Examining the halo effect in reputation measurement:

comparative analysis of survey- and social listening-based data

Kiki Hannink (s3293262)

Faculty of Behavioral, Management and Social Sciences (BMS)

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Prof. Dr. M. D. T. de Jong

Dr. S. R. Jansma

Dipl. Ing. oec. J. Forthmann

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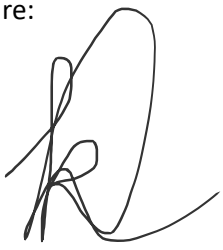

Preface

This thesis was written as the final requirement for completing the master's programme in Communication Science at the University of Twente. The subject of this thesis was developed in collaboration with Mr. Jörg Forthmann. My interest in this topic was sparked during the Reputation Management course, taught by Prof. Dr. Menno D. T. de Jong. During one of the lectures, Mr. Jörg Forthmann delivered a guest lecture, after which I explored the possibility of conducting my research in collaboration with his company. This led to the present study on the halo effect in reputation research.

I would like to thank Mr. Jörg Forthmann and Prof. Dr. Menno de Jong for their guidance throughout this thesis. I particularly wish to thank Mr. Forthmann for granting me access to his data, as well as for the time and effort his colleagues, Ms. Tanja Holzwart and Ms. Carola Klaus, dedicated to familiarizing me with the processes at IMWF Institut für Management- und Wirschaftsforschung. Additionally, I am grateful for the personal guidance he provided. Furthermore, I would like to thank Dr. Sikke Jansma for his collaboration in my supervision.

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Abstract

Purpose: Corporate reputation is an intangible asset that influences consumer trust, stakeholder relationships, and competitive advantage. Measuring reputation can be complex, as it is susceptible to the halo effect, where an overall impression distorts the evaluation of individual attributes. This study investigates the extent to which the halo effect influences corporate reputation assessments across two distinct measurement approaches using the Reputation Quotient: survey-based research and social listening-based analysis. Social listening is the process of examining online discourse to assess public sentiment. **Method:** This research employs a comparative analysis of secondary data from ten large German companies, collected through both structured surveys and social listening tools. Correlation and regression analyses are used to assess interdimensional relationships within reputation measurements and to determine the prominence of specific reputation dimensions. Differences in how the halo effect manifests across these two methods are examined. **Results:** The results indicate that survey-based reputation assessments are more susceptible to the halo effect, with higher interdimensional correlations suggesting that respondents may evaluate dimensions based on overarching impressions rather than independent attributes. In contrast, social listening-based reputation assessments exhibit lower interdimensional correlations, implying a more differentiated and independent evaluation of reputation dimensions. Furthermore, regression analyses show that different reputation dimensions hold varying levels of importance depending on the measurement method. The products and services dimension emerges as an especially influential factor. **Conclusion:** These findings highlight important methodological differences in corporate reputation measurement. Survey-based reputation measurement is more prone to the halo effect, potentially leading to overly coherent but distorted assessments of individual dimensions. Social listening provides a more independent assessment of reputation dimensions, making it a stronger tool for reputation management. It helps organizations identify specific areas for improvement and develop targeted strategies to enhance and sustain their reputation.

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1. Introduction

Reputation is a valuable organizational asset, shaped by stakeholders' perceptions of the organization (Fombrun, 1996; Lange et al., 2011; Rindova et al., 2010). It plays a crucial role in various aspects of an organization, thereby influencing overall business success (Fombrun & Van Riel, 2004). Among those aspects is the ability of a strong reputation to attract highly skilled professionals and establish strategic alliances, thereby contributing to long-term strategic growth (Graca & Arnaldo, 2016). Moreover, a favorable reputation serves as a key determinant in consumer decision-making processes. Customers perceive a strong reputation as a mechanism for reducing uncertainty and mitigating risks associated with purchasing decisions. As a result, they are more inclined to choose products and services from companies with a well-established reputation (Rindova et al., 2005). Beyond these internal and consumer-related advantages, corporate reputation also influences competitive positioning. In the contemporary business environment, where competition is intense and technological advancements enable rapid imitation of products and services, differentiation based on tangible offerings has become increasingly challenging. However, corporate reputation remains a distinctive and enduring competitive advantage, as it is not easily replicated (Marrocu et al., 2012). Organizations that cultivate and maintain a strong reputation can differentiate themselves effectively in the marketplace and build lasting trust with consumers (Shamma, 2012).

A strong reputation is a valuable asset, yet it remains highly fragile (Alsop, 2004). It requires years to develop yet can be rapidly undermined by negative events or mismanagement (Shamma, 2012). Therefore, organizations must prioritize proactive reputation management to safeguard their credibility and sustain their strategic value over time. To effectively manage corporate reputation, reputation measurement is of paramount importance. A structured reputation assessment provides a clear understanding of how an organization is currently perceived by various stakeholders, which is essential for identifying strengths and weaknesses. By systematically measuring reputation, firms can benchmark their performance against competitors and industry standards (Walker, 2010), thereby gaining competitive advantage. Furthermore, reputation measurement enables organizations to

monitor shifts in stakeholder perceptions and proactively address potential reputational risks, ensuring long-term sustainability and resilience in a dynamic business environment (Galdón Salvador & Marín Díaz, 2024).

While reputation measurement is of critical importance, assessing reputation remains inherently complex with methodological challenges. A potential challenge is the influence of the halo effect. The halo effect is originally conceptualized by Thorndike (1920) as a systematic error in psychological evaluations. The halo effect can shape judgments by leading individuals to form overarching evaluations rather than assessing attributes independently. This phenomenon can result in inaccurate reputation measurements, especially when it involves specific reputation dimensions. When the data used to assess reputation is influenced by the halo effect, the attributes on which reputation is measured may not accurately reflect what they intend to capture. Each attribute may be affected by an overarching perception, causing the evaluation of attributes to appear more similar than they actually are, thereby masking their true differences (Fisicaro & Lance, 1990).

Scholars have developed various approaches to measuring reputation, which can be categorized into global and analytic reputation assessments (Money & Hillenbrand, 2006). Global measurements focus on overall impressions and broad stakeholder perceptions, capturing subjective evaluations of an organization's reputation as a whole. In contrast, analytic approaches break reputation down into specific attributes and quantifiable indicators, offering a more structured and detailed assessment. While analytic approaches provide valuable insights, they are susceptible to cognitive biases such as the halo effect. As overarching perceptions can influence the evaluation of individual dimensions. Given these challenges, researchers and practitioners must remain attentive to the potential distortions caused by the halo effect and continuously refine measurement methodologies to improve accuracy.

This study examines the impact of the halo effect on corporate reputation measurement by comparing two distinct methodologies: survey-based reputation measurement, and social listening-based reputation measurement. The comparison of two methodologies is relevant, as it provides

understanding of how differing data collection methods can produce varied perspectives on reputation. This leads to the following research question: To what extent does the halo effect influence corporate reputation measurement across survey-based and social listening-based methods? To address this question, the study examines the following sub questions:

How do interdimensional relationships differ between social listening-based and survey-based reputation measurement methods?

How does the prominence of reputation dimensions differ between social listening-based and survey-based measurement approaches?

The social listening approach focuses on media analysis rather than direct respondent input. This approach involves examining media statements, social media discussions, and online news coverage to assess corporate reputation by identifying sentiment of stakeholder perceptions (Du et al., 2015; Goh et al., 2013; Grubmüller et al., 2013; Guitart et al., 2024). By collecting online statements about companies and analyzing their sentiment, insights into their reputation can be derived (Westermann & Forthmann, 2021). By leveraging large-scale digital data, social listening provides insights into how an organization is perceived in the public domain, allowing firms to detect emerging reputational risks and opportunities. Survey-based corporate reputation measurement utilizes structured surveys and questionnaires administered to individuals (Sarstedt et al., 2013). This method facilitates the direct and systematic collection of self-reported perceptions from stakeholders. By analyzing how the halo effect manifests in each methodology, this research aims to improve corporate reputation assessments. The following theoretical framework explores key concepts related to corporate reputation, its measurement, and the role of the halo effect.

2. Theoretical framework

This chapter outlines the theoretical foundation of this study. Section 2.1 defines reputation. Section 2.2 discusses reputation measurement, evaluating different frameworks and justifying the selection of the Reputation Quotient for this study. Section 2.3 introduces the halo effect, and section 2.4 addresses methodological considerations for measuring the halo effect.

2.1 Reputation

Reputation is defined as the collective evaluation of an organization by its stakeholders, shaped by their experiences, interactions, and information they encounter over time (Fombrun, 1996). It is also viewed as an intangible organizational asset (Rindova et al., 2010) and a perception linked to favorability (Lange et al., 2011). This study adopts a synthesized perspective, considering reputation as a valuable organizational asset shaped by stakeholders' perceptions (Fombrun, 1996; Lange et al., 2011; Rindova et al., 2010).

Reputation emerges from stakeholders' processing and interpretation of various informational cues (Etter et al., 2019). Some of these cues are deliberately disseminated by organizations through corporate communications, while others are derived from direct exposure to products or services. Additionally, external actors, such as the media, also produce cues that significantly influence stakeholders' perceptions (Etter et al., 2019). Media reputation, refers to how an organization is portrayed in media coverage, encompassing both traditional outlets like newspapers and digital platforms such as social media (Deephouse, 2000). Although media is not the sole determinant of reputation, it plays a crucial role, particularly for individuals who lack direct exposure to an organization's products or services. In such cases, media narratives can significantly influence public perceptions and organizational evaluations (Carroll, 2011).

These differing perspectives highlight the dual nature of reputation: on the one hand, as a strategic resource that organizations seek to manage and leverage, and on the other, as a dynamic social evaluation that evolves through stakeholder discourse and external influences. Reputation

requires sustained effort to cultivate yet remains vulnerable to rapid deterioration (Shamma, 2012). The fragility of reputation underscores its strategic significance, as reputational shifts can profoundly influence an organization's long-term sustainability and operational resilience (Portman-Smith & Harwood, 2015).

2.2 Reputation measurement

There is no universal consensus on how corporate reputation should be measured, as different methodologies have been developed over time. This study adopts the Reputation Quotient (Fombrun et al., 2000).

The origins of reputation measurement can be traced back to traditional rankings, such as those provided by Fortune (Hutton, 1986; Schwaiger, 2004). However, these rankings have been subject to criticism regarding that they may place disproportionate emphasis on financial performance, which could result in an incomplete representation of corporate reputation by neglecting other critical dimensions (Brown & Perry, 1994). Alternative models for measuring corporate reputation have been developed, including the Corporate Character Scale (Davies et al., 2004) and the RepTrak Model (Ponzi et al., 2011). The Corporate Character Scale focuses on assessing the personality traits of an organization by evaluating it from the perspective of both employees and customers (Davies et al., 2004). While this model offers valuable insights into how an organization is perceived by both internal and external stakeholders (Maduro et al., 2018), it was considered unsuitable for this comparative study due to its dependence on social listening-based measurement. Which is primarily externally focused. As a result, internal stakeholders cannot be systematically included in the analysis. Although internal stakeholders may contribute to the statements captured in the dataset, their specific influence remains unquantifiable. The RepTrak Model (Ponzi et al., 2011), the successor to the Reputation Quotient, has been validated and widely accepted. However, this approach was not selected for this study. Some scholars argue that its inherent simplifications may fail to capture the complexity of corporate reputation, which more

comprehensive multi-item scales can measure more effectively (Ponzi et al., 2011). Therefore, this study adopts the Reputation Quotient, as it provides a more nuanced and multidimensional assessment of corporate reputation. The Reputation Quotient offers a structured, multidimensional framework for reputation assessment and is considered one of the most advanced measurement models (Schwaiger, 2004). Its widespread application in academic research further supports its validity as a robust measurement tool (Apéria et al., 2004; Gardberg, 2006; Kanto et al., 2013). Due to these considerations, the Reputation Quotient has been selected for this study as it provides a comprehensive approach to measuring corporate reputation. The Reputation Quotient (Fombrun et al., 2000) is employed in this study as a standardized framework for both survey-based and social listening-based research methods.

The Reputation Quotient (Fombrun et al., 2000) assesses reputation across six key dimensions: financial performance, vision and leadership, products and services, workplace environment, social responsibility, and emotional appeal. Each dimension comprises specific attributes that collectively provide a comprehensive assessment of an organization's reputation. Not all dimensions contribute equally to corporate reputation. Previous research has confirmed the relevance of the six dimensions outlined in the Reputation Quotient framework, with emotional appeal and products and services identified as primary drivers of reputation (Apéria et al., 2004). In contrast, other studies that do not utilize the Reputation Quotient framework emphasize the significance of financial performance in shaping corporate reputation (Balmer & Gray, 2003). This suggests that financial performance may also constitute an important dimension. However, feedback exists regarding the prominence attributed to financial performance in certain reputation measurement techniques (Brown & Perry, 1994). Furthermore, this dimension emerged as the least significant in the study by Apéria et al. (2004), in which the Reputation Quotient was applied. In the present study, financial performance is not expected to be the most influential dimension; however, it may still play a role, given that the research focuses on publicly listed companies. Since financial information about these companies is widely available and easily accessible to the public, it could

shape stakeholders' perceptions and influence reputation assessments. By contrast, the products and services dimension is anticipated to be highly influential, as consumer experiences with a company's products are closely associated with the formation of its overall reputation (Açikgöz et al., 2024). Given that product quality and customer satisfaction are highly visible and frequently discussed in public and online, they serve as key drivers of stakeholder perceptions.

2.3 The halo effect in reputation measurement

The halo effect occurs when a rater's overall impression influences their judgments on distinct, independent traits (Thorndike, 1920). Balzer and Sulsky (1992) propose differentiating between two conceptualizations of the halo effect, general impression halo and dimensional similarity halo. The concept of a general impression halo is consistent with Thorndike's (1920) original definition of the halo effect. This is described as a general impression bias, whereby a rater's overall evaluation or impression of a candidate influences the rater to evaluate all aspects of performance in a manner consistent with this general evaluation or impression. The term 'dimension similarity halo' is used to describe a tendency for raters to evaluate the various dimensions of a performance in a similar manner. Fisicaro and Lance (1990) expand this classification, identifying three types of halo effects: general impression, salient dimension, and inadequate discrimination. The salient dimension halo occurs when a prominent trait biases judgments of other traits. Inadequate discrimination reflects a rater's difficulty distinguishing between behaviors, leading to inflated assessments. In the present study, distinguishing between different forms of the halo effect is not possible due to methodological limitations in the chosen measurement approach, which does not allow for the isolation of distinct halo biases. The analysis employed for detecting the halo effect does not allow for an identification of its specific origins. Given these limitations, this study adopts the general impression halo, as originally conceptualized by Thorndike (1920), as the primary theoretical framework for interpreting the halo effect.

The halo effect has been observed multiple times in survey-based research (Sackmary, 2015; Thomas & Reimann, 2023). Findings indicate that, despite their efforts and perceived objectivity, respondents often struggle to provide entirely unbiased and correct evaluations (Thomas & Reimann, 2023). Respondents frequently provide overall impressions in their evaluations (Breathett et al., 2019). An overall positive or negative impression of an organization will influence the ratings given to specific attributes (Leuthesser et al., 1995), resulting in dimensional rating intercorrelations to be higher than they may be in reality (Feeley, 2002). It is possible that respondents in survey-based research may lack the ability to evaluate specific dimensions in an independent manner. This aligns with the global measurement of reputation. Where the measurements focus on general impressions and subjective evaluations (Money & Hillenbrand, 2006). In the case of well-established brands, consumers who display high levels of brand loyalty may exhibit a pronounced halo effect in survey-based research, frequently rating all brand attributes in a favorable manner as a result of their attachment to the brand. Such attachment can distort reputation measurements, as favorable impressions are applied uniformly across dimensions, regardless of actual performance (Ahluwalia et al., 2000). The tendency of respondents to exhibit subjectivity and their potential inability to evaluate distinct dimensions separately suggests that reputation measurement based on survey research may be highly susceptible to the halo effect. This is particularly concerning when organizations make strategic decisions based on such data. Companies relying on information influenced by the halo effect may overestimate their strengths or overlook specific areas requiring improvement (Nisbett & Wilson, 1977). This occurs because the data, distorted by the halo effect, fail to accurately indicate which specific dimensions perform well or poorly. As a result, an overall impression may unduly shape evaluations across individual dimensions, leading to a more cohesive but potentially misleading assessment. Consequently, businesses may lack a clear understanding of their actual performance across different dimensions, increasing the risk of strategic misjudgments (Nisbett & Wilson, 1977). The study by Caruana and Chircop (2000) draws attention to the existence of a halo effect in reputation measurement within survey based research, thereby prompting an important

consideration: does the halo effect compromise the reliability of reputation scores by introducing bias, or could it be viewed as an intrinsic aspect of reputation itself? This question remains unresolved in the literature, thus it is essential to determine whether survey-based reputation assessments are inherently biased by halo effects or whether they accurately capture the general impression that people hold.

The halo effect in social listening may differ from the halo effect in survey-based research. In social listening data, reputation is assessed through public conversations across digital platforms, where unfiltered opinions shape the perception of organizations (Ji et al., 2017). Online content and social media discussions have a significant impact on organizational reputation (Aula, 2010), making the analysis of these interactions essential for understanding public sentiment (Westermann & Forthmann, 2021). Negative information disseminates rapidly on social media and serves as a more informative indicator of firm performance than positive discourse (Tirunillai & Tellis, 2012). The presence and mechanisms of the halo effect in social listening remain relatively unexplored. However, potentially the halo effect exhibits unique spillover effects in social listening. Borah and Tellis (2016) introduce the concept of a 'perverse halo' in social media, wherein negative online chatter about one brand spills over and amplifies negativity about related brands. This indicates that the halo effect may also be present in online discourse, which constitutes the primary data source in social listening measurement techniques. Consequently, it is possible that the halo effect is also present within this research approach. Moreover, viral events on social media, such as trending topics or reputational crises, may contribute to halo effects by shaping public opinion on unrelated aspects of an organization. A single highly visible incident can potentially trigger broader reputational shifts as it spreads through online networks (Pfeffer et al., 2014). This may contribute to an overall reputational bias, where specific incidents exert an undue influence on broader organizational evaluations. Existing research also indicates that socially responsible corporate initiatives are associated with increased positive word of mouth on social media (Vo et al., 2019). This enhanced overall perception subsequently influences consumer evaluations of an organization’s products and

services, demonstrating how reputational assessments may be shaped by overarching impressions rather than detailed attribute-based evaluations. Such effects persist when consumers possess limited knowledge about specific organizational attributes (Vo et al., 2019), further underscoring the potential influence of the halo effect in social listening-based reputation measurement.

2.4 Measurement of halo effect

Despite agreement on the conceptual definition of the halo effect, there is little consensus on how to measure it (Pulakos et al., 1986). According to Leuthesser et al. (1995), identifying a failure to discriminate between various attributes is an important aspect of detecting a halo effect. This failure to discriminate results in a greater degree of co-variation between individual attribute ratings than would otherwise be the case, leading to higher-than-actual correlations between attribute ratings (Leuthesser et al., 1995). Researchers have traditionally considered dimensional intercorrelations as a useful indicator of the halo effect (Feeley, 2002; Feldman, 1986; Fisicaro, 1988; Pulakos et al., 1986). The most widely used technique is the average correlation between each pair of dimensions (Feeley, 2002), which serves as an indicator of potential rater bias. Specifically, high intercorrelations between dimensions may suggest that overall impressions influence ratings across multiple traits rather than reflecting independent evaluations.

While correlations between dimensions provide insights into potential biases, they offer only a limited perspective on the underlying mechanisms. To isolate the bias-driven component of interdimensional correlations, the average correlation between each pair of dimensions is not enough (Hoyt, 2000). This is because observed correlations between rated attributes may result from both genuine relationships between the dimensions and artificial inflation due to halo effects. Consequently, examining the relationships between reputation dimensions is crucial for understanding potential bias in evaluations. Certain dimensions may exert a disproportionately strong influence, shaping the perception of other dimensions and creating systematic biases in reputation assessments. If a key dimension dominates the evaluation process, it can obscure the

independent effects of other dimensions, leading to an overgeneralized reputation assessment. To explore these interdependencies, regression analysis can serve as a complementary approach (Fairweather, 1988). By modelling each dimension as a dependent variable and including the remaining dimensions as predictors, this method enables the identification of interdimensional influences embedded within the evaluation process. The application of regression analysis in this context aligns with prior research that employs this technique to examine interdependencies in reputation-related studies (Özhan et al., 2025; Park et al., 2020). By integrating correlation and regression analyses, this framework facilitates a more comprehensive assessment of how the halo effect manifests within reputation research.

Although factor analysis is regarded as a valuable method for assessing the halo effect, particularly by identifying whether a single dominant factor accounts for the variance in ratings across multiple dimensions (Leuthesser et al., 1995), it was not employed in this study. This decision was made because the social listening data collected was not suitable for factor analysis. Given that this study involves a comparative analysis of survey data and social listening data, the lack of structured and standardized attributes in the social listening dataset presents a significant limitation. Therefore, factor analysis was not utilized.

2.5 Conclusion

This study aims to examine how the halo effect manifests in social listening-based reputation measurement and whether it differs from its manifestation in survey-based research. In doing so, it contributes to the broader debate on global versus analytic reputation assessments by exploring whether social listening allows for a more analytic measurement of reputation or if overall impressions influence attribute-specific evaluations, as is often the case in survey-based research (Breathett et al., 2019; Sackmary, 2015; Thomas & Reimann, 2023).

3. Method

3.1 Research design

This study aims to examine how the halo effect influences corporate reputation assessments across two distinct measurement approaches: survey-based research and social listening. To compare these research types, the study involves a secondary analysis of two pre-existing datasets.

To assess the potential presence of a halo effect, this study first analyzes interdimensional correlations to determine the extent to which reputation dimensions are interrelated within each research method. Additionally, regression analysis is applied to examine whether certain dominant dimensions strongly influence ratings of other dimensions.

Through this comparative approach, the study aims to provide insights into the methodological differences in reputation measurement and assess whether the halo effect manifests differently in survey-based and social listening-based research.

3.2 Selection of companies

This study examines the reputations of ten large German companies. The dataset includes the following companies: Adidas, Airbus, Allianz, BMW, Commerzbank, Daimler, Deutsche Bank, Deutsche Post, Deutsche Telekom, and Lufthansa. These companies operate across various industries, including automotive, finance, logistics, telecommunications, aerospace, and consumer goods. To ensure sufficient online discourse for social listening analysis, only large, publicly known companies were selected. A selection criterion was that each company employs at least 5,000 staff members. This requirement increases the likelihood of substantial online discussions, a crucial factor in ensuring the effectiveness of the social listening methodology.

Another key requirement was that the companies engage in business-to-consumer (B2C) transactions, offering at least some products or services to end users. This criterion is significant, as business-to-consumer (B2C) organizations typically have greater public visibility. In the context of

both social listening and survey-based research, public awareness of a company is crucial. Visibility enables respondents to provide more informed assessments in surveys. Furthermore, B2C organizations are particularly valuable for research based on social listening, as they generate more informative data due to their extensive online presence. Consumers increasingly rely on the internet as a primary source of information, frequently engaging in online searches and browsing activities (Wang & Xu, 2017). B2C organizations tend to have a stronger digital footprint.

3.3 Social listening data

In the period from 1 September 2018 to 30 April 2019, social listening data were retrieved from 213,000 online content sources, including online news articles, press releases, social media platforms, blogs, consumer reviews, comments, videos, and images. These data were retrieved from all publicly accessible online sources through the monitoring service provider Pressrelations GmbH. For each company, data were gathered daily over a period equivalent to that of the survey-based data collection. However, the social listening data collection commenced slightly earlier, as these data were originally assembled for a prior study examining the predictive nature of social listening. In the present study, temporal variations were not considered.

To process the raw website crawl data, Skaylink served as the IT partner, facilitating the management of large-scale data. In total, over 280,000 statements were collected and analyzed. Experts employed rule-based artificial intelligence (AI) methods to identify grammatical structures and classify texts using word lists and complex sequence patterns. Additionally, neurolinguistic rules were integrated into the machine learning analysis. This combination of approaches enabled the mitigation of the individual strengths and weaknesses inherent in each technology. The AI tools were trained using supervised learning, which involved exposure to manually labeled datasets to enhance their accuracy. In prior literature on the application of machine learning for sentiment analysis, an accuracy rate of 84.4% is considered satisfactory (Klein et al., 2019). The AI employed in this study

achieved an accuracy rate of at least 85%. For the purpose of this research, the specific source of each mention was not considered a relevant factor. Instead, the dataset was filtered based solely on dimensional and sentiment classification, ensuring an emphasis on the overall tone of online discourse rather than its origin.

To structure the dataset for analysis, the data were categorized according to five reputation dimensions defined by Fombrun et al. (2000): financial performance, vision and leadership, products and services, workplace environment, and social responsibility. The sixth dimension, emotional appeal, was not included as a variable in the existing dataset, rendering its incorporation into the research infeasible. Furthermore, in the context of social listening, distinguishing emotional appeal from other factors presents a significant challenge, as it is often interwoven in the other dimensions. Each statement regarding a company was classified under one of the five dimensions and further categorized into positive, neutral, or negative sentiment classifications. To facilitate comparative analysis, a weighted averaging approach was applied. Sentiment scores were calculated using a three-point weighting system, in which negative mentions were assigned a weight of 1, neutral mentions a weight of 2, and positive mentions a weight of 3. This methodology ensured that sentiment classification was both qualitative and quantitative, accounting for intensity. For each dimension, a daily weighted average was computed by dividing the weighted sentiment sum by the total number of mentions per day. This approach accounted for variations in discussion volume and ensured that sentiment trends were proportionally represented. By incorporating a broad spectrum of public opinion and sentiment, this methodological approach provided a robust foundation for analyzing corporate reputation across diverse online discussions.

3.4 Survey-based data

The survey-based data were collected through questionnaires. Data collection was conducted in eight waves as part of the original study to examine changes in reputation scores over time. However, the present study does not account for temporal changes. A total of 8,000 unique

respondents completed the questionnaire. Respondents only evaluated companies they perceived themselves as qualified to assess based on a filter question. The number of respondents who rated a specific company is documented in Table 1. The data collection process was facilitated by the panel provider Toluna within a timeframe that largely overlapped with the period during which the social listening data were gathered. This alignment ensured comparability between the two datasets. Respondents were selected using a quota sampling approach based on gender, age, and federal state, ensuring a sample that accurately reflects the representative structure of the population.

Participants were invited to evaluate the companies' reputations across the same five dimensions used in the social listening study, using five-point scales (1 = "very bad", 5 = "very good"). For each company that a respondent considered themselves capable of evaluating, they answered six questions, one for each of the five reputation dimensions and one addressing overall reputation. Participants were asked to assess (a) the company's management, (b) its sustainability in terms of social, ecological, and economic commitments, (c) its attractiveness as an employer, (d) the quality of its products and services, and (e) their overall confidence in the company. The final variable, confidence in the company, was excluded from the present study, as no equivalent overall measure existed within the social listening dataset. This research design facilitated a direct comparison between the survey-based findings and the insights derived from social listening data.

Table 1

Number of respondents per company

Company	Respondents
Adidas	3465
Airbus	1224
Allianz	2815
BMW	2938
Commerzbank	2472
Daimler	2238
Deutsche Bank	2677
Deutsche Post	4700
Deutsche Telekom	4735
Lufthansa	2951

3.5 Data analysis

The analysis of possible halo effects is conducted by employing the average interdimensional correlation method, a technique that aligns with prior research on rater biases (Feeley, 2002; Feldman, 1986; Fisicaro, 1988; Pulakos et al., 1986). Correlation analysis was conducted separately for survey-based and social listening data to examine interdimensional relationships and assess halo effects. This was done independently for each of the ten companies, resulting in two analyses per company. The five reputation dimensions were included, and mean scores were calculated for each dataset.

To analyze the prominence of each of the five reputation dimensions in both research methods, regression analysis is employed as a complementary approach. The regression models offer valuable insights into the hierarchical structure of reputational attributes and their differential impact on overall corporate perception. Regression analysis was performed separately for each company, once on the social listening dataset and once on the survey-based dataset. Each reputation dimension was modelled as a dependent variable, with the remaining dimensions serving as independent predictors. The utility of regression analysis in this context aligns with prior studies that employ regression analysis to analyze the effects of independent and moderating variables on reputation-related outcomes (Özhan et al., 2025; Park et al., 2020).

All statistical analyses were carried out using R Studio. The criteria for identifying halo effects included the presence of significant interdimensional correlations and the proportion of variance explained by the independent dimensions (R^2). The prominence of reputation dimensions was assessed based on significant relationships, with a significance threshold of $p < 0.05$.

3.6 Ethical considerations

Ethical considerations were addressed for both social listening and survey-based data collection. For the social listening data, only content that was publicly accessible was included in the dataset, thus ensuring compliance with ethical guidelines for digital data collection. The anonymity of individuals

contributing to online discussions was strictly preserved throughout the data processing and analysis stages. Regarding survey-based data collection, participation was voluntary, with respondents recruited from Toluna's panel. They consented to the study's terms, and their anonymity was safeguarded. The organizations included in the dataset were not anonymized. The data used in this study is several years old, making the findings no longer relevant or potentially harmful to the companies' reputations. Furthermore, it is common for companies to be publicly named in reputation studies (Fröhlich & Knobloch, 2021). Historically, corporate reputation rankings, such as Fortune’s ranking, have been publicly shared in the media (Hutton, 1986).

4. Results

This section presents the findings of the study. First, the descriptive statistics (4.1). Subsequently, a correlation analysis (4.2) is conducted to investigate relationships between variables within each dataset. This analysis serves as an initial indication of the presence and magnitude of the halo effect by examining the degree of interdimensional correlations. Following this, regression analyses are performed for each reputation dimension (4.3). These analyses provide a deeper understanding of how these dimensions compare in importance relative to the others.

4.1 Descriptive statistics

The social listening data (Table 2) and survey data (Table 3) show differences in mean scores and coefficient of variation (CoefVar) values. To ensure comparability across datasets with different scales, CoefVar was used instead of standard deviation, as it standardizes dispersion relative to the mean, enabling a meaningful comparison. The results from the social listening data (Table 2) indicate that Adidas is the most positively evaluated company across the reputation dimensions, while Deutsche Bank receives the lowest mean scores. Similarly, in the survey-based data (Table 3), Adidas again achieves the highest ratings, whereas Deutsche Bank remains the lowest-rated company. This consistency across both datasets suggests a general alignment in reputation assessment between both measurement methods. However, notable differences emerge in the coefficient of variation (CoefVar). The survey-based data consistently exhibits higher variability compared to the social listening data, indicating that survey responses reflect a broader range of opinions than social listening. A closer examination of reputation dimensions reveals that the greatest variation in the survey-based data is observed in financial performance and products and services. These dimensions exhibit higher CoefVar values, suggesting that stakeholders have particularly strong but divergent perspectives on these aspects. In contrast, the social listening data presents a more stable pattern across all dimensions, with relatively lower variation.

Table 2

Descriptive statistics for social listening-based data

Company	Vision and leadership		Products and services		Financial performance		Social responsibility		Workplace environment	
	Mean	CoefVar	Mean	CoefVar	Mean	CoefVar	Mean	CoefVar	Mean	CoefVar
Adidas	2.11	0.16	2.21	0.07	2.14	0.18	2.16	0.23	2.13	0.18
Airbus	2.01	0.17	1.96	0.07	1.93	0.18	1.54	0.32	1.92	0.24
Allianz	2.12	0.19	2.12	0.10	2.13	0.19	2.08	0.18	2.03	0.13
BMW	2.02	0.18	2.09	0.07	1.98	0.18	1.99	0.21	2.03	0.20
Commerzbank	2.00	0.16	2.03	0.14	1.86	0.15	2.17	0.23	1.93	0.24
Daimler	1.97	0.19	2.01	0.13	1.97	0.22	1.97	0.28	1.98	0.22
Deutsche Bank	1.83	0.19	1.93	0.17	1.77	0.16	2.03	0.26	1.95	0.23
Deutsche Post	2.03	0.19	1.96	0.10	2.01	0.20	2.09	0.23	2.00	0.18
Deutsche Telekom	2.04	0.21	1.98	0.04	2.02	0.11	2.16	0.21	2.07	0.20
Lufthansa	1.99	0.13	2.01	0.13	1.94	0.24	1.97	0.21	1.92	0.18

Note: measured on a 1–3 scale, 1 = negative, 3 = positive

Table 3

Descriptive statistics for survey-based data

Company	Vision and leadership		Products and services		Financial performance		Social responsibility		Workplace environment	
	Mean	CoefVar	Mean	CoefVar	Mean	CoefVar	Mean	CoefVar	Mean	CoefVar
Adidas	4.39	0.16	3.61	0.29	4.15	0.20	4.08	0.22	4.30	0.19
Airbus	3.92	0.23	3.28	0.36	3.81	0.24	4.00	0.24	4.00	0.23
Allianz	4.00	0.23	3.46	0.30	3.83	0.26	3.78	0.27	3.78	0.28
BMW	4.26	0.19	3.40	0.34	4.00	0.23	4.22	0.21	4.22	0.22
Commerzbank	3.47	0.32	3.26	0.34	3.39	0.34	3.44	0.33	3.53	0.33
Daimler	4.17	0.21	3.30	0.35	3.90	0.26	4.19	0.22	4.14	0.23
Deutsche Bank	2.98	0.44	2.96	0.40	2.82	0.48	3.15	0.40	3.08	0.41
Deutsche Post	3.57	0.27	3.31	0.32	3.26	0.33	3.13	0.38	3.48	0.32
Deutsche Telekom	3.81	0.26	3.30	0.31	3.47	0.31	3.51	0.31	3.57	0.33
Lufthansa	4.00	0.21	3.19	0.37	3.84	0.24	3.95	0.24	4.00	0.22

Note: measured on a 1–5 likert scale, 1 = very bad, 5 = very good

4.2 Correlation analysis and presence of halo effects

To assess the degree of interdimensional relationships and identify potential halo effects, a correlation analysis was conducted before performing regression analyses. This step serves as an initial indication of the presence and magnitude of the halo effect by examining how strongly different reputation dimensions correlate with one another. If dimensions exhibit consistently high correlations, this suggests that the data may be shaped by an overarching impression rather than reflecting independent assessments. Conversely, lower correlation scores indicate a more differentiated evaluation of reputation dimensions.

To determine the mean correlation scores for each company, a correlation matrix was generated separately for each company both social listening-based and survey-based. Subsequently, the mean of all correlation coefficients per dimension was calculated to obtain the mean correlation score for both social listening and survey-based data. A comparative analysis of the datasets derived from social listening-based and survey-based research (Table 4) reveals differences in mean correlation scores across companies.

Table 4

Mean correlation scores for halo effect

Company	Mean social listening correlation score	Mean survey correlation score
Adidas	0.09	0.47
Airbus	0.12	0.52
Allianz	0.15	0.58
BMW	0.15	0.52
Commerzbank	0.14	0.68
Daimler	0.15	0.53
Deutsche Bank	0.06	0.68
Deutsche Post	0.16	0.55
Deutsche Telekom	0.12	0.56
Lufthansa	0.17	0.49
Mean score	0.13	0.56

The social listening-based measurements consistently exhibit lower correlation scores compared to those derived from survey-based research. For example, Commerzbank demonstrates a

social listening correlation score of 0.14, whereas its survey correlation score is markedly higher at 0.68. Similarly, Deutsche Bank shows a stark contrast, with a social listening correlation score of just 0.06 compared to a survey correlation score of 0.68.

The observed differences in mean correlation scores between social listening-based and survey-based measurements may suggest variations in the underlying mechanisms through which corporate perceptions are formed and assessed. One possible interpretation is that the higher correlation scores found in survey data could, at least in part, reflect the influence of a halo effect. The halo effect may lead respondents to provide answers influenced by their overall perception of a company rather than the specific attributes being evaluated. In contrast, social listening-based measurements, which rely on public sentiment expressed through digital and social media platforms, yield lower correlation scores. This likely reflects a more diverse range of perceptions regarding specific dimensions.

4.3 Antecedents of the vision and leadership dimension

While correlation analysis provides an initial indication of the relationships between reputation dimensions, regression analysis offers a more comprehensive understanding by identifying the extent to which certain dimensions significantly influence others. This method allows for a deeper exploration of interdependencies, distinguishing between coincidental associations and meaningful predictive relationships. To gain deeper insights into the factors shaping the vision and leadership dimension, regression analyses were conducted for this dimension. This approach identifies which dimensions exert a statistically significant effect on the vision and leadership dimension, as well as those that do not. Additionally, it provides an assessment of the explained variance for each company, offering a clearer view of how strongly other dimensions contribute to perceptions of vision and leadership.

An examination of the social listening-based results (Table 5) reveals substantial variation in the significance of individual dimensions across companies. The products and services dimension

emerges as the most consistently significant predictor, showing a statistically significant relationship with the vision and leadership dimension for six out of ten companies (Airbus, Allianz, BMW, Commerzbank, Daimler, Deutsche Post and Deutsche Telekom). This suggests that this dimension is most linked to the vision and leadership dimension. The financial performance dimension is a significant predictor for four companies (Airbus, Deutsche Bank, Deutsche Post, and Deutsche Telekom), indicating that this dimension is not universally tied to the vision and leadership dimension. The social responsibility and workplace environment dimensions show very limited significance across companies. social responsibility is only a significant predictor for Adidas. Meanwhile, workplace environment is only significant for Commerzbank. Suggesting that, in most cases, this dimension does not play a crucial role in shaping the vision and leadership dimension. With regard to explained variance, the social listening-based analysis (Table 5) demonstrates low levels, ranging from 3% (Deutsche Bank) to 16% (Airbus). This relatively low explained variance may be interpreted positively in the context of halo effects in reputation management, as it suggests that individual dimensions are evaluated independently rather than being shaped by an overarching impression.

In contrast, the survey-based data (Table 6) indicate that all examined dimensions exert a statistically significant effect on the vision and leadership dimension across all companies. This suggests that the relationships between these dimensions are more strongly interconnected in the survey-based measurement compared to the social listening-based approach. Furthermore, the survey-based data exhibit consistently high levels of explained variance across companies, ranging from 45% for Adidas to 69% for Commerzbank (Table 6).

These contrasting findings highlight notable differences between social listening-based and survey-based measurements in terms of explained variance and the significance of individual dimensions in predicting the vision and leadership dimension. In the social listening data the significance levels vary per dimension and per company, while in the survey data all the dimensions

show significance for all the companies. These findings suggest that social listening-based measurements may capture more fragmented or context-dependent influences on the vision and leadership dimension, rather than reflecting a generalized perception. Among the analyzed dimensions, products and services appears to exert the strongest influence on the vision and leadership dimension, followed by financial performance. The survey-based measurement, in contrast, indicates a more interdependent evaluation of the five dimensions, as reflected in the consistently high significance and explained variance.

Table 5

Dimension vision and leadership social listening based

Company	Explained variance	Financial performance	Products and services	Social responsibility	Workplace environment
Adidas	0.04			x	
Airbus	0.16	x	x		
Allianz	0.11		x		
BMW	0.09		x		
Commerzbank	0.07		x		x
Daimler	0.09		x		
Deutsche Bank	0.03	x			
Deutsche Post	0.06	x	x		
Deutsche Telekom	0.10	x	x		
Lufthansa	0.05				

Note x = significant relation p = < 0.05

Table 6

Dimension vision and leadership survey based

Company	Explained variance	Financial performance	Products and services	Social responsibility	Workplace environment
Adidas	0.45	x	x	x	x
Airbus	0.53	x	x	x	x
Allianz	0.59	x	x	x	x
BMW	0.54	x	x	x	x
Commerzbank	0.69	x	x	x	x
Daimler	0.55	x	x	x	x
Deutsche Bank	0.69	x	x	x	x
Deutsche Post	0.57	x	x	x	x
Deutsche Telekom	0.57	x	x	x	x
Lufthansa	0.51	x	x	x	x

Note x = significant relation p = < 0.05

4.4 Antecedents of the products and services dimension

Regression analyses were conducted for the products and services dimension. In the social listening-based analysis (Table 7), the products and services dimension consistently demonstrates statistical significance across most companies, reinforcing its central role in shaping corporate reputation within social listening-based measurements. Financial performance is the most frequently significant predictor, appearing in nine out of ten cases. Only for Airbus this dimension does not appear to be significant. Vision and leadership also emerges as a relevant predictor, showing statistical significance for seven companies (Airbus, Allianz, BMW, Commerzbank, Daimler, Deutsche Post and Deutsche Telekom). Social responsibility shows significance in six cases (Airbus, BMW, Commerzbank, Daimler, Deutsche Bank and Deutsche Post). The workplace environment dimension is significant for half of the companies (Adidas, BMW, Deutsche Post, and Lufthansa). This suggests that the dimensions; vision and leadership, social responsibility and workplace environment can shape perceptions of products and services occasionally. The social listening-based data exhibit low levels of explained variance, ranging from 5% for Deutsche Bank to 18% for BMW (Table 7).

The survey-based regression models (Table 8) confirm that all examined dimensions exert a statistically significant effect on the products and services dimension across all companies, mirroring the results for the vision and leadership dimension. Furthermore, the survey-based data display consistently high levels of explained variance across companies, ranging from 42% for Adidas to 66% for Deutsche Bank (Table 8).

The results reveal differences between social listening-based and survey-based measurements in their significance in the products and services dimension. In social listening data, significance levels vary across dimensions and companies, with financial performance emerging as the most consistent predictor, followed by vision and leadership. The relatively low explained variance suggests that social listening measurements are more fragmented and context dependent. In contrast, the survey-based data indicate a more structured and interdependent evaluation, with

all dimensions showing statistical significance across companies and consistently high explained variance.

Table 7

Dimension products and services social listening based

Company	Explained variance	Financial performance	Vision and leadership	Social responsibility	Workplace environment
Adidas	0.09	x			x
Airbus	0.17		x	x	
Allianz	0.15	x	x		
BMW	0.18	x	x	x	x
Commerzbank	0.11	x	x	x	
Daimler	0.15	x	x	x	
Deutsche Bank	0.05	x		x	
Deutsche Post	0.14	x	x	x	x
Deutsche Telekom	0.14	x	x		x
Lufthansa	0.13	x			x

Note x = significant relation p = < 0.05

Table 8

Dimension products and services survey based

Company	Explained variance	Financial performance	Vision and leadership	Social responsibility	Workplace environment
Adidas	0.42	x	x	x	x
Airbus	0.50	x	x	x	x
Allianz	0.57	x	x	x	x
BMW	0.53	x	x	x	x
Commerzbank	0.66	x	x	x	x
Daimler	0.56	x	x	x	x
Deutsche Bank	0.66	x	x	x	x
Deutsche Post	0.49	x	x	x	x
Deutsche Telekom	0.51	x	x	x	x
Lufthansa	0.45	x	x	x	x

Note x = significant relation p = < 0.05

4.5 Antecedents of the financial performance dimension

In line with the previous analyses, regression analyses were conducted for the financial performance dimension. In the social listening-based data (Table 9), The vision and leadership dimension demonstrates statistical significance for four companies (Airbus, Deutsche Bank, Deutsche Post and Deutsche Telekom). Suggesting that this dimension in some cases has a relation with financial

performance. The products and services dimension emerges as a significant predictor for most companies, except Airbus. Suggesting its prominence in social listening related to the financial performance. Social responsibility exhibits statistical significance only for Allianz and Lufthansa**,** suggesting that, in most cases, this dimension does not play a crucial role in shaping the financial performance dimension. Similarly, the workplace environment dimension is significant solely for Daimler, implying that its relationship with the financial performance dimension is company-specific rather than a generalizable pattern. The social listening-based models exhibit low levels of explained variance, ranging from 4% for Adidas to 12% for Daimler (Table 9).

By contrast, the survey-based analysis (Table 10) indicates that the vision and leadership, products and services, and workplace environment dimensions are significant across all companies. However, the social responsibility dimension does not exhibit a significant impact in half of the cases (Adidas, Airbus, Allianz, BMW and Daimler). This suggests that the influence of this dimension on the financial performance dimension is more context specific. The survey-based data demonstrate consistently higher levels of explained variance across companies, ranging from 38% for Adidas to 60% for Deutsche Bank (Table 10).

The regression analyses highlight differences between social listening-based and survey-based measurements in explaining the financial performance dimension. In the social listening data, products and services is the most consistent predictor, while vision and leadership shows significance in select cases, and social responsibility and workplace environment exhibit minimal influence. In contrast, the survey-based data reveal a more structured relationship, with vision and leadership, products and services, and workplace environment consistently predicting financial performance across all companies, while social responsibility remains less conclusive. The higher explained variance in survey-based data indicates a more integrated perception of dimensions, whereas social listening captures a more diverse dimensional perspective.

Table 9

Dimension financial performance social listening based

Company	Explained variance	Vision and leadership	Products and services	Social responsibility	Workplace environment
Adidas	0.04		x		
Airbus	0.11	x			
Allianz	0.10		x	x	
BMW	0.07		x		
Commerzbank	0.09		x		
Daimler	0.12		x		x
Deutsche Bank	0.05	x	x		
Deutsche Post	0.10	x	x		
Deutsche Telekom	0.09	x	x		
Lufthansa	0.08		x	x	

Note x = significant relation p = < 0.05

Table 10

Dimension financial performance survey based

Company	Explained variance	Vision and leadership	Products and services	Social responsibility	Workplace environment
Adidas	0.38	x	x		x
Airbus	0.43	x	x		x
Allianz	0.48	x	x		x
BMW	0.42	x	x		x
Commerzbank	0.59	x	x	x	x
Daimler	0.44	x	x		x
Deutsche Bank	0.60	x	x	x	x
Deutsche Post	0.45	x	x	x	x
Deutsche Telekom	0.43	x	x	x	x
Lufthansa	0.41	x	x	x	x

Note x = significant relation p = < 0.05

4.6 Antecedents of the social responsibility dimension

Regression analyses were also conducted for the social responsibility dimension. In the social listening-based analysis (Table 11), the vision and leadership dimension exhibits statistical significance for Adidas, suggesting that the influence of this dimension on the social responsibility dimension is not universally present. The products and services dimension emerges as the most significant predictor, appearing in six out of ten cases (Airbus, BMW, Commerzbank, Daimler, Deutsche Bank and Deutsche Post). Underscoring its central role in shaping perceptions of the social

responsibility dimension. Financial performance is significant for Allianz and Lufthansa. This could indicate that, for these firms, financial performance is associated with corporate social responsibility. However, for most companies, financial performance does not appear to be a key determinant of social responsibility perceptions in social listening data. The same holds for the workplace environment dimension, that is also significant for only two companies (BMW and Lufthansa). The social listening-based data exhibit low levels of explained variance, ranging from 2% for Deutsche Telekom to 11% for Lufthansa. This pattern is consistent with previous regression analyses.

In contrast, the survey-based data (Table 12) indicate that nearly all dimensions have a statistically significant effect on the social responsibility dimension across all companies. However, financial performance does not reach significance for five companies (Adidas, Airbus, Allianz, BMW, and Daimler). This presents a mixed picture of this reputation dimension, indicating that its relationship with financial performance is not uniform. The survey-based data exhibit moderate levels of explained variance across companies, ranging from 25% for Lufthansa to 57% for Deutsche Bank.

The regression analyses highlight how the social responsibility dimension is shaped across social listening-based and survey-based data. In social listening data, products and services consistently emerges as the strongest predictor, while financial performance and workplace environment play a role in only a few cases, indicating a fragmented pattern with low explained variance. In contrast, the survey-based analysis shows a more structured relationship, with nearly all dimensions significantly influencing social responsibility, except for financial performance, which remains inconsistent across companies.

Table 11

Dimension social responsibility social listening based

Company	Explained variance	Vision and leadership	Products and services	Financial performance	Workplace environment
Adidas	0.04	x			
Airbus	0.10		x		
Allianz	0.05			x	
BMW	0.07		x		x
Commerzbank	0.04		x		
Daimler	0.06		x		
Deutsche Bank	0.05		x		
Deutsche Post	0.07		x		
Deutsche Telekom	0.02				
Lufthansa	0.11			x	x

Note x = significant relation p = < 0.05

Table 12

Dimension social responsibility survey based

Company	Explained variance	Vision and leadership	Products and services	Financial performance	Workplace environment
Adidas	0.28	x	x		x
Airbus	0.29	x	x		x
Allianz	0.43	x	x		x
BMW	0.30	x	x		x
Commerzbank	0.52	x	x	x	x
Daimler	0.31	x	x		
Deutsche Bank	0.57	x	x	x	x
Deutsche Post	0.41	x	x	x	x
Deutsche Telekom	0.43	x	x	x	x
Lufthansa	0.24	x	x	x	x

Note x = significant relation p = < 0.05

4.7 Antecedents of the workplace environment dimension

As with the previous dimensions, a regression analysis was conducted for the workplace environment dimension. The social listening-based data (Table 13) reveal a dispersed pattern of significance across dimensions. The vision and leadership dimension only demonstrates statistical significance for Commerzbank, indicating that this dimension is not dominant. The products and services dimension emerges as a significant predictor for half of the companies (Adidas, BMW, Deutsche Post, Deutsche Telekom, and Lufthansa). The financial performance dimension reaches

statistical significance exclusively for Daimler. For the majority of companies, financial performance does not appear to be a primary factor shaping perceptions of the workplace environment dimension. The social responsibility dimension is significant for BMW and Lufthansa. The lack of significance for other firms indicates that, in most cases, the workplace environment dimension is not strongly associated with the social responsibility dimension. Additionally, the social listening-based models exhibit low levels of explained variance, ranging from 2% for Deutsche Bank to 12% for Lufthansa.

In contrast, the survey-based data (Table 14) demonstrate a more structured pattern, with all dimensions exhibiting statistical significance across all companies, except for the social responsibility dimension in the case of Daimler. This could indicate that Daimler is a specific exception, or that the social responsibility dimension generally has the weakest effect on the workplace environment dimension. The survey-based data further show relatively high levels of explained variance, ranging from 39% for Adidas to 63% for Commerzbank.

The regression analyses highlight distinct differences in how the workplace environment dimension is shaped across social listening-based and survey-based data. The social listening results reveal a fragmented pattern, with the products and services dimension emerging as the most frequent predictor, while the other dimensions show significance only in isolated cases. The survey-based analysis presents a more systematic relationship, with nearly all dimensions showing statistical significance across companies. The exception of social responsibility for Daimler.

Table 13

Dimension workplace environment social listening based

Company	Explained variance	Vision and leadership	Products and services	Financial performance	Social responsibility
Adidas	0.02		x		
Airbus	0.04				
Allianz	0.03				
BMW	0.05		x		x
Commerzbank	0.04	x			
Daimler	0.03			x	
Deutsche Bank	0.02				
Deutsche Post	0.05		x		
Deutsche Telekom	0.06		x		
Lufthansa	0.12		x		x

Note x = significant relation p = < 0.05

Table 14

Dimension workplace environment survey based

Company	Explained variance	Vision and leadership	Products and services	Financial performance	Social responsibility
Adidas	0.39	x	x	x	x
Airbus	0.50	x	x	x	x
Allianz	0.51	x	x	x	x
BMW	0.45	x	x	x	x
Commerzbank	0.63	x	x	x	x
Daimler	0.46	x	x	x	
Deutsche Bank	0.58	x	x	x	x
Deutsche Post	0.45	x	x	x	x
Deutsche Telekom	0.47	x	x	x	x
Lufthansa	0.42	x	x	x	x

Note x = significant relation p = < 0.05

5. Discussion

5.1 Main findings

The aim of this study was to examine the extent to which the halo effect influences corporate reputation measurement across survey-based and social listening-based methods. Specifically, this research investigated how interdimensional relationships differed between these two measurement approaches and how dimensional prominence varied within them. The findings highlight the pronounced differences between survey-based and social listening-based reputation measurement in terms of the halo effect. The results suggest that survey-based data is more susceptible to halo biases, as evidenced by higher interdimensional correlations and stronger interdependencies among dimensions as illustrated by the regression analyses. In the survey-based data, multiple dimensions significantly predict one another. This suggests a highly interdependent evaluation process, in which respondents rely on overarching impressions rather than independently assessing each dimension. By contrast, social listening data appears to reflect a more independent evaluation of reputation dimensions, as indicated by consistently lower interdimensional correlations and weaker relationships between dimensions. This pattern is evident in the regression analysis, where most dimensions exhibit limited significant relationships with one another. The products and services dimension is the only dimension that exerts a significant influence on other dimensions within the social listening measurement approach. Furthermore, the explained variance of dimensions is consistently lower in social listening data than in survey-based data, further reinforcing the notion that evaluations within social listening occur more dimension independently. These findings suggest that social listening approaches facilitate more differentiated assessments of individual reputation dimensions, whereas survey-based measurements may be influenced by overarching perceptions. In this context, measuring reputation analytically using the Reputation Quotient is not effective within the survey-based method. The study's findings align with previous research indicating that respondents in survey-based studies often rely on general impressions rather than independently evaluating distinct dimensions (Cooper, 1981; Feeley, 2002). This general impression bias can cause

higher correlation scores (Fisicaro & Lance, 1990), creating an overly coherent representation of corporate reputation that may not accurately reflect its complex and multidimensional nature.

This study does not provide conclusive evidence regarding the specific type of halo effect present. Whether it manifests as a general impression halo, a salient dimension halo, or an inadequate discrimination effect. The measurement approach employed in this study only enables the detection of the halo effect's presence, rather than an identification of its precise form. Nevertheless, while definitive conclusions cannot be drawn, the findings suggest that social listening data may exhibit characteristics of a salient dimension halo effect. This form of halo effect occurs when a prominent trait exerts a disproportionate influence on judgments of other traits (Fisicaro & Lance, 1990). This may be reflected in the products and services dimension, which consistently emerges as the most significant predictor in regression analyses of other dimensions. This suggests that this dimension may hold the greatest prominence in shaping the evaluation of other dimensions. However, it remains unclear whether this is due to its inherent dominance within corporate reputation or whether it actively contributes to a salient dimension halo effect. The findings of this study are not sufficient to confirm this distinction. Additionally, the survey-based data may be influenced by a dimension similarity halo effect, in which dimensions are perceived as too similar for respondents (Balzer & Sulsky, 1992; Fisicaro & Lance, 1990). This is suggested by the strong interdependencies among dimensions in the survey data, where dimensions consistently exert significant effects on one another and demonstrate high levels of explained variance. These results indicate that the dimensions explain a substantial proportion of each other's variance, thereby appearing highly interrelated. One possible explanation is that respondents may struggle to differentiate between dimensions. Despite respondents' intentions to evaluate dimensions objectively and separately, research suggests that this remains a considerable challenge (Breathett et al., 2019; Thomas & Reimann, 2023).

5.2 Theoretical and methodological implications

This study contributes to reputation research by demonstrating fundamental differences in the presence and impact of the halo effect between survey-based and social listening-based reputation measurement methods. This research takes a novel approach by examining the intrinsic qualities of these methods. By doing so, it advances the discussion on how corporate reputation should be measured and interpreted, rather than solely focusing on the results these methods produce.

The two measurement approaches capture distinct aspects of corporate reputation. Survey-based measurement primarily reflects overall reputation, as respondents tend to integrate their perceptions into a cohesive assessment. In contrast, social listening-based measurement evaluates reputation dimensions independently, allowing for a more differentiated and analytic analysis of corporate reputation. In this context, measuring reputation analytically using the Reputation Quotient is not effective within the survey-based method. Survey-based reputation measurement better aligns with global reputation assessment. However, social listening proves to be a successful method for analytically measuring corporate reputation. As it allows for a more independent evaluation of reputation dimensions.

5.3 Practical implications

The findings of this study offer important insights for organizations seeking to enhance their reputation management strategies. Organizations that rely on reputation data to inform strategic decision-making must account for the potential influence of halo-induced bias in survey-based research and, potentially, in social listening data. Firms basing strategic decisions on reputation assessments should recognize that survey-based data may present an overly coherent and inflated depiction of corporate reputation. This could lead to misplaced confidence in perceived strengths or the overlooking of critical vulnerabilities.

One key implication is that social listening facilitates a more independent assessment of individual reputation dimensions, while survey-based research provides a broader measure of overall

corporate reputation. Social listening allows for the detection of changes in specific reputation dimensions that remain hidden within the general perception of a company's reputation. This makes it a valuable tool for reputation management. In contrast, survey-based research is more effective for capturing general perceptions of corporate reputation but may struggle to distinguish between individual dimensions due to interdependencies. Consequently, organizations that seek a detailed understanding of how they perform across distinct reputation dimensions should prioritize social listening data. Survey-based approaches remain beneficial for assessing overall corporate reputation.

5.4 Limitations and future research

Several limitations of this study should be acknowledged. In the survey-based research, respondents self-selected their participation based on their perceived ability to evaluate the companies. This self-selection may introduce selection bias, as individuals with strong pre-existing opinions may potentially distorted the results. Additionally, survey respondents may have been influenced by social desirability bias, where they provided responses they believed were more favorable or aligned with normative expectations rather than their actual perceptions. In the context of social listening, while AI tools enabled comprehensive analysis, the reliance on machine learning algorithms introduces potential inaccuracies, particularly in sentiment analysis and dimensional categorization. Another methodological limitation is the comparative nature of this study. While the comparison between survey-based and social listening-based reputation measurement provides valuable insights, the differences in data collection methods make direct comparisons complex.

Future research could refine methodological approaches to enhance comparability between survey data and social listening data. Furthermore, it would be beneficial to explore the specific types of halo effects that may manifest in different reputation measurement methods. As discussed in the main findings, the presence of the halo effect is evident, but its precise nature, a general impression halo effect, a dimension similarity halo effect, or a salient dimension halo effect, remains undetermined. Future studies could employ alternative methodological approaches, to isolate bias-

driven components in reputation measurement more effectively. This could provide insights into how the halo effect can be mitigated in both types of research. Additionally, expanding the dataset to include more companies would enhance the generalizability of the findings. This study was limited to ten large German companies, with social listening data exclusively drawn from German discourse and survey respondents consisting solely of German participants. Finally, future research could investigate the broader implications of the halo effect in social listening research. For instance, exploring whether virality and algorithmic amplification contribute to disproportionate reputational shifts could provide further insight into the mechanisms shaping digital discourse.

5.5 Conclusion

This study highlights the distinct advantages and limitations of survey-based and social listening-based reputation measurement approaches in terms of the halo effect. While survey methods provide structured and easily interpretable data, they are highly susceptible to the halo effect, which can distort the accuracy of reputation assessments. However, potentially the halo effect does not distort the accuracy of reputation assessment, the halo effect may even be the general impression reputation (Caruana & Chircop, 2000). Survey-based measurement effectively captures overall reputation perception, making it a valuable tool for assessing corporate reputation at a broad level. However, it may not be the most suitable method for reputation management, as it does not allow for the independent evaluation of specific reputation dimensions. Social listening offers a dynamic and unfiltered perspective on public sentiment, capturing more independent evaluations of reputation dimensions. While a halo effect may still be present in social listening-based measurements, this approach assesses dimensions more independently compared to survey-based methods. This makes social listening a more suitable approach for reputation management, as it provides deeper insights into how organizations can improve and sustain their reputation.

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Appendices

Appendix A: Use of AI generated content

During the preparation of this work the author(s) used Chatgpt and Deepl in order to write more formal and academic English. After using this tool/service, the author(s) reviewed and edited the content as needed and take(s) full responsibility for the content of the work.

Appendix B: R codes

The calculations in this study were performed using R Studio. The full R script and output are provided as supplementary material and can be accessed via my personal university network folder in: ‘R codes and outcomes’.