

## **Nestle India in a Soup: Mapping Emotions to the Use of Coping Strategies**

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*This study examined the dominant sentiments expressed on Twitter when Nestle India recalled Maggi Noodles over safety concerns. Findings indicate that when the affected publics express emotions such as sadness, happiness and humor, their rational thinking ability is diminished. In such situations, it is recommended to instill organizational messages with emotional expressions that validate such emotions to assist the affected public to revert to their original state of emotions. Also, substantive changes are recommended to the ICM model, such as categorizing crisis based on goal congruence and goal relevance; and, substituting the X-axis with internal locus of control.*

Emotions influence the decisions individuals make; yet, the complex interplay of emotions and decision-making has received limited systematic attention in empirical research in crisis communication. It is only recently that scholars in the field of crisis communication have begun to investigate the influence of emotions on cognitive and behavioral crisis responses (Jin, Pang, & Cameron, 2012; Choi & Lin, 2009; Coombs, Fediuk, & Holladay, 2007; Jin, Pang, & Cameron, 2007). Since organizational crisis often cause high levels of anger and outcry in the public sphere; especially social media, where it is amplified many folds, crisis response strategies directed at social media audiences should aim to provide affected public with information that helps it to cope with the crisis situation. It is theorized that an understanding of the public's emotional responses and coping strategies during a crisis will aid an organization's crisis manager in developing effective crisis management strategies for rebuilding trust and restoring confidence in the organization. The purpose of this study is to identify the dominant emotions that consumer's experience and their coping strategies during the Maggi recall crisis. It is rationalized that Twitter's ability to provide unfiltered access to public's emotions will aid public relations practitioners to accurately and immediately gauge public sentiment and devise crisis response strategies that map to these emotions.

Lazarus and Folkman (1991) have conceptualized emotions as "organized cognitive-motivational-relational configurations, which changes with changes in the person-environment relationship evaluation. Emotions experienced in response to a crisis have been closely linked to crisis responsibility judgment, relational trust, and willingness to seek information (Kim & Niederdeppe, 2013). Both positive and negative emotions are relevant to understanding publics' affective responses in crisis situations. Saunders (2004) argued that applying theory to real life situations is "useful towards theory building" because such situations "provide observations grounded in actual organizational efforts aimed at solving actual organizational problems" (p. 140). It is within this context; this study examined the emotional responses of the Indian public on Twitter to the news of Nestle India's recall of its iconic brand of instant noodles, Maggi.

In India, Twitter, accounts for only 17 percent of the total social network users. According to a report by market research firm *eMarketer*, India had an estimated 18.1 million Twitter users in 2014. The growth in 2015 was expected to be at 30.4 percent. Verghese (2011) noted that social media had not spread as quickly in India as in other nations because of the platforms' reliance on English. India has 21 other official languages. The lack of connectivity and infrastructure has contributed further to the relatively slow social media growth in India. In 2011, some areas of the country had a reach of only 8 percent and only 5 percent of the nation's mobile subscribers could access the Internet via mobile devices other than a computer. When the news of Maggi noodles recall spread, this small but vocal Indian public took to the twitterverse to express their opinion about the ban, which ranged from criticism of both the organization's and the government's handling of the recall to sadness over the recall (Varandani, 2015).

## **BRIEF BACKGROUND OF THE MAGGI RECALL CRISIS**

Over the three decades since Swiss-based food giant Nestle introduced Maggi Noodles in India, Indian consumers had acculturated the noodles to reflect their personal sensibilities (BBC, 2015). In many homes, Maggi noodles were considered more than a snack. It was a ritual over which family members and friends bonded. When the product celebrated its silver jubilee in 2012, more than 30,000 people submitted fond memories of cooking with Maggi (Afaqs! News Bureau, 2012). At the time of the ban, Maggi was one of India's most-trusted food brands (BBC, 2015) and accounted for about one-fifth of Nestle India's revenues.

The following paragraph provides a brief timeline of the Maggi recall crisis. The Food Safety and Standards Authority of India (FSSAI) banned the sale of Maggi Noodles on June 5, 2015 after the agency determined the noodles contained impermissible amounts of Mono Sodium Glutamate (MSG) and lead (Frizell, June 3, 2015). And while the Indian government continued with the ban on the sale of Maggi, on July 2, 2015, the UK Food Standards Agency declared Indian-made Maggi fit for consumption (Business Standard, Aug. 13, 2015). Following an uproar on an unfair ban on the sale of Maggi noodles, the Bombay High Court set aside the ban on August 13, 2015 while ordering Nestle India to conduct fresh safety test before re-launching the product (Khan, 2015). On November 18, 2015, a new Indian brand of Instant noodles called Patanjali Noodles was launched by the yoga guru Baba Ramdev to capitalize on the ban of Maggi Noodles. The introduction of a new Indian brand was surrounded by conspiracy theories.

Nestle India suffered major setbacks as a result of the ban. Its quarterly profit dropped 60 percent (The Economic Times, July, 31, 2015). The Indian government filed a US \$97 million class action suit with the National Consumer Disputes Redressal Commission (The Economic Times, Aug. 12, 2015). Twitter, one of the most immediate of social media outlets, erupted with the public's emotional responses to the ban.

## **THEORETICAL FRAMEWORKS**

This study uses multiple theoretical frameworks to examine the affected publics emotional responses and comprehend their coping strategies in response to an organizational crisis. The two theoretical frameworks used are the Integrated Crisis Mapping Model (Jin, Pang, & Cameron, 2007; Jin, Pang, & Cameron, 2012); and Coping Inventory (Folkman & Lazarus, 1985; Carver, Scheier, & Weintraub, 1989); and a review of the relevant literature dealing with emotions and decision-making in crisis.

### **Integrated Crisis Mapping Model**

Jin, Pang and Cameroon (2007) developed an Integrated Crisis Mapping (ICM) model that is based on the publics' emotional responses to different crises, which are mapped on two axis; on the X-axis, is the primary publics' coping strategies and on the Y axis is the organization's engagement in the crisis. As part of this model, Jin, Pang and Cameron (2007), identified four emotions: Anger, Anxiety, Sadness and Fear. The ICM model has not been tested for product harm or product recall crisis, a type of crisis, which is observed in the food, toy, automotive, and drug industry fairly frequently, to name a few.

## Crisis and Coping Strategies

Lazarus and Folkman (1984) posit that when individuals are faced with a crisis situation, they respond through primary and secondary appraisal, and coping. Primary appraisal involves the perception of the threat, secondary appraisal involves determining a response or action to the threat, and coping is the implementation of the response to the threat. Lazarus (1991) posits primary appraisal addresses (i) Goal relevance (Whether the event is important to the well being of an individual); (ii) Goal congruence/incongruence (How compatible is the event with the individual's well being); and, (iii) Engagement of the party (How much the other party is contributing, responsible, and involved in the event). Secondary appraisal refers to an evaluation of an individual's options and resources for coping with the situation and future prospects. It involves three components (i) Blame or credit (Accountability for what happened); (ii) Coping potential (Whether an individual chooses to be problem-focused or emotion-focused to adapt to the situation); (iii) Future expectancy (Whether an individual expects himself or herself to respond to the situation). In a crisis, evidently, blaming takes precedence over credits.

Problem-based coping was defined as doing something about the source of the stressful situation; emotion-based coping was defined as managing the emotional distress. Although most crises are likely to elicit both methods of coping, individuals use problem-based coping when they feel something can be done about the situation, and they employ emotion-based coping when they determine that they cannot do much about the situation and that they will have to endure the stress (Lazarus & Folkman, 1985).

Carver, Scheier, and Weintraub, 1989, identified five emotional scales that measured problem-based coping (Active-coping, planning, seeking instrumental social support, restraint coping, behavioral disengagement) and five emotional scales that measured emotion-based coping (seeking of emotional social support, positive reinterpretation, acceptance, denial, and turning to religion). Venting of emotions and mental disengagement has also been included in emotion-based coping for this study. It is to be noted here that although the distinction between problem-based coping and emotion-based coping is an important one, the simple two-way dichotomy, however, is an over simplification. It has been observed that responses to "Ways of Coping" (Folkman & Lazarus, 1980) forms several factors instead of just the two outlined above. In general, researchers view factors other than problem-based coping as variations to emotion-based coping (Carver, Scheier, & Weintraub, 1989). *Rational thinking* involves purposeful attempts to prevent emotions from evaluating a situation and directing behavior; *Positive re-interpretation* involves construing a negative situation in terms of positive outcomes and leads an individual to problem-focused coping; *Cognitive avoidance* involves focusing or participating in other activities that distracts from thinking about the goals that the stressor is interfering with; *Denial* involves denying the reality or the existence of the event to minimize the distress from the stressor or stressful situation and facilitate coping; *Acceptance* involves the acceptance of the reality of the stressful situation as something that has to be accommodated as opposed to something that can be easily avoided or changed; *Turning to religion* involves using religion or faith as a means or vehicle for emotional support, positive interpretation and growth from the situation; *Active coping* involves initiating direct action, increasing one's efforts and trying to execute a coping attempt in a progressive fashion; *Planning* involves devising action strategies, considering what steps to take and how best to handle the situation; *Seeking instrumental social support* involves seeking advice, assistance or information; *Seeking emotional social support* involves getting moral support, sympathy or understanding; *Behavioral disengagement* involves reducing one's efforts to deal with the distressful situation; *Venting of Emotion* involves the voicing of emotions and a tendency to focus on the cause of the distress or the stressor.

## LITERATURE REVIEW

Several scholars have underscored the importance of emotions in managing an organizational crisis (Carlson & Dacey, 2013; Liu, Austin, & Jin, 2011). Research on emotional responses to crises has focused primarily on negative emotions, such as anger, sadness and anxiety, due to these emotions' relative intensity and documented impact on stakeholder behavior (Folkman, Moskowitz, Ozer, & Park, 1997). Lerner et al., (2003) observed that anger was high in situations where the public perceived the risk

situation as controllable. Anger was also found to increase perceptions of crisis responsibility (Coombs & Holladay, 2005). Choi and Lin (2009) found that anger experienced during a crisis influenced both perceived reputation of an organization and intention to boycott the organization's product. Additionally, Kim and Cameron (2011) reported that when public were exposed to anger-inducing crisis news, they had more negative attitudes toward the organization. Jin et al. (2012) state that anxiety is the default emotion experienced by publics across crisis situations. Some of the other negative emotions examined in research related to a crisis have included alarm, contempt, disgust, confusion, apprehension, and surprise, (Liu & Kim, 2011; Choi & Lin, 2009). Confusion and alarm, along with fear and sadness, were the most frequently observed emotions in organizational crisis responses during the 2009 H1N1 pandemic across both traditional and social media (Liu & Kim, 2011). Yet, research in social psychology (Folkman & Moskowitz, 2000; Fredrickson, Tugade, Waugh, & Larkin, 2003) emphasize that positive emotions occur alongside negative emotions and play a meaningful role in the process of coping with stressful situations.

Positive emotions seem to have the effect of making the public more engaged in a crisis (Dillard & Peck, 2001). Although they have received far less attention in crisis research, positive emotions play an important role in mitigating the negative impact of a crisis (Folkman & Moskowitz, 2000). Positive emotions, however, are believed to be less intense and less enduring than negative emotions (Folkman et al., 1997). Positive emotions make publics more moderate in their appraisal of the crisis. The most common positive emotions experienced in crisis response are gratitude, attention, vigilance and love (Fredrickson et al., 2003).

During a crisis, sympathy can be toward crisis victims and/or an organization. Publics' sympathy toward an organization was found to vary as a function of causal attribution (Lee, 2004). Sympathy was found to predict public support for Haitian earthquake victims (Jeong, 2010). Additionally, sympathy was the only positive emotion that organizations frequently incorporated in responses across all media types during the 2009 H1N1 pandemic (Liu & Kim, 2011). Positive emotions such as hope (Jin, Park, & Len-Rios, 2010), relief (Choi & Lin, 2009; Liu & Kim, 2011), and sympathy (Coombs & Holladay, 2005; Jeong, 2010; Kim & Niederdeppe, 2013) have also been examined by researchers in the context of crisis.

Coombs (2004) suggests that emotional responses to a crisis are closely related to the type of crisis because those characteristics help public assess responsibility. In a later study, Coombs and Holladay (2005) found additional support for emotional response to a crisis based on the crisis type. Crises with strong perceptions of organizational responsibility generate negative emotions while those that suggest less organization culpability were viewed more positively. Together, these studies underscore the role of emotions in shaping publics' response to the crisis.

### **Crisis and Social Media**

Research on crisis in social media suggests that social media followers become active participants in the crisis resolution process. Veil, Buehner, and Palenchar (2011) noted that during a crisis, social media allow an organization's constituents "to become a part of the actual crisis communication response." Similarly, Coombs and Holladay (2014) reported that during a crisis, an organization's stakeholders often act as crisis managers and recommend crisis-mitigating strategies, which may provide opportunities for practitioners to evaluate the effectiveness of their own crisis communication efforts. It has been observed too that during a crisis, publics often share their evaluations of the organization's crisis response (Schultz, Utz, & Göritz, 2011).

Schultz et al. (2011) claimed that crisis-related messages disseminated via Twitter often lead "to less negative crisis reactions than blogs and newspaper articles." In another study that analyzed tweets from university sports fans during a sports-related crisis, Brown and Billings (2013) found that highly socialized fans expressed their connection with their teams by defending or supporting their team on Twitter. In a study that examined food safety concerns in China, Mou (2014) found Twitter proved successful in sharing information at the grassroots level. However, while the public used Twitter predominantly to express negative feelings and opinions; the reporters and government authorities used it to update the public. In their study of German-language based, politically focused messages, Stieglitz and Dang-Xuan (2013) concluded that emotionally charged messages increased followers' attention and

influential tweeters are more likely to post emotionally charged messages, which in turn, increased the speed with which they were re-tweeted by others. Additionally, positive tweets were more likely to be retweeted quickly. Evidently, the public might use the Twitterverse to express both positive and negative emotions, the valence of the emotions might be dependent on how well the public is socialized with the organization.

More recent studies that have investigated emotionally charged tweets during an organizational crisis have examined the coping strategies of the public. Jin et al., 2014 organized public's emotional responses to an organizational crisis along three scales- (1) attribution-independent emotions consisting of anxiety, apprehension, and fear; (2) external attribution-dependent crisis emotions consisting of disgust, contempt, and anger; (3) internal attribution-dependent emotions consisting of embarrassment, guilt, and shame based on the crisis attribution appraisal. Brummette and Sisco (2014) observed the prevalence of - instrumental social support seeking, emotional venting and emotional social support seeking- as the three dominant coping strategies when the affected public expressed emotions such as- anger, fright, sadness and anxiety. Van der Meer and Verhoeven (2014) reported that when corporate messages injected emotion such as shame and regret, it positively impacted the reputation of the organization and increased the acceptance of the organizational message.

Based on the review of the literature, the following research questions are posited.

### **Research Questions**

RQ1: What dominant emotions were displayed by the Indian public on Twitter during Nestle India's Maggi recall crisis?

RQ2: What coping strategies were used by the Indian public to manage the different emotions experienced by them?

RQ3: Which crisis resolution strategies were recommended by the Indian public as a result of the different types of emotions experienced by them?

### **RESEARCH METHODOLOGY**

This study used quantitative content analysis to examine the tweets related to the Maggi noodle ban crisis. The start date was chosen as June 5, 2015, the day the FSSAI banned Maggi Noodles and the end date was November 9, 2015, when Nestle India announced that the production and sale of Maggi Noodle had begun. The unit of analysis in this study was the individual tweet written by Indian consumers. The tweets were collected using the hashtag #MaggiBan; other hastags did not yield as many results in Twitter's advanced search engine. Screenshots of the Twitter feeds were used to capture the messages in their entirety and preserve their content. Systematic random sampling was used to select tweets from the pool of captured tweets. The sample began with the first tweet posted on June 5 and then every third tweet was selected. If, however, the tweet was published by a news agency, government agency or any entity other than an "average person," it was skipped, and the researchers examined the following third tweet. Retweets were not coded. Two coders trained in quantitative content analysis, analyzed each tweet using a coding protocol. They coded the tweets for the following elements: social media handle, publication date, source of tweets, emotions, public's coping strategy and public suggested action. A set of 10 discrete emotions was generated after reviewing Choi and Lin's (2009); Jin (2010); Jin, et al., (2010) and McDonald et al., (2010). The tweets were coded for the following emotions: anger, confusion, sadness, humor, mistrust, sympathy, happiness, criticism, unsympathetic, and neutral statements. This study utilized a modified multi-dimensional coping inventory developed by Carver, Scheier, & Weintraub (1989) to assess the different ways in which people respond to stressful situations. Carver, Scheier, and Weintraub, 1989, identified five emotional scales that measured problem-based coping (Active-coping, planning, seeking instrumental social support, restraint coping, behavioral disengagement) and five emotional scales that measured emotion-based coping (seeking of emotional social support, positive reinterpretation, acceptance, denial, and turning to religion). Venting of emotions and mental disengagement has also been included in emotion-based coping for this study. Further, public's suggested

actions, were coded as punitive (punishment, legal action, fine, firing of negligent or culpable individual or party); compensation and replacement, remediation or corrective measures, apology, other and none. This study used logistic regression since both the dependent and the independent variable are dichotomous categorical variables.

## RESULTS

The first research question examined the dominant emotions displayed by the public on Twitter after Maggi ban. Results indicate that the most commonly expressed emotions on Twitter were humor or sarcasm at 24.4% (n=207); neutral or matter-of-fact statement at 22% (n=187); blame/criticism at 12.6% (n=107); The other dominant emotions that were observed were confusion at 10.4% (n=88); happiness at 10.1% (86); sadness 5.2% (n=44); mistrust at 4% (34); anger at 3.5% (n=30); unsympathetic at 3.4% (n=29); sympathy at 2.2% (n=19); and other emotions at 2.2% (n=19). Please refer to Table 1.

**TABLE 1**  
**THE FREQUENCY OF EMOTIONS EXPRESSED IN RESPONSE TO THE CRISIS**

Emotion	Frequency	Percentage
1. Humor/sarcasm	207	24.4
2. Neutral Statements	187	22.0
3. Blame/criticism	107	12.6
4. Confusion	88	10.4
5. Happiness	86	10.1
6. Sadness	44	5.2
7. Mistrust	34	4.0
8. Anger	30	3.5
9. Unsympathetic	29	3.4
10. Sympathy	19	2.2
11. Resignation/Acceptance	19	2.2

The second research question examined the different coping strategies utilized by the Indian public to manage their emotions. Please refer to Table 2. A logistic regression analysis was conducted to predict the coping strategies utilized by the stakeholders when they were experiencing sadness. The emotion *sadness* was regressed on five coping strategies-- *Rational Thinking, Seek Emotional Support, Seek Instrumental Support, Venting, and Turning to Religion*-- as predictors. A test of the full model against a constant-only model was statistically significant, indicating that the predictors as a set reliably distinguished between

feeling sad or not sad and the use of coping strategies (chi square = 98.430,  $p < 0.001$  with  $df = 3$ ). Prediction success overall was 95.5% (47.7% when sad; and 98.1% when not sad). The odds ratio for *Emotional Support* ( $exp\beta = 36.142$ ;  $p = .000$ ) indicates that stakeholders are 36 times more likely to seek emotional support as a coping strategy to deal with the crisis when they are sad as compared to when they are not sad. The odds ratio for *Turning to Religion* ( $exp\beta = 25.300$ ;  $p = .042$ ) suggests that affected stakeholders are 25 times more likely to use this coping strategy when they are sad as compared to when they are not sad and the Odds Ratio for *Rational Thinking* ( $exp\beta = 0.130$ ;  $p = .055$ ) suggests that as sadness increases among the affected stakeholders, the use of rational thinking as a coping strategy will be reduced by a factor of 0.87 or by 87%.

The emotion **humor** was regressed on five coping strategies-- *Rational Thinking, Seek Instrumental Support, Venting, Acceptance and Planning*-- as predictors. A test of the full model against a constant-only model was statistically significant, indicating that the predictors as a set reliably distinguished between feeling humorous or not humorous and the use of coping strategies ( $= 261.264$ ,  $p < 0.001$  with  $df = 5$ ). Prediction success overall was 75.6%. The odds ratio for *Venting* ( $exp\beta = 6.025$ ;  $p = .000$ ) suggests that affected stakeholders are 6 times more likely to use venting as a coping strategy when they perceive humor in a situation as compared to when they do not perceive humor. The odds ratio for *Rational Thinking* ( $exp\beta = 0.037$ ;  $p = .002$ ) indicates that as the perception of humor rises in a situation, the use of rational thinking as a coping strategy reduces by a factor of 96.3 or almost by 96.3%. The Hosmer and Lemeshow test for the goodness of fit  $= 0.613$  ( $\chi^2(5) = 261.264$ ,  $p < .000$ ) indicates that there is a significant effect of the predictors on the dependent variable.

The emotion **confusion** was regressed on the seven coping strategies-- *Rational Thinking, Seek Emotional Support, Seek Instrumental Support, Venting, Cognitive Avoidance, Resignation and Planning*-- as predictors. A test of the full model against a constant-only model was statistically significant, indicating that the predictors as a set reliably distinguished between feeling confused or not confused and the use of coping strategies ( $\chi^2 = 98.430$ ,  $df = 7$ ,  $p < .000$ ). Prediction success overall was 94.1% (86.4% when confused; and 95% when not confused). The odds ratio for *Instrumental Support* ( $exp\beta = 50.255$ ;  $p = .000$ ) indicates that stakeholders are 50 times more likely to seek instrumental support as a coping strategy to deal with the crisis when they are confused as compared to when they are not confused. The odds ratio for *Cognitive Avoidance/disengagement* ( $exp\beta = 24.448$ ;  $p = .024$ ) suggests that affected stakeholders are 24 times more likely to use this coping strategy when they are confused as compared to when they are not confused. The Hosmer and Lemeshow test for the goodness of fit  $= 0.999$  ( $\chi^2 = 0.022$ ,  $df = 3$ ) indicates that there is a significant effect of the predictors on the dependent variable.

The emotion **anger** was regressed on two coping strategies- *Seek Instrumental Support and Venting*-- as predictors. A test of the full model against a constant-only model was statistically significant, indicating that the predictors as a set reliably distinguished between anger and no anger and the use of coping strategies ( $\chi^2 = 4.336$ ,  $p < 0.114$  with  $df = 2$ ). Prediction success overall was 98.1%. The odds ratio for *Instrumental Support* ( $exp\beta = 4.476$ ;  $p = .043$ ) indicates that affected stakeholders are 4 times more likely to use instrumental support as a coping strategy when they are angry as compared to when they are not angry. The Hosmer and Lemeshow test for the goodness of fit  $= 1.000$  ( $\chi^2 = 0.000$ ,  $df = 1$ ) indicates that there is a significant effect of the predictors on the dependent variable.

The emotion **mistrust** was regressed on the three coping strategies- *Seek Instrumental Support Behavioral Disengagement and Venting*-- as predictors. A test of the full model against a constant-only model was statistically significant, indicating that the predictors as a set reliably distinguished between mistrust and no mistrust and the use of coping strategies ( $\chi^2 = 30.317$ ,  $p < 0.000$  with  $df = 3$ ). The overall prediction success for the model was 96.2%. The odds ratio for *Behavioral Disengagement* ( $exp\beta = 91.000$ ;  $p = .000$ ) indicates that affected stakeholders are 91 times more likely to use behavioral disengagement as a coping strategy when they mistrust the organization as compared to when there is no mistrust. The odds ratio for *Instrumental Support* ( $exp\beta = 5.056$ ;  $p = .002$ ) indicates that the affected stakeholders are likely to use instrumental support 5 times more when they mistrust as compared to when they do not mistrust. The



Hosmer and Lemeshow test for the goodness of fit =1.000 ( $\chi^2 = 0.000$ ,  $df=1$ ) indicates that there is a significant effect of the predictors on the dependent variable.

The emotion **happiness** was regressed on three coping strategies-- *Rational Thinking, Venting, and Positive Re-interpretation*-- as predictors. A test of the full model against a constant-only model was statistically significant, indicating that the predictors as a set reliably distinguished between feeling happy or not happy and the use of coping strategies ( $\chi^2 = 54.869$ ,  $p < 0.000$  with  $df = 3$ ). The overall prediction success for the model was 89.9%. The odds ratio for *Venting* ( $\exp\beta = 4.773$ ;  $p = .000$ ) indicates that stakeholders are 4 times more likely to vent their emotions as a coping strategy to deal with the crisis when they are happy as compared to when they are not happy. The odds ratio for *Rational Thinking* ( $\exp\beta = 0.239$ ;  $p = 0.072$ ) suggests that as happiness increases the use of rational thinking as a coping strategy reduces by a factor of 0.239 or almost 76% as compared to when they are not happy. The Odds Ratio for *Positive Re-interpretation* ( $\exp\beta = 3.848$ ;  $p = 0.064$ ) suggests that the affected stakeholders are 3 more likely to use Positive Re-interpretation as a coping strategy when they are happy as compared to when they are not happy. The Hosmer and Lemeshow test for the goodness of fit =0.990 ( $\chi^2 = 0.019$ ,  $df=2$ ) indicates that there is a significant effect of the predictors on the dependent variable.

**Neutral statement** was regressed on four coping strategies-- *Rational Thinking, Positive Re-interpretation, Active Coping and Seek Instrumental Support* -- as predictors. A test of the full model against a constant-only model was statistically significant, indicating that the predictors as a set reliably distinguished between neutral statements of facts or opinions and non-neutral statements of facts or opinions and the use of coping strategies ( $\chi^2 = 628.752$ ,  $p < 0.000$  with  $df = 4$ ). The overall prediction success for the model was 95.1%. The odds ratio for *Active Coping* ( $\exp\beta = 68.318$ ;  $p = .000$ ) indicates that stakeholders are 68 times more likely to utilize active coping as a coping strategy to deal with the crisis when they are feeling neutral as compared to when they are not feeling neutral. The odds ratio for *Rational Thinking* ( $\exp\beta = 851.700$ ;  $p = 0.000$ ) indicates that stakeholders are 851 times more likely to utilize rational thinking as a coping strategy to deal with the crisis when they are feeling neutral as compared to when they are not feeling neutral. The Odds Ratio for *Positive Re-interpretation* ( $\exp\beta = 27.833$ ;  $p = 0.000$ ) suggests that the affected stakeholders are 27 more likely to use Positive Re-interpretation as a coping strategy to deal with the crisis when they are feeling neutral as compared to when they are not feeling neutral. The Hosmer and Lemeshow test for the goodness of fit =1.000 ( $\chi^2 = 0.000$ ,  $df=2$ ) indicates that there is a significant effect of the predictors on the dependent variable.

The emotion **criticism/blame** was regressed on four coping strategies-- *Seek Instrumental Support, Venting, Cognitive Avoidance, and Resignation* -- as predictors. A test of the full model against a constant-only model was statistically significant, indicating that the predictors as a set reliably distinguished between criticism/censure and no criticism/censure and the use of coping strategies ( $\chi^2 = 81.860$ ,  $p < 0.000$  with  $df = 4$ ). The overall prediction success for the model was 87.5%. The odds ratio for *Cognitive Avoidance* ( $\exp\beta = 76.093$ ;  $p = .004$ ) indicates that stakeholders are 76 times more likely to utilize cognitive avoidance as a coping strategy when they are criticizing as compared to when they are not criticizing. The odds ratio for *venting* ( $\exp\beta = 20.033$ ;  $p = 0.000$ ) indicates that stakeholders are 20 times more likely to utilize venting as a coping strategy to deal with the crisis when they are feeling critical as compared to when they are not feeling. The Odds Ratio for *Seek Instrumental Support* ( $\exp\beta = 5.171$ ;  $p = 0.012$ ) suggests that the affected stakeholders are 5 more likely to seek instrumental support as a coping strategy as compared to when they are not feeling critical. The Hosmer and Lemeshow test for the goodness of fit =0.785 ( $\chi^2 = 0.483$ ,  $df=2$ ) indicates that there is a significant effect of the predictors on the dependent variable.

The emotion **sympathy** was regressed on two coping strategies—*Positive Re-interpretation and Resignation*-- as predictors. A test of the full model against a constant-only model was statistically significant, indicating that the predictors as a set reliably distinguished between sympathy and no sympathy and the use of coping strategies ( $\chi^2 = 5.151$ ,  $p < 0.076$  with  $df = 2$ ). The overall prediction success for the model was 97.8%. The odds ratio for *Positive Re-interpretation* ( $\exp\beta = 5.025$ ;  $p = .039$ ) indicates that stakeholders are 5 times more likely to utilize positive avoidance as a coping strategy when



they are feeling sympathy toward the organization as compared to when they are not feeling sympathy toward the organization. The odds ratio for *resignation* ( $\exp\beta=8.375$ ;  $p=0.055$ ) indicates that stakeholders are 8 times more likely to utilize resignation/acceptance of the situation as a coping strategy to deal with the crisis as compared to when they are not feeling sympathy toward the organization.

The emotion *unsympathetic* was regressed on four coping strategies—*Positive Re-interpretation*, *Resignation*, *Behavioral Disengagement* and *Active Coping*-- as predictors. A test of the full model against a constant-only model was statistically significant, indicating that the predictors as a set reliably distinguished between being unsympathetic and being not unsympathetic and the use of coping strategies ( $\chi^2= 38.582$ ,  $p < 0.000$  with  $df = 4$ ). The overall prediction success for the model was 96.6%. The odds ratio for *Positive Re-interpretation* ( $\exp\beta= 18.305$ ;  $p = .000$ ) indicates that stakeholders are 18 times more likely to utilize positive re-interpretation as a coping strategy when they are feeling unsympathetic toward the organization as compared to when they are not feeling unsympathetic toward the organization. The odds ratio for *resignation* ( $\exp\beta=8.375$ ;  $p=0.059$ ) indicates that stakeholders are 8 times more likely to utilize acceptance as a coping strategy to deal with the crisis as compared to when they are not feeling unsympathetic toward the organization. The odds ratio for *Behavioral Disengagement* ( $\exp\beta=9.763$ ;  $p=0.043$ ) indicates that stakeholders are 9 times more likely to utilize behavioral disengagement as a coping strategy to deal with the crisis as compared to when they are not feeling unsympathetic toward the organization. The odds ratio for *Active Coping* ( $\exp\beta=20.339$ ;  $p=0.000$ ) indicates that stakeholders are 20 times more likely to utilize behavioral disengagement as a coping strategy to deal with the crisis as compared to when they are not feeling unsympathetic toward the organization. Please refer to Table 2.

**TABLE 2**  
**MAPPING OF COPING STRATEGIES TO THE EMOTIONAL RESPONSES**

Emotions/Coping Strategies	$\beta$	S.E.	Wald	df	p	Exp( $\beta$ )
<b>Sadness</b>						
Rational Thinking	-2.037	1.225	2.763	1	.055	0.130
Seek Emotional Support	3.587	.796	20.321	1	.000	36.142
Turn to Religion	3.231	1.585	4.155	1	.042	25.300
<b>Humor</b>						
Rational Thinking	-3.300	1.064	9.625	1	.002	0.037
Venting	1.796	.396	20.588	1	.000	6.025
<b>Confusion</b>						
Seek Instrumental Support	3.917	1.019	14.776	1	.000	50.255
Cognitive Disengagement	3.197	1.413	5.116	1	.024	24.448
<b>Anger</b>						
Seek Instrumental Support	1.499	.739	4.111	1	.043	4.476
<b>Mistrust</b>						
Instrumental Support	1.620	0.521	9.678	1	.002	5.056
Behavioral Disengagement	4.511	0.959	22.109	1	.000	91.000
<b>Happiness</b>						
Venting	1.563	0.399	15.363	1	0.000	4.773
Rational Thinking	-1.431	0.795	3.241	1	0.072	0.239
Positive Re-interpretation	1.348	0.728	3.430	1	0.064	3.848

<b>Neutral</b>						
Active Coping	4.224	0.714	35.017	1	0.000	68.318
Rational Thinking	6.747	0.546	152.831	1	0.000	851.750
Positive Reinterpretation	3.326	0.747	19.844	1	0.000	27.833
<b>Criticism/Blame</b>						
Cognitive Avoidance	4.332	1.507	8.264	1	0.004	76.093
Venting	2.997	0.532	31.744	1	0.000	20.033
Seek Instrumental Support	1.643	0.651	6.378	1	0.012	5.171
<b>Sympathy</b>						
Positive Re-interpretation	1.614	0.783	4.247	1	0.039	5.025
Acceptance	2.125	1.109	3.671	1	0.055	8.375
<b>Unsympathetic</b>						
Positive Re-interpretation	2.907	0.541	28.850	1	0.000	18.305
<b>Acceptance</b>	2.096	1.109	3.571	1	0.059	8.135
Behavioral Disengagement	2.279	1.124	4.108	1	0.043	9.763
Active Coping	3.013	0.0589	26.145	1	0.000	20.339

The third research question explored the different types of crisis resolution strategies that were recommended by the public based on their emotional response to the recall. The odds ratio for *anger* ( $exp\beta=12.460$ ;  $p=0.002$ ) indicates that stakeholders are 12 times more likely to recommend punitive measures as a crisis resolution strategy to manage the crisis as compared to when they are not feeling anger toward the organization. Interestingly, the odds ratio for *sympathy* ( $exp\beta=16.161$ ;  $p=0.017$ ) indicates that stakeholders are 16 times more likely to recommend punitive measures as a crisis resolution strategy to manage the crisis as compared to when they are not feeling sympathetic toward the organization. The odds ratio for *humor/sarcasm* ( $exp\beta=3.118$ ;  $p=0.017$ ) indicates that stakeholders are 3 times more likely to recommend no crisis resolution strategy to manage the crisis as compared to when they are not feeling sarcasm toward the organization. The odds ratio for *blame/criticism* ( $exp\beta=2.897$ ;  $p=0.006$ ) indicates that stakeholders are 2 times more likely to recommend remediation strategies as a crisis resolution strategy to manage the crisis as compared to when they are not blaming/criticism the organization. The odds ratio for *sadness* ( $exp\beta=9.378$ ;  $p=0.070$ ) indicates that stakeholders are 9 times more likely to recommend apology as a crisis resolution strategy to manage the crisis as compared to when they are not experiencing sadness.

**TABLE 3**  
**PUBLIC SUGGESTED CRISIS RESOLUTION STRATEGIES**

<b>Emotion Experienced</b>	<b>Predictors</b>	<b><math>\beta</math></b>	<b>S.E.</b>	<b>Wald</b>	<b>df</b>	<b>p</b>	<b>Exp(<math>\beta</math>)</b>
Anger	Punitive	2.523	0.827	9.306	1	0.002	12.460
Sympathy	Punitive	2.783	1.171	5.647	1	0.017	16.161
Humor/Sarcasm	No action	1.137	0.478	5.663	1	0.017	3.118
Blame/Criticism	Remediation	1.064	0.388	7.517	1	0.006	2.897
Sadness	Apology	2.238	1.235	3.284	1	0.070	9.378

## DISCUSSION AND CONCLUSION

The purpose of this study was to examine the emotions expressed by the Indian public in response to the Maggi ban crisis and map it to the publics' coping mechanism, such that the crisis managers are able to develop crisis response strategies that re-establish an emotional equilibrium among the affected publics. It was theorized as part of this study that people make decisions based on their emotional appraisal of the situation. The emotions, therefore, dictate the actions the publics take in response to the crisis.

The first research question examined the dominant emotions displayed by the Indian public in response to the Maggi recall crisis. Findings from this study support previously observed results that individuals experience more than one emotion (Choi & Lin, 2009; Plutchik, 1980; Izard, 1977). A total of 11 emotions were identified as part of this study, which included neutral statements. The dominant emotions expressed by the Indian public include: humor/sarcasm, neutral statements, criticism/blame, confusion, happiness, sadness, mistrust, anger, sympathy, unsympathetic and resignation/acceptance. Previous studies that have examined emotional responses to organizational crisis have focused attention primarily on impact of negative emotions while acknowledging the presence of positive emotions (Choi and Lin 2009; Fredrickson, Tugade, Waugh, & Larkin, 2003; Dillard & Peck, 2001; Folkman & Moskowitz, 2000; Folkman, Moskowitz, Ozer, & Park, 1997). Findings from this study indicate that in addition to the presence of both positive and negative emotions, neutral statements also appear prominently in response to a crisis. Despite the fact that this crisis caused major financial loss and loss of reputation for the organization, the affected public did not have to suffer major losses. It can be inferred from this study that the type of emotions experienced by the affected public might be better explained as a function of goal relevance and goal congruence on the part of the public's primary appraisal of the crisis situation rather than a correlate of the type of the crisis. It can be observed from Choi and Lin's (2009) Mattel product recall case study and the present study on Maggi recall that similar types of crisis might evoke different emotions. These variations in emotions can be explained based on Jin, Pang & Cameron's (2012) report that goal relevance is the central issue in the publics' processing of emotions during a crisis.

The theoretical implications of this finding for the ICM model is that the model might be better served if the major crisis types are defined in terms of goal relevance and goal congruence for the affected public. Additionally, the X-axis representing the continuum of coping strategies might be better characterized by replacing it with internal locus of control. Jin, Pang and Cameron (2012) have used locus of control as a basis for their classification of the different crises. They also state that blaming takes precedence when the publics assess their coping strategies as part of their secondary appraisal of the

situation. Therefore, if one of the axes of the ICM model represented the internal locus of control, it would be consistent with the appraisal theory of emotions as proposed by Lazarus (1991), and then the model will be a better representation of the interplay of primary and secondary appraisal, emotions experienced, coping strategies and organizational engagement. In its present form, it is problematic to have an axis, which depicts a continuum of cognitive coping and conative coping since affected publics might use both cognitive and conative coping mechanisms, in addition to affective coping mechanism simultaneously. Additionally, it would be challenging to arrange the three coping mechanism in a progression or gradation because it would involve positioning one coping mechanism as superior or higher on the scale. The researchers are not aware of any taxonomy that places one coping mechanism as inferior or superior, or lower or higher than the other.

Results from this study also support previous observations that anger, anxiety and fright are not always the dominant emotions (Brummette & Sisco, 2014); and the ICM model needs to be revised to include positive emotions such as happiness, sympathy for the organization and neutral emotions to make it more representative of the different types of emotions observed in response to a crisis.

Furthermore, the identification of the emotional expressions might prove useful to the crisis management team in assisting the affected public reach a state of emotional equilibrium, so as to better manage their crisis responses. Rime (2007) states that the affected individuals display two types of emotional responses to a crisis: self-soothing or self-oriented, or other-directed for receiving support or validation. Most of the emotions identified as part of this study such as humor/sarcasm, criticism/blame, confusion, sadness, mistrust, anger, sympathy were other-directed whereas emotions such as happiness, unsympathetic and acceptance might be categorized as being self-directed. To help the affected public cope better with the crisis, organizational messages should validate the affected public's other-directed emotions by acknowledging emotional disturbances. In addition, the organizational messages should buffer the negative feelings by creating a feeling of shared relationship efficacy establishing the public a vital part of the success of the relationship and for the resolution of the crisis situation.

The second research question investigated the coping strategies used by the Indian public to manage the different emotions experienced by them. Findings from this study indicate that the affected publics typically use more than one coping strategy to manage their emotions. The salient contribution of this study lies in mapping each emotion individually to the use of different coping strategies. Brummette and Sisco, (2014) observed the prevalence of three dominant coping strategies, specifically, instrumental support seeking, emotional venting and emotional support seeking. The findings of this study, however, indicate that other coping strategies are also used in combination such as rational thinking, cognitive disengagement, behavioral disengagement, positive –reinterpretation, active coping and turning to religion. This study introduces two new types of coping mechanism adopted by the public, such as behavioral disengagement and turning to religion not discussed earlier in the context of coping with organizational crisis. The practical implications of these findings are that the crisis management team should pay close attention to these coping mechanisms and communicate messages that correlate with the coping mechanisms observed on Twitter. Table 4 lists some of the suggested organizational message strategy congruent with the emotional coping mechanism.

**TABLE 4**  
**ORGANIZATIONAL MESSAGE STRATEGY BASED ON THE EMOTIONAL COPING STRATEGIES**

<b>Emotion</b>	<b>Organizational Message Strategy</b>
Sadness	Provide social support; consolation and sympathy, legitimation
Humor	Self-deprecating humor, if appropriate
Confusion	Provide clarification, advice
Mistrust	Provide clarification
Happiness	Reinforce; convey gratitude; validation
Blame	Provide clarification, convey shame; regret; take concrete actions
Unsympathetic	Provide clarification
Acceptance	Provide social support

Not surprisingly, an important observation of this study has been that when the affected publics are experiencing strong emotional disturbance as a result of the crisis, its power of rational thinking diminishes. This finding reiterates the fact that attending to the emotional expressions shared on Twitter will yield more positive outcome in managing the crisis. Although most crises are likely to elicit both methods of coping: problem-based and emotion-based coping, public in this crisis situation used emotion-based coping pre-dominantly because it determined it *could* endure the stress. The public perceived that it would have to endure the loss of their favorite instant noodle for a short time, and the best method to deal with that loss would be to undergo the emotional distress for that duration. Since the public perceived that the distress would only be for a short period, it did not believe that it needed to take concrete action to manage the stress and hence, did not employ problem-focused coping.

The third research question examined the crisis resolution strategies recommended by the Indian public based on their emotional state of mind. Research on crisis communication in social media indicates that social media followers become active participants in the crisis resolution process often acting as crisis managers, recommending crisis mitigating strategies, and sharing their evaluations of the organization's crisis response (Coombs & Holladay, 2014; Veil, Buehner, & Palenchar, 2011; Schultz, Utz, & Göritz, 2011). Not surprisingly, findings from this study suggest that when the affected public is angry, it would like to see punitive measures implemented to resolve the crisis. Interestingly and unexpectedly, though the public preferred punitive measure even when they were feeling sympathetic toward the organization. This preference for punitive measures can probably be explained on the basis that the affected public believed that the guilty individual or entity should be punished for the wrongdoing. This action would appeal to their sense of righteousness. This way they could dissociate that individual from the organization and still maintain their positive feelings of sympathy toward it. This would also indicate that they are a group of small but very loyal supporters of the organization.

Twitter users who express humor and sarcasm online do not recommend any crisis resolution strategy. Conceivably, they're just looking for attention and entertainment. As noted earlier, the best method of dealing with this online public is to adopt a self-deprecating approach, so that they do not have

any fodder for further humor or sarcasm. When the affected public is in a blaming or critical mood, their expectation is that corrective measures are taken to resolve the situation. Finally, when the affected public is feeling sad, they expect an apology from the organization. An apology would express remorse and regret at the suffering that the actions of the organization has caused. In sum, the most frequently recommended crisis resolution strategies were punitive, remediation and an apology. It is recommended based on the findings in this study that the crisis management team should complement its crisis resolution strategies with those suggested by the affected public on Twitter.

### **Limitations of the Study**

One of the limitations of this study is that the tweets are not representative of a cross-section of the Indian diaspora. Twitter in India is still a growing social media channel and is still plagued by the lack of infrastructure and the very low penetration in rural areas. Furthermore, the language barrier prevents people from posting tweets. Future studies can examine tweets on Maggi's official site to see how the organization responded to the emotional chatter in the Twitterverse.

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