would be the case. First, through employer responsiveness, employees recognize that employers are part of their audience and actually read their reviews. In the case of negative reviews, employees aim to communicate existing issues within companies to encourage improvement on the employer side (Chevalier et al. 2018). When employees provide more diverse and extensive employer information in their reviews, the reviews become more credible and include more information regarding the current shortcomings of organizations as places to work. In the case of negative reviews, including more extensive and diverse employer information helps more profoundly communicate improvement suggestions and thereby impact employers. This is not the case for positive reviews because positive reviews support the status quo and hence do not communicate improvement suggestions. Therefore, we argue that employees write more

elaborated employer reviews in the case of negative (vs. positive) judgments.

Second, in a performance appraisal context, it is commonly assumed that positive ratings are less likely to cause conflict and are thus easier to justify than negative ratings (Mero et al. 2007) since appraisers assume that those being appraised expect the best possible rating (Harari and Rudolph 2017). Given employers' observable and costly efforts to signal their care, it is plausible to assume that employees deduce that their employers aim for and expect as positive of judgments as possible. Thus, as indicated by their signaling efforts, these employers likely want to be branded positively by third parties to support their recruiting efforts. This assumption is also supported by the fact that employer review websites have awards for employers with the highest favorability ratings (e.g., Glassdoor's Best Places to Work Awards; Glassdoor 2019). Accordingly, a review presenting an employer more negatively creates a higher risk of conflict because it deviates from the employer's perceived expectations. Thus, for employees, a negative review requires more elaboration to justify than a positive review (see Mero et al. 2007).

Third, when employees know employers are responsive, they will likely expect to receive employer responses to their reviews as well. Consequently, we argue that employees anticipate that employers may offer counterevidence in their responses to invalidate the negative points raised in initial employer reviews (Carpentier and Van Hoye 2020). Therefore, we posit that employees will write extensive and diverse negative employer reviews to ensure they are convincing and thus difficult to invalidate. This is not the case for positive reviews, as employees anticipate appreciation in employer responses to positive judgments; thus, they will perceive less of a need to justify their positive judgments in an attempt to convince their audience. Hence, we propose the following hypotheses:

Hypothesis 3. *The responsiveness-diversity relationship is moderated by the favorability rating such that the relationship between responsiveness and information diversity is stronger for more negative employer reviews.*

Hypothesis 4. *The responsiveness-extensiveness relationship is moderated by the favorability rating such that the relationship between responsiveness and information extensiveness is stronger for more negative employer reviews.*

3 | Methodology

3.1 | Background Description and Data

To test our hypotheses, we examined online employer reviews posted on Kununu. Since its launch in 2007, Kununu, including its US site launched in 2016, has collected over 4 million employer reviews worldwide (Kununu 2020). Current and former employees voluntarily and anonymously submit reviews of their employers based on a predefined questionnaire that includes sections for both quantitative ratings (from 1.00 to 5.00 stars) and open-ended text comments on various employer aspects, including company culture, work-life balance, work environment, compensation, and job security. The most prominent quantitative metric is the favorability rating in the range of 1.00–5.00 stars, which represents the average of all individually rated employer aspects. Finally, in addition to the open-ended comments on these individual aspects, employees have the opportunity to answer three brief questions regarding pros ("What do you like about the company?"), cons ("What do you dislike about the company?"), and suggestions for improvement ("What are your suggestions for improvement?").[1] Kununu pays particular attention to the authenticity of reviews, requiring users to provide a valid e-mail address and comply with Kununu's review guidelines. Kununu has technical security measures in place to enforce its review guidelines and employs a community management team that manually checks reviews. These guidelines include, for example, a prohibition on publishing personal data (Kununu 2019a). As a general policy, Kununu does not delete or change reviews as long as they follow its review guidelines (Kununu 2019b). Kununu's efforts to ensure the authenticity of its reviews are also reflected in the website's certification from an independent auditing institute for its protection of users' data and anonymity.

Employers reviewed on Kununu have the option of replying directly to the reviews. If they choose to do so, their response is shown publicly under the corresponding review (see Figure 1). The total number of reviews received, the average rating of all reviews, and the number of employer responses submitted are additionally displayed prominently on each employer's Kununu profile. Except for employer responses, Kununu offers no features (e.g., helpfulness votes, follower counts, or peer comments) that would allow for potential consequences for reviewers' judgments.

To gain a better understanding of the consequences of the evaluation of a Kununu review by an employer, we coded the content of 100 randomly selected employer responses in terms of messages addressed to employees. We applied an inductive coding approach—that is, we did not start with predetermined codes but developed them from the ground up based on the 100 employer responses. Specifically, we coded the employer responses based on the content directed to the respective reviewer. To do so, we manually categorized every review based on its content and introduced a new category whenever a review did not match an existing category. We iterated through this process multiple times. Based on this inductive approach, six content categories emerged: "employer thanks the employee for review," "employer appreciates the effort of the employee," "employer apologizes to the employee," "employer promises improvement," "employer rejects the employee's comments as unjustified," and "employer invites the employee to a follow-up meeting." An employer response may contain several of these content categories. For instance, the following response contains both employer thanks the employee and employer rejects the employee's comments as unjustified: "Dear ex-employee, thank you for your feedback on how you felt about your work at [Employer]. As far as the "fair" salary is concerned, our hourly rates are 10 to 15% higher than those of most other call centers. Further upward development can be achieved relatively quickly with appropriate performance."

In nearly every instance (94%), the employer thanked the employee for posting the review to which they were responding.

Twenty percent of the responses explicitly expressed appreciation that the employee made the effort to provide detailed written justifications (e.g., "We are pleased that you have taken the time to evaluate [Employer] in such detail and thus contribute to our recommendation"). Seven percent of the responses included an apology for the shortcomings identified by the employee (e.g., "We are very sorry that you are clearly not satisfied with your job at this moment"). In 23% of the responses, the employer expressed a commitment to improve and to follow the employee's suggestions for improvement (e.g., "This will improve in the medium term. We will—in order to create room quickly—move one team to a rented property"). In 13% of the cases, the employer rejected the employee's criticism as unjustified (e.g., "Unfortunately, we cannot comment on the issues you have raised without further explanation from you"). In 36% of the responses, the employer invited the employee to participate in a follow-up dialogue, such as via e-mail or in a personal meeting (e.g., "Providing excellent and fair employee support is very important to us—in this respect we take your criticism very seriously. I would like to invite you to contact me so that we can arrange an appointment. Of course, I will, if you wish, treat your concern confidentially"). The content coding of these 100 randomly selected employer responses illustrated that employers provide responses tailored to their reviews. This finding reassured us that the employer responses indeed represent a consequence of employers' evaluations of reviews.[2]

Our sample included online reviews submitted by current and former employees to Kununu between May 2007 and June 2018.[3] Specifically, our sample comprised all online reviews of Germany-based employers (i.e., excluding Austrian, Swiss, US, or other employers) that had received at least two online reviews by July 2018. We collected all data from Kununu.com, which is Kununu's German website. Hence, we collected data exclusively for German employers. We omitted non-German employers (e.g., Swiss employers: Kununu.com/ch) to ensure the homogeneity of the review texts (e.g., with regard to dialect or country-specific terminology) and the labor market. While information extensiveness could be calculated for reviews containing no text comments (i.e., reviews with no text are not extensive), our information diversity measure could be calculated only for reviews containing text (i.e., reviews with no text are not narrow). Therefore, we considered only employer reviews that included meaningful text comments (i.e., text comments that did not consist solely of erroneous terms or stop words; thus, we retained 424,564 of 623,555 reviews), which also allowed us to log-transform our information extensiveness variable for efficient estimation.[4]

To further homogenize our dataset, we omitted reviews by interns, working students, freelancers, and temporary workers as well as reviews with no indication of the reviewer's position (thus, we retained 298,269 of 424,564 reviews). We expect these groups' reviews to be based on short-term or project-specific experiences that may involve limited exposure to a broad range of organizational experiences, potentially leading to narrower or less extensive content compared to regular employees. As information diversity (i.e., the variety of topics covered in a review) and information extensiveness (i.e., the amount of information provided) are central to our study, we excluded these groups' reviews to ensure consistency in the content analyzed. In summary, our main analyses were based on 298,269 reviews of 21,099 German employers (of which 3,700 became responsive at some point in our study period) over 45 quarters. The means, standard deviations, and correlations for all variables are reported in Table 1.[5]

3.2 | Measures

We created the following variables for our study from the review content.

3.2.1 | First Dependent Variable: Information Diversity

Information diversity is the topic entropy T of review i for employer j in quarter k. To build this measure, we estimated a total of 70 topics by applying topic modeling, a text-mining technique. More specifically, we applied latent Dirichlet allocation (LDA) as described in Blei et al. (2003) and Pritchard et al. (2000) using collapsed Gibbs sampling (Griffiths and Steyvers 2004).

To estimate our topic model, we first summarized all individual comments made by a reviewer about a specific employer in one comprehensive review. To further reduce computational complexity, we standardized the data. Specifically, we removed stop words (e.g., pronouns and articles as well as corpus-specific stop words, such as "employer"), converted the text to lowercase, removed punctuation and very rare terms (words appearing in $<0.1\%$ of documents), and

TABLE 1 | Means, standard deviations, and correlations among the study variables.

		M	SD	1	2	3	4
1	Information diversity	4.19	0.64				
2	Information extensiveness	33.39	43.90	0.421***			
3	Log(Information extensiveness)	2.84	1.20	0.613***	0.793***		
4	Favorability rating	3.49	1.19	−0.040***	−0.158***	−0.191***	
5	Responsiveness	0.23	0.42	0.013***	0.032***	0.020***	0.056***

Note: $N = 298{,}269$ reviews from 21,099 employers over 45 quarters.
*$p < 0.05$.
**$p < 0.01$.
***$p < 0.001$.

decreased word variability by reducing words to their stems (Blei and Lafferty 2009; Blei et al. 2003). As LDA follows a bag-of-words approach that disregards sentence structure and syntax, we identified frequently occurring bigrams and trigrams in the documents. Bigrams and trigrams refer to sets of two or three words that form a compound term with a defined meaning, such as "home office" (bigram) or "work-life balance" (trigram). If these separate words were not systematically replaced by the appropriate corresponding single term, LDA would incorrectly ignore their close connection.

After preprocessing, our initial corpus held 2,873 unique terms from 424,564 reviews. We estimated the LDA model with a varying number of topics (2–120). The algorithm outputs topic loadings (i.e., the per document distribution across the number of topics) and a list of terms most closely associated with each topic. To date, no commonly accepted rule exists for analytically determining the number of "optimal" topics for a given corpus (Schmiedel et al. 2018). Therefore, we first used model log-likelihood (Griffiths and Steyvers 2004) to guide our selection of the optimal number of topics for our corpus. Although the model fit improved monotonically as the number of topics increased, the gains from adding more topics diminished at approximately 60 topics.

Second, as recommended by Schmiedel et al. (2018), we qualitatively examined terms and reviews that are strongly associated with each topic in our various models to interpret the meaning identified with each topic. We selected the top 15 terms most strongly associated with each topic. Furthermore, we extracted 40 strongly associated reviews (highest topic loadings) for each topic to further guide our labeling process. We found that our small topic models (2–65 topics) merged similar topics and did not clearly differentiate between the themes. This finding is also in accordance with our examination of model log-likelihood. Furthermore, larger topic models (> 85 topics) showed duplicate topics that differed mostly in style. Finally, after an initial labeling of the remaining topic models (70–85) by the first author, we selected the 70-topic model, which revealed clearly interpretable topics. Next, two associated researchers in the HRM field individually reviewed each of the 70 topics to independently assign an initial descriptive label to each topic. The labeling process resulted in high intercoder agreement (80.5%) between the two researchers and the first author (Holsti 1969), indicating a consensus on most topics among the raters. After a series of discussions among the raters, we relabeled the remaining topics. This relabeling was also guided by a visualization of topics using LDAvis, a web-based interactive visualization tool[6] (Sievert and Shirley 2014). The labeling affected only the qualitative terminology and validated the quality of our resulting topic model. The labels did not affect the actual quantitative measurement of topic probabilities described below, which we used to compute the information diversity variable to test our hypotheses.[7]

The resulting topic model assumes that each review in our dataset covers a mixture of topics and is thus characterized by a distribution of topic probabilities *p(topic|review)*. For instance, if our review dataset were to address only two topics, such as overtime and leadership, each review would cover these two topics with given probabilities. An overtime-focused review might then have the probabilities *p(overtime|review)* = 80% and *p(leadership|review)* = 20%. To calculate information diversity, we followed recent work that analyzes heterogeneity in culture (Corritore et al. 2020) and applied the measure to our context to analyze heterogeneity in employer branding topics. More specifically, we followed recommendations in the literature to use the Shannon index, which measures "the spread of 'batches' of information content" (Harrison and Klein 2007, 1204) as it "has been shown to be part of a general class of diversity or information richness measures that have desirable mathematical properties (Hill 1973)" (Harrison and Klein 2007, 1212). Harrison and Klein (2007) argue that the choice of a diversity measure depends on the diversity type (i.e., variety, separation, or disparity). In our study context, as we investigated the diversity in our topic model, the Shannon index aligns with the conceptualization of diversity as variety, which is the distribution of categorical differences across a group (Harrison and Klein 2007). Thus, we used Shannon entropy (Shannon 1948), an established measure for capturing diversity in the probability distribution of a topic model, to estimate the topic entropy T of each review. In our case, for each review i, the topic entropy T is formally defined as

$$T = -\sum_{t=1}^{70} p_{it} * \log_2(p_{it}), \text{ with } \sum_{t=1}^{70} p_{it} = 1$$

High values denote high information diversity (i.e., a diverse set of employer information is presented to justify the review), and low values denote low information diversity (i.e., a narrow set of employer information is presented to justify the review). Since Harrison and Klein (2007) recommend the Blau index (Blau 1977) as an alternative measure, we conducted additional robustness analyses using the Blau index to measure information diversity. Our results remain the same in terms of direction and significance when using the Blau index.

3.2.2 | Second Dependent Variable: Information Extensiveness

Information extensiveness refers to the number of employer information words of review i for employer j in quarter k. To build this measure, we counted the number of words per review after reducing the corpus to 2,873 unique terms through preprocessing (i.e., removing stop words and conducting further preprocessing steps as described above). Thus, high values denote high information extensiveness (i.e., extensive employer information is presented to justify the review), while low values denote low information extensiveness (i.e., limited employer information is presented to justify the review).

In Table 2, we illustrate the information diversity and extensiveness of four sample reviews. These examples demonstrate that reviews with comparable information extensiveness (i.e., employer information word count) may address a vastly different number of topics even if they use several of Kununu's individual comment fields. For instance, despite using several individual

TABLE 2 | Information extensiveness and information diversity in four example reviews.

Review	Extensiveness	Diversity
Pro: Timely payment. *Con*: Poor image, unhappy customers.	5	4.682
Pro: Very open and friendly environment; very nice collegial atmosphere	5	1.902
Work atmosphere: Very crisp and jagged working style. High frequency and totally understaffed. *Teamwork*: With extremely stressful days, the team spirit is very important. *Career/development*: After 2 years the opportunity to become a Senior Consultant exists. Excellent courses in CITY as well as an EMPLOYER degree. *Suggestions for improvement*: Great on-boarding and great seminars but bad off-boarding. Reduce employee fluctuation through more personal contact with employees. Do not look for faults but offer employees the opportunity to develop. Trust-based working hours should be respected on both sides. *Pro*: Interesting work, excellent introduction, structured way of working. I am grateful to EMPLOYER for everything I have learnt and only in retrospect did the meaning of many things become clear. But I also know what I don't want to do and will do better. *Con*: Not enough internal staff, a lot of pressure from above for the Branch Managers, very controlled and bad cutting of employees. Sickness rates are extremely important. EMPLOYER is a hard employer and you have to like it and fit to the structure, otherwise it won't work.	53	5.334
Managerial behavior: Unfortunately, managers are often not well selected or trained. It is easy to get praised if you butter up the right people. *Teamwork*: When leadership is poor, the peasants unite and form a team. This could also be achieved with a good leadership style, but unfortunately this is not encouraged. *Communication*: One must not know or even question anything. Just turn off your brain and follow the lead. The company may break down, but maybe that's intended. *Equality*: Not unless the immediate supervisor is supportive. Unfortunately not due to qualification. *Career/development*: When you're an executive, there are several opportunities. Coaching is unfortunately used to control the ordinary employee. *Overall compensation*: A joke and with many pitfalls when it comes to the variable salary. *Environmental/social awareness*: Not present. *Work-life balance*: Sickness is not acceptable. And overtime hours are regular and already accounted for with the low salary. *Image*: Unfortunately, bad. But it was great once. I proudly named my employer. Now I am ashamed. *Suggestions for improvement*: New leadership. *Pro*: The steady, punctual salary. *Con*: The unqualified managers.	52	3.970

Note: Reviews were translated from German to English via DeepL (https://deepl.com/translator). Information diversity and extensiveness are based on the German reviews. Titles in bold are not part of the review but refer to Kununu's individual comment columns.

comment fields, one example review presented in Table 2 mostly concerns the single topic of leadership. Nonetheless, as expected, we found a positive correlation between the number of comment fields used by reviewers and information diversity ($r = 0.465$, $p < 0.001$).[8]

3.2.3 | Independent Variable: Responsiveness

Responsiveness is our central variable of interest and represents the difference estimator in our difference-in-differences analysis. It reflects whether an employer had indicated its responsiveness with a first response to an online employer review prior to the focal review. Review *i* for employer *j* in quarter *k* was dummy coded as 1 if the review was posted after employer *j* had posted its first response to a review and 0 otherwise.

3.2.4 | Moderator: Favorability Rating

The favorability rating describes whether review *i* for employer *j* in quarter *k* presents an employee's negative, neutral, or positive judgment of their employer on a scale ranging from 1.0 (most negative) to 5.0 (most positive).

3.2.5 | Covariates

To mitigate potential concerns that review *i*'s information diversity and extensiveness are contingent on factors other than employer *j*'s responsiveness, we included the following review-level control variables in our models: the employee's position (employee vs. C-suite/leadership), employment status (current or former employee), and department (e.g., finance, IT, legal/tax).

Furthermore, we accounted for all unobserved time-invariant employer-level control variables (e.g., industry, size, location) and for time effects affecting all employers (e.g., financial crises, seasonal effects) by including employer and time (quarterly) fixed effects in our models.

3.3 | Estimation

To test our hypotheses, we applied a difference-in-differences analysis. We applied a staggered design where the treatment (i.e., responsiveness) is introduced at different times across employers. Since treatment timing varies across employers, there are overlapping pre- and post-treatment periods, which introduces time-varying heterogeneity. To mitigate concerns about unobserved heterogeneity between the treated and untreated groups, we included treatment-specific linear and quadratic time trends in our models and accounted for time-varying confounders (i.e., factors that could lead to systematic differences in the outcome trajectories of treated and untreated employers before the treatment; see "Endogeneity" in the "Supplementary Analyses" Section 4.1). More specifically, we fitted fixed-effects models, which are often considered the "gold standard" when estimating within-company relationships (Bliese et al. 2020), to model the effects of responsiveness on information diversity and extensiveness. The fixed effects control for time-invariant differences in our dependent variables due to unobserved factors that differ across employers (e.g., size, industry, location), while time effects control for common time shocks affecting all employers (e.g., financial crises, seasonal effects). Our data represents a nested data structure, with employer reviews (Level 1) nested within employers and quarters (Level 2). Therefore, we conducted a multilevel model with quarter and employer fixed effects. Furthermore, we adopted cluster-robust standard errors at the employer level to account for autocorrelation in the data across employers and over time (Bertrand et al. 2004).[9]

4 | Results

Initially, we fitted fixed-effects models to explore the effects of responsiveness on reviews' information diversity and log-transformed information extensiveness. Model 1 includes the covariates, and Model 2 includes the main effect of responsiveness. As shown in Table 3 (Model 2), our first hypothesis, which states that responsiveness is positively associated with information diversity, was supported (0.012, $p = 0.036$). To examine the effect size, we calculated Cohen's d. To do so, we divided the coefficient of responsiveness (0.012) by the standard deviation of information diversity of all employer reviews in our sample (SD = 0.64). Cohen's d indicated a minor effect size ($d = 0.019$) for the association between responsiveness and information diversity. As shown in Table 4 (Model 2), our second hypothesis, which states that responsiveness is positively associated with information extensiveness, was also supported (0.052, $p < 0.001$). As information extensiveness was log-transformed before estimation, we were able to calculate the percentage change in information extensiveness due to responsiveness. The results indicated that reviews of responsive employers presented 5.34% more extensive employer information than reviews of nonresponsive employers.

Next, we fitted fixed-effects models to explore the effects of responsiveness moderated by favorability rating. Model 3 includes the main effect of our moderator, and Model 4 includes the interaction term of responsiveness and favorability rating. As shown in Table 3 (Model 4), our third hypothesis, which states that the relationship between responsiveness and information diversity is moderated by favorability rating, was supported (−0.009, $p = 0.002$). Furthermore, as shown in Table 4 (Model 4), our fourth hypothesis, which states that the relationship between responsiveness and information extensiveness is moderated by favorability rating, was supported (−0.046, $p < 0.001$). To fully explore the interaction between responsiveness and favorability rating, we examined the marginal effect of responsiveness on information diversity and extensiveness across different favorability rating levels. An effective way to examine these effects is to plot their slope and confidence intervals (Brambor et al. 2006). The solid sloping line in Figure 2 plots the marginal effect of responsiveness contingent on the favorability rating, while the shaded bands represent the 95% confidence interval. Thus, Figure 2 (left side) suggests that the positive effect of responsiveness on information diversity is stronger for lower favorability ratings (0.035 for one-star reviews). Cohen's d indicates a marginal effect size ($d = 0.055$) for the association between responsiveness and information diversity for one-star reviews. The marginal effects plot also suggests that the effect of responsiveness becomes negative for five-star reviews. However, the marginal effects are not distinguishable from zero ($p > 0.05$) for favorability ratings above 3.7. Furthermore, Figure 2 (right side) suggests that the effect of responsiveness on information extensiveness is stronger for lower favorability ratings (0.174 for one-star reviews; marginal effects are not distinguishable from zero [$p > 0.5$] for favorability ratings above 4.2). Thus, one-star reviews of responsive employers presented 19.01% more extensive employer information than one-star reviews of nonresponsive employers.

An examination of the effect sizes revealed that responsiveness had a minor effect on information diversity, while the effect on information extensiveness was substantial (up to 19.01%). Although the effect on information diversity was not large by conventional standards (i.e., Cohen's d below 0.20), we considered it important because it was related to a minimal intervention (i.e., an employer's first response to its reviews; Cortina and Landis 2009). The magnitude of our effect sizes is in line with existing social media research (Roccapriore and Pollock 2023). In the social media context, small effect sizes can imply large effects due to the large number of visitors and followers (Roccapriore and Pollock 2023) who read and are influenced by reviews (Dube and Zhu 2021; Tumasjan 2024).

4.1 | Supplementary Analyses

4.1.1 | Endogeneity

Difference-in-differences designs attempt to identify causal relationships by mimicking an experimental design in observational data (Angrist and Pischke 2008). In our case, we attempted to model the differences between reviews for responsive and nonresponsive (i.e., treated and untreated) employers. For this model to be valid, responsiveness must resemble an exogenous

TABLE 3 | OLS results for the effects of responsiveness on information diversity.

	Model 1	Model 2	Model 3	Model 4
Position (C-suite/leadership)	−0.043***	−0.043***	−0.039***	−0.039***
	(0.004)	(0.004)	(0.004)	(0.004)
Department (administration)	0.031***	0.031***	0.034***	0.034***
	(0.007)	(0.007)	(0.007)	(0.007)
Department (design)	0.022	0.022	0.024	0.024*
	(0.012)	(0.012)	(0.012)	(0.012)
Department (distribution/sales)	0.024***	0.024***	0.026***	0.026***
	(0.006)	(0.006)	(0.006)	(0.006)
Department (executive leadership)	−0.029	−0.029	−0.026	−0.026
	(0.015)	(0.015)	(0.015)	(0.015)
Department (finance)	0.009	0.008	0.011	0.011
	(0.010)	(0.010)	(0.010)	(0.010)
Department (human resources/recruiting)	0.033***	0.034***	0.039***	0.039***
	(0.009)	(0.009)	(0.009)	(0.009)
Department (IT)	0.030***	0.030***	0.032***	0.032***
	(0.006)	(0.006)	(0.006)	(0.006)
Department (legal/tax)	0.002	0.002	0.004	0.004
	(0.017)	(0.017)	(0.017)	(0.017)
Department (logistics/materials management)	−0.013	−0.013	−0.014	−0.014
	(0.010)	(0.010)	(0.010)	(0.010)
Department (marketing/product management)	0.046***	0.046***	0.050***	0.050***
	(0.007)	(0.007)	(0.007)	(0.007)
Department (medical)	0.071***	0.071***	0.074***	0.074***
	(0.018)	(0.018)	(0.018)	(0.018)
Department (others)	0.054***	0.054***	0.054***	0.054***
	(0.005)	(0.005)	(0.005)	(0.005)
Department (PR/communication)	0.040**	0.040**	0.044***	0.044***
	(0.012)	(0.012)	(0.012)	(0.012)
Department (production)	0.014	0.014	0.013	0.013
	(0.008)	(0.008)	(0.008)	(0.008)
Department (purchasing)	0.015	0.015	0.017	0.017
	(0.013)	(0.013)	(0.013)	(0.013)
Department (research/development)	0.049***	0.049***	0.051***	0.051***
	(0.008)	(0.008)	(0.008)	(0.008)
Employment status (former employee)	0.048***	0.048***	0.034***	0.034***
	(0.003)	(0.003)	(0.003)	(0.003)
Responsiveness		0.012*	0.012*	0.044***
		(0.006)	(0.006)	(0.011)

(Continues)

TABLE 3 | (Continued)

	Model 1	Model 2	Model 3	Model 4
Favorability rating			−0.015***	−0.013***
			(0.001)	(0.002)
Responsiveness×favorability rating				−0.009**
				(0.003)
Employer fixed effects	Yes	Yes	Yes	Yes
Quarter fixed effects	Yes	Yes	Yes	Yes
R^2	0.122	0.122	0.122	0.122
Adjusted R^2	0.055	0.055	0.055	0.055

Note: $N = 298{,}269$ reviews from 21,099 employers over 45 quarters. Cluster-robust standard errors are in parentheses. The reference category for a reviewer's position is "Employee." The reference category for a reviewer's department is "Not specified." The reference category for employment status is "Current employee."
*$p < 0.05$.
**$p < 0.01$.
***$p < 0.001$.

event. However, since employers self-select into responding, it is possible that employers start responding due to unobserved time-variant differences between treated and untreated employers. For instance, an employer might decide to become responsive because the employer information presented in its reviews becomes more diverse and extensive over time. To control for such unobserved heterogeneity in time trends between responsive and nonresponsive (i.e., treated and untreated) employers, we included treatment-specific linear and quadratic time trends in our models (see, e.g., Besley and Burgess 2004). In other words, in our models, we controlled for a linear and a quadratic quarterly trend interaction with a treatment group dummy, coded 1 for employers that became responsive sometime during our study period and 0 otherwise. The inclusion of such time trends reflects a rigorous approach to controlling for systematic differences between treatment and control groups. However, the inclusion of such time trends may also capture valid variance in the effects of the treatment (Wolfers 2006). Despite this possibility, the effects found in our main analysis were robust to the inclusion of treatment-specific linear and quadratic time trends. Responsiveness was positively associated with information diversity (0.016, $p = 0.018$) and log-transformed information extensiveness (0.079, $p < 0.001$). Furthermore, the association between information diversity and responsiveness was moderated by favorability rating (−0.009, $p = 0.002$). Finally, the association between log-transformed information extensiveness and responsiveness was moderated by favorability rating (−0.045, $p < 0.001$).[10]

4.1.2 | Falsification Tests

To rule out spurious correlations, we conducted several falsification tests (see Table 5). Specifically, as there is no theoretical rationale to explain why employer responsiveness should be associated with the occurrence of common words, numbers, or types of punctuation in employer reviews, we would not expect to observe a significant effect on these measures (see Huang et al. 2017). We used the Linguistic Inquiry and Word Count (LIWC) software to estimate the prevalence of grammatical and psychological categories in the text by matching words with predefined content dictionaries (Pennebaker et al. 2015). More specifically, we used LIWC's German-adaptation DE-LIWC2015 (Meier et al. 2018) to measure the prevalence of common verbs (e.g., "eat," "come," "carry"; 5,405 words in total), numbers (e.g., "second," "thousand"; 92 words in total), and articles (i.e., "a," "an," "the"; 22 words in total) in our reviews. High values denote a high proportion of common verbs, numbers, and articles, while low values denote a low proportion. We found no significant effects of responsiveness on common verbs (0.050, $p = 0.456$), numbers (0.025, $p = 0.118$), or articles (0.070, $p = 0.150$). We also explored an alternative proxy for assessing the effects of responsiveness beyond information diversity and extensiveness. Specifically, we used LIWC (Meier et al. 2018; Pennebaker et al. 2015) to measure the prevalence of cognitive content (e.g., "cause," "ought," "known"; 3,711 words in total) in employer reviews. Cognitive content reflects the depth and complexity of thinking (Tausczik and Pennebaker 2010). As signals influence not only what individuals think but also *how* they think (i.e., cognitive processing; Drover et al. 2018), we expected that if responsiveness enhances an employee's perception of their employer, this should be reflected in a heightened presence of cognitive content. Accordingly, we found a significant effect of responsiveness on cognitive content (0.169, $p = 0.025$).

5 | Discussion

We theorized that by becoming responsive on an employer review website, employers send a signal of care to their employees and aim to achieve an employee-oriented employer image. Evidence that reviewers (i.e., current and former employees) appreciate this signal was demonstrated through their efforts in writing elaborated reviews. A difference-in-differences analysis supported our theorizing: reviews of responsive employers presented more diverse and extensive employer information than reviews of nonresponsive employers. In particular, responsiveness promoted more diverse and extensive employer information in negative reviews. Statistically accounting for systematic differences between responsive and nonresponsive employers reinforced our theory's logic that, indeed, employer

TABLE 4 | OLS results for the effects of responsiveness on log(information extensiveness).

	Model 1	Model 2	Model 3	Model 4
Position (C-suite/leadership)	−0.141***	−0.141***	−0.099***	−0.098***
	(0.007)	(0.007)	(0.007)	(0.007)
Department (administration)	0.031*	0.031*	0.058***	0.059***
	(0.014)	(0.014)	(0.013)	(0.013)
Department (design)	−0.008	−0.009	0.013	0.013
	(0.025)	(0.025)	(0.025)	(0.025)
Department (distribution/sales)	0.042**	0.042**	0.064***	0.065***
	(0.014)	(0.014)	(0.013)	(0.013)
Department (executive leadership)	−0.097***	−0.097***	−0.060*	−0.060*
	(0.028)	(0.028)	(0.027)	(0.027)
Department (finance)	−0.055*	−0.055*	−0.031	−0.030
	(0.022)	(0.022)	(0.022)	(0.021)
Department (human resources/recruiting)	0.012	0.012	0.071***	0.072***
	(0.017)	(0.017)	(0.017)	(0.017)
Department (IT)	0.041**	0.041**	0.061***	0.062***
	(0.014)	(0.014)	(0.013)	(0.013)
Department (legal/tax)	−0.009	−0.009	0.015	0.016
	(0.031)	(0.031)	(0.030)	(0.030)
Department (logistics/materials management)	0.005	0.004	−0.005	−0.004
	(0.024)	(0.024)	(0.023)	(0.023)
Department (marketing/product management)	0.061***	0.061***	0.103***	0.103***
	(0.015)	(0.015)	(0.015)	(0.015)
Department (medical)	0.089*	0.091*	0.119**	0.120**
	(0.039)	(0.039)	(0.038)	(0.038)
Department (others)	0.129***	0.129***	0.131***	0.132***
	(0.012)	(0.012)	(0.011)	(0.011)
Department (PR/communication)	0.044	0.044	0.091***	0.091***
	(0.024)	(0.024)	(0.024)	(0.024)
Department (production)	0.063***	0.062***	0.047**	0.048**
	(0.017)	(0.017)	(0.017)	(0.017)
Department (purchasing)	−0.024	−0.024	−0.007	−0.006
	(0.025)	(0.025)	(0.024)	(0.024)
Department (research/development)	0.112***	0.111***	0.139***	0.140***
	(0.017)	(0.017)	(0.017)	(0.017)
Employment status (former employee)	0.277***	0.277***	0.115***	0.116***
	(0.006)	(0.006)	(0.006)	(0.006)
Responsiveness		0.052***	0.055***	0.220***
		(0.012)	(0.012)	(0.024)

(Continues)

TABLE 4 | (Continued)

	Model 1	Model 2	Model 3	Model 4
Favorability rating			−0.169***	−0.157***
			(0.003)	(0.003)
Responsiveness×favorability rating				−0.046***
				(0.006)
Employer fixed effects	Yes	Yes	Yes	Yes
Quarter fixed effects	Yes	Yes	Yes	Yes
R^2	0.195	0.196	0.212	0.213
Adjusted R^2	0.134	0.134	0.152	0.152

Note: $N = 298{,}269$ reviews from 21,099 employers over 45 quarters. Cluster-robust standard errors are in parentheses. The reference category for a reviewer's position is "Employee." Reference category for a reviewer's department is "Not specified." The reference category for employment status is "Current employee."
*$p < 0.05$.
**$p < 0.01$.
***$p < 0.001$.

responsiveness caused information diversity and extensiveness in reviews and not vice versa. Furthermore, assessing the association between responsiveness and words indicating cognitive processing supported our theoretical rationale that reviewers indeed responded to the received signal in a cognitively effortful manner.

5.1 | Implications for Theory

Our study makes three major contributions to the literature. First, it extends the prevailing theoretical perspectives that consider company reactions mainly through the lens of threat management (see, e.g., Dineen et al. 2019; Etter et al. 2019; George et al. 2016; Ki and Nekmat 2014; Pfarrer et al. 2008; Ravasi et al. 2018; Wang et al. 2016). While companies' reactions to negative third-party judgments may serve as a valuable means of repairing a damaged reputation (e.g., Pfarrer et al. 2008), our findings suggest that employer responses on an employer review website serve a purpose beyond threat management. In detail, employer responsiveness sends a signal of care to employees and, in doing so, indirectly exerts control over employer reviews. Exerting such indirect control—which, in turn, promotes reviews with diverse and extensive employer information—may benefit both employers and potential employees. For instance, diverse and extensive employer information provides potential applicants with more realistic job previews (RJPs), resulting in positive effects, such as lower turnover intention and higher retention (Earnest et al. 2011). Thus, providing potential employees with diverse and extensive information through elaborated reviews may improve the quality of an organization's applicant pool by enabling job seekers to make more informed decisions about where to apply (see Dineen and Noe 2009) and reducing information ambiguity about the organization as a place of work (Van Hoye 2014). Thus, reviews that present diverse and extensive employer information may help employers "achieve their goal of better fitting job applicants" (Dineen et al. 2019, 212). Furthermore, diverse and extensive employer reviews may also be seen as an indicator of (and, concurrently, an opportunity for) employee voice (Morrison 2014; Spencer 1986; Wilkinson and Fay 2011) in the digital sphere. Hence, employer reviews bear potential benefits for both employees and employers (Detert et al. 2013; Mowbray et al. 2015). Employees may use employer reviews to voice issues, such as pay, work hours, and supervisor treatment, or they may use such reviews to make suggestions for improvement (e.g., in work processes), which employers can draw upon (Mowbray et al. 2015; Wilkinson and Fay 2011). Hence, in line with findings in the employee voice literature (Wilkinson and Fay 2011), diverse and extensive employer reviews may not only benefit potential employees by providing more comprehensive RJPs but may also help organizations through improvement suggestions provided by employees (Dundon et al. 2004). In fact, existing voice research shows that organizations benefit from the expression of collective knowledge and do pursue such improvement suggestions (Detert et al. 2013).

Second, while only experimental studies have previously demonstrated that responses to employer reviews can be impactful (Carpentier and Van Hoye 2020; Könsgen et al. 2018), we demonstrate the impact of responsiveness in an analysis of approximately half a million actual employer reviews. In doing so, we not only complement studies that have experimentally explored the effects of employer responses (Carpentier and Van Hoye 2020; Könsgen et al. 2018) but also integrate these studies with another research stream that has rather recently begun to explore the textual content of actual employer reviews (e.g., Dabirian et al. 2017; Jung and Suh 2019; Stamolampros et al. 2020) but has largely neglected the determinants of reviews' textual content.

Third, our study contributes to research seeking to understand the effect of an employer signal (i.e., responsiveness) on employees in the context of employer review websites. We add value to signaling theory (Connelly et al. 2011; Spence 1973) by theorizing on and testing a model of employer signals and the resulting signaling feedback from signal receivers (i.e., employees) on review websites. Whereas previous research on employer signals

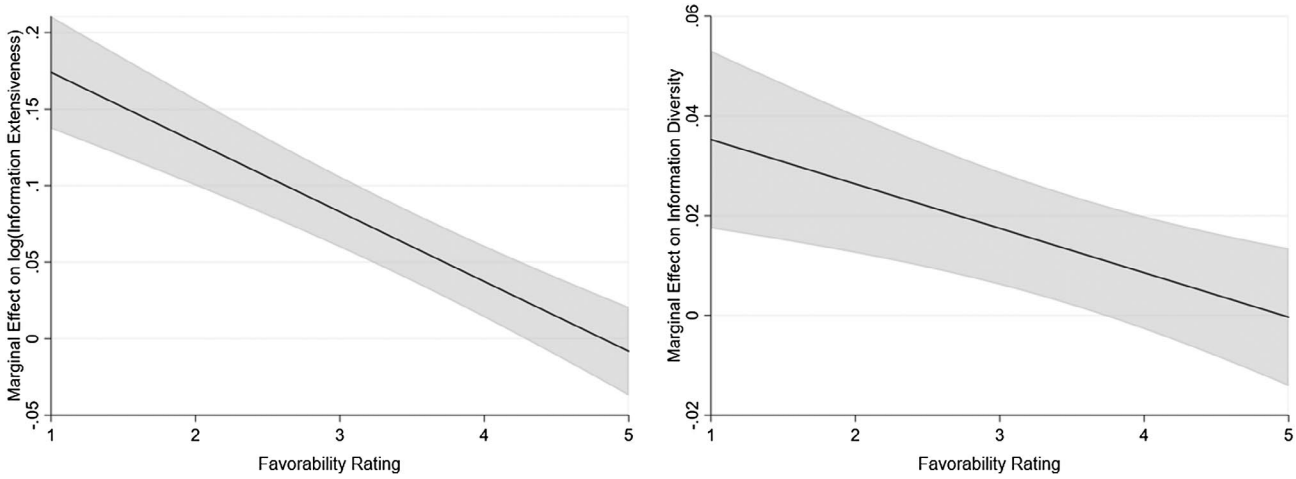

FIGURE 2 | Marginal effect of responsiveness conditional on favorability rating.

has focused on signal characteristics (Connelly et al. 2011), we extend knowledge by showing how employer signals are appreciated and valued by signal receivers in their subsequent reviews. We do so by demonstrating that employer signals lead to signaling feedback from employees such that employer reviews become more extensive and diverse for responsive than for nonresponsive employers. By theorizing on employer signals and signaling feedback by employees, our approach goes beyond existing research that theorizes on feedback-seeking behavior (Gupta et al. 1999) by capturing actual feedback in response to signals. Thus, we respond to recent calls in the literature concluding that "signaling research would also benefit from more examination of receiver responses to signals" (Connelly et al. 2024, 28). Finally, since "previous research has not explicitly examined the relationship between organizational care and employee engagement" (Saks 2022, 5), our study offers first insights into this relationship by theorizing on an external proxy indicator of employer care (i.e., responsiveness on employer review websites). Therefore, our study introduces a new perspective to capture caring HRM that complements research on the established, traditional measures and indicators of caring HRM (Saks 2022).

5.2 | Implications for Practice

Our work also has practical implications. Specifically, it empirically explores the feasibility of recommendations, such as those from the Society for Human Resource Management, to carefully monitor and respond to reviews on employer review websites (Bates 2016; Grensing-Pophal 2019; Lewis 2019; Maurer 2017). Based on the findings of our study, recommendations to respond to employer reviews seem valid, at least for employers that aim to send signals of their care for employees. By sending such signals, employers may utilize employer review websites as a valuable means of receiving more elaborate feedback on their work environments (see employee voice literature; Van Dyne et al. 2003) and providing an authentic employer image (see, e.g., Reis et al. 2017). Employers can draw on our findings and engage in sending a signal of care to current, former, and potential employees by becoming responsive on employer review websites. Consequently, employers that do not respond to their employer reviews can in turn be regarded as uncaring since they do not engage with employee concerns in this way. Interestingly, our research indicates that merely responding to employer reviews sends a signal that the focal company cares about its employees. Since many companies do not respond at all, employers can differentiate themselves by doing so and demonstrate that they take employee concerns seriously. Our findings imply that employees perceive this employer signal and show their appreciation for it by writing more diverse and extensive reviews, resulting in reviews that are 5% more extensive on average for responsive (vs. nonresponsive) employers. Moreover, employers that are interested in addressing the employee concerns expressed in negative reviews (e.g., one-star ratings) will particularly benefit from their responsiveness, as negative reviews of responsive employers contain about 19% more extensive employer information than those of nonresponsive employers. Thus, responsive employers are more likely to be able to address employee concerns, as employees provide significantly more information in negative reviews of responsive (vs. nonresponsive) employers. To put these percentage values into perspective, it is important to consider the large and increasing visitor numbers of employer review platforms. Even a seemingly minor increase of 5% in information extensiveness on review platforms like Kununu, Glassdoor, and Indeed can significantly impact the opinions of thousands of current, former, and potential employees and, as a result, the amount of feedback that employers receive. Thus, as responsive employers receive more information from employees regarding their organizations as places to work, they are able to recognize their perceived strengths and, especially, identify improvement opportunities (due to the 19% increase in information extensiveness in one-star reviews). To further contextualize our effects, in 2023, Glassdoor attracted over 55 million unique visitors per month and contained over 180 million employer-related information items, including employer reviews (Dube and Zhu 2021; Glassdoor 2024). Given these large impression numbers and the permanent online presence of these reviews reaching millions of people over time, it is clear that even seemingly minor increases in review extensiveness can have substantial effects and major implications for companies and employees worldwide due to the widespread and increasing usage of employer review platforms.

TABLE 5 | OLS results for the main effects of responsiveness on the LIWC variables.

	Dependent variable			
	Verbs	**Numbers**	**Articles**	**Cognitive content**
Position (C-suite/leadership)	−1.076***	−0.114***	−0.054	0.086
	(0.046)	(0.011)	(0.033)	(0.054)
Department (administration)	0.133	−0.013	0.342***	0.167*
	(0.073)	(0.017)	(0.053)	(0.083)
Department (design)	−0.354*	−0.004	0.170	−0.137
	(0.158)	(0.032)	(0.117)	(0.182)
Department (distribution/sales)	−0.005	0.078***	0.395***	0.139*
	(0.064)	(0.014)	(0.044)	(0.069)
Department (executive leadership)	−0.635***	0.115**	0.531***	−0.248
	(0.185)	(0.044)	(0.153)	(0.234)
Department (finance)	−0.266*	−0.0004	0.081	−0.224
	(0.114)	(0.024)	(0.082)	(0.131)
Department (human resources/recruiting)	−0.306**	−0.086***	0.343***	−0.189
	(0.100)	(0.019)	(0.080)	(0.117)
Department (IT)	−0.009	0.047**	0.360***	0.330***
	(0.065)	(0.016)	(0.051)	(0.076)
Department (legal/tax)	−0.087	−0.084	0.345*	−0.384
	(0.228)	(0.046)	(0.169)	(0.252)
Department (logistics/materials management)	0.608***	0.188***	0.424***	0.130
	(0.127)	(0.034)	(0.097)	(0.135)
Department (marketing/product management)	−0.595***	−0.043*	0.245***	0.071
	(0.083)	(0.017)	(0.064)	(0.101)
Department (medical)	0.323	0.108	0.765***	−0.362
	(0.292)	(0.068)	(0.213)	(0.335)
Department (others)	0.498***	0.071***	0.502***	0.484***
	(0.056)	(0.013)	(0.043)	(0.064)
Department (PR/communication)	−0.478**	−0.018	0.234*	−0.095
	(0.153)	(0.034)	(0.113)	(0.174)
Department (production)	0.559***	0.181***	0.589***	0.259*
	(0.088)	(0.023)	(0.069)	(0.103)
Department (purchasing)	−0.234	0.090*	0.193	−0.032
	(0.150)	(0.036)	(0.115)	(0.179)
Department (research/development)	−0.347***	0.019	0.263***	0.448***
	(0.094)	(0.019)	(0.069)	(0.114)
Employment status (former employee)	1.139***	0.169***	0.570***	0.476***
	(0.037)	(0.009)	(0.026)	(0.041)

(Continues)

TABLE 5 | (Continued)

	Dependent variable			
	Verbs	**Numbers**	**Articles**	**Cognitive content**
Responsiveness	0.050	0.025	0.070	0.169*
	(0.067)	(0.016)	(0.048)	(0.076)
Employer fixed effects	Yes	Yes	Yes	Yes
Quarter fixed effects	Yes	Yes	Yes	Yes
R^2	0.123	0.086	0.090	0.089
Adjusted R^2	0.056	0.016	0.020	0.019

Note: $N = 298{,}269$ reviews from 21,099 employers over 45 quarters. Cluster-robust standard errors are in parentheses. The reference category for a reviewer's position is "Employee." The reference category for a reviewer's department is "Not specified." The reference category for employment status is "Current employee."
*$p < 0.05$.
**$p < 0.01$.
***$p < 0.001$.

5.3 | Limitations and Future Research

Our work is subject to several limitations that offer rich opportunities for future research. First, the reviews examined in our study were obtained from a single employer review website. Therefore, while our analysis allowed for a comparison of the information diversity and extensiveness of reviews of responsive and nonresponsive employers, our design did not permit us to determine whether the observed effects were caused by changes in the behavior of the reviewers or by self-selection. Although reviewers might start to justify their reviews with more diverse and extensive employer information due to employer responsiveness (behavioral change), reviewers who are unable to justify reviews in this way might also refrain from publishing reviews after an employer has responded (self-selection).

Second, we did not consider differences in employer response strategies, such as type or style. While we theorized on employer responsiveness, we did not investigate how different types of responses (e.g., negative responses denying reviewers' claims or positive responses expressing appreciation for reviews) relate to the signaling feedback. Exploring response styles is a wide-open field for further research since it is quite conceivable that effective strategies for responding to customers are not equally useful for responding to employees (see, e.g., Sparks and Bradley 2017). For example, while a simple apology may be sufficient to recover a customer relationship, it is unlikely to recover a damaged employee relationship. Therefore, we encourage content analysis of employer responses and further experimental research to determine the effectiveness of different response strategies; see Carpentier and Van Hoye (2020) and Könsgen et al. (2018) as a starting point for this research avenue.

Thus, future research should draw on our findings and investigate differences in employer responses and their impact on the consequential employer reviews. Therefore, future research should go beyond the distinction between employer responses versus nonresponses and analyze different employer response types. These response types may, for instance, include *denying responses* (i.e., the employer denies the claim an employee makes in their review), *appreciative responses* (i.e., the employer appreciates the positive feedback in a review), and *understanding responses* (i.e., the employer shows understanding for the issues and concerns raised and claims to undertake measures to fix them). In this regard, future research may investigate how these employer response types relate to employer reviews.

In this vein, future research should also move beyond examining the variety of topics covered and the amount of information provided in employer reviews (as in the current study) and analyze how response types influence reviews in terms of their *sentiment* (e.g., to what extent employer reviews are positive or negative), *emotions* (e.g., to what extent employer reviews reflect anger), *appreciation* (e.g., to what extent employees express gratitude for employers' replies), and *behavioral intentions* (e.g., whether employees indicate the intention to leave their organizations or recommend employers). Thus, future studies should explore how different employer response types relate to and are reflected in subsequent employer reviews. Doing so is important for future HRM research as it would advance our understanding of the dynamic interactions between employers and employees on employer review websites and their implications for employer images. Based on these insights, employers may apply different response strategies to elicit desired employee reactions (e.g., an understanding response might increase employee appreciation and lead to a shift in employee opinions). Hence, examining how different response types relate to the emotional valence of subsequent reviews would provide important insights that could help employers shape their response strategies to improve their employer images and mitigate reputational damage. Relatedly, our theorizing is limited to the interpretation of the employer signal (i.e., employer responsiveness) and the resulting feedback by employees. We encourage future research to go beyond investigating the effect of employer signals on the resulting employer reviews and to theorize on the implications of the signaling feedback on the resulting signaler behavior.

Finally, although employer review websites provide a rich and novel data source, they also have limitations (Karaman 2021; Marinescu et al. 2021). For example, we do not know the individual characteristics of reviewers (e.g., age and gender). In addition, unobservable factors may determine the content of online reviews on these websites. For example, organizations

may proactively encourage satisfied employees to submit a review or, in the worst case, may even submit fake reviews to boost their employer images on these websites (Salminen et al. 2022).

6 | Conclusion

Our work theoretically explores and empirically identifies the effects of employer responsiveness on the diversity and extensiveness of the employer information presented in reviews on employer review websites. Critically, our study extends the prevailing theoretical perspectives that emphasize responding from a threat management perspective (see, e.g., Dineen et al. 2019; Etter et al. 2019; George et al. 2016; Ki and Nekmat 2014; Pfarrer et al. 2008; Ravasi et al. 2018; Wang et al. 2016) and establishes that employer responsiveness also plays a role in indirect control over third-party judgments. Both academic (e.g., Dineen et al. 2019) and practical (e.g., Bates 2016; Grensing-Pophal 2019; Lewis 2019; Maurer 2017) studies have discussed how employers should deal with online employer reviews, and studies like ours are critical to answering this question.

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Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

The data that support the findings of this study are available from Kununu. Restrictions apply to the availability of these data, which were used under license for this study. Data are available from the author(s) with the permission of Kununu.

Endnotes

[1] Kununu changed its review template in 2010, switching from one open-ended comment field to several open-ended comment fields for each rated aspect of an employer. Our main results are fundamentally the same when restricting our study period to January 2010–June 2018; these results are available upon request.

[2] The example responses were translated from German to English via DeepL (https://deepl.com/translator).

[3] We used the same dataset as a recent study on employer image and branding that shows how content in open-ended comments of employer review platforms relates to companies' favorability ratings (Höllig et al. 2024). The article by Höllig et al. (2024) answers the question of which content (e.g., instrumental vs. symbolic, cognitive vs. emotional, etc.) is prevalent in employer reviews; thus, it focuses on the role of different trait attributions and the prevalence of content characteristics in employer reviews. A uniqueness analysis showing that the research questions, theoretical explanations for phenomena, variables, and theoretical and managerial implications are substantially distinct is available from the authors upon request.

[4] The results for modeling information extensiveness also using reviews without text (i.e., reviews with an information extensiveness equal to zero) in a Poisson regression model are fundamentally the same in terms of direction and significance as the results reported in this article. The results are available upon request.

[5] The results of our analyses including reviews from interns, freelancers, and temporary workers are the same in terms of direction and significance as the results reported in this article. When also including reviews with missing position/employment status, the coefficient of the direct effect of responsiveness on information diversity was significant at $p < 0.1$, while information extensiveness remained robust at $p < 0.001$. The results are available upon request.

[6] LDAvis plots topics in a two-dimensional field. Topics are represented by circles that are proportional in size to the frequency of each topic's terms (unigrams, bigrams, trigrams) over the entire text corpus. Proximity is based on the similarity of term distributions; thus, overlapping circles represent topics with similar terms (see Sievert and Shirley 2014).

[7] An overview of the topic labels, an example review that loads highly on the respective topic, and the top 15 highest-loading terms (unigrams, bigrams, trigrams) per topic are presented in the Supporting Information of this article.

[8] Kununu discloses only the month of an employer response, not the exact date. Therefore, we modeled responsiveness at the month level to address this limitation of our dataset. For instance, if an employer responded to its first review in January 2017, responsiveness was dummy coded 1 for reviews of this employer posted after January 31, 2017, and 0 otherwise. The results for modeling responsiveness at the quarter level are fundamentally the same as the results reported in this article. The results are available upon request.

[9] The formulas used to model the dependent variables are presented in the Supporting Information of this article.

[10] The tables including treatment-specific linear and quadratic time trends are presented in the Supporting Information of this article.

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Supporting Information

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