ORIGINAL ARTICLE

Social media crisis management: Aligning corporate response strategies with stakeholders' emotions online

Clémence Vignal Lambret | Edgard Barki

Escola de Administração da Fundação Getulio Vargas (FGV-EAESP) & Sciences Po (Paris, France), Paris, France

Correspondence
Clémence Vignal Lambret, Escola de Administração da Fundação Getulio Vargas (FGV-EAESP) & Sciences Po (Paris, France), Paris, France.
Email: clemence.vignallambret@sciencespo.fr

The article focuses on how the analysis of stakeholders' emotions online can help companies facing a social media crisis determine the response strategy that will best minimize the reputational threat. The article indeed questions the relevance of classical crisis management theory to an online environment. Results show that social media have increased the unpredictability of corporate crises. Consequently, on social media, crises cannot be addressed with the methods that have prevailed so far. Rather, incorporating emotion-based analysis in six case studies showed how crisis analysis, and the subsequent response strategy, could be fine-tuned. The article builds on recent literature to develop a new analytical framework for response strategies and a model for crisis resolution—the social media crisis management matrix.

1 | INTRODUCTION

On 18 September 2015, the Environmental Protection Agency revealed that Volkswagen had been superficially hiding the gas performance of its cars to circumvent gas emissions tests. A total of 53,000 tweets about the revelation were posted that same day. These were followed by 1.3 million more tweets over the following week, averaging 8,000 tweets per hr compared to the usual 10,000 Volkswagen-related tweets per day. Within 1 week, Volkswagen had lost its CEO, Martin Winterkorn, 35% of its market value, and its reputation. In early November 2015, a "Diesel emissions violation" subchapter was added to the "Environmental Record" chapter of the Wikipedia page of Volkswagen, and a whole new page entitled "Volkswagen emissions scandal" was created. By the end of December, the new CEO, Matthias Müller, threw their famous 2007 slogan "Das Auto" ("The Car") on the scrap heap in favour of a more sober "Volkswagen" ("the people's car"), an embodiment of the now required low profile.

The ability to freely and instantly add one's voice to the Internet conversation is a new power to influence held by social media users who are continuously reacting (rather than reasoning) to anything occurring online and offline. The "Facebook and Twitter revolutions" that appeared in Eastern Europe and Maghreb through 2009–2011 showed how social media could be used by online communities to affect offline governments. What, then, should we expect the impact to be on companies? The case of Volkswagen is but a recent example of the tangible consequences (such as the destruction of a company's reputation which may eventually impact its business performance) that can emerge from troubled interactions between the offline and online worlds.

The emergence of social media has created fertile ground for corporate crises because by "disseminating information to as many people as possible" (Veil, Buehner, & Palenchar, 2011: 115), they help make crises "an excellent opportunity of audience" (Libaert, 2015: 28–32). In 2013, Deloitte published a global survey that revealed that new technologies, and in particular social media, were currently at the core of organizations' fears. The inherently public nature of online content can automatically impact the reputation of organizations as other people's voices add to the "organisation's voice to communicate" (Coombs & Holladay, 2014: 42). Moreover, these new "voices" come charged with emotions that might impact the amplitude and seriousness of an online crisis, and there is a need to better understand how organizations should react to their stakeholders' emotions.

Several past researches have begun to study these interactions, and analysed how a crisis poses both a financial and a reputational threat (Coombs, 2007; Jin, Pang, & Cameron, 2012). Among other conclusions, they posited that the bigger the media attention the greater the threat to the reputation of organizations, and that "as the strength of a reputational threat increases, so should the likelihood that the threatened organization will be compelled to respond defensively" (McDonnell & King, 2013: 391). The question of

whether defensiveness is relevant and strategic has however seldom been studied.

The link between social media and corporate crises is a topic of growing popularity among researchers. In 2008, Gonzales-Herrero & Smith explained how the Internet could both trigger and facilitate crises, with significant implications for crisis management. Going further, various studies have explored the relationship between social media and corporate reputation (Aula, 2010; Pfeffer, Zorbach, & Carley, 2014); these paved the way for new studies centred on how to integrate social media into crisis planning (Brummette & Sisco, 2015; Libaert, 2015; Ott & Theunissen, 2014; Veil et al., 2011). Meanwhile, other studies have focused on online crisis communication and have initially suggested the relevance of conducting cognitive and emotional analyses of stakeholders' online behaviours (Schultz, Utz, & Göritz, 2011; Sweetser & Metzgar, 2007). Eventually, a few authors attempted to propose new analytical frameworks and response strategies to social media crises (Coombs, 2007; Jin, Liu, & Austin, 2014; Jin, Pang, & Cameron, 2007, 2009; Jin et al., 2012). The literature offered various approaches to the study of social media and companies' interactions and how these have impacted the ways in which organizations address crisis management.

These studies were either organization-centric or stakeholder-centric. On the one hand, the work of authors such as Aula (2010), Pfeffer et al. (2014) or Veil et al. (2011), although a priori interested in the relationship between organizations and their stakeholders through social media, centred their analysis on the companies themselves and only partially approached the stakeholders, regarding them as one exogenous factor in reputational crises. On the other hand, authors such as Sweetser and Metzgar (2007) or Jin et al. (2007–2014) integrated social media stakeholders more comprehensively into their analyses and have begun drafting innovative strategies centred on stakeholders to manage and respond to social media-induced corporate crises. However, these studies are still in their early stages, and none has brought together the different findings of either category in an integrated way to propose an up-to-date and encompassing work on how social media corporate crises can be managed.

Consequently, the objectives of this article are three-fold: (i) to enrich the current literature by providing an analysis of crisis management in a social media context that balances the organization-centric and stakeholder-centric approaches, (ii) in particular, to further deepen findings on cognitive analyses by examining the role of emotions conveyed by online stakeholders on the definition of a response strategy, and (iii) to propose a new framework for social media crisis management that builds on and integrates past studies.

We organize the rest of the article as follows: we first provide a brief overview of the significant crisis management literature with a focus on social media to identify the theoretical foundations for our framework, which we present in the second section. Next, we present the chosen methodology. Then, we analyse six cases of corporate crises from France and Brazil to test our model. Finally, we suggest ways to adjust our model and further discuss how social media impact corporate crises, offering insights into the new role of emotions in the definition of an efficient response strategy.

2 | THEORETICAL BACKGROUND

Typologies of crises are transversal and hinge on various defining components such as *nature* (crises can be technical, political, accidental, etc.), *origin* (internal or external crises) (Coombs, 2007; Jin et al., 2014; Lagadec, 1993; Libaert, 2015; Westphalen, 1992), and *intensity* (length and force of impact) (Vanderbiest, 2014). These typologies successfully encompass the complex character of crises, but they do not fully factor in the newest component: social media.

2.1 | Traditionally, corporate crisis management is organization-centric

Crisis management benefits from a wide literature. Various authors such as Fink (1986), Coombs (1999), or Gonzales-Herrero and Smith (2008) developed "cyclical" analyses of crises with the ambition to "plan for the inevitable." According to their models, crises move through different phases, and crisis management is a process that allows each phase to be effectively addressed to prevent or lessen the damage a crisis can cause to the organization and its stakeholders.

Other authors such as Lagadec (1993), Piotet (1991) or Westphalen (1997) have focused more on the communication component of crisis management and analysed the different responses given by companies during crises. The observed and recommended reactions vary from denying the crisis and responsibility (e.g., "refusal," "silence," "attack") to acknowledging the crisis and responsibility (e.g., "transfer," "conflation," "acknowledgement," etc.), depending on the objective pursued by the organization.

Ultimately, these different models developed between the 1980s and early 2000s approached crisis management with two main principles: *prevention* and *tailored communication*. These constitute the classical theory of crisis management and are based on the belief that organizations can exercise control over their environment.

However, Gonzales-Herrero and Smith (2008) argued that the audience has been gradually fragmenting and that online, it is given the opportunity to voice a multitude of opinions. In this new "many-to-many" dynamic, social media can accelerate crises (e.g., an offline crisis is relayed on social media, where it may gain momentum, which worsens the offline crisis) or create them (e.g., a tweet triggers an online crisis with potential offline consequences). Social media have become a sound box by "breaking the boundaries of space and time characterizing traditional media" (Libaert, 2015: 32).

Kaplan and Haenlein (2010:61) defined social media as "a group of Internet-based applications that [...] allow the creation and exchange of User Generated Content." Social media embody many "public places," where a wide array of stakeholders can and do add their voice(s) to the organization's, especially during crises (Coombs & Holladay, 2014: 42). As such, social media crises can *emerge* online from issues whose nature is often very subjective, uncertain, or hazy (Bloch, 2012) such as *perceptions* of corporate *behaviours*.

Consequently, the development of the Internet (and by extension, social media) has made the risks faced by companies as well as

the types of crises they can experience more complex and threatening: "anyone can instantly have a megaphone and access to millions of people" (Wigley & Zhang, 2011:3). This unpredictable and worldwide exposure may result in "negative mainstream media coverage, a change in business process, or financial loss" (Owyang, 2011).

As such, crisis management in a social media context cannot merely focus on predicting the development of the crisis, as social media crises are, by nature, unpredictable (Bloch, 2012). It requires new tools that add to and go beyond classical prevention plans. However, the existing literature is mainly composed of general sets of guidelines such as the need to "Fix objectives and be responsive" (Libaert & Westphalen 2014:48–52) or principles ("do not delete negative customer reviews from your Facebook page") that are not tied to any particular context.

2.2 | Social media have redefined the way organizations and stakeholders communicate

In 2017, Facebook, Twitter, and YouTube had a cumulated 3.48 billion users. If Instagram, Snapchat, WhatsApp, and Tumblr are included, that number reaches 5.9 billion users. Taking into account that a social media user has on average five different accounts, we find that more than 15% of the world population owns at least one social media account. This suggests that a new power lies in the connected hands of stakeholders, whether customers or potential customers. For example, Bloch (2012) and Brummette and Sisco (2015) focused on how individuals could now challenge organizations in visible ways by creating, forwarding and consuming information online. Wigley and Zhang (2011:3), Aggergaard (2015:11), and Austin, Liu, and Jin (2012:201) analysed how people could use social media to shape the "public narrative" of a crisis and "fulfil [their] informational and emotional needs related to the crisis." Last, some have highlighted the growing role played by social media users in shaping organizational reputations: Aula (2010:48) suggested that reputation is the aggregation of stakeholders' shared interpretations of the organization ("ambient

publicity"), and Pfeffer et al. (2014:118) coined the term "online firestorms" to define "instant waves of criticism (…) [that] appear without warning" and that are "predominantly opinion (…) thus having a high affective nature" with a "huge impact on a company's reputation."

Therefore, social media change the ways in which organizations and stakeholders can communicate, and there is an expanding literature on the incorporation of social media *into* crisis management and communication. Several authors (Brummette & Sisco, 2015; Libaert, 2015; Ott & Theunissen, 2014) have implied that social media should be built into crisis planning. Weiner (2006) called for the necessity to "satisfy the demands of today's information and media dynamic." Booz Allen Hamilton issued a report (2009) that concluded that the "new challenges" posed by social media required that they be "embedded in the corporate communication strategy," while Veil et al. (2011) collected best practices to optimize social media integration into communication strategy.

Social media impact the efficiency of crisis communication, as shown by the findings of Eriksson (2012), Sweetser and Metzgar (2007), and Schultz et al. (2011). These studies looked at how and what organizations were communicating and what effects these communications produced on stakeholders. In addition to strategies identified by Lagadec (1993), Piotet (1991), Westphalen (1997), and Diers and Donohue (2013) have compiled a more recent taxonomy of crisis response "tactics" to be used by organizations. These "message strategies" may be "Future-oriented" (e.g., "self-enhancement," "excellence"), "Aggressive" (e.g., "framing the crisis," "anti-social"), "Defensive" (mix of defensive and accommodative responses), or "Affirming Amplification" (positive messages). However, from the different models that have been developed in an attempt to draft effective communication strategies in the context of a social media crisis, three of them, detailed in Table 1, are more aligned to our research, since they offered analyses grounded on similar assumptions. In particular, stakeholders were a full-fledged determinant in these strategies, which also relied on emotion analysis.

TABLE 1 Models of communication strategies

Authors	Model	Takeaway	Findings
Jin et al. (2007, 2009, 2012)	Integrated Crisis Mapping *Conceptualization of stakeholders' emotions*	Determining the *origin* of the crisis (external/internal and public/internal) allows determining and anticipating the *emotions* that stakeholders are likely to feel when facing the crisis	*Three dominant emotions*: anger, sadness, and fright Differ according to *3-criteria origin of the crisis*: internal–external, personal–public, and unnatural–natural
Coombs (2007)	Situational Crisis Communication Theory *Evidence-based guidance for crisis communication*	The degree of *responsibility* for the crisis attributed by stakeholders to the organization allows determining the type ("*cluster*") of the crisis and is positively correlated to the width of *reputational threat*.	*Three clusters*: victim, accidental and preventable Maximize reputational protection by identifying the cluster and reacting accordingly. *Two strategies*: defensive (deny, diminish) and accommodative (rebuild and bolster)
Austin et al. (2012) and Jin et al. (2014)	Social-Mediated Crisis Communication *Determination of best-suited responses strategies*	The response strategy should be consistent with the *crisis origin* and the *emotions* it triggers	The crisis origin can trigger *attribution dependent* or *attribution independent* emotions to which the response, its *content*, *form* (social media, traditional media, WOM), and *source* (third party or organization) should be adapted

Source: Elaborated by the authors from the work of Jin et al. (2007, 2009, 2012), Coombs (2007), Austin et al. (2012) and Jin et al. (2014).

Literature developed from the early 2000s onwards reflects a shift from the static, organization-centric classical paradigm and highlights models based on more dynamic and flexible frameworks adapted to social media crises.

2.3 | This research: linking stakeholders' emotions and response strategies

Our study addresses the dynamics between stakeholders expressing emotions on social media and organizations once a corporate crisis breaks out online, and focuses in particular on response strategies.

Based on the models in Table 1, our theoretical proposition (Figure 1) is that the definition and choice of the best response strategy are based on the connection between the origin of the crisis, the degree of attribution of responsibility for the crisis, and the stakeholders' emotions in reaction to the crisis.

We suggest a matrix (Figure 2) articulating these commonalities to build a comprehensive framework. It is built on two axes of analysis: the degree of attribution of responsibility for the crisis by stakeholders (abscissa) and the origin of the crisis (ordinate). According to Coombs (2007), organizations undergoing crises can bring an accommodative or a defensive response to stakeholders. An
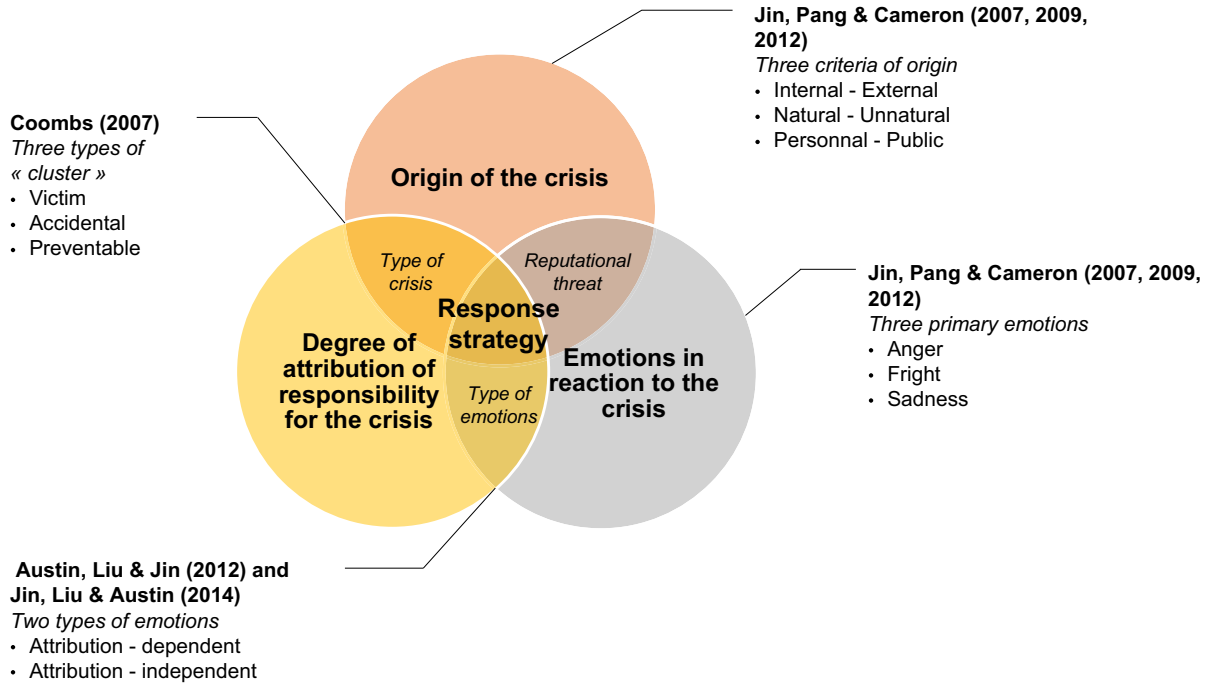

Coombs (2007)
Three types of « cluster »
• Victim
• Accidental
• Preventable

Jin, Pang & Cameron (2007, 2009, 2012)
Three criteria of origin
• Internal - External
• Natural - Unnatural
• Personnal - Public

Jin, Pang & Cameron (2007, 2009, 2012)
Three primary emotions
• Anger
• Fright
• Sadness

Austin, Liu & Jin (2012) and Jin, Liu & Austin (2014)
Two types of emotions
• Attribution - dependent
• Attribution - independent

Origin of the crisis
Type of crisis
Reputational threat
Response strategy
Degree of attribution of responsibility for the crisis
Emotions in reaction to the crisis
Type of emotions

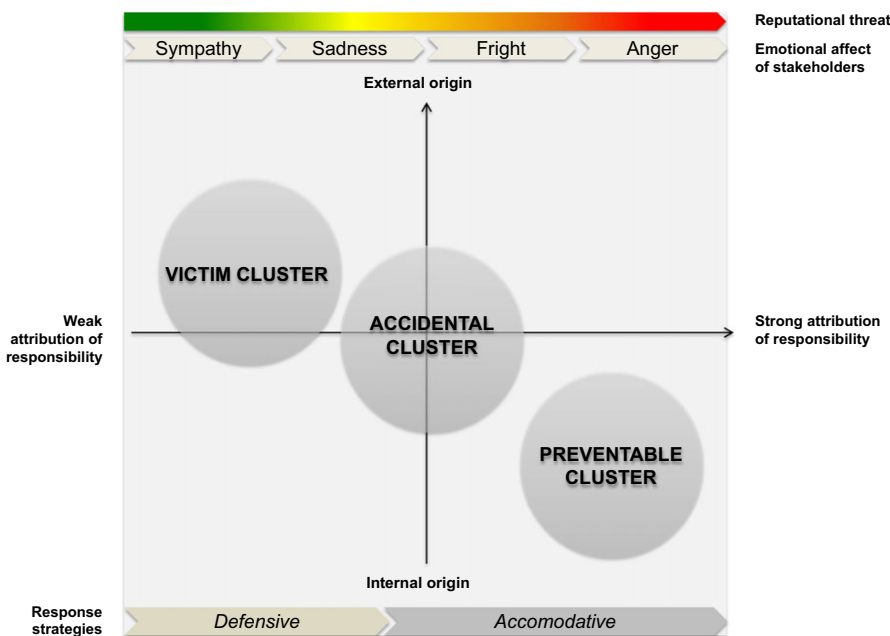**FIGURE 1** Framework: response strategy definition. Source: Elaborated by the authors

FIGURE 2 The social media crisis management matrix. Source: Elaborated by the authors from the work of Jin et al. (2007, 2009, 2012), Coombs (2007), Austin et al. (2012) and Jin et al. (2014)

accommodative strategy aims to generate, improve (*rebuild* approach), or develop (*bolstering* approach) reputational assets by offering symbolic or material aid to stakeholders. A defensive strategy, however, aims to either detach the organization from the crisis (*deny* approach) or to minimize the responsibility of the organization in the crisis (*diminish* approach).

We suggest that the optimal response strategy depends on the *width of the reputational threat*, which is determined by three interconnected forces: the *emotional response* of stakeholders, *the origin of the crisis*, and the *degree of attribution of responsibility*.

The reputational threat spectrum goes from left, the mildest threat, to right, the strongest threat. The emotions of stakeholders identified by Austin et al. (2012) and Jin et al. (2014) are ordered according to their relation to the reputational threat spectrum: from less negative emotions (attribution independent: sympathy and sadness) to more negative emotions (attribution dependent: fright and anger).

The matrix allows the crisis to be analysed from different angles and should help when determining an efficient response strategy, that is, one that minimizes the reputational threat. For instance, if one knows the crisis cluster, one can easily identify the type of emotions likely to be felt by stakeholders and hence the degree of reputational threat, which ultimately indicates what response strategy should be favoured to balance the threat. Conversely, if one knows the dominant stakeholder emotion, one obtains an indication of the degree of responsibility attribution; this, with the crisis origin, allows the crisis cluster to be determined and hence the response strategy. We aim to verify whether the matrix we propose is an acceptable method for determining the appropriate response strategy.

3 | METHOD

Our method was based on a case study approach, with the objective of testing the framework proposed (Eisenhardt, 1989). The study was restricted to French and Brazilian organizations although there may have been more striking cases from other countries.

Brazil and France are countries with similar uncertainty avoidance, but with a different level of individualism. According to Hofstede's classification, Brazil is a collective society, where the communication style is context-rich, and France is very individualistic, where Cartesian culture usually excludes the display of strong emotions.

These similarities and differences present an interesting setting to understand crisis management across different contexts.

Our methodology was divided into four steps: case selection, comments selection, comments classification, and analysis.

3.1 | Case selection

The choice of the cases to be analysed was based on two principles.

First, building on Gonzales-Herrero and Smith (2008) and Owyang (2011), we selected six cases in which crises had either been triggered or facilitated by social media and that were no older than 3 years old.

Second, we searched for cases that illustrated different types of crises as characterized by Coombs' clusters: "victim" (the organization is also a victim of the crisis), "accidental" (actions leading to the crisis were unintentional), and "preventable" (the organization knowingly took actions that eventually led to the crisis). For each case, we identified the source of the crisis (e.g., a tweet, a catastrophe, etc.) to determine whether the origin was internal or external. The origin of the crisis corresponds to the ordinate of our matrix, which, in the classical crisis management theory, is used as the sole determinant of the response strategy (Table 2).

3.2 | Comments selection

After selecting the cases, identifying their origin and the social media (Facebook, Twitter, and YouTube) posts relating to them, we analysed stakeholders' emotions as expressed online. To do so, for each crisis, we retrieved all comments posted by stakeholders in the 12 months following the crisis and copied them to a new file. These were numbered, and we selected randomly for each case at least 5% of the total comments, except for one case with a substantial number of comments and homogenous content (Coca-Cola). In total, 207 comments, whether in French or in Portuguese, were extracted and analysed. Although this study is not quantitative, the sample of 207 comments offered a satisfactory identification of the emotions of the stakeholders, as the results of the analysis were quite homogenous across each case's sample. For harmonization purposes, the comments were translated into English.

3.3 | Comments classification

We then sent them in the original and translated versions to three colleagues. We asked them to analyse each comment and to write

TABLE 2 Summary of the cases according to Coombs' type of crisis

France			Brazil		
Case	Date of break out	Coombs type of crisis/origin of crisis	Case	Date of break out	Coombs type of crisis/origin of crisis
RATP	April 2015	Preventable/internal	Skol	February 2015	Preventable/internal
SNCF	July 2013	Accidental/external	Samarco	November 2015	Accidental/external
AirFrance	October 2015	Victim/internal	Coca-Cola Brasil	September 2013	Victim/external

Source: Elaborated by the authors on the basis of Coombs' (2007) work.

TABLE 3 Summary of selected samples

Crisis	Source(s) of comments	Social medium of origin	Number of comments selected	Total number of comments
RATP	Di Falco's first tweet that launched the crisis	Twitter	25	133
Skol	Pri Ferrari's post that launched the crisis	Facebook	28	567
SNCF	SNCF's post announcing the train accident	Facebook	24	171
Samarco	Samarco CEO's post-collapse video	Facebook	42	840
AirFrance	Video of the two executives fleeing the strike and AirFrance promotional video	YouTube and Facebook	37	264
Coca-Cola	R7's video about a customer	YouTube	51	8,610

down which emotion out of the four in the model (sympathy, sadness, fright, and anger) appeared to be the main emotion conveyed in each comment. Our own analysis was then added to the results. This proceeding was meant to limit the bias that would have been introduced if only our perceptions were used. The final results were aggregated to discover the proportion of each emotion in each sample of comments and therefore to single out the prevalent emotion conveyed by stakeholders for each crisis (Table 3).

3.4 | Analysis

The last step of our methodology consisted in a thorough analysis of each case aimed at comparing the strategy chosen by the company to the strategy recommended when using the matrix. To analyse the organizations' response strategies, we monitored the corporate reactions to the crises on the online press (major newspapers), corporate blogs, and social networks (Facebook, Twitter, and YouTube).

4 | CASE ANALYSIS

4.1 | Preventable crises

4.1.1 | France: RATP—Les Prêtres' ad campaign "to the benefit of the Orient Christians"

Les Prêtres is a popular French music band composed of three Catholic priests. In early 2015, they released a promotional campaign for an upcoming concert, where they added a banner noting that the profits of the show would be "to the benefit of the Orient Christians," a religious community suffering from ISIS domination in the Middle East. The Parisian public transportation company, the RATP, was violently attacked in early April 2015 after the lead singer from Les Prêtres (Mgr Di Falco) revealed on Twitter the RATP's decision to remove this note on the claim that such a poster was against the "necessary neutrality of public service in a context of armed conflict abroad."

In this case, the primary emotion expressed in the Twitter comments that were analysed was anger (72%), followed by sadness (20%), signalling a high reputational threat. The vast majority of reactions denounced the decision as "censorship" and intimated that the

RATP should take responsibility. One example comment was "*Very shocked. I'm outraged by this idiotic behaviour. They are just supporting the massacres in Orient.*" The origin of the crisis is internal, as it stems from RATP's decision to remove the mention. According to the matrix, the crisis belongs to the preventable cluster, and RATP should choose an accommodative response.

However, RATP adopted a fully defensive strategy: they continuously denied responsibility and grounded their position on legal arguments only. They first adopted a deny approach, as they only replied with formal press releases filled with legal vocabulary (e.g., "principle of neutrality," "strict rule," "general terms and conditions"). They then moved to a diminish approach through accusatory releases with politically charged words (e.g., "growing difficulty to apply rules of neutrality and secularity *("Laïcité")*"). One week later, after public stakeholders such as the Prime Minister openly positioned themselves (on Twitter) against the RATP's decision, they announced that they would reinstate the mention at their expense.

Overall, the RATP's management of the crisis had several flaws. From the beginning, they adopted a haughty position in which they rejected responsibility using the law to oppose their stakeholders' emotions. Their response tone was rational, whereas their stakeholders' tone was emotional. They also used polemical terms ("laïcité") in a politically tense context in France. Last, there was a gap between the medium of their answer (press releases) and that of their stakeholders' reactions (Twitter), which is the ultimate proof of their inability to tune in to their stakeholders. Their defensive response strategy signalled that they considered themselves to be a victim of the crisis. The fundamental need would have been to contextualize the stakeholders' emotions to respond correctly, that is, accomodatively.

4.1.2 | Brazil: Skol—the polemical Carnival ad campaign

Manufactured by AB InBev, Skol is a famous and popular Brazilian beer brand, whose image is associated with fun and parties. Skol launched an advertisement campaign during the Carnival 2015 and was immediately called out on social media by two women, a blogger and a journalist, because the different promotional supports revolved around the theme of a loss of control, with slogans such as

"say yes before you know the question" or "leave 'no' at home." The two women claimed the campaign was irresponsible in the Carnival context as it appeared to be promoting rape through messages that could be read as incentives to lower vigilance. Their reaction on Facebook, spoofing Skol's campaign to denounce it (they added an "and bring 'never'" to the "leave 'no' at home" poster) instantly went viral.

The organization's marketing campaign was heavily denounced and vilified, as 70% of the comments sample conveyed anger compared to 14.5% conveying sympathy and 15.5% conveying either sadness or fright. It also fuelled a heated debate on the potential sexism of Skol's posters. For example, one woman claimed on Facebook that *In reality, it does not matter what Skol wants to say, the fact is that is has a double meaning, and if it does, everyone can understand whatever they want. (…) it's the Carnival period people…the world is sexist (…)*. A man, however, replied that *today everything has a double meaning or is subject to interpretation…There will always be someone to take it to the extreme or interpret negatively. Today, the world is boring*. Together, the anger expressed in most of the messages and the internal origin (Skol's campaign) places the Skol scandal in the preventable cluster of the matrix, calling for an accommodative response.

Skol's response was partially accommodative. The company mixed a deny strategy (they identified the director of marketing as a scapegoat), a diminish strategy (they claimed a lack of intent), and a rebuild strategy (they immediately withdrew the polemical posters and apologized). This strategy was successful because they quickly perceived the viral potential of the post and addressed it adequately: the crisis was therefore resolved in less than a day. Interestingly, at the instigation of their new marketing director, Skol partnered with an association to launch the initiative "#WhistleAgainstAssault" during Carnival 2017, where the brand distributed rape whistles to women and promoted slogans such as "your respect makes me dance" (bolstering approach).

4.2 | Accidental crises

4.2.1 | France: SNCF—the train accident of Brétigny-sur-Orge

The SNCF is the French national railway service and manages most of the train traffic in France. The train system is frequently used and benefits from a strong reputation for safety. However, in July 2013, the train joining Paris to Limoges derailed a short time before arrival, killing seven passengers and injuring more than thirty. The accident was particularly shocking because it occurred in the middle of summer (high traffic period) and 2 days before France's National Day (14 July). Investigations were immediately conducted to confirm a suspected technical problem as the cause of the accident, and the SNCF was placed under formal investigation for involuntary manslaughter and negligence leading to injury.

Our sample was extracted from comments posted under the SNCF's Facebook announcement of the tragedy (on 12 July). A total

of 54% were considered to convey sadness, followed by fright (19%). According to the matrix, the predominance of sadness and the supposed external technical cause indicate an accidental crisis, which calls for a mix of defensive and accommodative responses.

Less than one hour after the accident occurred, SNCF communicated on Twitter and labelled the situation as a "railway accident," thereby externalizing the origin of the crisis. On social media, SNCF focused on a purely accommodative strategy, mixing both a rebuild response (emotionally charged tweets or posts) and a bolstering response (reimbursement of all cancelled trips), while maintaining frequent and transparent points of information about the investigations throughout the crisis. On 30 July, they tweeted that the situation was "back to normal" on the railways, thus putting an end to the crisis.

Such a quick reaction ensured SNCF's "ownership" of the crisis before it could even break out. It allowed them to frame the crisis as they wanted because they appeared to be taking responsibility. This top-down, proactive communication, mixing both emotional responses (e.g., condolences) and full transparency (e.g., detail of every action undertaken by SNCF) prevented stakeholders from expressing primary emotions (such as anger) "in the heat of the moment."

The SNCF appeared to be fully involved in the crisis resolution, and they laid out a methodical, accomodative communication plan. By early on treating the crisis as if it was "preventable" (even before the results of the investigations), SNCF minimized reputational damage although it was proven months later that the accident was caused by insufficient maintenance.

4.2.2 | Brazil: Samarco/BHP/Vale—the mining dam collapse in Minas Gerais

On 5 November 2015, in Minas Gerais, a state in the southeast of Brazil, a mining dam retaining approximately 60 million cubic metres of toxic waste collapsed, resulting in an enormous mudslide. It engulfed an entire village downstream, resulting in nearly seventy casualties. The mud reached the Atlantic Ocean at the end of November, after a 650 km journey through the Rio Doce river, killing thousands of animals, devastating protected rainforest areas, and leaving nearly 280,000 people without water. The catastrophe plunged Samarco, owned by Anglo-Australian BHP Biliton and Brazilian Vale, into an international communication turmoil and environmental crisis.

Given the tragic nature of the collapse, and because dam collapses are categorized as natural disasters in Brazilian law, we chose to analyse this case within the accidental cluster. Comments were extracted from a Facebook video released by Samarco on 6 November, one day after the collapse. It portrayed the CEO apologizing for the "accident" and announcing their intention to "keep necessary authorities informed of advancement" without providing any detail about potential casualties or the cause of the accident. A total of 67% of comments were considered to be conveying anger, followed by sadness (20%), which is consistent with the characteristics of a

preventable, rather than accidental, crisis and would indicate a mostly accommodative response.

Samarco reacted on the day of the collapse by publishing the first of 77 press releases. It stated that there had been "an accident in the dam" although it "was not possible to confirm the cause nor the number of victims"; this information was repeated one day later by the CEO in the video described above. On 8 November, the two parent companies started tweeting factual messages about the collapse, and both CEOs published a joint press release to "express their sympathy" on 11 November. Samarco alone produced on average three releases per day until December 1st; this strategy backfired as both national and international anger crystallized against the firm. Individuals created an unofficial Samarco Facebook page that allowed users to rate and review the company and invented the hashtag "#NãoFoiAcidente" ("it was not an accident"). Public personalities and entities, such as the Brazilian Minister of the Environment, President Dilma Rousseff, and the UN publicly blamed the company for their "civil-criminal responsibility" in the "environmental disaster."

The companies' response was mostly defensive. However, the anger expressed by different stakeholders after the collapse shows that the crisis was considered to be preventable. Samarco, BHP, and Vale attempted to frame the crisis as accidental (every press release mentions the "dam accident") and responded using both the deny and the diminish strategies. The companies never acknowledged responsibility, claimed to not understand what went wrong and focused only on promoting the actions undertaken to support the affected communities. The three companies produced a messy, multi-voice defensive response consisting of the personal involvement of three CEOs and an overload of press releases either praising Samarco's actions or denying public accusations. This response sent a strong signal of responsibility—although they intended the opposite effect—and prevented Samarco from forming a single clear response to stakeholders.

4.3 | Victim crises

4.3.1 | France: the AirFrance "shirt scandal"

AirFrance is the main French airline for passengers and airfreight and employs approximately 65,000 people. It has chronically been in deficit for the past decade and their latest plan, *Perform 2020*, presented in late 2014, was meant to significantly increase its operating results by 2017. However, in late September 2015, negotiations between the company and the unions came to an end as pilots refused the agreement. As a result, AirFrance announced the launch of a plan B based on the layoff of 2,900 employees. Unions called for a strike to occur in October 2015. The crisis broke out when the strike degenerated into workplace violence when some employees physically attacked two AirFrance executives. Images of the executives fleeing the strike with their shirts ripped off were broadcast and went viral worldwide, thus unsettling the already weakened AirFrance.

The AirFrance case was placed in the victim cluster because workplace violence is, according to Coombs, a victim cluster

component. However, the overwhelming majority (95%) of comments we selected conveyed anger about the company, which places AirFrance in the preventable crisis cluster, requiring an accommodative response. The majority of the commentators considered violence to be a fair response to AirFrance's layoff plan. For instance, Jean-Luc Mélenchon (711,000 followers), leader of the radical left party in France, published a series of tweets strongly supporting employees: *CEOs came and told 2,900 employees: sign here, you are dead! Is that social dialogue?* or *There is violence at AirFrance: 2,900 layoffs.*

Four days after the incident and its worldwide broadcast, Air-France sent out an email to all of their clients and posted a video entitled "AirFrance is here for you!" shot in French only, on different social media. The video, which adopted a candid promotional tone, was poorly received. The video opened with the joyful speech of one of the two men who, days earlier, had been photographed escaping AirFrance by climbing a fence, his shirt ripped off. Overall, the video appeared to diminish the seriousness—or even deny the existence—of the situation and came off as hastily put up together.

Such a defensive reaction was not in tune with the stakeholders' anger and worsened the company's image crisis. Adopting an accommodative strategy by providing transparent information, acknowledgement and understanding of the context and a rebuild approach showing good will (e.g., a commitment to reopen dialogue with employees) would have likely minimized the damage.

4.3.2 | Brazil: Coca-Cola Brasil and "the rat"

In September 2013, R7Urgente, a YouTube channel of Brazilian content provider R7, uploaded a video of their report on a customer claiming to have become heavily handicapped after drinking a glass of Coca-Cola. The video portrayed him as a formerly healthy and sporty man whose life had been ruined 13 years before after ingesting contaminated Coca-Cola. The customer claimed that he had bought six bottles of the soda and retained a bottle, apparently unopened, containing a rat's head, clearly visible on the YouTube video. The video was seen more than 4 million times and cast doubt on Coca-Cola Brasils' safety check processes.

A total of 69% of the sample comments were considered to convey sympathy for Coca-Cola (followed by sadness, 10.5%). The crisis origin is external, as it stems from the customer's claim. These characteristics point to a victim crisis in which defensive strategies are appropriate. Indeed, many commentators either championed the brand or pointed to the inconsistencies of the video. For instance, one user wrote *Therefore, the soda burnt his organs but did not destroy the rat's head? Seriously?*

Coca-Cola's response was successful. They adopted a defensive strategy based on denial of responsibility after they realized they were not being blamed online. They waited for 5 days before a formal reaction via a press release, which is a long time for a social media crisis but may indicate that they took the time to analyse their stakeholders' reactions and assess the reputational threat. Furthermore, playing for time prevented them from appearing guilty and threatened, and they used this opportunity to bolster
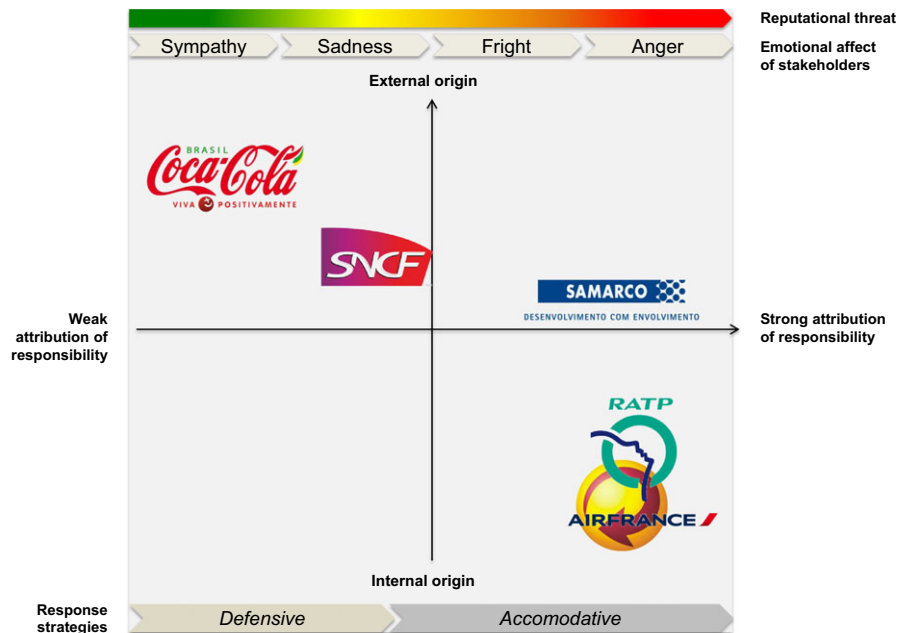
FIGURE 3 The social media crisis management matrix applied to the six cases. Source: Elaborated by the authors from the work of Jin et al. (2007, 2009, 2012), Coombs (2007), Austin et al. (2012) and Jin et al. (2014)

their reputation: they invited influential bloggers to inspect and film the safety check processes inside their factories, making them ambassadors of their brand and guarantors of their processes (Figure 3).

5 | CONCLUDING DISCUSSION

The advent of social media has transformed the economy by empowering *stake*holders as opposed to *share*holders. Social media have "accelerated" time and greatly empowered instant messages and reactions, which constantly expose organizations' reputations and image.

Social media have made corporate crises even more unpredictable because they can be driven by irrationality. As such, they cannot be addressed with the methods that have prevailed to date and that rely on the neo-classical approach of an individual assumed to be rational ("homo eoconomicus"). Rather, the connected individual is defined by his or her emotional biases (behavioural approach).

Out of the six crises that were analysed, four turned out to be in the preventable cluster (RATP, Skol, Samarco, and AirFrance), one was successfully framed as accidental but treated as preventable (SNCF), and only one was an example of a victim cluster crisis (Coca-Cola). Such results suggest that the social media crises are polarized: the preventable cluster and the less prominent victim cluster appear the most relevant online although, as evidenced by the SNCF case, the accidental cluster exists but might be treated within the preventable cluster.

In the study, analysing the origin (internal/external) of crises did not suffice to determine the type of crisis or hence the type of strategy to adopt. Samarco and AirFrance had origins pointing to an accidental and a victim cluster, yet they ultimately experienced a preventable type of crisis. Therefore, factoring in the emotions of the stakeholders fine-tuned the crisis analysis (as expected from Figure 1) and pointed to different response strategies.

Our findings confirm the relevance of the new theory of crisis management calling for flexible and stakeholder-centric approaches. It also further demonstrates how stakeholders can weigh in on crisis development and resolution. In the manner of SNCF and Coca-Cola, companies must be able to better forestall and swiftly navigate the movement of opinions, however irrational, if they wish to minimize the threats of social media. Social media are governed by strong emotions (Pfeffer et al., 2014) that are both polarized and polarizing and that can snowball and spread worldwide instantly. Classical theory approaches crises in a rational way (i.e., leaving out emotions), which overlooks the quintessence of social media and today leads to partial analyses and consequently inappropriate response strategies. The purpose of the matrix is to help companies to grasp the seriousness of the crisis to determine an initial neutralizing response that can be tailored as the emotion-based analysis progresses.

Social media in a corporate environment thus changes several paradigms: in management (control vs. agility), communications (top-down vs. network, much shorter time horizon), and even KPIs (reason vs. emotion, shareholders vs. stakeholders). Hence, our study indicates that the companies that offered a response adapted to their stakeholders' emotions suffered less reputational damage than those who adopted a traditional, defensive strategy.

The matrix we proposed is an attempt to rationalize the choice of response strategy in an irrational environment and proved consistent in all six cases studied (Figure 4).

However, the use of secondary data analysis may have led to incomplete results, and the choice to analyse only recent Brazilian and French cases might have limited the number of available and relevant cases from other countries (e.g., the United States of America). It also may have limited the analytical distance, as some of the crises
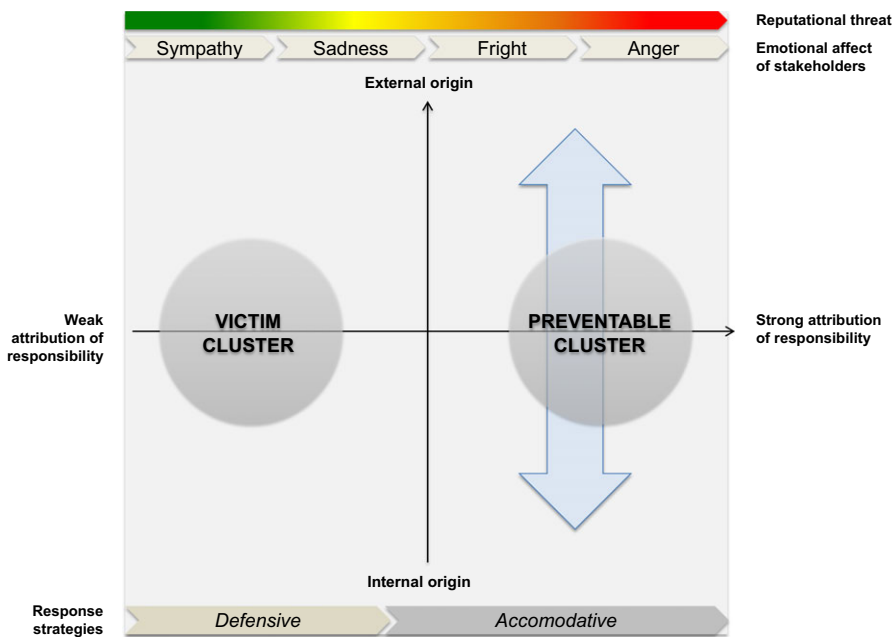
FIGURE 4 Reviewed social media crisis management matrix. Source: Elaborated by the authors from the work of Jin et al. (2007, 2009, 2012), Coombs (2007), Austin et al. (2012) and Jin et al. (2014)

were not yet resolved at the time of the study. In addition, it is necessary to further test the matrix with a larger number of cases and data to ensure consistency of findings.

In particular, the results of the emotion-based analysis could be dramatically sharpened using code and algorithms to systemize and extend the size of the comment samples. For companies, this would constitute a valuable database from which to draw patterns and strengthen their business intelligence tools. A 2015 white paper by Cognizant (Pachori 2015) showed that such databases could help to identify "triggers for a particular type of consumer sentiment or online behaviour." In that respect, Facebook's decision to launch "Facebook Reactions" in February 2016 may not be a mere coincidence.

REFERENCES

Aggergaard, S. (2015). Crisis communications and social media: The game just got tougher. *The Computer & Internet Lawyer*, 32(8), 11–15.

Aula, P. (2010). Social media, reputation risk and ambient publicity management. *Strategy & Leadership*, 38(6), 43–49.

Austin, L., Liu, B., & Jin, Y. (2012). How audiences seek out crisis information: Exploring the social-mediated crisis communication model. *Journal of Applied Communication Research*, 40(2), 188–207.

Bloch, E. (2012). *Communication de Crise et Médias Sociaux*. Paris: Editions Dunod.

Booz Allen Hamilton (2009). *Special report. Expert round table on social media and risk communication during times of crisis: Strategic challenges and opportunities*. Retrieved from http://www.boozallen.com/media/file/Risk_Communications_Times_of_Crisis.pdf. Accessed 10 September, 2016.

Brummette, J., & Sisco, H. (2015). Using Twitter as a means of coping with emotions and uncontrollable crises. *Public Relations Review*, 41, 89–96.

Coombs, T. W. (1999). *Ongoing crisis communication: Planning, managing, and responding*. Los Angeles, CA: Sage.

Coombs, T. (2007). Protecting organization reputations during a crisis: The development and application of situational crisis communication theory. *Corporate Reputation Review*, 10(3), 163–176.

Coombs, T., & Holladay, S. (2014). How publics react to crisis communication efforts; comparing crisis response reactions across sub-arenas. *Journal of Communication Management*, 18(1), 40–57.

Deloitte (2013). *Exploring strategic risk: A global survey*. Retrieved from https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Governance-Risk-Compliance/dttl-grc-exploring-strategic-risk.pdf. Accessed 10 September, 2016.

Diers-Lawson, A. R., & Donohue, J. (2013). Synchronizing crisis responses after a transgression: An analysis of BP's enacted crisis response to the Deepwater Horizon crisis in 2010. *Journal of Communication Management*, 17(3), 252–269.

Eisenhardt, K. (1989). Building theories from case study research. *Academy of Management Review*, 14(4), 532–550.

Eriksson, M. (2012). On-line strategic crisis communication: In search of a descriptive model approach. *International Journal of Strategic Communication*, 6(4), 309–327.

Fink, S. (1986). *Crisis management: Planning for the inevitable*. New York, NY: AMACOM.

Gonzales-Herrero, A., & Smith, S. (2008). Crisis communications management on the web: How Internet-based technologies are changing the way public relations professionals handle business crises. *Journal of Contingencies and Crisis Management*, 16(3), 143–163.

Jin, Y., Liu, B., & Austin, L. (2014). Examining the role of social media in effective crisis management: The effects of crisis origin, information form, and source on publics' crisis responses. *Communication Research*, 41(1), 74–94.

Jin, Y., Pang, A., & Cameron, G. (2007). Integrate crisis mapping: Toward a publics-based, emotion-driven conceptualization in crisis communication. *Sphera Publica*, 7, 81–95.

Jin, Y., Pang, A., & Cameron, G. (2009). Final stage development of the integrated crisis mapping (ICM) model in crisis communication: The myth of low engagement in crisis. Paper presented at the 12th International Public Relations Research Conference, Miami, FL.

Jin, Y., Pang, A., & Cameron, G. (2012). Toward a publics-driven, emotion-based conceptualization in crisis communication: Unearthing dominant emotions in multi-staged testing of the Integrated Crisis Mapping (ICM) Model. *Journal of Public Relations Research*, 24(3), 266–298.

Kaplan, A., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of Social Media. *Business Horizons*, 53, 59–68.

Lagadec, P. (1993). *Apprendre à gérer les crises*. Paris: Editions d'Organisation.

Libaert, T. (2015). *La Communication de crise*, 4th ed. Paris: Editions Dunod.

Libaert, T., & Westphalen, M. H. (2014). *La Communication externe des entreprises*, 4th ed. Paris: Editions Dunod.

McDonnell, M., & King, B. (2013). Keeping up appearances: Reputational threat and impression management after social movement boycotts. *Administrative Science Quarterly*, *58*(3), 387–419.

Ott, L., & Theunissen, P. (2014). Reputations at risk: Engagement during social media crises. *Public Relations Review*, *41*, 97–102.

Owyang, J. (2011). *Social media crises on rise: be prepared by climbing the social business hierarchy of need*. Retrieved from http://www.web-strategist.com/blog/2011/08/31/report-social-media-crises-on-rise-be-prepared-by-climbing-the-social-business-hierarchy-of-needs/. Accessed 10 September, 2016.

Pachori, M. (2015). *Authoring a brand's online reputation. Cognizant 20-20 insights*. Retrieved from http://www.cognizant.com/InsightsWhitepapers/authoring-a-brands-online-reputation-codex1232.pdf. Accessed 20 January, 2015.

Pfeffer, J., Zorbach, T., & Carley, K. (2014). Understanding online firestorms: Negative word-of-mouth dynamics in social media networks. *Journal of Marketing Communications*, *20*(1–1), 117–128.

Piotet, J.-P. (1991). Communication de crise: quelles strategies? In M. Tixier (Ed.), *La communication de crise* (pp. 117–129). Paris, France: Mc-Grawhill.

Schultz, F., Utz, S., & Göritz, A. (2011). Is the medium the message? Perceptions of and reactions to crisis communication via twitter, blogs and traditional media. *Public Relations Review*, *37*, 20–27.

Sweetser, K. D., & Metzgar, E. (2007). Communicating during crisis: Use of blogs as a relationship management tool. *Public Relations Review*, *33*, 340–342.

Vanderbiest, N. (2014). *Le livre blanc des crises 2.0 survenues en 2014*. Retrieved from http://www.visibrain.com/fr/data/livre-blanc-crises-2.0-2014.pdf. Accessed 10 September, 2016

Veil, S. R., Buehner, T., & Palenchar, M. J. (2011). A work-in-process literature review: Incorporating social media in risk and crisis communication. *Journal of Contingencies and Crisis Management*, *19*, 110–122.

Weiner, D. (2006). Crisis communications: Managing corporate reputation in the court of public opinion. *Ivey Business Journal*, *70*, 1–6.

Westphalen, M. H. (1992). *Le DICOM: Dictionnaire de la communication*. Paris: Triangle Edition.

Westphalen, M. H. (1997). *La communication externe des entreprises*. Paris: Editions Dunod.

Wigley, S., & Zhang, W. (2011). A study of PR practitioners' use of social media in crisis planning. *Public Relations Journal*, *5*(3), 1–16.