



Meta-research on crisis communication: 24 years of research in *Public Relations Review* (2000–2023)

Álvaro Elgueta-Ruiz^a, Gabriel Sadi^{b,*}, Gisela Gonçalves^c, Javier Martínez-Ortiz^d

^a School of Business and Governance (ENG), University of Cape Verde, Campus Palmarejo, Praia CP 279-C, Cape Verde

^b School of Business, Education and Law, University of Huddersfield, Queensgate, Huddersfield, HD1 3DH, United Kingdom

^c Department of Communication, Philosophy and Politics at Faculty of Arts and Letters and LabCom, University of Beira Interior, Rua Marquês D'Ávila e Bolama, Covilha 6201-001, Portugal

^d Department of Communication Sciences, Faculty of Communication and Social Sciences, Universidad Católica de la Santísima Concepción, Av. Alonso de Ribera, Concepción 2850, Chile

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ABSTRACT

During the last two decades, crisis communication research has increased significantly, becoming one of the main research topics, with scholars mainly examining how crises can affect the results of an organization and its stakeholders. However, despite the growing literature, knowledge, and theories, a systematic approach to crisis communication research is still limited. Faced with this reality, this study explores the state of crisis communication research through a qualitative and quantitative content analysis of all articles published on this topic in *Public Relations Review*, the leading journal in the field, between 2000 and 2023 (n = 391 of a total of 1906 articles published in that period). This paper identifies the main authors, the universities to which they belong, the work networks they constitute, their objectives, questions, hypotheses, methodologies, type of research, as well as the theories, results and conclusions that are produced, among other important issues. Finally, the theoretical and practical implications of crisis communication research in the field of public relations and related areas are discussed.

1. Introduction

Crisis communication has been a recurring topic in scholarly journals on public relations, organizational communication, strategic communication, and business communication. In fact, it is the most frequently discussed topic in the oldest - and arguably most prestigious - academic journal in the field: *Public Relations Review* (Elgueta-Ruiz & Martínez-Ortiz, 2022).

In 2010, Avery et al. stated that few topics in public relations had been studied as extensively as crises and that, up to that point, no research had comprehensively documented all the published studies in this emerging field, leaving a gap in knowledge regarding 'what methods are used, with what results, or an explanation of how and why discrepancies in prescriptions exist' (p. 190). The study identified Benoit's Image Restoration Theory (1997) and Coombs' Situational Crisis Communication Theory (SCCT) (2007) as the dominant theoretical frameworks.

Similarly, Zurro-Antón et al. (2021) mentioned that crisis communication had become one of the most prominent areas both in public relations practice and research in the period they had set out in their study (2008–2018). Their review of six leading public relations and crisis communication international journals focused on elements such as themes, theories, methods, results, and geo-cultural characteristics of the authors. They identified Coombs' SCCT had been used in 23.8% of the texts, being the most used theory on its own and the second most if several theories were used together (44.1%).

Given this trajectory, it should be recognized that crisis communication has evolved as a core domain within public relations, even as it intersects with management, psychology, sociology, and other adjacent fields (Ha & Boynton, 2014). Much of its conceptual consolidation—including the development of dominant theories, analytical categories, and evaluative criteria—has been driven by public relations scholarship (Benoit, 1997; Coombs, 2007). Examining crisis communication research specifically through a public relations lens therefore

* Corresponding author.

E-mail addresses: alvaro.ruiz@docente.unicv.edu.cv (Á. Elgueta-Ruiz), g.sadi@hud.ac.uk (G. Sadi), gisela.goncalves@ubi.pt (G. Gonçalves), jmartin@ucsc.cl (J. Martínez-Ortiz).

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provides a privileged disciplinary vantage point: it can reveal how crisis communication knowledge has been shaped and legitimized, tracing not only thematic and methodological trends but also the epistemic priorities that have guided the field's evolution.

Although crisis communication research spans both organizational crises and public crises—such as disasters, health emergencies, and large-scale societal disruptions (Sellnow & Seeger, 2025)—the present study focuses specifically on organizational crisis communication. Clarifying this scope is essential, as it distinguishes the communicative dynamics of organizational crises from the broader disaster and emergency communication literature, while allowing for a more precise assessment of how public relations scholarship has conceptualized and advanced crisis communication over time.

Since very little comparable systematic review of crisis communication has been conducted in the past 25 years, it is worth fully documenting and analyzing all published studies on this subject, questioning and updating those assertions from Avery et al. (2010) and Zurro-Antón et al. (2021). To address this gap, this study builds upon previous related research (e.g., Kim et al., 2009; An & Cheng, 2010; Ha & Boynton, 2014; Liu & Fraustino, 2014; Ha & Riffe, 2015; Schwarz et al., 2016; Arendt et al., 2017; Cheng, 2019; Xu, 2020; Zurro-Antón et al., 2021; Upadhyay & Upadhyay, 2023)—most of them quantitative and descriptive—while also aiming to provide a more in-depth qualitative, interpretative, and prescriptive analysis, as suggested by Avery et al. (2010).

To achieve this, qualitative and quantitative content analysis techniques are applied to examine the literature on crisis communication in the longest-standing public relations journal, *Public Relations Review* (PRR, hereafter), revealing how the leading journal in the field has curated, shaped, and legitimized crisis communication knowledge over time. The analysis spans the specific period from 2000 to 2023, comprising a total of 386 articles, with the aim of identifying key aspects such as authors, topics, affiliated universities, countries, professional networks, research objectives, questions, hypotheses, methodologies, techniques, theories applied, and research types. Additionally, the study examines longitudinal trends in crisis communication theory and research, complementing the previously mentioned qualitative, interpretative, and prescriptive approach.

Based on the above considerations, the following research questions are proposed:

RQ1. What are the most significant aspects regarding the main authors, topics, represented countries and universities, professional networks, objectives, research questions, hypotheses, methodologies, techniques, and types of research conducted on crisis communication in PRR between 2000 and 2023?

RQ2. To what extent have the theories applied in articles published in PRR between 2000 and 2023 on crisis communication contributed to advancing knowledge beyond the two dominant theories: 1) Benoit's Image Repair Theory (1997) and 2) Coombs' Situational Crisis Communication Theory (2007)?

RQ3. What qualitative analyses of crisis communication articles published in PRR between 2000 and 2023 could provide prescriptive recommendations in this field, following the suggestions of Avery et al. (2010)?

2. Literature review

Despite increasing interest, there has been relatively little meta-research on crisis communication, both within the broader field of communication and in specific areas such as public relations, organizational communication, and strategic communication. A limited group of 30 authors, either working individually or in teams, have explored this subject. Chronologically, notable contributions include Kim et al. (2009), An and Cheng (2010), Avery et al. (2010), Ha and Boynton

(2014), Liu and Fraustino (2014), Ha and Riffe (2015), Schwarz et al. (2016), Arendt et al. (2017), Cheng (2019), Xu (2020), Lee, Hong, et al. (2022), Cheng et al. (2022), and Zhou et al. (2022), among others.

2.1. Early meta-research on crisis communication (1991–2010)

Kim et al. (2009) analyzed more than 18 years of academic literature on crisis communication in public relations (1991–2009) to assess its effectiveness, characteristics, and contextual applications, employing the two dominant theories in the field: 1) Benoit's Image Restoration Theory (1997) and 2) Coombs' Situational Crisis Communication Theory (2007). In their analysis of 51 articles across 11 different journals, they identified a lack of diversity in case studies, gaps between theory and practice, and urgent directions for future research in crisis communication.

A year later, nearly the same research team, though in a different order, conducted another study (Avery et al., 2010) using content analysis and covering the same time period. They examined 66 articles, again applying the theories of Benoit (1997) and Coombs (2007). Their findings suggested that crisis communication research in public relations could be strengthened both theoretically and practically by incorporating more diverse contextual and methodological approaches. Moreover, they argued that the field should move beyond descriptive studies and embrace a more prescriptive stance, supported by in-depth scholarly critique and theoretical refinement. Its main value lay in its heuristic function, as it revealed contextual and methodological gaps as important areas for future public relations research, as well as finding more theoretical critique, more variation in organization/entity type, greater attention to outcomes and goals beyond reputation maintenance, continued attention to contextual applications, more publications in leading communication journals, greater methodological diversity (such as qualitative and survey methods), broader sampling, and greater attention to pre-crisis stages. The authors concluded that, in the period studied (1991–2009), crisis communication theories in public relations research had experienced remarkable growth and broad application, remaining open for new directions in context and critique.

Simultaneously, An and Cheng (2010) conducted a review of more than thirty years of crisis communication research (1975–2006) by analyzing articles published in the *Journal of Public Relations Research* (JPRR, hereafter) and *Public Relations Review* (PRR), the two longest-standing journals in the field. Their study identified key topics, specific theories, and methodological trends shaping the field's development, including the presence or absence of research questions and hypotheses. Their inventory confirmed the burgeoning growth of the field, pointing out strengths and weaknesses, noting an increasing number of case studies, as well as a significant increase in the number of articles published and in the diversity of associated topics. The authors suggested a possible lack of theoretical orientation in crisis communication research, finding that most studies focused on crisis incident evaluation. Similar to Avery et al. (2010), An and Cheng (2010) concluded that no systematic review had specifically surveyed the growth and changes in crisis communication research to that date and that there had not been much discussion focused specifically on theoretical and methodological developments in this area.

2.2. Theoretical consolidation and methodological expansion (2011–2017)

In 2014, Ha & Boynton explored the interdisciplinary nature of crisis communication research by analyzing various theoretical, methodological, and authorship perspectives. They examined 175 articles published in top communication journals between 1991 and 2011. Through quantitative content analysis, their results revealed that most of the theories applied to crisis research came from communication and public relations disciplines, and included framing theories, image restoration, situational crisis communication, and excellence theory. Although

outside disciplines that had studied crisis communication research included psychology, economics, mathematics, and sociology, those disciplines accounted for less than one-third of the articles. Also, in terms of methodological approach, articles using two or more methods (e.g., experiment and survey) and a triangulation approach (e.g., qualitative and quantitative) were less than 10% of the cases. However, the frequency of the triangulation or mixed-method approach had increased dramatically since 2006, indicating that interdisciplinary crisis communication research was evolving into an interdisciplinary field.

Also in 2014, Liu & Fraustino proposed a crisis communication theory that extends beyond image repair. Their goal was to address the growing influence of social networks by reviewing existing theories and categorizing them into three conceptual frameworks: image construction, complexity comprehension, and resilience-building. Regarding the first point, the authors indicated that the dominant theories are Benoit, (1997) image repair theory and Coombs, (2007) situational crisis communication theory. Regarding theories of understanding complexity, they pointed to two theories in particular, chaos theory and complexity theory, taking as academic references the works of Sellnow et al. (2002) and Sutton et al. (2008) in the first case, and Gilpin and Murphy, (2008; 2010) and Liu and Pompper (2012), in the second. Finally, with respect to resilience-generating theories, they pointed out the renewal discourse theory and the situational theory of publics (Grunig, 1989), focusing only on the former and pointing to the works of Ullmer and Sellnow (2002), Veil et al., 2011, and Seeger and Padgett (2010) as references. In any case, they indicated that this theory still needed to be widely applied to determine whether or not its central components were maintained in the new digital media environment.

Similarly, Liu and Fraustino (2014) identified two emerging crisis communication theories that sought to fully integrate social networks and potentially offer insights into image construction, complexity comprehension, and resilience-building: the Networked Crisis Communication (NCC) model and the Socially Mediated Crisis Communication (SMCC) model. The first challenged classical crisis communication theories by showing that the medium used affected the impact of crisis communication (Utz et al., 2013), indicating that crisis messages distributed through social networks could elicit different public responses than those generated by the same messages distributed through traditional media (Schultz et al., 2011; Utz et al., 2013). The second, the social network crisis communication model, explained and predicted how audiences conveyed information and how organizations could better communicate with them during crises (e.g., Jin & Liu, 2010; Liu et al., 2011; Jin et al., 2014). This construct identified three key audiences that conveyed crisis information: social network influencers, social network followers, and inactive social network audiences, as well as several factors that affected how organizations should interact with these audiences (Liu et al., 2012).

Liu and Fraustino (2014) argued that there is still much to learn about the role of communication in crisis preparedness and recovery, particularly as new media create new opportunities in these areas. While they acknowledged that recovery and organizational reputation were important, they advocated that academics go beyond focusing predominantly on image management. They also echoed Heath, (2010) call for additional research on how social networks could facilitate multi-vocal responses to crises by organizations and publics, calling for more research and theoretical development of cross-border social media.

In 2015, Ha & Riffe conducted a content analysis to examine research topics, methodologies, theoretical frameworks, and authorship in crisis communication studies published in journals on public relations, advertising, journalism, and telecommunications, as well as in business, marketing, and management between 1992 and 2011. The data were compared between the two main fields (27 communication journals and 42 business journals), assessing which field had been more *interdisciplinary* in its approach. The authors concluded that crisis research in communication had focused largely on the effects of crisis management, using a quantitative approach and content analysis, with media articles

as data sources, while crisis research from a more business perspective had focused primarily on the evaluation of crisis events, using a qualitative approach and narrative analysis. While the paucity of multi-method designs could evidence some lack of interdisciplinarity, it could also be due in part to the simple fact that journal articles had to be short.

Likewise, Ha and Riffe (2015) suggested that crisis communication research was more interdisciplinary in terms of theoretical frameworks and authorship, whereas business research demonstrated greater interdisciplinarity in methodological approaches. Indeed, they concluded that, based on the distribution of explicit theoretical frameworks over a 20-year period, research during the second half (2002–2011) had been theoretically more sophisticated than work in the first half (1992–2001), at least for communication scholars. Crisis articles in communication journals placed more emphasis on the effectiveness of crisis management strategies and the roles of traditional and/or new media in a crisis. In contrast, business journals emphasized evaluating and analyzing the background of the crisis and identifying situational factors that influence the effects of crisis management. Similarly, for communication journals, most of the theories used were adapted from within the field, such as *framing*, image restoration, situational crisis communication theory, and excellence theory, although one-third of the articles used theories from other fields (such as psychology, economics, or sociology). One-third of the few business articles that used theory employed theories from other fields, including communication. The authors also identified a dominant researcher, W. Timothy Coombs, although the diversity of authors, institutions, and departments in the sample articles suggested a broad interest in this topic and, perhaps, pointed to a more interdisciplinary future for crisis communication research, at least in the field of communication.

Arendt et al. (2017) conducted a qualitative meta-analysis on apologies, image repair, and crisis communication, examining their theoretical and practical implications. Examining 30 years of literature and 110 articles in 51 academic journals from 1986 to 2016, they determined patterns in the strategies used by organizations and/or individuals facing crises or reputational threats. Their study found that corrective action was the most successful strategy and the third most common, particularly when combined with another strategy, such as reducing or reinforcing the offense. Denial, on the other hand, despite being the least successful strategy, particularly when combined with avoiding responsibility or reducing the offense, was the most commonly used strategy. The theoretical implications of their research included a broader understanding of the strategies people chose, as well as the contexts and determinants of success or failure. Practical implications, meanwhile, focused on helping practitioners better utilize image repair strategies.

2.3. Social media, digital environments, and emerging models (2017–)

Similarly, Cheng (2019) investigated social-mediated crisis communication, revisiting the dialogue between organizations and publics in crisis in China and asserting that the rapid spread of social networks was ushering in a new era in crisis communication, which could enhance our understanding of the social dialogue between organizations and their publics. Their study analyzed 61 articles published between 2006 and 2018, and the results presented an overview of ongoing research trends, as well as the theoretical referents and methodological preferences employed, also exploring how the unique characteristics of Chinese social networks affect the dialogue between types of organizations and their publics. It also suggested promising new directions, such as an academic assessment tool for social-mediated crisis communication research for the specific case of China.

Xu (2020) compared the use of social media versus the use of traditional media in crisis communication. The author stated that there had been a growing body of research on crisis communication that treated social media as a critical variable, which could alter how people

perceived and reacted to crisis communication messages. Compared to traditional media, the use of social networks significantly decreased consumers' perception of responsibility for the crisis, with no significant differences between the use of traditional media and social networks in crisis communication in terms of their persuasiveness. The moderator analysis indicated that for both crisis responsibility and persuasiveness, the effect size was more notable when an organization communicated with university students than with non-student audiences. In turn, the ability of social networks to dampen crisis accountability was more pronounced for fictitious organizations than for real organizations, indicating that, compared to traditional media, social networks were significantly more negative in avoidable crises, while the influence was weak in accidental crises. In its final part, the manuscript discussed theoretical and practical implications, as well as directions for future research.

In 2022, three studies stood out as meta-research in crisis communication, those of Lee et al., Cheng et al., and Zhou et al. In the first of these, the focus was on contingency theory of accommodation, where they conducted a systematic review of the ways in which the theory developed over the past two decades. The results of their analysis of 223 corpus articles concluded that contingency theory had established itself as a dominant framing for crisis communication studies, showing clear patterns of epistemological advancement. However, the most pressing challenge for future studies was the need to revitalize the theory by incorporating more diverse conceptual approaches and greater methodological sophistication in measuring the 86 contingency factors (Lee et al., 2022).

Meanwhile, Cheng et al. (2022) surveyed the state of global research on crisis communication through social networks with an analysis of 189 articles in publications included in the Social Sciences Citation Index of the Web of Science from 2006 to 2020. The authors identified patterns in theoretical and methodological approaches and types of crises, social media platforms, and contextual factors. Their findings demonstrate common trends and differences between regions or societies. North American scholars dominated this field using mainly quantitative methods, such as content analysis and experiments. Western-oriented situational crisis communication theory was the most frequently applied theoretical framework, while Twitter and Facebook were the most frequently used social networks and natural crises were most frequently studied. Nearly half of the studies collected crisis research data within the United States and, interestingly, none focused on African countries. Contextual factors, such as political, cultural, and media characteristics, were found to affect online crisis communication practices. This study had merit in that it was able to inform future discussions by revealing theoretical gaps in particular.

As for the work of Zhou et al. (2022), through a systematic review, they identified nuances in the manipulation of apology, de-escalation, and scapegoating strategies by testing the effect of varying the same strategy on audience responses through three experiments. The findings revealed that an explicit apology was more effective than an implicit apology, while an apology with corrective measures was even more effective than an apology alone. Also, the results pointed to the fact that internal scapegoating significantly harmed an organization compared to external scapegoating. The authors suggested that the internal validity of experimental studies in crisis communication needed to be ensured, emphasizing that although testing the effectiveness of crisis response strategies had been an important theme in crisis communication research, studies had rarely addressed whether the manipulation of these strategies accurately reflected their theoretical definitions in experiments.

Most recently, Upadhyay and Upadhyay (2023) conducted a bibliometric analysis of crisis communication research from 1968 to 2022, highlighting key thematic trends and future research directions in the field. The authors identified four thematic clusters, which captured the dynamic nature of crisis communication research over five decades: crisis communication and social media, health communication, crisis

and leadership, and reputation and advertising. This study also revealed that collaboration among authors had been limited, primarily at the local level, indicating that there was scope for greater cross-border cooperation and exploration of emerging themes.

3. Methodology

Methodologically, this research builds upon advances in bibliometric studies and qualitative research, adopting a systematic review approach (Dixon-Woods, 2011). The corpus of analysis was composed by all academic articles about *crisis communication* published by *Public Relations Review* for two decades 2000–2023 ($n = 391$), excluding non-academic texts such as editorial pieces, letters to the editor, reviews or comments on articles and books, bibliographic reviews, as well as job and/or other advertisements. Only one article that was cataloged as such by the editors was excluded from the total sample, as it was considered to be more of an editorial or commentary on the articles that subsequently followed, rather than an academic article in itself (it had no objectives, questions, hypotheses, methodology, results, conclusions or graphic information), although it did have a title, authors, summary, keywords and bibliography.

The corpus analysis was structured according to the following categories: 1) Frequency; 2) Keywords (available in the journal since 2004); 3) Author(s); 4) Countries (referring to the university or institution of the author rather than their nationality); 5) University affiliation; 6) Research networks; 7) Topics, derived from two integrated thematic classifications: the taxonomy of the Public Relations Division of the International Communication Association (ICA-PRD) with 45 thematic choices and the classification of the Public Relations Society of America (PRSA) with 44 distinct categories - resulting in a total of 68 different topics; 8) *Objectives*, doubly sub-classified as: i) Descriptive, ii) Correlational and iii) Causal, first (according to Hernández et al., 2010), and i) Knowledge, ii) Comprehension, iii) Application, iv) Analysis, v) Synthesis and vi) Evaluation, second (according to Bloom, 1956); 9) *Research questions*; 10) *Hypotheses*, doubly classified as: i) First grade, ii) Second grade, and iii) Third grade (according to Méndez, 1998), and i) Descriptive, ii) Differential Group; iii) Correlational, and iv) Causal, second (according to Hernández et al., 2010); 11) *Methodologies*, classified among: i) Qualitative, ii) Quantitative (which include both non-experimental and experimental designs), iii) Mixed, and iv) Theoretical-bibliographic; 12) *Techniques used*, which may be: i) Surveys, ii) Interviews, iii) Focal Groups, iv) Case Studies, v) Life story, vi) Content analysis, vii) Textual or speech analysis, viii) Theoretical-bibliographic analysis, and ix) Experimental or quasi-experimental; 13) Qualitative analysis of *Results*; 14) Qualitative analysis of *Conclusions*; 15) *Type of research*: (i) Introspective, (ii) Practice or application, and (iii) Theoretical or theoretical development (and their possible combinations); and 16) *Theories*, which may be general public relations theories or crisis communication theories, both with their respective sub-classifications. All this was systematized using an Excel spreadsheet.

Following completion of the pre-analysis stage, a second examination was carried out by two other independent analysts, who verified the correct input of data and corrected it when necessary. Any difference in judgment (especially on topics) was resolved by discussion and agreement. No reliability statistics, such as Cohen's Kappa, Krippendorff's Alpha or Scott's Pi, were used.

4. Results

4.1. Total number of crisis communication papers published in PRR in the period 2000–2023

Between 2000 and 2023, PRR published 1906 articles, of which 391 (20.51%) focused on crisis communication, making it the most frequently studied topic. This was followed by Social Media with

17.94% (n = 342), then Strategic Communication, Community Relations, and Media Relations, ranked third, fourth, and fifth, respectively, with 11.91% (n = 227), 9.81% (n = 187), and 8.97% (n = 171). These figures correspond to the total number of articles published during the 24-year period, classified within the 68 thematic categories outlined in the methodological section.

The years with the highest number of publications on crisis communication were 2017, 2018, 2019, 2020, 2021, and 2022, with 25 and 27, 25 and 27, and 30 and 30 articles, respectively. These were followed by 2023, 2011, and 2012, with 21, 22, and 24 publications. In all other years, the number of published articles did not exceed twenty, as shown in Table 1.

4.2. Most important keywords

The 500 most frequently used keywords in the 391 crisis communication articles are visualized in the following figure, generated using the Voyant Tools platform. This tool creates a word cloud that graphically represents the keywords used by the authors, along with their importance and frequency based on size, color, and distribution (Fig. 1).

Thus, the 20 most frequently used keywords are: Crisis Communication (149), Social Media (55), Crisis (42), Public Relations (37), Crisis Management (29), Image Repair (17), Situational Crisis Communication Theory (SCCT) (15), Reputation (11), Corporate Reputation (11), Crisis Response Strategy (11), Contingency Theory (10), Crisis Response (9), Image Restoration (8), Framing (8), Trust (8), China (8), Crisis Response Strategies (7), Facebook (7), Stealing Thunder (6), and Apology (6).

4.3. Total number of authors per paper and most published authors

The vast majority of the articles were written by one or two authors - 113 and 153 cases, respectively - representing 28.90% and 39.13% of the total. Three-author papers accounted for 83 cases (21.22%), while those with four or more authors comprised 42 cases (10.74%), as shown in Table 2.

A total of 550 distinct authors contributed to the 391 articles on crisis communication published in PRR over the 24-year study period. The most prolific authors were: Yan Jin, ranked first, with 15 published

Table 1

Total number of papers vs. total number of crisis communication papers per year in PRR (2000–2023).

Years	Total number of papers	Total number of CC papers
2000	29	4
2001	31	2
2002	30	7
2003	31	4
2004	47	6
2005	69	10
2006	71	7
2007	66	14
2008	72	15
2009	83	19
2010	74	15
2011	93	22
2012	128	24
2013	99	12
2014	114	13
2015	106	13
2016	115	19
2017	109	25
2018	78	27
2019	92	25
2020	64	27
2021	107	30
2022	84	30
2023	94	21
TOTAL	1906	391
%	100	20,51

articles (1 as sole author, 7 as lead author, and 7 as secondary author); Brooke Fisher Liu, in second position, with 14 (1 as sole author, 8 as lead, and 5 as secondary); as W. Timothy Coombs and An-Sofie Claeys, who share third place, with 10 publications each (4 as sole author, 5 as principal, and 1 as secondary, the former; and 3 as principal and 7 as secondary, the latter). Then comes Toni van der Meer and Shari Veil with 8 articles each (in 4th position, with van der Meer with 2 as sole author, 4 as principal, and 2 as secondary, and Veil with 2 as sole author, 3 as principal, and 3 as secondary). Next, Yang Cheng, Sora Kim and Augustine Pang share 5th place with 7 articles each, followed by Elizabeth Johnson Avery, Yui Hui Christine Huan, Lucinda Austin and Verolien Cauberghe in 6th position (with 6 each). Finally, Maureen Taylor, Piet Verhoeven, Sherry Holladay, Ejun-Jung Ki and Glen T. Cameron, with 5 articles each, share the 7th position, as shown in detail in Table 3. All other authors have four, three or fewer articles published.

4.4. Most represented countries

Regarding the international distribution of publications, authors represent 29 different countries, with a significant concentration in the United States, which accounts for 71.35% of the publications (n = 279), both in local (n = 240; 61.38%) and international (n = 39; 9.97%), followed by South Korea and Hong Kong (n = 20 each; 5.11%), the Netherlands (n = 19; 4.86%), China (n = 15; 3.83%), Belgium and Australia (n = 13 each; 3.32%), Singapore (n = 12; 3.06%), and Germany (n = 8; 2.04%).

The significant number of articles published from Asian countries (South Korea, Hong Kong, Taiwan, China, Singapore, and Macao) is noteworthy. However, it is important to consider that a substantial proportion of these are part of international research projects, often in collaboration with the United States. In fact, of the 33 articles identified coming from any of these six countries, 8 are collaborations between them (1 Hong Kong/Taiwan, 4 China/Hong Kong, 2 Singapore/China and 1 Macao/Hong Kong), 24 with the United States of America and 1 with another Western country (China/Sweden). In addition, and no less important, a significant proportion of authors who publish for US universities are of Asian origin (mostly Chinese or Korean), although in the calculations they are counted as US authors.

4.5. Most represented universities

The 391 articles on crisis communication were produced by scholars affiliated with 251 institutions worldwide, categorized as follows: 1) universities (n = 225), 2) non-university organizations (n = 26), and 3) unaffiliated or unidentified institutions (n = 4). Among universities, the most prolific were the University of Maryland with 26 articles, followed by the universities of Georgia, Missouri, and Tennessee, each with 16 publications, Alabama in third place with 15, then the University of Amsterdam in fourth with 12. This was followed by Ghent University and the Chinese University of Hong Kong (with 10 each), in fifth place, Virginia Commonwealth University (with 9), in sixth place; then the Catholic University of Leuven and Texas Tech (with 8, each), in seventh place, the University of Texas at Arlington and the University of Houston (with 7 articles each), in eighth place, closing with the University of Kentucky, (West)Texas A&M University and Christian Texas University (with 6 articles each), in ninth place (Table 4).

Affiliation with non-university institutions is rare, with some authors having no institutional affiliation or not disclosing it (n = 4), while others belong to organizations outside the academic sector (n = 26). These include the Association of Corporate Affairs Managers of Banks, ERPi, Hipple & Co., Korea Creative Content Agent, Lion Travel Group, Maatsch and Nordberg (Law Firm), McKinsey & Company, Media Gain, Media Research Labs, and the National Consortium for the Study of Terrorism and Responses to Terrorism, Olavs University Hospital, Oregon Health Authority, PRIME Research, Republic of Korea Army, Royal Military Academy, Solomon McCown & Company, Spector & Associates



Fig. 1. Word cloud of keywords.

Table 2
Number of authors by paper.

	1 Author	2 Authors	3 Authors	4 or + authors	Total
N	113	153	83	42	391
%	28.90%	39.13%	21.22%	10.74%	100

Table 3
Most prolific authors according to type of authorship.

Position	Name	Unique author	Main author	Secondary author	Total
1°	Yan Jin	1	7	7	15
2°	Brooke Fisher Liu	1	8	5	14
3°	W. Timothy Coombs	4	5	1	10
	An-Sofie Claeys	0	3	7	10
4°	Toni van der Meer	2	4	2	8
	Shari R. Veil	2	3	3	8
5°	Yang Cheng	1	5	1	7
	Sora Kim	0	3	4	7
	Augustine Pang	0	1	6	7
6°	Elizabeth Johnson Avery	1	2	3	6
	Yi Hui	0	3	3	6
	Christine Huan	0	1	5	6
	Lucinda Austin	0	0	6	6
	Verolien Cauberghe	0	0	6	6
7°	Maureen Taylor	1	2	2	5
	Piet Verhoeven	0	1	4	5
	Sherry Holladay	0	1	4	5
	Eyun Jung Ki	0	0	5	5
	Glen T. Cameron	0	0	5	5

& The Museum of Public Relations, U.S. Department of Agriculture Forest Service, U.S. Naval Air Forces, United Spirit Arena, United States Military Academy, Walter Reed Army Institute of Research, but who tend to publish jointly with university academics, forming a somewhat unusual network in the world of scientific research, at least for PRR, or for scientific journals in the field of public relations, organizational

Table 4
Top 14 universities with papers about crisis communication published in PRR (2000–2023).

Top 16 UNIVERSITIES - 2000–2023	
UNIVERSITY	TOTAL NO.
University of Maryland	26
University of Georgia	16
University of Missouri	16
University of Tennessee	16
University of Alabama	15
University of Amsterdam	12
Ghent University	10
Chinese University of Hong Kong	10
Virginia Commonwealth University	9
Katholieke Universiteit Leuven	8
Texas Tech University	8
University of Texas at Arlington	7
University of Houston	7
University of Kentucky	6
Texas A & M University	6
Texas Christian University	6

communication or strategic communication, if you want to be more extensive.

To some extent, there is a positive correlation between universities and the diversity of their academic contributors. For instance, the 26 articles from the University of Maryland were authored by 20 different individuals, reflecting a broader range of scholars in comparison to other institutions, despite the prominence of Brooke Fisher Liu (who contributed to 14 articles). The 16 Georgia articles were written by 10 authors, with slightly more author concentration (Yan Jin in 9 cases). Missouri's 16 articles had 17 authors (with a slight prevalence of Glen Cameron and William Benoit, with 5 and 3 articles, respectively). The 15 from Alabama, meanwhile, had 14 different authors, with Eyun-Jung Ki dominating (with 5). The 15 from Tennessee were written by 11 authors (with Elizabeth Johnson Avery dominating, with 6). In the case of the 12 articles from the University of Amsterdam, there are few names written (8) and many times they are repeated (Toni van der Meer with 8 and Piet Verhoeven with 5, for example), with greater diversity in Maryland and Missouri and somewhat less in Tennessee.

Conversely, the 9 articles from Virginia Commonwealth University were authored by 12 different scholars. More broadly, many universities tend to have prominent researchers-authors whose names frequently

appear and who have contributed a significant number of publications, such as Yan Jin, Brooke Fisher Liu, W. Timothy Coombs, and Toni van der Meer, among others, as highlighted in the corresponding section. That said, there is a tendency for certain names to be mobile, appearing at one university and then appearing at a different one. For example, Yan Jin, the most prolific author in crisis research, who at one time appears at Virginia Commonwealth University, at another at the University of Georgia; or Brooke Fisher Liu, who in 2007 appeared linked to DePaul University and then in 2011 to the University of Maryland. Or W. Timothy Coombs himself, who in 2001 was linked to Wayne State University, between 2004 and 2009 to Eastern Illinois University, and between 2011 and 2013 to the University of Central Florida. Or others like Sifan Xu who was first at Maryland and then at Tennessee. This speaks of a vibrant and lively labor market, which is capable of mobilizing its hosts, very possibly with better working conditions and associated salary.

4.6. Research network

Among the 391 articles reviewed, 278 (70.09%) were published by research groups. These groups can be categorized as follows: 120 belong to endogenous internal networks (30.69% - same country, same university - while 158 are inter-university collaborations (40.41%). Within the latter category, 103 are exogenous internal networks (26.34%) - same country, but different universities - while 55 correspond to extended external or international networks (14.06%) - different country, different universities - as illustrated in Fig. 2.

These data indicate that while the majority of published articles stem from research networks, most are part of national collaborations among universities within the same country.

4.7. Dominant topics of crisis communication papers in PRR (2000–2023)

In addition to crisis communication, other recurring topics in the corpus, ranked by frequency, include social media (85), reputation management (83), strategic communication (42), media relations (28), corporate communications (25), corporate social responsibility (22), issues management (21), political communication (19), healthcare communication (17), lobbying/public affairs (10), law/ethics (9), nonprofit communication (7), community relations (6) and public diplomacy (5).

Among the six most frequent topics alongside crisis communication, the 83 articles on crisis communication and social media were most commonly published in 2020 and 2022 (11 each), followed by 2015 (9), and 2019 and 2017 (7 each), and 2018 (6). This trend is expected, given that the topic first appeared in 2006, shortly after the emergence of the leading social network, Facebook, in 2004. The second topic (reputation management) does not present articles in 2000, 2003 and 2007,

presenting between 1 and 5 the rest of the years, except 2020, 2022 and 2023, with a total of 10 publications in 2020, 9 in 2022 and 6 in 2023 that combine it with crisis communication. Strategic communication in 7 years has no articles on the subject, with the highest values in 2008 and 2012 (n = 6, respectively). Case studies in 8 years have no publications, with 2011 and 2016 being the years with the highest frequency (n = 5, each). Media relations in 10 years has no publications, with 2019 being the year with the highest frequency (n = 4). Finally, corporate communication for 8 years has no records, presenting relatively low values the rest of the time, between 1 and 3 articles per year, as can be seen in detail in Table 5.

4.8. Stated objectives and their complexity by years

The 391 papers analyzed contain a total of 844 identified objectives. The vast majority (77.49%, n = 303) state one or two objectives, while only 13.04% (n = 51) include three or four, and the remaining 9.46% (n = 37) present five or more. Nearly all articles explicitly state their objectives, with only a few doing so implicitly. Most papers introduce their objectives in the abstract, elaborate on them in the introduction, and revisit them in the results and conclusions to strengthen the coherence of their argumentation.

More specifically, slightly less than half of the analyzed articles (191 papers) state a single objective (48.84%), while 112 papers (28.64%) include two objectives. The distribution continues as follows: 32 papers (8.18%) have three objectives, 19 (4.85%) have four, 12 (3.07%) have five, 8 have six, 5 have seven, 3 have eight, 5 have nine, 2 have ten, 1 have eleven, and - finally - 1 article states fourteen objectives.

Based on their nature, objectives are classified as descriptive, correlational, or causal, following the interpretative model proposed by Hernández et al. (2010). Descriptive objectives aim to explain how a phenomenon evolves and to characterize its features. Correlational objectives explore relationships between variables involved in the phenomenon without establishing causation, while causal objectives seek to explain cause-and-effect relationships in past events where variables are not manipulated; while correlational objectives seek to analyze the relationship or relationships between variables involved in the phenomenon, not seeking to establish causality in the relationship, but only a description of it; finally, causal objectives are those that seek to explain causal relationships (cause and effect) in phenomena that have already occurred and, therefore, there is no manipulation of variables. Considering the above, it was observed that the great majority are descriptive objectives in 59.47% (n = 502), to a lesser extent correlational objectives in 21.09% (n = 178) and, finally, causal objectives in 19.45% (n = 164).

Following Bloom's (1956) taxonomy, objectives are classified into six levels of increasing complexity: I) Knowledge, II) Comprehension, III) Application, IV) Analysis, V) Synthesis, and VI) Evaluation. The results of the analysis show that 9.95% of the objectives seek knowledge (n = 84), 13.38% seek understanding (n = 113), 13.15% seek practical application (n = 111), 38.15% seek analysis (n = 322), 5.26% seek synthesis (n = 44), and, finally, 20.14% of the objectives seek evaluation (n = 170). When combining both classifications, descriptive objectives are primarily associated with analysis (n = 181), indicating medium-high complexity; followed by evaluation (n = 77), which represents high complexity; and comprehension (n = 73), which corresponds to low complexity. The remainder is distributed among application objectives in fourth position (n = 70) and to a lesser extent knowledge and synthesis objectives (n = 66 and 35, respectively). On the other hand, correlational objectives are presented as analysis objectives in first place (n = 73), followed by evaluation objectives in second place (n = 43) and comprehension objectives in third place (n = 28). That is, of medium-high, high and low complexity, respectively. There are hardly any correlational objectives seeking application (n = 16) and knowledge (n = 10), with only 8 synthesis objectives in this category. Finally, causal objectives focus on analysis (n = 68) in the first place, evaluation in the second (n = 50) and application in the third (n = 25). The objectives of

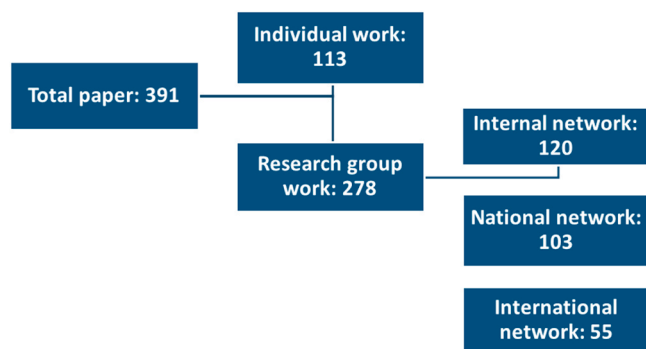


Fig. 2. Distribution of published articles by unique authors, research groups, and national/international networks.

Table 5
Most frequent topic by year.

YEARS	1st Social Media	2°. Reputation Management	3°. Strategic Communication	4°. Media Relations	5°. Corporate Communication	6°. Corporate Social Responsibility
2000	0	0	0	0	0	0
2001	0	1	0	0	0	0
2002	0	3	1	0	0	0
2003	0	0	0	2	1	0
2004	0	2	0	0	3	1
2005	0	2	0	0	0	0
2006	1	2	1	1	2	0
2007	1	0	0	1	1	0
2008	1	5	6	1	0	0
2009	3	4	1	3	2	1
2010	1	3	4	0	1	1
2011	5	4	1	2	1	0
2012	3	4	6	3	1	2
2013	4	3	0	0	0	0
2014	1	2	1	2	1	0
2015	9	5	1	0	0	0
2016	5	3	3	2	2	1
2017	7	3	3	1	1	2
2018	6	3	1	1	3	3
2019	7	4	1	4	0	2
2020	11	10	3	3	1	4
2021	4	5	3	2	2	2
2022	11	9	3	0	2	1
2023	5	6	3	0	1	2
TOTAL	85	83	42	28	25	25

comprehension, knowledge and synthesis present rather small numbers (with frequencies of 12, 8 and 1, respectively).

4.9. Stated research questions and their complexity by years

Out of the 391 published articles, 56.26% (n = 220) explicitly stated research questions, whereas the remaining 43.73% (n = 171) did not include any. The total detail by year is presented in Table 6.

Among the 220 articles that included research questions, a total of 652 questions were identified. Of these, 34 articles had one question, 65 had two, 55 had three, 31 had four, 24 had five, 6 had six, 3 had seven, 1 had ten, and 1 had twelve.

From a qualitative perspective, the analysis of research questions

Table 6
Total research questions on crisis communication in PRR (2000–2023), by years.

Years	Yes	No	Total
2000	1	3	4
2001	0	2	2
2002	1	6	7
2003	1	3	4
2004	2	4	6
2005	2	8	10
2006	2	5	7
2007	3	11	14
2008	2	13	15
2009	10	9	19
2010	7	8	15
2011	13	9	22
2012	11	13	24
2013	7	5	12
2014	7	6	13
2015	11	2	13
2016	10	9	19
2017	18	7	25
2018	16	11	27
2019	19	6	25
2020	22	5	27
2021	20	10	30
2022	21	9	30
2023	14	7	21
TOTAL	220	171	391
%	56,26	43,73	100

highlights an interest in understanding how image repair strategies, social media communication, and public perception shape crisis management. Specifically, regarding image repair strategies, the research questions examine which tactics are most effective in restoring public trust.

The effectiveness of different approaches is analyzed, along with the mitigating factors that may influence their success or failure. Additionally, the research explores how consumer expectations and the nature of communication shape perceptions of expectation violations. This analysis is fundamental to understanding how organizations can respond appropriately in critical situations. The use of the media is also presented as an essential component of crisis communication. Questions address how different sources of information, such as press leaders and company releases, frame crises and response strategies. The relationship between news tone and organizational responses is investigated, as well as differences in the communication approach depending on the type of crisis faced. This approach seeks to reveal how organizations can better manage their image in times of crisis.

Emotions play a crucial role in shaping public responses to crises. This research examines the emotions expressed by public figures when apologizing on social media, as well as their impact on public perceptions of sincerity. It also examines how public emotions, such as feelings of betrayal, can affect customer-business relationships. Understanding these emotional dynamics is vital for organizations to formulate more effective responses in crisis situations and how organizations can engage the public in post-crisis coping. This approach allows us to appreciate the complexity of emotional reactions in critical contexts. Another critical theme that emerges from the research is that of customer betrayal. It explores how customer-firm relationships influence this sentiment and how attribution of responsibility may mediate this interaction. This analysis is essential to understanding how organizations can manage their customers' expectations and respond appropriately to their concerns.

Rumor management and crisis response represent another key area of analysis. The research explores how rumors spread and how organizations can mitigate their impact through effective response strategies. In addition, media relations and how these interactions can influence the effectiveness of communication during a crisis are investigated. This analysis provides valuable lessons on reputation management in a

complex media environment.

In the realm of social media communication, platforms such as Twitter and Facebook play a crucial role in crisis management. This study examines variations in crisis responses across different media channels and their impact on public perceptions of organizations. As social media becomes a central channel for crisis communication, it is critical to understand its impact on the reputation and trust of institutions.

The effects of crisis communication on corporate reputation and how adopted strategies influence public perception are also examined. Research suggests that the way organizations communicate their response to a crisis significantly impacts public credibility and trust. This finding underscores the importance of adopting strategic and well-thought-out crisis communication approaches.

The research also explores the impact of corporate social responsibility (CSR) on public perception during crises. It examines how the relevance and duration of CSR initiatives influence organizational reputation and public skepticism. These issues are relevant to understanding how organizations can integrate CSR into their crisis communication strategy.

In the context of health and governmental crises, this research examines as well the effectiveness of communication during critical events such as the COVID-19 pandemic. It analyzes how social media interactions shape public responses and explores differences in health literacy and their impact on information-seeking behavior during crises. This research is crucial for improving public health communication and crisis management.

Crisis communication research also investigates emerging innovations and trends from the past two decades. It examines shifts in methodologies and theoretical frameworks, along with the growing interdisciplinarity of the field. These developments are important to ensure that communication professionals are well equipped to meet contemporary challenges in crisis management.

4.10. Type of hypotheses and their complexity by years

The vast majority of the articles in the corpus (71.1%, n = 278) do not include explicit hypotheses, while only 28.9% (n = 113) do. The yearly breakdown is presented in Table 7.

Table 7
Total hypotheses on crisis communication in PRR (2000–2023) per Year.

Years	Yes	No	Total
2000	0	4	4
2001	0	2	2
2002	0	7	7
2003	2	2	4
2004	0	6	6
2005	3	7	10
2006	1	6	7
2007	1	13	14
2008	1	14	15
2009	7	12	19
2010	5	10	15
2011	2	20	22
2012	6	18	24
2013	3	9	12
2014	2	11	13
2015	3	10	13
2016	3	16	19
2017	7	18	25
2018	12	15	27
2019	13	12	25
2020	11	16	27
2021	10	20	30
2022	11	19	30
2023	11	10	21
Total	113	278	391
%	28.9	71.1	100

These 113 articles contain a total of 486 hypotheses. Among them, 7 papers got one, 22 articles included two hypotheses, 17 have three, 21 have four, 14 have five, 16 have six, 7 have seven, 4 have eight, 2 have nine, and finally, 1 article each has ten, eleven, and fourteen hypotheses. In other words, 90 of the 113 articles contain between two and six hypotheses, while the remaining 23 present either a single hypothesis or seven or more.

Likewise, these 113 papers with hypotheses are analyzed following two approaches: Méndez (1998) and Hernández et al. (2010). The first classifies hypotheses into 3 types: 1. *First degree hypotheses*, or hypotheses that establish the presence of empirical uniformities or regular situations, which are convenient when situations are found which, because they are practically obvious, would not be worth testing or looking for a causal relationship between variables; 2. *Second-degree hypotheses*, or the relationship between empirical uniformities, which encompass the relationships that may occur in first-degree hypotheses that are not directly observable and require to be demonstrated through a theoretical model, previously identifying all empirically associated generalities with the research problem before formulating it; and 3. *Third degree hypotheses*, that affirm the existence of relationships between complex variables, which for their enunciation requires the prior formulation of the first and second degree hypotheses to guarantee that the available information allows the construction of explanatory models with sufficient support.

Hernández et al. (2010) define research hypotheses in 4 types: 1. *Descriptive*, which are used to predict or estimate values of variables that are part of the study and are of interest to measure, highlighting that descriptive research does not necessarily require the approach of these hypotheses; 2. *Differential groups*, simple hypotheses that are formulated with the purpose of comparing groups when the researcher does not have elements to suppose which of the groups causes the difference; 3. *Correlational*, which specifies the possible relationships between two or more variables, as well as the direct or indirect nature of this relationship, noting that there is no order between the contrasted variables because there is no causality; and 4. *Causal*, which establishes cause/effect relationships, since causality implies that the existence of correlation between the variables was previously verified, the causes being known as independent variables and the effects as dependent variables.

Among these, following Méndez's (1998) classification, 212 hypotheses are *first-degree*, 179 are *second-degree*, and 95 are *third-degree*. Additionally, based on Hernández et al. (2010), 184 hypotheses were categorized as *descriptive*, 65 as *group differential*, 120 as *correlational*, and 117 as *causal*. Likewise, a cross analysis of both categories shows that *first-degree* hypotheses are *descriptive* in 124 cases, *group differential* in 12, *correlational* in 32 and *causal* in 44. *Second-degree* hypotheses are *descriptive* in 40 cases, *group differential* in 32, *correlational* in 70 and *causal* in 37. Finally, *third-degree* hypotheses are *descriptive* in 20 cases, *group differential* in 21 cases, *correlational* in 18 cases and *causal* in 36 cases.

4.11. Type of methodology by years

Regarding the methodology used in the 391 articles analyzed, 46.03% (n = 180) employed a quantitative approach (being 29.16% non-experimental designs and 16.87% experimental, the latter representing more than one-third of all quantitative studies), 28.13% (n = 110) used qualitative methods, 13.55% (n = 53) followed a theoretical-bibliographic approach, and only 12.27% (n = 48) adopted a mixed-methods design (combining quantitative and qualitative approaches). These distributions are detailed in Table 8 and further broken down by year in Table 9.

4.12. Techniques used

In the 391 articles analyzed, the use of combined research techniques

Table 8
Methodology used on crisis communication in PRR (2000–2023).

Type of methodology	NO.	%
Quantitative	180	46.03
Qualitative	110	28,13
Theoretical-Bibliographic Approach	53	13,55
Mixed Methods	48	12,27
Total	391	100

is common. The most frequently used methods, in order of prevalence, are content analysis (n = 161), surveys (n = 133), experimental or quasi-experimental studies (n = 66), theoretical bibliographic analysis (n = 54), case studies (n = 44), and interviews (n = 42). Other techniques appear less frequently, as detailed in Table 10 and 11, which present the general results and the distribution of techniques by year, respectively.

4.13. Analysis of results in crisis communication research in PRR (2000–2023)

Drawing from the results of 391 crisis communication articles published in PRR between 2000 and 2023, this study examines key findings and emerging trends in how crises have been managed and communicated across various organizational and media contexts. These insights are structured into four thematic areas: 1) The prevalence of crisis communication planning; 2) The impact of social media on crisis response; 3) Transparency as a critical factor in reputation recovery; and 4) The effectiveness of narrative strategies in crisis communication.

The first theme, the prevalence of crisis communication planning, is one of the most frequently cited findings in the reviewed studies. More than 60% of the analyzed articles indicate that organizations with structured crisis plans are more likely to mitigate negative impacts. These plans typically include response protocols, designated spokespersons, and proactive communication strategies to shape the public narrative.

The impact of social media on crisis response has been a growing focus of research since the 2010s. Findings indicate an exponential increase in studies analyzing how social media influences crisis communication. Research highlights that platforms such as Twitter and Facebook have become essential tools for real-time information dissemination but also pose significant risks regarding misinformation and the spread of rumors. In more than 45% of the studies, it is evident that social networks can amplify the perception of a crisis if they are not properly managed. Thirty percent of the articles analyze narrative control strategies through active interaction with digital audiences. The need for monitoring and rapid response in digital environments to contain the escalation of crises is highlighted.

Regarding transparency as a key factor in reputation recovery, approximately 50% of the reviewed studies indicate that transparency and the timely disclosure of accurate information are crucial for restoring public trust after a crisis. Organizations that adopt open and direct communication strategies tend to regain their reputation faster than those that take evasive or reactive approaches.

Finally, in terms of the effectiveness of narrative strategies in crisis communication, findings suggest that well-crafted narratives can shape public perception of a crisis. Approximately 40% of the studies emphasize the importance of constructing narratives that humanize organizations and foster empathy among affected audiences. Personalizing messages and incorporating testimonials are common strategies in rebuilding public image. The choice of communication tone (proactive vs. defensive) directly influences how stakeholders receive the message.

Table 9
Methodology used on crisis communication in PRR 2000–2023, per year.

Methodology	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total
Quantitative				2		2	4	4	7	12	10	14	11	9	8	9	3	14	11	14	10	11	15	10	180
Qualitative	1	3	3	2		1	2	4	7	4	4	3	10		2	2	8	6	6	6	7	13	10	9	110
Theoretical- bibliographic Approach	1	2	4		6	6	1	6	1	2	3	3	1	1	2	3	3	3	2	2	2	4	1	1	53
Mixed	2					1			1	1	1	2	2	2	1	2	5	2	8	3	8	2	4	2	48
Total	4	2	7	4	6	10	7	14	15	19	15	22	24	12	13	13	19	25	27	25	27	30	30	21	391

Table 10

Kind of techniques used.

TECHNIQUES USED	N
Content Analysis	110
Content Analysis; Semantic Network Analysis	9
Content Analysis; Bibliographical Theoretical Analysis; Semantic Network Analysis	1
Content Analysis; Interviews; Surveys	1
Content Analysis; Discourse Analysis	2
Content Analysis; Semantic Network Analysis; Discourse Analysis; Semantic Network Analysis; Discourse Analysis	1
Content Analysis; Textual Analysis	1
Discourse analysis	8
Discourse analysis; Case Study	1
Bibliographical theoretical analysis	50
Mixed factorial design	1
Interviews	23
Interviews; Content analysis	4
Interviews; Content analysis; Semantic Network Analysis; Semantic Network Analysis	1
Interviews; Surveys	4
Interviews; Surveys; Focus Groups	2
Case study	11
Case study; Content analysis	22
Case study; Content analysis; Interviews	4
Case study; Bibliographical theoretical analysis	3
Case study; Interviews	1
Case study; Surveys	3
Experimental; Content analysis; Surveys	2
Experimental (or semi-experimental); Surveys	62
Experimental; Interviews; Surveys	2
Focus groups	5
Focus groups; Surveys	1
Surveys	53
Surveys; Content analysis	3
Total	391

4.14. Analysis of conclusions in crisis communication research in PRR (2000–2023)

Based on the conclusions of crisis communication articles published in PRR between 2000 and 2023, this study examines key interpretations, highlighting recurring patterns, critical insights, and future research directions. These findings are organized into four main themes: 1) Reaffirming the importance of organizational preparedness; 2) The role of transparency and authenticity; 3) The evolution of narrative strategies; and 4) Challenges in the digital era.

The first key theme in the reviewed conclusions is the importance of prior crisis preparedness. Most studies concur that an effective response relies not only on swift action but also on the presence of detailed plans, well-trained teams, and predefined communication strategies. Findings emphasize that organizations with clear protocols are better positioned to minimize reputational damage and restore public trust more effectively. Investment in training and crisis simulations is recognized as a critical factor for continuous improvement in crisis communication.

Regarding the second theme, research underscores that transparency and authenticity in crisis communication play a crucial role in shaping public perception and rebuilding trust. A significant number of studies conclude that evasive responses or withholding information cause greater long-term damage. Findings emphasize that alignment between public statements and organizational actions strengthens credibility and stakeholder commitment.

Another recurring conclusion regarding the third theme is the need to adapt narrative strategies to contemporary crisis communication dynamics. Studies indicate that narratives emphasizing humanization—where testimonies are prioritized and empathy is highlighted—are more effective in rebuilding an organization’s public image. Crafting consistent and well-structured narratives is recognized as a key strategy for mitigating crises and restoring institutional reputation.

Finally, concerning the challenges of the digital era, the reviewed

conclusions highlight concerns about the impact of the digital landscape on crisis communication. Findings suggest that the rapid dissemination of information on social media requires organizations to enhance responsiveness and implement targeted strategies to curb the spread of rumors. It is concluded that organizations must integrate digital monitoring tools to anticipate potential crises and manage the narrative more effectively.

4.15. Type of research

Regarding the types of research published, Ferguson's (1984) classification—later adopted by researchers such as Sallot et al. (2003) and Sisco et al. (2011), among others—identifies three main categories: 1) Introspective research, which focuses on public relations functions or the education of future practitioners; 2) Practice-oriented research, which aims to address real-world challenges faced by professionals; and 3) Theoretical research, which seeks to advance or develop the field's theoretical framework. From the combination of the types, seven other possibilities are presented: 1. *only introspective*; 2. *only practical*; 3. *only theoretical*; 4. *introspective and practical*; 5. *introspective and theoretical*; 6. *practical and theoretical*; and 7. *introspective, practical and theoretical*.

The majority of articles fall into the practical and theoretical category (n = 137, 35.04%), followed by those classified as purely practical or professional (n = 97, 24.81%). Theoretical research accounts for 12.28% (n = 48), while introspective and practical studies represent 11% (n = 43). Introspective and theoretical research ranks fifth (n = 30, 7.67%), followed by exclusively introspective studies (n = 23, 5.88%). Lastly, articles combining all three categories - introspective, practical, and theoretical - make up the smallest share (n = 13, 3.32%) (Fig. 3).

4.16. Theories used

To analyze the theories applied in the examined articles, it is essential to define the classification criteria. This categorization consists of two main groups: general public relations theories (n = 149) and crisis communication theories (n = 158), with theories assigned accordingly.

Following Sadi and Ferrari (2022), regarding general theoretical constructs in public relations (n = 149), the most prominent include excellence theory (Grunig, n = 30), contingency theory (Cancel & Cameron, n = 27), and dialogic theory (Kent & Taylor, n = 20), strategic management theory (Kim, n = 12), critical approach (L'Etang & Edwards, n = 11), relational theory (Ledingham, n = 10), political function theory (Porto Simões, n = 8), community theory (Kruckeberg & Starck, n = 7), complexity theory (Murphy; Nothhaft & Wehmeier, n = 6), fully functioning society (Heath, n = 4), rhetorical approach (Heath & Toth, n = 3), reconstructive approach (Bentele, n = 3), activist approach (Holtzhausen, n = 2), feminist approach (Grunig, Toth & Hon, n = 1), and neo-institutional perspective (Fredriksson & Frandsen, n = 1). Additionally, constructs inspired by other disciplines are detected, with management (n = 60) as the most prominent example.

Conversely, within crisis communication theories, image restoration theory (Benoit, n = 102) and situational crisis communication theory (Coombs, n = 142) emerge as the most prevalent, though not the only ones.

Regarding the process of identifying theories, a few clarifications are necessary. Initially, an initial reading and classification of the theories present in the texts were conducted and incorporated into an Excel database, allowing for preliminary results. Subsequently, after reviewing all the articles, a second manual review and classification of the previously identified theories was performed, making a differentiation between "mentioning" a theory (i.e., simply naming it, without explaining anything), and "explaining" or "using" a theory, which reflects the intention of further development and depth about it or, failing that, using it as a model for empirical testing. Or, mentioning or quoting the author(s) of such theories, without referring to any of their theories in

Table 11
Techniques used on crisis communication in PRR (2000–2023), per years.

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total
Content analysis	-	-	-	2		2	3	4	5	5	6	10	8	4	3	5	8	9	6	7	5	5	8	5	110
Content Analysis; Semantic Network Analysis	-	-	-	-	-	-	-	-	-	-	-	-	1	-	2	1	-	1	2	-	-	1	1	.	9
Content analysis; Bibliographical theoretical analysis; Semantic network analysis; Semantic network analysis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1
Content analysis; Interviews; Surveys	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Content analysis; Discourse analysis	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	2
Content analysis; Semantic network analysis; Discourse analysis; Discourse analysis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1
Content analysis; Textual analysis	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1
Discourse analysis	-	-	1	-	-	-	-	-	1	2	1	-	2	-	-	-	-	-	-	-	-	-	1	-	8
Discourse analysis; Case study	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Bibliographical theoretical analysis	1	2	4		6	6	1	5	1	1		3	1	1	2		3	2	2	2	2	4	1	-	50
Mixed factorial design	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Interviews	-	-	-	-	-	-	-	1	1	1	-	-	2	-	1	-	2	2	3	1	1	3	3	1	22
Interviews; Content analysis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	2	1	-	4
Interviews; Content analysis; Semantic network analysis; Semantic network analysis	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1
Interviews; Surveys	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	1	-	-	4
Interviews; Surveys; Focus Groups	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	-	2
Case study	1																			1	1	4	4	-	11
Case study; Content analysis			2						2		1	1		1	1	3	1	1	1		2	-	2	4	22
Case study; Content analysis; Interviews	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	1	-	-	-	-	-	1	4
Case study; Bibliographical theoretical analysis	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	3
Case study; Interviews	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
Case study; Surveys	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	-	1	-	-	-	3
Experimental; Content analysis; Surveys	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	2
Experimental; Surveys	-	-	-	-	-	-	-	-	2	5	3	4	3	2	1	1	2	5	2	7	7	5	6	7	62
Experimental; Interviews; Surveys	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	2
Focus groups	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	-	-	5
Focus groups; Surveys	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1
Surveys	-	-	-	1	-	1	2	3	2	2	3	3	3	3	3	2	1	1	6	6	1	3	4	3	53
Surveys; Content analysis	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	-	-	-	1	-	3
Total	4	2	7	4	6	10	7	14	14	19	15	22	24	12	13	13	19	25	27	25	27	30	30	21	391

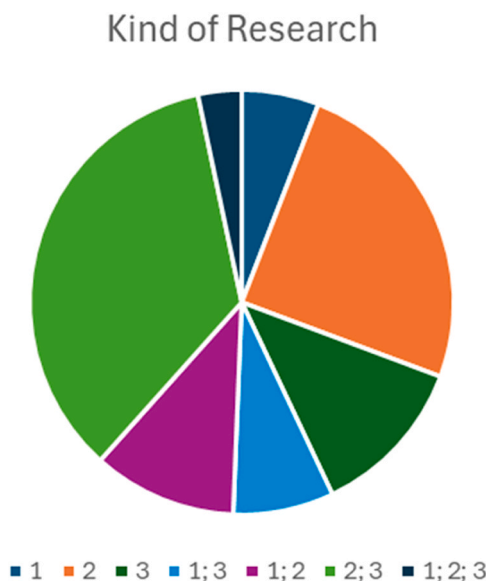


Fig. 3. Kind of Research, 1. Introspective research (n = 23; 5.88%), 2. Practice or Professional research (n = 97; 24.81%), 3. Theoretical research (n = 48; 12.28%), 4. Introspective + Theoretical research (n = 30; 7.67%), 5. Introspective + Practical research (n = 43; 11%), 6. Practical + Theoretical research (n = 137; 35.4%), 7. Introspective + Practical + Theoretical research (n = 13; 3.32%).

particular, but only using it/them as a quotation to support the narrative construction of the text in question.

For instance, the SCCT is applied and/or elaborated upon in 92 cases - sometimes briefly and other times in greater depth. The theory is merely mentioned in 50 articles, while the author, W. Timothy Coombs, is cited without direct reference to the theory in 142 additional studies. In the case of IRT, it is used or explained in 47 articles, simply mentioned (without explaining anything) in 55, and the author (William Benoit) is mentioned or cited in 57 other papers. With some difference between the two, Benoit is primarily cited by IRT, while Coombs is cited not only by SCCT, but also by Crisis Communication Strategies (CCS), as well as for his work on image repair or restoration.

In parallel, this second review and classification of theories enabled a more detailed identification of the various theories present in the texts, with a specific focus on crisis communication. These theories are categorized into three main topics: 1) Crisis communication theories; 2) Crisis communication models; and 3) Stages of crisis communication, which are presented in Annex 1.

Finally, theories that could not be categorized under the main classifications were grouped as "Other" (n = 553). Among these, the most frequently used include "social media" (n = 74), "corporate communication" (n = 29), and "marketing" (n = 26); "communication theory" (n = 24); "attribution theory" (n = 22); "framing" (n = 20); "agenda setting" and "stakeholder theory" (n = 15 each); "media relations" (n = 15); "situational problem-solving theory" (n = 13); "international communication" (n = 12); "reputation management" (n = 11); "communication management" (n = 10); "stakeholder identification model" (n = 9); "ethics" and "situational theory of publics" (n = 7); "journalistic perception" and "public diplomacy" (n = 6 each); "corporate social responsibility", "organization-public relationship" and "priming" (n = 5); "construction theory", "organizational culture", "guantxi", "internal communication", "problem management", "public relations management" and "motivation using social networks" (n = 4 each); "advertising theory", "agenda building", "equilibrium theory", "cultural dimensions theory", "engagement", "grounded theory", "image building", "integrated crisis mapping model", "organizational reputation", "public relations in government", "relational theory" (Ledingham),

"social marketing" and "social identity theory" (n = 3); and "construct level theory," "co-orientation theory", "corporate crisis", "crisis configuration", "disasters", "emotional regulation theory", "expectation violation theory", "inoculation theory", "integrative theory", "international public relations", "moral foundations theory", "network theory", "nudge theory", "problem solving", "semantic network analysis", and "social representations theory" (n = 2). However, there are also 180 other theories that could not be classified or unified, but generally associated with other disciplines such as sociology, psychology, political science or other areas of knowledge.

5. Discussion

The previous section has outlined the key aspects addressed in the first research question, including the main authors, topics, represented countries and universities, professional networks, objectives, research questions, hypotheses, methodologies, techniques, and types of research conducted on crisis communication in articles published in PRR between 2000 and 2023. Now, it is worth analyzing some particularly significant findings and their implications.

5.1. Thematic and methodological trajectories in PRR's crisis communication research

First, the dominance of U.S. researchers as authors, as despite the 391 articles originating from 29 different countries, academics from the U.S. contribute to over 70% of the manuscripts, with the majority collaborating only with fellow nationals. This situation becomes even more notorious if we take into account the statistics relating to the presence of endogenous internal research networks, i.e., authors from the same university, and exogenous internal networks, i.e., authors from different universities but within the same country, a trend already identified in the study by Elgueta-Ruiz and Martínez-Ortiz (2022). In this sense, Xifra's (2003) assertion that public relations tends to be globally an Anglo-Saxon and, particularly, an American enterprise, seems to be confirmed in the field of crisis communication, fostering - as Krohling Kunsch (2011) and Dühring (2015) point out - a hegemonic dependence on the part of the thinking generated in that North American country.

Secondly, regarding the identified topics, the analysis of PRR articles on crisis communication (2000–2023) reveals a broad thematic spectrum. However, there is a clear dominance of media and social network usage, followed by strategies related to perception management, which together account for nearly half of the topics covered during this period. Regarding the former, it is observed that the strategy of silence was reported as more effective than other responses in reducing negative feelings towards organizations during online storms, while sympathetic responses generated greater engagement and tended to foster more interactions in social networks. This suggests that the agility and nature of the response is crucial in social-mediated crisis communication. Regarding other relevant topics, such as corporate social responsibility (CSR), organizations showed a tendency to engage stakeholders from the same sector on such issues. Sectoral networking is therefore shown to be a key factor in fostering effective collaborations between stakeholders, suggesting that networks can be an effective means of addressing social problems.

Third, the increasing prominence of experimental research within the broader quantitative tradition is also worth mentioning. A clear pattern has become visible: more than one-third of all quantitative studies published in PRR during the 2000–2023 period employed experimental designs. This growth reflects a gradual but steady shift toward hypothesis-driven, causally oriented research capable of isolating the mechanisms through which crisis messages influence perceptions, emotions, and behavioral intentions. It is also testament that controlled designs are becoming important to testing theoretical propositions, refining crisis response strategies, and evaluating message

effectiveness across digital and traditional media environments. The increasing use of experiments therefore signals a methodological maturation of crisis communication scholarship, reinforcing the field's capacity to generate explanatory and prescriptive insights grounded in empirical rigor.

Fourth, regarding the objectives (assuming that only those classified by Bloom (1956) as synthesis and, above all, evaluation objectives contribute most to knowledge advancement), only one in four fell within these higher-complexity categories, indicating that there is still room to further develop new knowledge rather than merely replicate or reaffirm existing frameworks. Similarly, following Hernández et al. (2010), the fact that six out of 10 were descriptive objectives is symptomatic of the same situation, although if we cross both typifications, we find that more than three quarters of these same mostly descriptive objectives were of medium-high (analytical) or high (evaluative) complexity. This last element would generate hope for a systematic advance in the construction of knowledge in the field of public relations, organizational communication and strategic communication.

Fifth, regarding hypotheses, the situation appears consistent with previous observations on objectives. If Méndez, (1998) second- and third-degree hypotheses are considered the most suitable for theoretical development, the fact that more than half fall into these categories supports the expectation of a more systematic approach to advancing knowledge. Something similar, although to a slightly lesser extent, would be present when taking the correlational and causal hypotheses (Hernández et al., 2010). The cross-analysis of both categories is consistent with these findings.

Sixth, the analysis of results indicates that crisis communication has evolved toward models that emphasize anticipation, rapid response, and adaptation to the digital landscape. Structured planning, strategic use of social media, transparency in communication, and the implementation of effective narrative strategies have been identified as key practices for successful crisis communication. As communication environments continue to transform, future research should focus on how organizations can integrate emerging technologies and predictive analytics to improve crisis communication and strengthen public trust.

Lastly, the analysis of conclusions reveals that while traditional crisis communication strategies remain essential, the evolving digital environment necessitates a more agile and adaptive approach. Organizational preparedness, transparency, narrative adaptation and proactive management in social networks emerge as the main pillars in the evolution of the field. To advance the effectiveness of crisis communication, future research should focus on the development of predictive models and the incorporation of artificial intelligence in the early identification and mitigation of crisis situations.

5.2. Theoretical dominance and opportunities for diversification

Regarding the second research question - how have the theories applied in PRR articles on crisis communication (2000–2023) contributed to advancing knowledge beyond the two dominant theories: 1) Benoit's Image Repair Theory (1997) and 2) Coombs' Situational Crisis Communication Theory (2007) -, the data collected point to a tendency to use already recognized and legitimized theories as lenses for analyzing practical cases. Indeed, a comparatively low percentage of theoretical-only type of research reveals that the search for new crisis communication theories remains a low-profile element, confirming the thesis already opportunely put forward by Sisco et al. (2011). However, beyond the relevance of dominant constructs specific to crisis communication such as those of Benoit (1997) and Coombs (2007) or more general public relations such as that of Grunig (1992), and in line with that evidenced by Ha and Riffe (2015), the identification in this study of a larger and growing set of associated concepts that could not be directly classified into the prefixed categories also suggests a broad interest in this topic and a more diverse future for crisis communication research. The latter aligns with broader findings tied to the general field of public

relations, such as those of Meadows and Meadows III (2014), who noted a significant increase in the use of theories or models, with nearly a quarter of the articles examined in their study contributing to the development of theories in the field of public relations.

A notable example of this is contingency theory, which examines how external factors influence organizational responses to crises. Applied in this context, the theory demonstrates that adopting a human and conversational tone on social media positively impacts an organization's reputation during crises. In other words, the use of closer and more personal communication can have a positive influence on organizational reputation, highlighting the importance of the way in which messages are transmitted. The research shows that proactive and reactive postures depended on the nature of the crisis and how interactions were perceived on social networks.

In summary, as previously noted, a growing number of additional theories have been identified beyond the dominant response-strategy traditions of Coombs' SCCT and Benoit's Image Restoration Theory, offering alternative conceptual foundations for understanding crisis communication beyond those two dominant response-strategy frameworks. These include Chaos Theory (Sellnow et al., 2002) and Complexity Theory (Gilpin & Murphy, 2008), which are highlighted as key approaches for understanding the nonlinear and dynamic nature of crises, particularly in discussions of "complexity comprehension" within crisis environments. Renewal Discourse Theory (Ulmer et al., 2007) is also related to resilience-building and post-crisis learning. The Contingency Theory of Accommodation (Cancel et al., 1997) is discussed as a major framing device in crisis communication scholarship, especially in relation to its evolution and the identification of contingency factors. It also covers the Situational Theory of Publics (Grunig, 1989) in the context of resilience-oriented communication. Additionally, the Networked Crisis Communication (NCC) model (Utz et al., 2013) and the Social-Mediated Crisis Communication (SMCC) model (Jin & Liu, 2010; Liu et al., 2011; Jin et al., 2014) are presented as emerging frameworks that explain how digital platforms shape message diffusion, audience behavior, and organizational response strategies. Together, these theories broaden the analytical scope of crisis communication by emphasizing complexity, interactivity, resilience, and the evolving role of digital media.

5.3. Prescriptive insights and future directions for crisis communication scholarship

Concerning the third research question - what qualitative analyses of crisis communication articles published in PRR between 2000 and 2023 could inform prescriptive recommendations in this field, following the guidance of Avery et al. (2010)-, as organizations navigate an ever-changing media and social environment, it is crucial that they develop strategic and thoughtful approaches to their communication to maintain public trust and reputation.

Findings from various studies underscore the complexity of crisis communication, highlighting the significance of proactive and empathetic communication, as well as the necessity of fostering strong internal relationships. The ability to anticipate disinformation attacks and respond appropriately can make all the difference to the public perception and reputation of organizations during critical times. In addition, effective emotion management and interactivity in digital communications are key elements in addressing misinformation and building trust among stakeholders, offering valuable insights for researchers and practitioners in the field of crisis communications, suggesting areas for future research and the development of effective practices.

The concept of 'multivocality' gains prominence, particularly in the era of social media. The fragmentation of the rhetorical arena enables diverse voices and perspectives to shape public discourse, potentially adding complexity to crisis communication. Research suggests that a holistic approach that considers both digital communication dynamics

and traditional media interactions is crucial to understanding and properly managing crises.

Similarly, regarding the perception of response time, the speed at which a crisis is addressed significantly shapes how the public perceives the response. Research indicates that the quicker people receive information about a crisis, the more likely they are to view the response as effective and positive. This highlights the importance of agile and efficient communication during emergencies.

Social media posts have a significant impact on organizational reputation. Both positive and negative content influence consumer perceptions, with positive posts playing a crucial role in maintaining a favorable image. During crises, organizational reputation often declines, leading to unfavorable consumer behaviors. The combination of all these factors illustrates the complexity of crisis communication in the contemporary environment. Organizations must be aware not only of the emotions their messages generate, but also of the social and political context in which they operate. This includes the constant evaluation of their interactions on digital platforms and how these affect their reputation and relationships with various audiences, and underscores the need to develop robust online reputation management strategies.

The analysis further revealed that the volume of negative online mentions before a response influences the strategies organizations adopt. When negative mentions are low, organizations often choose a strategy of silence, whereas a higher volume prompts them to provide more detailed explanations. These results highlight the recommendation to adopt an adaptive approach to communication during social media crises.

Regarding ethnic identity and responsibility attribution, social media discussions often highlight how ethnic identity shapes perceptions of responsibility during crises. For example, in the case of the United Airlines crisis, it was observed that the Chinese-speaking audience focused more on the ethnicity of those involved, while those tweeting in English focused on the company's response. This indicates that organizations need to be sensitive to different cultural narratives and how they can impact public perception. In other words, it is crucial for organizations to be culturally sensitive and understand how different audiences perceive and respond to crises. An organization's ability to connect emotionally with its audience and respond effectively to their concerns is key to successful crisis communication.

Specifically concerning information quality and crisis communication, researchers have developed metrics to evaluate the accuracy and clarity of crisis-related messages. These metrics can serve as valuable tools for future research, enabling a deeper examination of crisis communication and providing targeted recommendations for public relations professionals. These findings highlight the importance of clarity and accuracy in conveying messages at critical times.

One of the key findings in this context is that proactive communication can mitigate negative consequences, such as the loss of organizational credibility and reputation. This is achieved through a model that facilitates real-time decision-making to counteract misinformation during a crisis. Despite the significance of misinformation management, there is a notable lack of formal assessment methods to guide organizations in their responses, underscoring the importance of strong professional and organizational ethics in this process.

Consequently, crisis communication is undeniably a critical field where organizations must develop effective strategies to maintain public trust and safeguard their reputation. As crises continue to increase and evolve, understanding the dynamics of nonverbal communication, emotional management, and public responses becomes essential.

The path to continuous improvement in crisis communication clearly requires a blend of theory and practice, where learning from past experiences serves as a cornerstone for future crisis preparedness. This approach fosters an organizational culture that not only reacts to crises but also anticipates them, cultivating an environment where trust and reputation can thrive despite challenges.

6. Conclusions

Adaptability and proactivity are crucial in an unpredictable environment where communication dynamics can shift rapidly. Effective crisis response requires agility and strategic foresight, compelling organizations to cultivate strong relationships with their stakeholders. This entails not only managing reputation but also actively engaging with communities and addressing consumer needs and emotions.

Simultaneously, sincerity and authenticity in communication emerge as crucial factors in restoring public trust. Research indicates that organizations perceived as honest and transparent in their crisis communication are more likely to regain public forgiveness and acceptance, underscoring the significance of effective crisis communication in the digital era.

Research on crisis communication, particularly within the context of social media, has seen a significant rise in scholarly output. However, there remains a need for greater diversification in research, including the exploration of underrepresented contexts and the examination of how contextual variables influence communication strategies.

As a result, crisis communication remains a crucial field where organizations must develop effective strategies to uphold public trust and safeguard their reputation. As crises continue to proliferate and evolve, understanding the nuances of nonverbal communication, emotional regulation, and public reactions becomes increasingly essential.

In summary, crises pose complex challenges that demand strategic and well-articulated responses. Authentic communication, empathy, and adaptability are fundamental to fostering and sustaining public trust. By understanding audience motivations, cultural identity dynamics and the impact of communication channels, organizations can better manage their reputation and navigate difficult situations effectively. Also, in terms of future considerations, the analysis of crisis communication strategies will continue to evolve, especially in a world where technology and social media are constantly changing. Organizations must be prepared to adapt to new realities and challenges, ensuring that their communications are always clear, responsive and effective.

Thus, crisis communication is a multifaceted field that demands a profound understanding of public perception dynamics, organizational reputation, and response strategies. As organizations navigate evermore complex environments, integrating ethical and strategic communication practices becomes essential to fostering resilience and ensuring long-term sustainability in the marketplace.

6.1. Limitations and avenues for further research

The results of this meta-analysis depict a field of crisis communication research that is both growing and evolving. While established theories remain important, the field is expanding its theoretical framework and methodological strategies to tackle emerging challenges presented by the digital age and the heightened complexity of crisis scenarios. Although these results are noteworthy, some limitations can be identified.

One main limitation of this study is its journal-specific focus, as the research is confined to articles published in *Public Relations Review*, which restricts its generalizability to the broader field of crisis communication. This focus may overlook different perspectives and methodologies that could be found in other journals in the scope of PR and organizational and strategic communication. Additionally, the reliance on a single journal could introduce publication bias, potentially omitting relevant studies from the overall body of research. Another potential limitation pertains to the methodological choices made in the study. The absence of an inter-rater reliability assessment may raise concerns regarding the consistency and accuracy of the qualitative data analysis. Nevertheless, the study's quantitative findings and thorough examination of a large corpus still provide valuable insights into trends and patterns within the field of crisis communication, thereby paving the way for future research opportunities.

In the future, the scope could be expanded beyond a single journal to encompass a broader range of relevant scholarly publications, encouraging all interested parties to use our framework to conduct similar studies. This approach would improve the representativeness of the meta-analysis and provide a more comprehensive understanding of the field, thus helping to identify trends and changes in crisis communication over time.

In addition, this study focuses exclusively on crisis communication, deliberately excluding crisis management as a broader managerial construct. While both areas are related, crisis management encompasses operational, logistical, and organizational decision-making processes beyond the communicative domain. This delimitation strengthens conceptual clarity but also represents a limitation, as future studies could integrate both perspectives to provide a more holistic understanding of organizational crises.

Furthermore, it will be crucial to investigate crisis communication strategies and their effectiveness across diverse cultural contexts to fully appreciate the impact of cultural nuances. A closer examination of the role of social media in crisis communications, while considering the distinct characteristics of various platforms, may also yield valuable insights. Collectively, these efforts will foster a transition from primarily descriptive research to more interpretive and prescriptive studies within the realm of crisis communication. It is vital that future research continues to identify best practices and provide clear recommendations for effective crisis communication strategies.

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.

Data availability

Data will be made available on request.

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