Generation, susceptibility, and response regarding negativity: An in-depth analysis on negative online reviews

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ABSTRACT

Negative online reviews can drastically influence consumer behavior and business strategies. Recent attention on the subject demonstrates its importance in the consumer and marketing literature. Even so, no study quantitatively investigates the corpus of the literature. This study quantitatively and systematically investigates the foundational research streams of negative online reviews to identify influential sources and main areas of knowledge in the domain. The study employs an integration of text mining and co-citation analysis, recognizing that firms’ responses to negative online reviews cannot be analyzed without understanding the role of customers. Accordingly, this study generates insight into customers and firms in each negative online review stage, furnishing a conceptual framework that synthesizes the previous literature and highlights the most important research gaps requiring attention. Ultimately, the conceptual framework can guide future researchers in unfolding new and novel directions to expand the boundaries of the negative online review literature.

1. Introduction

Negative online reviews have long been recognized for their strategic importance among practitioners and marketers (Baker, Donthu, & Kumar, 2016; Rosario, de Valck, & Sotgiu, 2020). According to Liu et al. (2021), since the COVID-19 outbreak, more consumers have sought online product and service reviews prior to their purchase decisions. Furthermore, over the past few years, the marketing literature has witnessed emergent streams of negative online review studies, each attempting to highlight the significant role of negative online reviews in various contexts (e.g., consumers, firms, influencers, etc.).

As technology advances, an increasing number of individuals can express their views about products and services on online platforms or websites anonymously and freely (Liu et al., 2021). Negative information is “communicated more widely than positive [information]” (Joshi & Musalem, 2021, p. 1), and if individuals “shared anything about their purchase, it would likely be negative overall” (Olson & Ailawalia, 2021, p. 1025). Because negativity can have a greater impact on consumer decisions (Allard, Dunn, & White, 2020), it requires focused attention (Ruvio, Bagozzi, Hult, & Spreng, 2020). Despite the emerging attention that negative online reviews have received in recent studies via such factors as the impact of reviewer gender and emotion on the credibility of negative online reviews (Lis & Fischer, 2020), personality and moral behavior in generating negative online reviews (Kapoor, Balaji, Maity, & Jain, 2021), strategic responses to negative online reviews (Esmark Jones, Stevens, Breazeale, & Spaid, 2018; Piehler, Schade, Hanisch, & Burmann, 2019), and the impact of negative online reviews on decision making (Boo & Busser, 2018; El-Said, 2020; Wen, Lin, Liu, Xiao, & Li, 2021), existing studies have not engendered an in-depth understanding of negative online reviews that addresses generation, susceptibility, and response. Thus, several gaps in the literature beg further study. First, most studies have rendered a complex and diverse picture of electronic word of mouth (e.g., Huete-Alcocer, 2017) from the consumer perspective. For instance, Rosario et al. (2020) acknowledged that their approach is limited to consumer-generated online content and excludes other forms of generated online consumption, such as “critics, experts, and celebrity endorsers; and phenomena not related to consumption” (p. 423). However, online reviews are not only limited to consumer-generated content but also contain reviews from critics, experts, influencers, and consumers. By adopting a comprehensive and holistic approach, this study focused on negative online reviews and investigated all forms, including negative eWOM.

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Second, most studies have focused on consumer-generated online content rather than other types of reviewers. However, the importance that consumers attach to negative shared reviews can vary depending on who shares them, when they share them, and for what purposes. This significantly affects the susceptibility and decision making of consumers toward negative online reviews. In addition, there are many other significant factors that have escaped the attention of scholarly investigations yet have been identified and discussed in this study. Unlike existing negative online review studies, we stressed all possible factors that might affect the customer journey (e.g., pre-purchase, purchase, and post-purchase) due to the susceptibility of negative online reviews. Thus, future studies can consider the identified factors and benefit from our analysis.

Third, existing research has focused on responses to negative online reviews from the perspectives of either consumers or firms. However, firm and consumer responses might interact in this mutual process. Moreover, one’s response can affect another and contribute to generating solution-based strategies while repairing broken trust or pre-judgments. Therefore, the current research analyzed the responses of firms and consumers to negative online reviews.

Fourth, despite many previous literature reviews and meta-analyses of online reviews (e.g., Berger, 2014; Rosario et al., 2020; Ismagilova, Slade, Rana, & Dwivedi, 2019), such studies neglect the relative influence and importance of individual contributions and offer no insights into the relevant knowledge nodes and intellectual structures, both of which are essential in laying the foundation for undertaking a conceptually meaningful research model (Samiee & Chabowski, 2021).

This study addresses negative online reviews by developing a conceptual model via a comprehensive evaluation of the limitations of existing studies, thereby highlighting the gaps in the online review literature and future research directions. The proposed model draws from comprehensive analysis results, which indicate the dynamics in the negative online review literature and the relationship of the themes in different stages. To address this paucity of knowledge, we synthesize the negative online review literature before offering a managerially relevant map for the future of this neglected research domain.

The study integrates co-citation and text mining analysis to synthesize prior studies. Future scholars can tap into the proposed conceptual framework, which incorporates significant gaps from the synthesis, for future research inspiration. Given the immense impact of negative online reviews on customer decisions, it is vital to understand the subject holistically. Thus, this study comprises the entire process of negative online reviews from generation to response through susceptibility in the customer journey.

We examine and identify the foundation of the negative online reviews knowledge structure. Given the importance of negative online reviews for managers and scholars alike, they should be analyzed in depth. Our comprehensive approach helps develop a bias-free, literature-based conceptual map that can synthesize prior findings while identifying significant gaps. Evidently, no prior studies employ text mining and co-citation analysis to highlight gaps in the literature on negative online reviews. Accordingly, this study is guided by three research questions, the answers to which furnish its primary objectives: (1) Which source of scholarly work has been the most influential in developing the negative online reviews domain? (2) What are the main areas of knowledge that support the negative online reviews domain? (3) How can such findings be used to address uncovered topics via the designed conceptual framework by future studies? The following section explains the method the study employs to address and answer each of these questions.

2. Method

This study employed co-citation and text mining to conduct a comprehensive systematic review of the negative online reviews domain. Combining these two methods enables us to objectively review a large corpus of heterogeneous literature that would otherwise be impossible to read and interpret manually (Antons & Breidbach, 2018). It also reduces the risk of researcher bias associated with traditional literature reviews (Podsakoff, Mackenzie, Bachrach, & Podsakoff, 2005; Randhawa, Wilden, & Hoberger, 2016; Stead, Wetzel, Wetzel, Odekerken-Schröder, & Mahr, 2022; Vrontis et al., 2021; Wilden, Akaka, Karpen, & Hoberger, 2017). Co-citation analysis was used to recognize the knowledge base via the most frequently cited papers and show how the concept has been integrated with other research streams. As opposed to personal recollection and conjecture, co-citations provide information on extant literature and enable systematic assessments of its origin, current status, and evolution (Wilden et al., 2017). It helps researchers view historical alterations in the intellectual structure of negative online reviews and related paradigm shifts (Foroudi et al., 2020a, 2020b; Pasadeos, Phelps, & Kim, 1998; Vadakdar, Chavan, Chaudhuri, & Vrontis, 2021). Text mining can then be used to reduce bias in the process of developing dictionaries, text coding, concept correlation, and concept mapping (Läsch, Håkanson, & McGaughey, 2011). Text mining was employed to classify the fundamental concepts and themes of negative online reviews in existing studies and identify the topics that have mainly contributed to the development of the research domain (Wilden et al., 2017; Zha, Foroudi, Jin, & Melewar, 2021).

3. Data

We employed a list of keywords (negative online reviews, negative stars, negative comments, dislike, negative online word of mouth, negative online comments, negative online feedback, rating, negative buzz, negative user-generated content, online complaint) after consulting five field experts. We sought the keywords in the keyword lists, titles, and abstracts of existing articles in the Web of Science (WOS) database between 2001 and late 2021. Web of Science was used as a multidisciplinary research platform for cross-searching citation databases and indexes across diverse academic disciplines (e.g., Chabowski et al., 2018; Zupic & Cater, 2015). The data were collected from the Clarivate Analytics Web of Science Core Collection, one of the most comprehensive databases for scientometrics research. Furthermore, Balstad and Berg (2020) found that WOS provides more comprehensive and comparable data than Scopus and Google Scholar in the management domain. To get the most accurate measures of bibliometric impact, we followed the steps of key bibliometric studies (Chabowski, Samiee, & Hult, 2013; Chabowski et al., 2018). This process yielded 298 articles. Afterward, we conducted a forward and backward search via cross-referencing to increase the reliability of the literature review. This step identified 21 additional articles, bringing the total number of articles to 319. Next, their content was evaluated and read. Some articles fully investigated negative online reviews, while others considered them as part of their data collection (e.g., Sparks, So, & Bradley, 2016). Quality criteria were also considered for article inclusion in the final sample—for instance, being published in any of the journals listed in the Chartered Association of Business Schools (ABS) (Lanivich et al., 2022). Regarded as a “benchmark database of international standards” (Belitski, Kalyuzhnova, & Khlystova, 2021, p. 1197), it is more comprehensive than other rankings and can help researchers limit their searches to quality journals (Haddoud, Onjewu, Nowinski, & Jones, 2021). The final sample reached 78 articles.

4. Analysis

Co-citation. Citation examination allowed us to recognize the associations between cited and citing articles and each article’s contribution in the field to identify meaningful and novel directions for further study (Chabowski et al., 2013, 2018; Di Stefano, Peteraf, & Verona, 2010). Co-citation is the frequency with which two papers are cited together by a third paper, which helps provide the intellectual structure of the specified topic (Foroudi et al., 2020a, 2020b). The collected data
from the WOS were transferred to BibExcel for bibliometric analysis. A co-citation matrix based on highly cited articles was developed for additional examinations (Chabowski & Mena, 2017).

**Multi-dimensional scaling (MDS).** After completing the previous bibliometric procedure (e.g., Ramos-Rodríguez & Ruiz-Navarro, 2004; Zha, Melewar, Foroudi, & Jin, 2020), we leveraged the proximity of the co-citation groups to map and visualize the association among the 29 most cited papers. Using SPSS software, a maximum standardized distance of 0.25 was shown to be a good model fit and revealed 11 groups.

**Text data mining.** This study employed Leximancer, a computer-assisted qualitative data and automated content analysis program and lexicographic tool, to “text mine” major documents to showcase certain information visually. The tool produces textual documents by determining the contextual associations of words via “term occurrence information, such as frequencies, positions, nouns, and co-occurrence of verbs” (Kamimaeda, Izumi, & Hasida, 2007, p. 265). It provides a mechanism to recognize higher levels of complexity of hidden thematic structures, concept hierarchies, or syntax and view textual data through a different visual lens. By conducting relational (semantic) and conceptual (thematic) analyses of text excerpts, Leximancer creates a level of association between common text elements (concepts) and groupings of revealed concepts (themes). Related terms appear close to each other as concept maps.

Concepts and themes can be interpreted to determine meaning from textual analyses. Leximancer’s algorithm extends and modifies the latent Dirichlet allocation (LDA) with two phases of non-linear dynamics and machine learning to deliver a statistical means of extracting clear semantic patterns from a given text (Rooney, 2005). The algorithm recognizes concepts by employing concept seeds extracted by the researcher through supervised or unsupervised seeding. It defines each concept acknowledged via a thesaurus-based concept from machine learning, bootstrapping, or iterative word disambiguation, contributing to a co-occurrence matrix with the co-occurrence frequencies—the nearest cells with peak values (i.e., the nearest local maxima)—of all concept seeds (Smith & Humphreys, 2006). Unlike LDA researchers, who decide the number of themes, Leximancer’s approach selects the most suitable number of topics or themes depending on the identified concepts. Given the research objectives, this study focused on the associations between themes and concepts and their proximity to the concepts and words in a specific paper.

**The text-mining process.** Following Wilden et al. (2017), we converted all downloaded focal articles into Microsoft Word documents and cleared their respective reference lists (Netzer, Feldman, Goldenberg, & Fresko, 2012). Information is then extracted from the integrated data. We followed the suggestion of “keyword searching by discovering and extracting thesaurus-based concepts from the text data, with no requirement for a prior dictionary” (Wilden et al., 2017, p. 348). Leximancer employs Bayesian statistics and algorithms to automatically classify corresponding themes and concepts while mitigating human bias. It even employs an unsupervised learning algorithm, which procedure researchers are encouraged to amend as appropriate. We followed the eight stages of the Leximancer process, as in Fig. 1. At each stage, we were prompted to follow Leximancer’s lead when processing the data. The results illustrate the reliability (the consistency of outcomes across the measuring processes) and validity as the “Leximancer algorithm generates fairly stable patterns of meaning when cross-validated in multiple styles and genres of text” (Wilden et al., 2017, p. 348).

**5. Findings**

We employed the citation data to find highly cited articles in the online review domain. We then determined the configuration of the most influential works in a two-dimensional space using the co-citation database. The MDS analysis yielded 11 research groups showing the knowledge structure of negative online reviews. Further, the results identified two research chains: the first included four research groups (Groups 7–10), while the second included two (Groups 5 and 6). This section provides details of each research group and its respective knowledge gap. Considering both research chains, this approach provides an in-depth and integrative insight into the negative online review literature.

Group 1 highlights the importance of categorization or negative attribution in online reviews. Even though most negative online reviews focus on the impact of customer-generated reviews, Group 1 focuses on expert negative reviews. For instance, Basu Roy, Chatterjee, and Ravid (2003) show that negative reviews can damage brand performance more than positive reviews. The volume of customer exposure to online reviews can be a linear process that marketers might use to facilitate customer exposure to online reviews (Herr, Kardes, & Kim, 1991). Negative attributes are strongly implied, whereas neutral or positive attributes are considered more ambiguous.

Group 2 suggests that volume can explain the success of a new product or service and investigated the impact of negative online customer reviews. The positive impact of review volume is related to improving consumer awareness. Liu (2006) noted that review power is derived from the volume and not from the valence. Similarly, Chevalier and Mayzlin (2006) demonstrate that customers tend to rely on the text of reviews more than summary statistics. Balaji, Khong, and Chong (2016) and Liu (2006) refer to reviews as buzz (i.e., informal consumption-related communication between consumers), whereas Chevalier and Mayzlin (2006) characterize reviews as a form of word of mouth. Different facets of online reviews in this group were reflected in the thermotical underpinnings of online reviews and review platforms. While Liu (2006) focuses on non-firm-controlled platforms (e.g., Yahoo Movies message boards), Chevalier and Mayzlin (2006) question the effectiveness of firm-controlled platforms (e.g., community forums). Such inconsistencies in the theoretical underpinning and methodologies have resulted in disparate answers to questions such as how different volume levels can affect customer decision making.

Group 3 tries to understand what makes an online review helpful. The findings suggest that the depth, intensity, and dispersion of online reviews determine their effectiveness. While length and depth are frequently different constructs, they are considered similar (e.g., Park & Nicolau, 2015; Fang, Shao, & Wen, 2016). Although depth relates more to customer cognitive evaluation, length can be related to storytelling and is not necessarily informative. In this group, we can trace a shift in researchers’ views by investigating the role of influential consumer mavens (Godes & Mayzlin, 2009). Despite research on the impact of reviews, the literature offers no insight into what makes an opinion leader’s message impactful.

Group 4 comprises literature that questions the impact of online reviews on sales forecasting, highlighting inconsistencies regarding the impact of online reviews on sales performance. While Dellarocas, Zhang,
and Awad (2007) find that online reviews are positively correlated with sales performance, Duan, Gu, and Whinston (2008) indicate that the volume of online reviews can moderate the impact of online reviews and customer behavior.

Groups 3 and 4 focus on the volume of online reviews and the moderating role of familiarity. Park and Lee (2009) suggest that the use of online reviews is more significant on performance. Customers rely on review texts more than summary statistics alone. Overall, studies show that online reviews can impact purchase intentions. Currently, studies on the impact of negative reviews have a greater influence on experience goods rather than search goods. The impact of website reputation on online reviews is more significant for experience goods. The influence of negative reviews largely depends on a consumer’s decision to choose an online retailer.

Table 1: Overview of summary of groups.

<table>
<thead>
<tr>
<th>Groups</th>
<th>Articles</th>
<th>Context</th>
<th>Theory base</th>
<th>Current topic</th>
<th>Key findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Basuroy et al. (2003)</td>
<td>Film industry</td>
<td>Prospect theory</td>
<td>Critical reviews, budgets, and stars</td>
<td>Both positive and negative reviews can impact box office revenue. Big budget and popular stars can enhance box office revenue for negatively reviewed films.</td>
</tr>
<tr>
<td></td>
<td>Herr et al. (1991)</td>
<td>Education</td>
<td>N/A</td>
<td>Type of reviews (face-to-face vs. printed information)</td>
<td>Judgmental research phenomena can be justified through the accessibility diagnosticity model.</td>
</tr>
<tr>
<td>2</td>
<td>Chevalier and Mayzlin (2006)</td>
<td>Online retailing</td>
<td>N/A</td>
<td>Type of online reviews (star vs. written), length</td>
<td>Positive reviews enhance Amazon ratings, while the impact of negative reviews is more significant on performance. Customers rely on review texts more than summary statistics alone.</td>
</tr>
<tr>
<td></td>
<td>Liu (2006)</td>
<td>Film industry</td>
<td>Theory of information accessibility and influences</td>
<td>Volume</td>
<td>Reviews activities are active during a film’s pre-release when audiences tend to hold high expectations. Negative reviews are more powerful than positive reviews.</td>
</tr>
<tr>
<td>3</td>
<td>Godes and Mayzlin (2004)</td>
<td>Film industry</td>
<td>Herd behavior</td>
<td>Online conservation</td>
<td>Online conservation can offer a cost-effective and easy way to measure reviews.</td>
</tr>
<tr>
<td></td>
<td>Mudambi and Schuff (2010)</td>
<td>Online retailing</td>
<td>Information economics theory</td>
<td>Product type</td>
<td>The product type moderates the helpfulness and extremity of the customer review.</td>
</tr>
<tr>
<td>5</td>
<td>Dellorocas et al. (2007)</td>
<td>Entertainment industry</td>
<td>Diffusion theory</td>
<td>Rating</td>
<td>In addition to online reviews, theater availability, professional critic reviews, and pre-release marketing can forecast revenue performance.</td>
</tr>
<tr>
<td>6</td>
<td>Duan et al. (2008)</td>
<td>Film industry</td>
<td>Public good theory</td>
<td>Rating</td>
<td>Online reviews have no significant impact on a film’s performance.</td>
</tr>
<tr>
<td>7</td>
<td>Chen and Xie (2008)</td>
<td>Online retailing</td>
<td>N/A</td>
<td>Source type (marketers vs. consumers)</td>
<td>The best marketing communication strategy, the optimal managerial response to online reviews, and the best timing for showing consumer reviews.</td>
</tr>
<tr>
<td>8</td>
<td>Chatterjee (2011)</td>
<td>Online retailing</td>
<td>Attribution theory</td>
<td>Cost sensitivity</td>
<td>The influence of negative online reviews largely depends on a consumer’s decision to choose an online retailer.</td>
</tr>
<tr>
<td>9</td>
<td>Vermeulen and Seegers (2009)</td>
<td>Tourism</td>
<td>Consumer set theory</td>
<td>Familiarity</td>
<td>Positive and negative reviews increase customer awareness. However, positive reviews enhance brand attitude.</td>
</tr>
<tr>
<td>10</td>
<td>Park and Lee (2009)</td>
<td>Online retailing</td>
<td>N/A</td>
<td>Search good versus experience goods</td>
<td>Product type moderates the effect on online reviews. Negative online reviews have a greater influence on experience goods rather than search goods.</td>
</tr>
<tr>
<td>11</td>
<td>Sen and Lerman (2007)</td>
<td>Online retailing</td>
<td>Attribution theory</td>
<td>Utilitarian versus hedonic products</td>
<td>Consumer-generated reviews have a more significant impact on product choice than market-generated sources.</td>
</tr>
<tr>
<td></td>
<td>Bickart and Schindler (2001)</td>
<td>Online retailing</td>
<td>N/A</td>
<td>Source (consumer vs. market-generated)</td>
<td>Introduced an extremity and bias model that explains extremity and negativity bias regarding perceived diagnosticity.</td>
</tr>
<tr>
<td></td>
<td>Skowronski and Carlton (1989)</td>
<td>N/A</td>
<td>Negativity and extremity bias</td>
<td>Negativity and extremity bias</td>
<td>Introduced schema concept.</td>
</tr>
<tr>
<td></td>
<td>Fiske and Linville (1980)</td>
<td>N/A</td>
<td>Schema theory</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>Mauri and Minazzi (2013)</td>
<td>Hospitality</td>
<td>N/A</td>
<td>Customer expectation</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>Litvin et al. (2008)</td>
<td>Hospitality</td>
<td>Theory of allocentricity and psychocentricity, drifter, explorer, mass tourist typology, and tourist area life cycle model</td>
<td>Firm response, service recovery</td>
<td>A positive correlation between customer expectation and customer purchase intention. Furthermore, managers’ responses to guest reviews have a negative influence on purchase intention. Online reviews as a cost-effective approach for marketing hospitality and tourism.</td>
</tr>
</tbody>
</table>
controlled online reviews. Despite key findings, vital questions remain unanswered, including how different incentives can affect the generation of online reviews, how marketers can motivate consumers to generate online reviews for different product types, and whether the type of platform control affects this relationship. Other issues relevant to this domain include how marketers should encourage negative online review creation and reduce the volume of negative online reviews. In Group 10, Skowronski and Carlson (1989) show that customers consider positive reviews less helpful given negativity bias. Accordingly, per schema theory (Fiske & Linville, 1980), negative tags can drive future behavior.

Group 11 focuses on how marketers should evaluate online reviews across different (non-)firm-controlled platforms. Further, it shows a positive correlation between customer expectations and negative word of mouth (Mauri & Minazzi, 2013). Despite focusing on online review sites, recent technological developments mean that customers use various mobile platforms. With many studies on using various non-firm-controlled platforms at the individual level, future scholars should address how different devices (e.g., mobile phones) change consumer behavior across different non-firm-controlled platforms (e.g., Snapchat vs. Instagram posts). Table 1 and Fig. 2 summarize the groups.

6. Text mining

In the second stage, Leximancer was used for more in-depth analyses. Leximancer utilizes a Bayesian theory-based machine learning approach to produce a graphical image that shows the relationships between underlying concepts. The size of each circle indicates the prevalence of each concept. The links between concepts show how they overlap and connect to the database.

Fig. 3 shows the output for the entire database on negative online reviews (excluding postscripts and prefaces). The negative online reviews domain addresses the interaction between negative (bright red) and review (reddish-brown), suggesting the most important themes in the relevant literature. Further, negative overlaps with emotions, suggesting that while negative user-generated content results from negative consumption emotions, negative reviews result from hedonic and functional aspects of the consumption experience. Such relationships require further studies to ascertain how different consumption experiences impact customer responses.

Notably, the firm’s response to negative online reviews (service theme) is important in the literature. Further probing suggests the importance of service recovery in responding to customer complaints (i.e., negative customer feedback). Future studies must determine how customers choose their complaint platforms, especially given that more customers report complaints over the phone, as per a National Customer Rage Study in 2017. Given enormous technological advances, this tendency is surprising and requires probing. Studies must investigate what platforms customers are more likely to produce negative online reviews if complaint channels do not produce satisfactory results. Further, the study identified negative online reviews as an important brand communication tool (negative online reviews theme). Some discussions also revolve around words resulting from negative online reviews.

7. Discussion

Numerous studies (e.g., Iyer & Griffin, 2021; Yang, Park, & Hu, 2016) focus on reviews or consumer tendencies toward negative and positive online reviews. However, this study sheds light on a neglected but important concept—negative online reviews—by contextualizing the issue in each process stage. The analysis provides several insights. First, 11 distinct research groups, along with the text mining results in
the negative online reviews literature, were connected via an in-depth analysis of ideas and results therein (Table 2). Representative articles for each group were identified, the texts were read in depth, and major themes were extracted, allowing for a synthesizing of the literature. Important themes were then combined into domain knowledge blocks. Accordingly, per the identified relationships, we generated a conceptual framework of generation, susceptibility, and response regarding negativity from customer and firm perspectives. The following section explores the basis of the model in depth (Fig. 4).

We reviewed the findings and recent works to identify five dimensions: generation, pre-susceptibility quality, susceptibility, post-susceptibility quality, and response. The designation for each dimension stems from the themes identified via text mining. We conceptualized a three-stage process for negative online reviews to clearly show customer behavior, management needs, and actions in each stage. The three-stage process was inspired by a prior conceptualization of the consumer journey (Hamilton, Ferraro, Haws, & Mukhopadhyay, 2021). The following discusses the model components, proposes a future path for each, and identifies the relationships therein.

8. Generation

The findings show that we could conceptualize negative online reviews in three different stages (Fig. 4). First, some articles focused on understanding where (platform), why (motivation), and by whom (generator) negative online reviews were generated. The following section explains each of the questions and raises important questions to guide future research.

Negative online review platform (where). As identified in the text mining results (services theme; “platform concept”), platforms are important. Customers use online environments to create negative online reviews (see the relation between platform, online, and reviews) (Wang, Miao, Tayi, & Xie, 2019). Negative reviews have been investigated in connection with two platform types: firm-controlled and non-firm-controlled platforms (Group 11). Most studies focus on non-firm-controlled platforms (e.g., Amazon in Group 3). In the conceptual model, platform dispersion reflects whether a firm is in charge of the contact point between consumers and the firms and to what extent firms can influence reviews.

Despite insightful scholarly investigations, important areas remain unexplored. First, it is unclear which platform types are more prone to negative review generation. A platform can shape negative online reviews by influencing negative online reviews (e.g., Aerts, Smits, & Verlegh, 2017; Kordzadeh, 2019) and recipients (e.g., Babić Rosario, Sotgiu, De Valck, & Bijmolt, 2016). However, platform features (e.g., responding to peer comments and highlighting the effectiveness of particular feedback) can more broadly impact customer decision making. For instance, website content or audiovisual elements can alter the impact and creation of negative online reviews. Evidently, current relevant studies do not offer any insight into additional research streams and questions such as whether customers use text-based platforms (e.g., Twitter) to run a boycott campaign or prefer using an image-based platform (e.g., TikTok) or the cases in which customers create negative user-generated content. Surprisingly, research is scant on which platforms firms take negative online reviews more seriously and whether there are differences in firms’ responses to negative online reviews between platforms. Future studies may examine whether firms should compensate customers (e.g., offering extra points) or merely...
Online P2P platforms are net-offers, and negative forms (e.g., Airbnb). For instance, a hotel has complete control over its online reviews must be investigated regarding peer-to-peer (P2P) platforms. However, further studies must shed light on the best managerial response to such circumstances. Future research must probe the extent to which customers distinguish between the firm and peers who use P2P platforms to share their services.

Researchers are encouraged to employ social network theory (Coleman, 1990; Zhang, Yin, Zhu, & Zhang, 2017) to investigate negative online reviews on P2P platforms. According to said theory, people engage in social networks to fulfill psychological, emotional, social, or economic needs (Granovetter, 1983). Online P2P platforms are networks where people frequently interact or exchange resources. To have a better understanding of the negative online interactions or behaviors of individuals on online platforms, it is essential to identify intrinsic or extrinsic drivers of their engagement. Thus, potential research paths include how negative online review generation on a P2P platform can affect member expectations of each other and platforms and how it can hinder research exchanges or interaction or affect the negativity toward P2P platforms. For instance, how can P2P platforms affect consumer intentions to disseminate false online reviews? Unpacking how theoretically relevant platform attributes shape the transmission of negative online reviews is beneficial.

### Motivation (why)

Despite the noted and significant impact of negative online reviews on consumer behavior, knowledge of their underlying psychological motivations remains limited. The motivation to participate in negative online reviews is limited to one study (Berger, 2014; V4); it is distant from other items in the findings and forms no group. Thus, except for a few studies (e.g., Cheema & Kaikati, 2010; Goldenberg, Libai, & Muller, 2001), research largely focuses on outcomes of negative online reviews, largely ignoring the drivers of negative online review creation. The first driver of negative online reviews is motivation (emotional, social, and functional). The emotional motivations of negative online reviews mainly regard regulating negative emotions (Berger, 2014), such as anger (see Wetzer, Zeelenberg, & Pieters, 2007; Wen-Hai, Yuan, Liu, & Fang, 2019). Relational motivation is when individuals use negative online reviews for social bonding or finding common ground (Hennig-Thurau, Gwinner, Walsh, & Gremler, 2004). Social motivations regard concerns that customers share no common negative experience (Bachedla & Berrada-Fathi, 2016).

Other drivers of negative online reviews relate to customer resources (e.g., knowledge, expertise, and platform access), where resources positively correlate with the creation of online reviews (Lovett, Peres, & Shachar, 2013). Others regard operand resources, such as knowledge (Rocklage, Rucker, & Nordgren, 2021), and operand resources, such as having a certain number of followers. Negative online review creation depends on the context or channels. For instance, Smith, Fischer, and Yongjian (2012) posit that brand sentiment varies per platform and that text-based platforms relate more significantly to negative online review creation.

Despite these insights, such studies focus on face-to-face word of mouth. Meanwhile, one helpful negative online review can reach thousands worldwide. Thus, future researchers can investigate how customer resources impact the desire to generate negative online reviews. Prior studies only address social motivation (e.g., identity signaling or self-enhancement) as the main drivers of negative online reviews (Berger, 2014; Dalman, Chatterjee, & Min, 2020; Dalman & Min, 2015), but none investigate how generator resources (i.e., experts, influencers, and peers) can influence customer motivation. For instance, follower numbers can impact influencers’ likelihood of generating negative online reviews (e.g., signaling trustworthiness). Similarly, how can customer resources (e.g., knowledge) generate negative online reviews? According to self-determination theory, human behavior is motivated extrinsically and intrinsically by external and internal self-regulation of social integration, well-being, and psychological growth.

<table>
<thead>
<tr>
<th>Table 2</th>
<th>Summary of key empirical articles in the conceptual framework groups.</th>
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<tbody>
<tr>
<td>Future model component</td>
<td>Multi-dimensional scaling analysis</td>
</tr>
<tr>
<td>Drivers</td>
<td>V4, V14</td>
</tr>
<tr>
<td>Generator</td>
<td>Group 1</td>
</tr>
<tr>
<td>Pre-exposure quality</td>
<td>Group 3</td>
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<tr>
<td>Volume</td>
<td>Groups 1 and 2, Group 10</td>
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<tr>
<td>Customer journey</td>
<td>Group 11</td>
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<tr>
<td>Technological Content</td>
<td>Group 11</td>
</tr>
<tr>
<td>Cultural Differences</td>
<td>V2</td>
</tr>
<tr>
<td>Outcome</td>
<td>Group 5 (firm-related), Group 6 (customer-related), Group 2, Group 4 (Hotel)</td>
</tr>
</tbody>
</table>

**Note:** Concepts are words that frequently appear together; themes are concepts that occur frequently in similar contexts.
Extrinsic motivation refers to goal-oriented behaviors performed in response to cost-benefit analyses (Lin, 2007; Osterloh & Frey, 2000). Thus, extrinsically motivated individuals seek the instrumental value of a specific behavior (Taylor, Bing, Reynolds, Davison, & Ruetzler, 2018), such as seeking a discount or other advantages. In contrast, intrinsic motivation is derived from internal influences through one’s needs and decisions (Gagné & Deci, 2005). Thus, intrinsic motivation supports engagement in activities such as the emotional and social satisfaction of sharing negative online reviews.

Although self-determination has been mostly applied in investigations of consumer motivations for purchasing, no study has used this theory to understand the motivations of negative online review generators thus far.

Utilizing self-determination theory, future researchers should investigate how different motivational factors (extrinsic vs. intrinsic) can impact customers’ willingness to generate more negative online reviews. Even though prior studies address how emotions can impact negative online review generation (Wetzer et al., 2007), they fail to probe how different motivations impact the volume of negative online reviews. Does the need for social bonds (e.g., social motivation) mean many customers create negative online reviews? Do only a few customers generate negative online reviews to stand out from others (e.g., social value)? How can firms demotivate such customers?

Prior studies explore how different content impacts customer motivations to generate negative online reviews, where mobile devices (vs. PCs) induce briefer content emphasizing the emotional dimension of the consumption experience (März, Schubach, & Schumann, 2017). Individuals can form an emotional attachment to their devices (Melumad, Inman, & Pham, 2019), thus impacting their motivations to generate negative online reviews. Future researchers must investigate how this “device mindset” can influence the content valence influencers and experts generate. Further, prior studies have evidently not addressed how audiovisual content impacts negative online reviews’ popularity. Therefore, future studies must investigate how a combination of different content can impact the popularity of negative content. Interestingly, previous studies evidently focus on the valence of negative text and largely ignore negative audiovisual content. This research stream must be addressed because most customers now have access to popular social platforms (e.g., TikTok and Clubhouse) that make it easy to create all sorts of engaging content (Yin, Yang, Song, Liu, & Li, 2021), even negative ones.

**Generators (who)**. Studies have examined who creates negative online reviews (i.e., generators). The findings indicate that prior studies can be categorized into two sub-categories: peers and experts. While Groups 3 and 11 analyze peer-generated product reviews, Group 4 investigates the impact of expert online reviews. Although consumers largely offer their views after their consumption, they can be third-party and independent experts. Some reconceptualization is warranted.

Despite the emphasis on volume as a major factor for negative review credibility, negative expert reviews might have the opposite effect. That is, an expert’s informed opinion can amplify the credibility of negative reviews. This confusion is prevalent in in-service studies (e.g., Dellarcas et al., 2007). Moreover, Basuroy et al. (2003) claim that experts should also be considered influencers because they are followed as opinion leaders. However, given the rise of influential marketing, influencers (Valsesia, Proserpio, & Nunes, 2020) make hobbies out of generating firm or brand-related content (Belanche, Casaló, Flavían, & Ibáñez-Sánchez, 2021), thereby warranting further scholarly attention. Surprisingly, only positive online review studies emphasize the role of influencers, as firms have mostly sponsored them to promote their brands (Cocker, Mardon, & Daunt, 2021).

**Future studies must distinguish between usual customers, influencers, and experts in their operationalization and conceptualization.** We categorized negative online review generators into peers, influencers, and experts, which are crucial for empirical studies to address bias. Future studies must also investigate what motivates different generators to partake in negative online reviews. Do influencers generate negative online reviews to become more popular (i.e., social bonding), or do they want to express anger over a bad contract (i.e., emotion regulation)? Similarly, do experts partake in negative online review creation for impression management or something else? Uses and gratification theory aids in understanding the motives behind engaging...
with others on online platforms and choosing a certain type of online platform over another (Severin & Tankard, 1997). This theory has been excessively applied, especially in recent studies of internet use (Dhir, Pallesen, Torsheim, & Andreasen, 2016), delivery apps (Ray, Dhir, Bala, & Kaur, 2019), microblogs (Liu et al., 2020), Facebook (Hossain, Kim, & Jahan, 2019), Instagram (Madan & Kapoor, 2021), and interpersonal communications (Egini & Tas, 2018). However, when it comes to negative online reviews, studies have not utilized the theory to understand the motivational reasons for generating or engaging negative online reviews efficiently. Therefore, we highly recommend that uses and gratification theory guide future studies to probe the relevant research questions and determine which generators might create more impactful negative online reviews.

Future studies can determine how fairness perception regarding negative online reviews of influencers and experts impacts consumer evaluation (Allard et al., 2020). Notably, they can ascertain how firms may use unfair perceived reviews to cultivate stronger consumer relationships. Accordingly, whether consumers perceive negative online reviews as unfair when generators refer to a personal issue with the firm warrants in-depth examination. That said, future researchers must consider the consumption context. For example, customers might perceive negative online reviews of a restaurant as unfair in light of a late reply during Christmas.

Future studies must also investigate the role of culture among consumers when exposed to different types of negative online review generators. Nath, Devlin, and Reid (2018), for instance, show that power distance and long-term orientation of cultural dimensions impact consumers’ reactions to online reviews. Such cultural differences require further investigation in negative online review contexts to help researchers understand why Western companies cannot create a strong foothold in eastern markets such as China.

Another interesting line of study is how culture impacts the sharing of negative online reviews by experts and influencers. Prior studies (e.g., Elberse, 2008; Kim & Sherman, 2007) have suggested that consumers in individualistic countries are more motivated to express their opinions than in collectivist cultures where consumers conform to others. For instance, caring for others or showing tolerance of dissatisfaction are appreciated behaviors in collectivist cultures (Yuksel, Kilinc, & Yuksel, 2006). Thus, consumers of such cultures are likely to avoid leaving negative online reviews so as not to harm the brand’s image. In addition, there are some differences in high versus low context cultures, as distinguished by Edward Hall (1976). For instance, in low context cultures, messages are delivered short, directly, and explicitly, whereas high context cultures tend to use longer, indirect, implicit messages delivered through “unwritten rules,” which are known but dominated by nonverbal communications, thus requiring further interpretation by the recipients. Such cultural differences require further attention regarding different generators. Do experts from collectivistic and high context cultures create fewer negative reviews? If so, how does this difference impact consumer perception? Do influencers from individualistic and low context cultures provide more personal and direct negative comments than their counterparts in collectivist countries? Similarly, consumer studies must probe how consumers of different cultures respond to each negative review type. Will consumers from individualistic and low context cultures accept self-expressive influencers’ negative reviews more than collectivistic consumers? If so, how do international firms respond, and how do their responses differ? The answers to these questions have important implications for fostering consumer communication during the pre-purchase phase. Future studies must probe how promoting self-expression in individualistic versus collectivistic and high versus low context cultures might prevent negative online reviews.

9. Susceptibility

After customers generate negative online reviews, influencers, experts, and potential or former customers take note. In the second stage of the model, studies ascertain how (volume) and when (consumer journey) customers are exposed to negative online reviews. Studies review this susceptibility when customers are exposed to high or low volumes of negative online reviews during their purchase journey. At this stage, managers must know what happens when customers are exposed to negative online reviews during the consumer journey.

Volume (how much). Throughout the consumer journey, customers are exposed to different levels of negative online review volume. Our analysis (i.e., Groups 2 and 4) reveals sufficient studies on how being exposed to a high volume of negative online reviews can greatly impact customer behavior. Further, studies investigate how managers mitigate customer susceptibility to negative online reviews by making positive online reviews more searchable and visible (Yu, Liu, & Lee, 2019). However, it is essential to identify how different volume levels can affect different purchase decisions. It is also important to address how managers can respond to high or low volumes of negative online reviews on non-firm-controlled platforms. Moreover, per the theory of planned behavior (TPB), human action is guided by three components: attitude toward behavior, subjective norms (which can be perceived as social pressure), and perceived behavioral control (referring to controlling beliefs that result in behaviors) (Ajzen, 1991). Despite TPB’s prevalence in consumer behavior studies, it has not been used sufficiently in negative online review contexts. Therefore, future studies should investigate how various motivation types can affect the generation of different volumes of negative online reviews. Key research questions include: Do customers have higher negative online review susceptibility to low-rated products than high review volumes? How might brand ambassadors help address different negative online review volumes and manage customer complaints? Can brand influencers or highly loyal customers respond to negative online reviews instead of firms on non-firm-controlled platforms? How do firms motivate them without economic rewards?

Per the social validation principle (Powell, Yu, DeWolf, & Holyoak, 2017), high volumes of negative online reviews might induce consumer perceptions of a firm as popular. Thus, such scenarios require further scholarly attention. Future experimental studies will yield interesting results. Such studies can ascertain when different generators create mixed volumes of negative online reviews (e.g., how consumers act toward a brand about which various influencers have generated negative online reviews while experts view the same product or service positively). In such a situation, how will consumers make decisions?

Customer journey (when). Negative online review susceptibility can occur at different points in the customer journey (Wolny & Championsukai, 2014). Customers may be susceptible to negative online reviews when they seek information or alternatives (i.e., pre-purchase stage) or choose their product or services (i.e., purchase stage). Most studies investigating the impact of negative online reviews focus on the pre-purchase or purchase stage. Groups 5 and 6 (10) focus on the pre-purchase (purchase) stage (e.g., Chevalier & Mayzlin, 2006; Jalilvand & Samiei, 2012; Park, Lee, & Han, 2007; Zhu & Zhang, 2010; Sen & Lem, 2007; Park & Lee, 2009; Xia & Bechwati, 2008). The cues theme shows that contact between customers and firms across the customer journey is crucial for customer susceptibility to negative online reviews.

The customer journey suggests three important paths for future research. First, related to the pre-purchase stage, considerably fewer studies investigate which platforms most likely expose consumers to negative online reviews and how facilitating consumers to report negative consumption experiences to the company can avoid generating negative online reviews. Future research should consider how frontline employees can facilitate this process. Second, prior studies show that the purchase stage is a desirable end state for firms (Lemon & Verhoef, 2016). Most studies limit their data collection to more well-known review websites with many reviews (e.g., Amazon), where consumers search and read negative online reviews internationally. However, because consumers are more likely to encounter negative online reviews...
these days, future studies must unravel how such scenarios impact customer attitudes toward a firm. Third, exposure to negative online reviews is not necessarily linear; the post-purchase stage can impact the purchase or pre-purchase stage (Roggeveen, Grewal, & Schweiger, 2020).

Accordingly, since the current economic condition is becoming more interconnected, future studies must address the role of cultural differences, technological changes, and social norms. As indicated in the model, all contextual factors can impact customer susceptibility across the customer journey. Cultural differences (e.g., religion) can significantly impact the customer journey (Cudjoe, Duhachek, Singh, & Tam, 2021) and susceptibility to negative online reviews. Therefore, future studies must address how differences such as power distance, uncertainty avoidance, masculinity-femininity, and time orientation (Shavitt & Barnes, 2020) can impact customer susceptibility to negative content. Evidently, only Tang (2017) has explored the impact of culture on the relationship between online reviews and performance, failing to address how different cultural dimensions affect generation of and susceptibility to negative online reviews. Future investigations can ascertain whether high-uncertainty-avoidance cultures are more prone to higher volumes of negative online reviews. They can also investigate how cultural dimensions impact the valence of online reviews on generators. Do experts or influencers from masculine cultures create more negative content? If so, how do audiences from feminine countries perceive such negative content?

Further, future research must address how social norms guide impact susceptibility across the customer journey. Prior marketing studies have largely acknowledged that social norms impact customer behavior in different contexts, including innovation acceptance (Homburg, Wieseke, & Kuehn, 2010), purchase choice (Pliner & Mann, 2004), and attitude (Wilson, Giebelhausen, & Brady, 2017). Thus, social norms can impact customers, including whom they follow and interact with on social media or the topics they pursue, ultimately impacting their susceptibility to negative online reviews across customer journeys. Therefore, future studies must acknowledge how social norms impact customer susceptibility. Do countries with strong survival and traditional values (e.g., Muslim majority countries) discourage negative online reviews and content? Conversely, in countries with high self-expression values (e.g., the US), do social norms encourage a high generation of negative reviews and content? How does customers’ susceptibility to negative online reviews differ across various countries? How does it differ for countries with high secular-rational values? Moreover, since technology shapes every aspect of the customer journey and inevitably impacts customer susceptibility to negative online reviews, future studies must probe how mobile technologies (e.g., smartphones) influence customer exposure to negative online reviews. The consequences of emergent technologies, particularly autonomous technologies, need focused attention from researchers.

Future researchers must investigate how negative online review susceptibility can affect frontline employees. Does being susceptible induce less satisfaction with their jobs? How can they respond to negative online reviews? Additionally, future studies can examine how this susceptibility affects frontline employees’ well-being. They must probe how negative online reviews of a particular service cue can be strategically leveraged as a positive consequence. For instance, a restaurant can emphasize their slow service as part of their marketing communication, promoting a calm atmosphere and leisurely consumption experience, thus turning negative reviews into praise. As the consumption experience is increasingly delivered via a complex network of actors (e.g., different firms and employees), each actor contributes to the overall customer experience. Given this complexity, the party responsible for negative online reviews might not be apparent during the consumer journey. Therefore, consumers are likely to erroneously attribute negative online reviews to a particular actor. For instance, a customer who wants to place an order online but notes a high volume of negative online reviews about the delivery service cooperating with the firm may abandon the purchase. In light of social network theory, which explains that psychological, emotional, social, or economic needs are the drivers of people’s engagement with online platforms (Granovetter, 1983), future researchers must ascertain how negative online reviews regarding a relevant stakeholder or actor in the consumer journey can impact the service context.

**Moderating role of pre-susceptibility quality.** The findings show that studies probe various moderation methods. Pre-susceptibility quality attributes that moderate customer susceptibility to negative online reviews can be categorized into product life cycle (Groups 2 and 11) and review length and quality (Groups 2 and 3). Group 1 highlights that product time release can affect volume, as individuals are more likely to generate online reviews in the early stages of a product release. Negative online review volume can be higher when the consumption experience is in the early product stages. Thus, a product’s life cycle can affect negative online reviews’ susceptibility during the customer journey. It is a highly expected situation as the average rating of reviews declines over time (Li & Hitt, 2008), and early customer reviews, given immediate consumption, might demonstrate extreme negativity. Further, customers care about the dates of reviews when making a purchase (Zhang, Qiao, Yang, & Zhang, 2020).

Group 3 suggests that review length can affect customer susceptibility to negative online reviews. However, confusion arises when researchers operationalize review length and review quality identically, as in recent studies. For example, Hong, Xu, Xu, Wang, and Fan (2017) consider review depth and word count to be identical constructs. However, the length of a review may not be a sufficient and helpful tool in the customer journey, especially when customers are susceptible to negative reviews. The depth of a review should be linked to its informativeness. For instance, a review can be long while lacking in storytelling, information, or meaning. The notion that review depth indicates the quality of a review, increasing its believability and trustworthiness, is sound. However, length and depth should be operationalized separately in future studies. This operationalization is increasingly important given that some customers are limited to a certain number of words on certain online platforms (e.g., Twitter).

Future studies must investigate pre-susceptibility quality moderators when examining customer susceptibility to negative online reviews. First, in the final product or service stages, more negative online reviews might occur. Therefore, studies must ascertain how it will affect the post-purchase stage (e.g., a request for a service repair). Second, per the text mining results (image concept in the online reviews theme) and the increase in the number of visual platforms (e.g., Instagram and TikTok), investigating different types of negative online reviews is time-consuming and complex. It is worth shifting from prevalent text-based reviews to alternative formats of negative online reviews. Qualitative studies may unveil new review quality items (e.g., graphics, music, and special effects). Finally, future studies must consider all three pre-susceptibility qualities when measuring negative online reviews’ susceptibility, as they might impact customers’ journey during any stage and at different levels.

10. **Response: Answering the “so what?” question**

**Firm-related response.** Following the exploration of negative online reviews, it is important to understand how firms and customers respond. **Response** is the last fundamental component in the model regarding customer and firm reactions to negative online review susceptibility. Many studies focus on customer (e.g., Abubakar, Ikan, Al-Tal, & Elswole, 2017; Agusto & Torres, 2018; Gruen, Osmonbekov, & Czaplewski, 2006; Matute, Polo-Roendo, & Utrillas, 2016; Tandon, Dhir, Kaur, Kushwah, & Salo, 2020; Williams, Crittenden, & Henley, 2021) and firm responses (e.g., Golmohammadi, Mattila, & Gauri, 2020; Herhausen, Ludvig, Grewal, Wulf, & Schoegl, 2019; Nazifi et al., 2020; Suwandee, Lertwannawit, Racela, & Boonchoo, 2020; Van den Broek, Langley, & Hornig, 2017; Vermeer, Araujo, Bernttner, & van Noort, 2021).
(2019) to online reviews. However, few investigate firm responses to negative online review susceptibility by considering customer journey and response. This gap is surprising given that a firm’s response to negative online review susceptibility cannot be analyzed without considering the customer response. Similarly, customer response to negative online review susceptibility significantly affects and determines a firm’s response. Therefore, this study adopted an integrated approach by considering customer and firm responses to negative online review susceptibility in its model. Future studies must pay attention to the strong and interactive relationship between firm and customer responses to negative online review susceptibility.

Accordingly, future research must ascertain how managers can respond to customer susceptibility to negative online reviews. Studies must develop a strategic framework for different tools and techniques from which managers can benefit. Regarding firm responses to negative online reviews, Group 6 indicates a positive outcome from negative online reviews (brand awareness). Thus, future studies must investigate how firms can benefit from negative online review responses. Researchers can see whether marketers’ responses to negative online reviews can create positive online reviews and, if so, how. Future studies can probe firm-related outcomes to provide a managerial framework for how firms might transform negative reviews into positive ones. Little is known about the impact of negative online reviews on satisfied customers in the post-purchase stage. Consumer researchers can explore whether consumers believe they make better and safe decisions regarding negative online review susceptibility. Does being less susceptible to negative online reviews mean greater customer satisfaction in the post-purchase stage and higher performance for firms? How firms respond to negative online reviews impacts consumer purchase behavior. For instance, Davidow (2015) and Qahri-Saremi and Montazemi (2022) suggest informing consumers of how their negative complaints have been addressed. Such relationships and their effectiveness, as suggested by the study model, require further scholarly attention.

Furthermore, service recovery through personalized relationships, good timing, and a complementary or apologetic approach can change customer attitudes from negative to positive (Group 11). However, marketing strategies in offline service recovery are different from those in online service recovery. Customers can easily access the internet, where alternatives are available just a few clicks or taps away (Foroudi et al., 2020a, 2020b; Singh & Crisafulli, 2016). Negative online review susceptibility can also induce a lack of trust in products or firms. Therefore, future studies should seek answers to the following: How can firms create justice or fairness perceptions in customers to recover from negative online reviews? Does perceived justice or fairness differ between customers? When should firms take action to recover from negative online reviews? Which online marketing communication strategies should firms apply to satisfy customers who leave negative reviews? Studies may employ scenario-based experiments to test the effectiveness of various service recovery methods. Further, in-depth interviews could be helpful in bringing more nuances to firm responses to negative online reviews.

Despite the traditional belief that product sales best indicate firm performance (Feng, Xi, Zhuang, & Hamari, 2020), negative online reviews provide outcomes beyond sales (Lee, Hosanagar, & Tan, 2015; Yin, Mitra, & Zhang, 2016). The outcomes can include perceived service or product quality, perceived firm image or reputation, and customer dissatisfaction or complaints. Future studies should consider these outcomes as more realistic indicators of firm performance. Moreover, a negative online review affects future negative reviews, and firm performance should be accepted as a result of and response to negative online review susceptibility (Sun, Gao, & Rui, 2021; Wang, Ren, Wan, & Yan, 2020). Therefore, future studies should address the following: What is the function of negative online reviews in measuring the real performance of a firm? How can firms take counteractions to combat negative online reviews and mitigate the conflict between real and perceived performance? At the organizational level, more studies must investigate how negative online reviews impact financial outcomes. Currently, very few studies address the impact of negative online reviews on return on investment. If responding to negative online reviews becomes key to organizational efforts, new models for addressing negative online reviews grounded in customer equity (Rust, Lemon, & Zeithaml, 2004) should be developed.

Lastly, customer relationship management (CRM) is a defensive response of firms to negative customer engagement, as indicated by customer response in this study’s conceptual framework. As supported by the study findings, firms should monitor customers’ online review activities, providing more quality information about products and services to generate advertising data from positive reviews. Nevertheless, these suggestions comprise early recommendations for preventing negative customer engagement (Chen, Gu, Ye, & Zhu, 2019; Yang, Ren, & Adamovicic, 2019). Therefore, future research should go beyond speculation and investigate the optimal marketing strategies and solutions to existing negative customer engagement.

**Customer-related response** Drawing on the findings from Groups 5 and 6, future researchers should consider the impact of negative online review susceptibility during different stages of the customer journey. It is important to know how customers respond to negative online review susceptibility at different stages. For instance, customers can delete items in their baskets or cancel purchases when they are susceptible to negative online reviews in the purchase stage. Similarly, if customers are susceptible to negative online reviews in the post-purchase stage, they might attempt to return items or use products reluctantly and subsequently develop negative attitudes. Such customer responses may differ per volume of negative online reviews. Future studies should consider what happens when customers are susceptible to the high or low intensity of negative online reviews throughout their journey. An interesting research question could be as follows: Is it possible for customers to stop consuming a product or service even after the purchase? Finally, as mapped in the conceptual model, future researchers could investigate and see how different negative online review generators might exert a greater influence on customer response.

Negative online review susceptibility can also provoke mistrust in customers toward a product or firm as a response. Such customers are characterized in the literature as cynical and harboring mistrust, suspicion, frustration, or skepticism toward a product or brand (Chylinski & Chu, 2010). Chylinski and Chu (2010) confirmed that negative online word of mouth (negative online reviews) could reach cynical levels when customers doubt their intentions, product quality, benefits, or sacrifice. However, they did not consider that cynicism is not only a motivation for spreading more negative online reviews due to mistrust but also the result of customers’ susceptibility to negative online reviews. Therefore, future studies must address the influence of cynical customers on others in making decisions and investigate how customers become cynical because of their susceptibility to negative online reviews.

The findings also confirm service expectations as another response to customers’ susceptibility to negative online reviews. The higher a customer’s susceptibility to negative online reviews, the lower the impact of service expectations on customers as a response. Expectation-confirmation theory (Oliver, 1980; Siering, 2021) is frequently applied to address such concerns. According to this theory, customers can be satisfied or even delighted if the product or service quality exceeds their expectations. Therefore, if the product or service performance falls below expectations, customers will be dissatisfied. And so, while susceptibility to negative online reviews decreases customers’ service expectations, it could be easier to satisfy customers with low service expectations through an unexpectedly better product or service performance. Thus, utilizing expectation-confirmation theory, future studies should answer the following questions: Do customers susceptible to negative online reviews still purchase a product or service despite low service expectations? What level of negative online reviews’
sustainability (and which types of products or services) discourage customers from purchasing?

**Moderating role of post-susceptibility quality.** Further, the findings show that scholars probe the moderating role of attributes in customers’ responses to negative online reviews (post-susceptibility quality). Studies have also suggested that these attributes be categorized into four sub-categories: cost of product, product type, customer engagement, and customer homophily. Product or service cost is among the significant post-susceptibility quality of customer and firm responses to negative online reviews (Group 5). Customer sensitivity to cost has been mostly associated with risk and value perceptions in online review studies (Cantallopoulos & Salvi, 2014; Huang, Liu, Lai, & Li, 2019). Thus, it is not surprising that customers expect to have a higher perceived risk for products or services with high costs when susceptible to negative online reviews. However, based on the findings (Group 5), it would be interesting for future studies to ascertain firm responses to customers who have a high perceived risk, cost sensitivity, and susceptibility to negative online reviews.

Researchers have also studied the moderating role of product types in customer responses (Groups 7 and 10). The results show the higher moderating impact of hedonic and experiential products relative to search and utilitarian products on customer response to negative online review susceptibility. However, Group 7 shows that brand familiarity can moderate customer response to negative online reviews for different product types and volumes (Esmark Jones et al., 2018), which might significantly affect customer responses. Therefore, future studies must address the following: How does product type affect the response of customers susceptible to negative online reviews yet who have brand familiarity or experience? Does source credibility (platform reputation) affect customer response to any product type in highly negative online review susceptibility conditions? Can firms enhance positive online review effectiveness for a certain product to reduce the impact of negative online reviews? How can customers with positive experiences be encouraged to share more (e.g., images, pictures, or purchase decision processes) about a certain product to reduce the impact of negative reviews? Importantly, leveraging positive reviews of risky products to counter negative reviews has yet to be studied.

As indicated in the model, customer engagement is another post-susceptibility quality that affects customer and firm responses to negative online reviews. The findings (Groups 3, 5, 8, and 9) support the view that customers engage with negative reviews more than positive ones. Moreover, customers do not need to have prior relationships with each other to engage in online platforms (Goldsmith & Horowitz, 2006). Stronger engagement with negative reviews can create stronger social bonds among customers. However, customer engagement may not always yield positive outcomes. For instance, activism, movements, and brand or firm boycotts stem from customer engagement. Surprisingly few studies have investigated how customer engagement can moderate customer responses to negative online review susceptibility. Therefore, future studies should explore customer engagement as a moderating factor in responses to negative online reviews.

Finally, customer homophily can augment firms’ CRM by identifying the profiles of negative online review senders (V23). As indicated in the model, the impact of customer homophily on customer and firm responses should also be considered in the post-susceptibility process as another moderator. The findings from V23 signify the effectiveness of customer homophily in the context of online reviews. The visibility of reviewers’ homophily by other customers affects product satisfaction (Van Esch, Northe, Duffy, Heller, & Striluk, 2018) and customer purchase decision (Bachleida & Berrada-Fathi, 2016; Kim, Kandampully, & Bilgihan, 2018). However, its stronger impact on negative online reviews has not been sufficiently reflected in the existing literature. How does reviewer homophily enable customers to interact regarding negative online reviews? Is customer response affected more by high negative online review susceptibility than homophily-based negative online review susceptibility? Future studies should investigate how customer homophily-based negative online reviews determine or augment firm performance (Table 3).

11. Conclusions

This study makes remarkable contributions to the negative online review literature. It extends existing knowledge by offering a conceptual model for future studies that highlight significant research questions in the field. This study goes beyond a mere bibliometric review and provides an in-depth content analysis of emergent themes to identify future research directions. Unlike current studies in the literature, we did not omit any of the stages in negative online reviews. Instead, we systematically analyzed the entire process, including points of generation, susceptibility, and response. Thus, the study offers insights for practitioners on how to deal with negative online reviews in different stages and obtain leverage from negative online reviews in the future. These insights will aid practitioners in shaping future strategies, given the advent of social media, which furnishes the only medium by which many feel free to share their opinions without fear of being judged by others (Saiko, 2010).

12. Limitations

The first limitation is associated with the articles chosen for inclusion in the data analysis. Despite using a trusted and well-established source for ranking journal articles (ABS, 2019), this approach is inevitably affected by the subjectivity of its scholarly perception, affecting the inclusion-exclusion criteria. Second, the data collection process was limited to WOS. Future studies can include other databases (e.g., Scopus) to compare findings with the results of this study. Third,

**Table 3** Summary of future research questions.

<table>
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<tr>
<th>Generation</th>
<th>How do different features of multiple platforms impact negative online review generation among consumers? How do different formats of negative online reviews (e.g., visual) impact the customer journey? What are the helpful criteria for new and evolved negative online reviews across different platforms? Should firms facilitate negative online review generation across their controlled platforms? How might negative online reviews be more persuasive for different generations? Which one is more persuasive per consumption context?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Susceptibility</td>
<td>How do different forms of negative online reviews about different service ecosystem actors impact consumer perceptions of a firm? How might different actors control the impact of negative online reviews on the entire service ecosystem? What happens to satisfied consumers who are exposed to negative online reviews in their post-purchase stage? Does having fewer negative online reviews mean more firm success? How should length and depth be operationalized for visual platforms? How does a low volume of negative online reviews reduce or increase uncertainty for luxury brands? How might different volume levels affect the customer journey? Could firms’ facilitation of online reviews result in generating high volumes of negative online reviews? If so, how might this happen?</td>
</tr>
<tr>
<td>Response</td>
<td>How do negative online reviews impact frontline employee well-being? Does facilitating complaint channels for consumers result in less negative online review generation? How might firms benefit from unfair negative reviews? Does the consumption context have any impact? How do individual traits impact consumer perceptions of negative online reviews? Is facilitating positive online reviews among consumers a good approach to counter negative online reviews? If not, what about positive online reviews of influencers or experts?</td>
</tr>
</tbody>
</table>
bibliometrics is a generalized method for probing any given literature domain. For example, investigating research groups helps identify broad and related themes, but the interpretation is subjective. A rigorous examination of cited scholarly works via different approaches may reveal a more complete and integrated understanding of a research domain. Finally, this study employed only one co-citation technique (MDS) to identify the groups in the domain. Employing other co-citation techniques (e.g., exploratory factor analysis or hierarchical clustering) may reveal interesting results worthy of future scholarly attention.

CRediT authorship contribution statement

Nazar Colmekcioglu: Visualization, Project administration, Investigation, Data curation, Conceptualization, Formal analysis, Funding acquisition, Writing – original draft, Writing – review & editing. Reza Marvi: Validation, Software, Resources, Methodology, Formal analysis, Conceptualization. Panthea Foroudi: Writing – review & editing, Visualization, Conceptualization. Fevzi Okumus: Writing – review & editing.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

References

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