

# The Role of Perception in Crisis Management

## A Tale of Two Hurricanes

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The *anticipatory* model of crisis management (Olaniran & Williams, 2001; Scholl, Williams, & Olaniran, 2005) draws the attention of crisis practitioners and researchers to the precrisis phase of crisis management. The model views institutions' position as a condition that has implications for peoples' perceptions regarding the lack of control over factors such as policies, human resources, machineries or technologies, infrastructure, and relationship structure. The concept of *control* is germane in crisis management and must be established in crisis decision-making with vigilance. The *anticipatory model* fosters vigilant decision-making in precrisis, during crisis and postcrisis although the primary emphasis with the anticipatory model is on crisis prevention altogether.

The anticipatory model is considered useful when evaluating crises relating to the management of hurricane Katrina and hurricane Rita that ripped through the Gulf Coast in the southern part of the United States within three weeks of each other. Almost two years later, the impact of the disaster is still being felt deeply by those whose lives were directly affected and stakeholders who have their opinions on what went wrong and what could have been done. The devastation to the Gulf Coast by these two hurricanes has been called "the greatest disaster" in U.S. history (Jackson, 2006; Swenson & Marshall, 2005). This discussion explores hurricanes Katrina and Rita as two crises where both perception and construction of realities differed partly because of how and

where people experienced the phenomena of the storms. Here follows a review of the anticipatory model and a study assessing the public's perception of these two crises and their management.

### Anticipatory Model of Crisis Management

The anticipatory model of crisis management posits that while one may not be able to prevent all crises from occurring (Lerbinger, 1997; Perrow, 1984), prevention should be a major priority (Williams & Olaniran, 1994; Olaniran & Williams, 2001). The essence of the anticipatory model is that attempts should be made to put in place programs that foster prevention of errors, disaster, and crisis, while also putting in place plans to handle any resulting crisis and disaster (Olaniran & Williams, 2001).

Weick (1988) warned that the very action that enables people and organizations can also cause the destruction of those networks and institutions. This idea describes the principles of *enactment* and *expectations* which are foundation to the anticipatory model. Enactment represents a process whereby a given action is brought about (see Smircich & Stubbart, 1985). Weick (1988), however, extended the notion to consequences from those actions. For example, failure to put in place a crisis plan may hinder the eventual crisis management.

With enactment conceived as a retrospective sense-making process, the model contends that the notion of *anticipation* (of crisis), in and of itself, is an action given that it determines the subsequent choices an organization makes based on available information. Justification of this argument lies in the fact that decision makers often find themselves in situations where they

have to anticipate opportunities, threats, and weaknesses in their environment and then take appropriate measures to safeguard their interests. Therefore, the model contends that decision-makers' actions or inactions with anticipation would result in different outcomes. The expectation principle, on the other hand, involves assumptions that people make about certain events (Olaniran & Williams, 2001). For example, assumptions made about the potential occurrence of a crisis would determine whether an attempt is made to put in place a preventive countermeasure. Nevertheless, assumptions have the potential to bring about self-fulfilling prophecies. For example, when organizational decision makers assume that a technology or an approach offers a failsafe strategy, they might relax other safety measures such that additional countermeasures are never put in place to create redundancy (Olaniran & Williams, 2001; Scholl, et al., 2005).

In addition, the third element in the model is the idea of control – meaning the degree of power that people or an organization have over events or crises. The control component intersects with expectation and enactment to the extent that expectations influence enactments (decisions or actions), and actions exert some degree of control over crisis situation (Adler & Bartholomew, 1992; Konsynski & McFarlan, 1990; Olaniran & Williams, 2001).

In sum, crisis prevention requires a thorough understanding of the complexity of relationships and their environmental contexts. Nevertheless, there are two essential components that must be present to facilitate the understanding process, namely enactment and expectations (Olaniran & Williams, 2001; Weick, 1988). While enactment consists of specific actions, expectation about an object determines the type of action taken in the en-

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actment process and enactment provides organizations the needed control to handle crisis. Taken together these factors constitute the crisis anticipation process where the occurrence of a crisis is foreseen and effort is made to eliminate or reduce the degree of the catastrophe.

### Hurricane Katrina and Hurricane Rita

Hurricane Katrina hit the Gulf Coast on August 29, 2005 and breached the levees surrounding New Orleans at multiple points. The broken levees left more than 80 percent of the city submerged in water (Jackson, 2006). Several victims were seen on television clinging to rooftops of their homes, trees, and anything they could use to stay alive while waiting for rescue workers. The hurricane left several thousand people's homes and lives devastated, leading to their evacuations to shelters around the country. Separated and displaced, most family members wondered if they would ever see their family members again. To top it off, some of the displaced families were referred to as refugees. Hurricane Rita occurred about three weeks later and reflooded many of the devastated regions of the Gulf Coast. Events following the two hurricanes created controversies among members of the media, the general public, and other stakeholders regarding how the crisis and ensuing disasters were handled. Thus, were prompted the debates, and the opinions as to government involvement in handling the hurricanes. The fact that most of the Gulf Coast and city of New Orleans was predominantly occupied by members of the minority group in the country added an important dimension to perception of the crisis and crisis management from both media and government standpoints. The debate prompted this study to determine how members of the public perceived the management of the crisis. Specifically we asked the following research questions:

RQ1: Does ethnicity play a significant role in how both hurricanes, Katrina and Rita, were viewed?

RQ2: Is the perception different for Hurricane Katrina when compared to Hurricane Rita?

RQ3: What other variables contributed to the perception of the management of both hurricanes?

## Method

### Participants

The sample consisted of 203 individuals in the southwestern part of the United States. Their ages ranged from 13 to 82 covering a wide range of the population segment. Most of the participants were below 30 (158) whereas 41 were over 30. Some of the subjects were married (38) and some were single (163). Gender information indicated that 101 were male and 95 were female, representing a good balance between the two gender groups. The remainder, however, did not reveal their gender categories.

### Instrument

A questionnaire consisting of 21 Likert scale type items measuring degree of agreement to disagreement with perceived preparedness (i.e., anticipation) was used. Items include statements such as "Before hurricane Katrina I believe that people of the Gulf Coast towns were given enough information by the government through the media to evacuate" and "I believe the media did an excellent job preparing the people of the Gulf Coast towns for hurricane Katrina." The items were also repeated and framed for hurricane Rita. All items had a seven-point scale with 1 = strongly disagree, 4 = Neutral, and 7 = strongly agree. Of the 21 Likert items on the questionnaire, five items were evaluated and reported in this study, and they included item 1 "Before hurricane Katrina, I believe that people of the Gulf Coast towns were given enough information by the government through the media to evacuate," item 2 "Before hurricane Rita I believe that people of the Gulf Coast towns were given enough information by the government through the media to evacuate," items 6-8 "I believe the media did an excellent job preparing the people of the gulf coast towns for hurricane Katrina;" "I believe the media did an excellent job preparing the people of the gulf coast towns for hurricane Rita;" and "I believe the government did an excellent job preparing people of the gulf coast town for both hurricanes." The five items together were analyzed for reliability with Cronbach alpha indicating .8 meaning the scale showed good reliability.

### Procedure

The questionnaires were distributed in the community. However, effort was made to safeguard that there were no repeated subjects in the data by asking whether they had completed similar or

the same instrument before. None of the subjects received any reward other than the information that their opinions would be factored among others in the study.

## Analyses and Results

The five questionnaire items were analyzed for reliability. Then a multivariate analysis of variance (MANOVA) was computed, with demographic variables including age, gender, ethnicity, and marital status as the predictor variables while the five Likert items served as the dependent variables. First the results were analyzed to see if the overall model was significant, if significant at .05 level, then the univariate model was analyzed. One of the principles guiding the analysis was the assumption that when one performs five separate ANOVAs, one is doing a multiple comparison and type I error accumulates. Therefore, if the overall level of significance is .05, then the significance level for each comparison is less than .05, but we do not know exact level or point. In an attempt to overcome this challenge, a conservative correction using the Bonferoni technique was used; thus the significance level of .05 is then divided by the number of tests accordingly (Jenkins, March, Campbell, & Milner 2000). In this case .05 divided by five equal .01 representing the level at which the researcher based any of the univariate analyses. The results are reported in the order of the research questions.

RQ1 asked if ethnicity played a significant role in how both hurricanes Katrina and Rita were viewed. The results showed that the overall model was statistically significant  $F(1, 197) = 2.44, p < .05$ . A closer look at the univariate analyses suggested that the significance level is pronounced for how people perceived government action in hurricane Katrina  $F(1, 197) = 11.75, p < .001$ . For hurricane Rita, the results approach significance level with  $F(1, 197) = 10.62, p < .02$ . No other significant results were found on the role of the media or for government when both of the hurricanes were jointly taken into consideration (see Table 1 for the means and standard deviations). In summary, ethnicity played a big role in how people perceive government's handling of the two hurricanes. However, ethnicity did not appear to play a role in how people viewed the media role.

RQ2: asked whether the perception was different for hurricane Katrina when compared to hurricane Rita. From the results of RQ1, it appears that the subjects' perceptions based on ethnicity were more

pronounced for hurricane Katrina than for hurricane Rita (see Table 1 for means). Thus, the perception of the two hurricanes differed.

RQ3 asked "What other variables contribute to the perception of the management of both hurricanes?" The data were analyzed with other demographic variables as indicated earlier; however, only marital status showed any significant effect in peoples' perceptions. The overall MANOVA model for marital status indicated  $F(1, 197) = 5.07, p < .0001$ . Then individual or univariate analyses suggested that there were statistically significant differences in how people perceived government's role in handling hurricane Katrina  $F(1, 199) = 15.26, p < .0001$ ; for the media role with hurricane Rita  $F(1, 199) = 56.44, p < .0001$ ; for the media role with hurricane Katrina  $F(1, 199) = p < .001$ . There was no statistically significant difference found for either the government role in hurricane Rita or the government role when both hurricane Katrina and Rita were observed together. Therefore, the results suggest that other variables, especially marital status, influence peoples' perceptions of government and media handling of hurricane Katrina and Rita, in addition to ethnicity (see table 1 for the means and standard deviations).

### Discussion

The results suggested that ethnicity is a factor when viewing how government responded to both hurricanes Katrina and Rita. When examining the means, it appears that whites predominantly agreed ( $x = 5.0$ ) that the government provided enough information to the people of the Gulf towns through the media to evacuate, and more so than members of the minority groups ( $x = 4.07$ ) for hurricane Katrina. The level of agreement was more impressive among majority and minority ethnic groups for Hurricane Rita. For instance, the means indicated that whites were 5.72 and minorities were 5.15 respectively. A point of interest might be that people seemed to agree that the government did more in getting information out to people of the Gulf towns prior to hurricane Rita than they perceived with hurricane Katrina. This is the case regardless of ethnic group. The extent to which accusations regarding racism or prejudicial treatment in the aftermath of hurricane Katrina influenced this perception is not known. One can, however, speculate that government did a better job of getting the information out about hurricane Rita than it did with hur-

ricane Katrina, at least as far as peoples' perception goes. One can also speculate that with the fallout from hurricane Katrina, the government attempted to get the information out about the next hurricane through the media to avoid a repeat result with hurricane Rita. For instance, the governor of Texas asked all Houstonians to leave the city, and as it turns out, the hurricane did not affect the central part of Houston. But the key is that people were warned well in advanced to seek alternative shelters. Thus the preparation prior to hurricane Rita was perceived to be more adequate than the preparation leading to hurricane Katrina.

From the anticipatory model, information dissemination from government through the media seemed to be in line with the prevention tenet of the model, especially with hurricane Rita. This is not to say that the preventive warning was not available prior to hurricane Katrina. However, as far as the public are concerned, factors such as timeliness of the information and structures put in place to ensure that people receive the information were perceived differently. Perception in itself is not a reality, but for individuals perceiving the phenomenon, that is their reality, and accordingly, perception is a part of the veridical truth. The implication for crisis managers is to give advance warning and to mobilize necessary infrastructure such that individuals are able to accurately and more positively recognize the public relations and crisis managers' efforts. In the end, their perceptions are what will determine whether a crisis plan is determined to be successful or unsuccessful.

Also, the marital status variable contributes to peoples' perception of government initiatives prior to Hurricane Katrina but not for hurricane Rita. At first it appeared that this finding was an anomaly; however, it is possible that married people are more inclined to be affected by the images of displaced families and children separated from their families than singles who might not be able to relate as much. At the same time, married people appear to be more realistic and forgiving of the government's efforts in preparing people of the Gulf towns for the hurricanes than single individuals who appear to be more judgmental and rather pessimistic in their assessments. The means point to this conclusion as married ( $x = 5.68$ ) and singles ( $x = 4.61$ ). Whereas there was no significant difference between the two groups for hurricane Rita as married ( $x = 5.97$ ) and singles ( $x = 5.5$ ). Furthermore,

a similar trend exists when dealing with the perception of the media with both hurricanes. It appeared that though married individuals thought the media did an excellent job preparing people of the Gulf regions for both hurricanes, the level at which the perception was made was less for hurricane Katrina than it was for hurricane Rita. For example, the means for married people were ( $x = 4.95$ ) for hurricane Katrina and ( $x = 5.47$ ) for hurricane Rita; singles ( $x = 4.1$ ) for hurricane Katrina, and ( $x = 4.12$ ) for hurricane Rita. This may also suggest that crisis management practitioners, government and private sector, may have to develop different messages for different audiences or, at least, present the same message in a different way to different audiences. It also appears that married individuals may be more realistic in the way they draw their conclusions than single individuals who may be less trusting of government, media, and other establishments. As the ratings in this study suggest, singles are more pessimistic in their ratings than married individuals. Vigilant crisis managers would best embark on the principles of an anticipatory model by being aware of how different groups respond to information and then adjust messages to appeal to the different groups (Albrecht, 1996; Benoit, 1997; Coombs, 1999; Olaniran & Williams, 2001). The time of crisis is not a time to experiment or to gamble on whether a particular message strategy will or will not work (Fink, 1986; Olaniran & Williams, 2001). This is why crisis planning is critical to actual crisis management.

### Conclusion

This study sets out to determine differences in perceptions of different groups with regard to hurricanes Katrina and Rita. The study implements an inquiry of the anticipatory model of crisis management to assess the perceived preparedness of government and the media regarding their roles in the management of the two hurricanes. The results showed that ethnicity and marital status were the two major variables that distinguished or explained the publics' perceptions and assessment of the crisis management plan. Explanations and discussions of the results were offered and suggestions were made for crisis management and public relations practitioners to explore the strategy of different messages to different groups in an attempt to have an effective crisis management plan that fosters anticipation with vigilance.

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Table 1: Means Distributions for Ethnic Groups and Marital Status

Items	White	SD	Minority	SD	Married	SD	Singles	SD
Government provided enough information through media for Katrina	5.0	1.58	4.07	1.38	5.68	1.27	4.61	1.57
Government provided enough information through media for Rita	5.72	1.38	5.15	1.42	5.97	1.3	5.5	1.42
The media provided enough information for hurricane Rita	4.46	1.56	3.98	1.76	5.47	1.35	4.12	1.55
The media provided enough information for hurricane Katrina	4.34	1.44	3.93	1.42	4.95	1.35	4.1	1.43
Government provided enough information through media for both hurricanes	4.36	1.38	4.34	1.23	4.47	1.55	4.36	1.29

Significance level =  $p < .01$

Appendix I: Questionnaire\*

Please take 5-10 minutes to provide answers to the following questions regarding information you receive about hurricane disaster/crisis.

Sex: M / F Age: \_\_\_\_\_ Ethnicity: \_\_\_\_\_ Marital Status: \_\_\_\_\_

Educational level: High School / Undergraduate degree / Master's Degree / Ph.D

Others: \_\_\_\_\_ Occupation: \_\_\_\_\_

Please indicate in the space provided by the following statements the degree to which you agree or disagree using the following scale: 7 = Very Strongly Agree, 6 = Strongly Agree, 5 = Agree, 4 = Neutral, 3 = Disagree, 2 = Strongly Disagree, 1 = Very Strongly Disagree.

Before Hurricane Katrina, I believe that people of the gulf coast towns were given enough information by the government through the media to evacuate.

Before Hurricane Rita, I believe the people of the gulf coast towns were given enough information by the government through the media to evacuate.

If some disaster was about to occur in my town the first place I would look for information would be the Television.

If some disaster was about to occur in my town the first place I would look for information would be the Internet.

If some disaster was about to occur in my town the first place I would look for information would be the Radio.

I believe the media did an excellent job preparing the people of the gulf coast towns for the Hurricane Rita.

I believe the media did an excellent job preparing the people of the gulf coast towns for the Hurricane Katrina.

I believe the government did an excellent job preparing the people of the gulf coast towns for the both hurricanes.

I feel that radio does a good job of providing disaster information.

I feel that television does a good job of providing disaster information.

Newspapers are good places for information of disasters.

Television is worthless when sending disaster information.

Television should do a better job of presenting disaster information.

Newspapers are the best place for disaster information.

I experience frustration when trying to find more information about a crisis/disaster.

I want the opinion of an expert when receiving information about crisis communication.

I want facts rather than opinion about crisis information.

It is important that crisis information is given in a clear manner.

I like to receive crisis information by e-mail.

I am not worried about future disaster.

If terrorist attacks, I feel protected.

\*The questionnaire is available from the author on request.