Research

The Role of Dissonance and Schema: An Exploration of Florida Public Perception after the DWH Oil Spill

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Abstract

The agricultural and natural resources industries are no stranger to crises, particularly, large-scale crises such as the Deepwater Horizon (DWH) oil spill in 2010. Crises have an impact on how consumers view a product, and ultimately, can impact their decisions to buy or not buy products from an industry that has experienced a crisis. This qualitative study sought to evaluate consumer perceptions of Gulf seafood after the DWH oil spill, and explored the influence of schema and cognitive dissonance on consumers' intent to consume or purchase Gulf seafood after the DWH oil spill. Focus group discussion with seafood consumers revealed participants had a pre-existing schema associated with local seafood, seafood origin, health benefits of seafood, and the safety of seafood. Dissonance was observed when participants balanced their pre-existing schemas with knowledge of the DWH oil spill as the participants discussed buying seafood, not buying seafood, and buying seafood with fear. From the findings of this study, researchers and communicators may have a better understanding of the decision-making process associated with buying a product after a crisis. Recommendations were made for agricultural communicators to develop personal messages and stories to help consumers overcome any remaining fear or dissonance associated with Gulf seafood.

Key Words

Cognitive Dissonance, Consumer Perception of Food, Deep Water Horizon Oil Spill, Schema

Introduction

In a short moment in time, a crisis can occur. It is an unpredictable event that may cause a negative effect on an organization, industry, and stakeholders if handled improperly (Coombs, 1999; Irlbeck, Jennings, Meyers, Gibson, & Chambers, 2013). In the past, the events unfolding during a crisis have had an impact on an organization's or industry's reputation, causing consumers to have a lack of confidence in the organization, industry, or product (Coombs, 2012; Ulmer, Sellnow, & Seeger, 2011).

In April 2010, an explosion aboard the Deepwater Horizon (DWH), a drilling rig in the Gulf of Mexico owned by British Petroleum (BP), led to the largest accidental oil spill in history (Ylitalo et al., 2011). The 2010 BP DWH oil spill caused over 200 million gallons of oil and 1.8 million gallons of dispersants, intended to break down the oil into droplets, to be poured into the Gulf of Mexico (Rotkin-Ellman, Wong, & Solomon, 2011). The oil from this spill reached the shoreline of Alabama, Florida, Louisiana, Mississippi, and Texas, totaling more than 950 miles of

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Gulf coastline. Following the DWH oil spill, petroleum compounds and dispersants were detected in the Gulf of Mexico, which led to concerns about human health risks (Ylitalo et al., 2011). Due to the possible health risks, fishing was prohibited in affected areas until scientists and researchers determined that all polycyclic aromatic hydrocarbons (PAHs) and dispersant levels in seafood were below the limits of quantification (Upton, 2011; Ylitalo et al., 2011). Although many fishing bans were lifted and the seafood was determined to be safe, the public continued to perceive that Gulf seafood was unsafe and posed a risk if consumed (Upton, 2011; Ylitalo et al., 2011).

The Gulf seafood industry has traditionally contributed over $3 billion to the United States' economy, and provided over "one third of all seafood consumed in the United States" (Johnson, Clakins, & Fisk, 2012, para. 4). However, following the oil spill, harvest of shrimp and crabs from the Gulf decreased with Louisiana alone experiencing a decrease in 7 million pounds of shrimp and 2.7 million pounds of blue crab harvested (Burdeau & Reeves, 2012). The Gulf region suffered more than $16 million in lost seafood sales as a result of consumer concerns and high seafood prices following the oil spill (Burdeau & Reeves, 2012).

Hicks, Pivarnik, and Dermott (2008) stated that it is important to understand the basics of consumer decisions about seafood choices by evaluating the relationship between the consumers' attitudes and their decision to consume or purchase seafood. In the past, consumer perceptions and decision-making processes have affected who purchased seafood (Rasco, 2010). As an example, consumer concerns about high levels of mercury in fish have deterred pregnant women from eating an otherwise nutritious food (Rasco, 2010). If consumers have a negative perception of a specific food, then the consumer is not likely to purchase or consume the food (Rasco, 2010). Consumer confidence in the safety of Gulf seafood is vital to the restoration, sustainability, and livelihood of the Gulf Coast seafood industry (Upton, 2011). The purpose of this study was to determine the influence of pre-existing schema and cognitive dissonance on consumers' intent to consume or purchase Gulf seafood after the DWH oil spill. The results of this study will help explain the impact a crisis has on the purchasing decisions of an agricultural product such as Gulf seafood.

Literature Review

Consumer Perception of Food

The average American spends more than 15% of his or her household income on food (Crawford, Church, & Rippy, 2012). When making decisions about food purchasing, consumers have been influenced by their food-related concerns, many of which are related to food safety (Brewer & Rojas, 2008). Interest in and knowledge of the differences in food safety risks among food products has been recognized as a decision-making variable in consumer's food purchasing (Charanza & Naile, 2012).

Although consumers may encounter a food safety risk barrier when considering the purchase of a particular product, other product attributes may provide an incentive to purchase (Gorham, Rumble, & Holt, 2015). Researchers have found consumers favor buying healthy, high quality, local, and fresh products (Keeling-Bond, Thilmany, & Bond, 2009). While the idea of buying local has been viewed as a social incentive to purchasing, Gorham et al. (2015) found consumers tend to place more emphasis on the overall food quality and the availability of food. Consumers have been shown to consider local products; however, if the local products did not meet their expectations in regard to quality or safety, the consumer would choose to purchase an alternative product (Gorham et al., 2015).

Schema and Cognitive Dissonance

The review of the literature on consumer perceptions of food demonstrated consumers would choose a different product when their expectations were not met. It is important to understand the way in which a consumer processes information when making the decision to buy a particular food product. The theories of schema and cognitive dissonance informed this study to explain the thought process of consumers when purchasing a food product following a crisis.

Schema has been essential in determining how a person perceives a specific idea or forms an attitude (Fiske & Taylor, 1991). Bartlett developed the first definition of schema in 1932 and described schema as the mental response made by a person when he or she encounters a situation or experience seen in the past (Bartlett, 1932). Later, Axelrod (1974) developed schema theory and gave the definition of schema as "a pre-existing assumption about the way the world is organized" (p. 1248). Fiske and Taylor (1991) continued the definition to describe schema as a "cognitive structure that represents knowledge about a concept or type of stimulus including its attributes and the relations among the attributes" (p. 98).

Schema theory has been used in the communications field to show how previous ideas about information help individuals process new information (Cheong & Kim, 2011). When presented with a communications message, or a particular product such as Gulf seafood, an individual will be given more information than he or she can process (Tesser, Martin, & Mendolia, 1995). The individual's schema will "direct attention to what is relevant, helping the consumer process information efficiently" (Cheong & Kim, 2011, p. 56). For example, when presented with a food product, the schema an individual has for that food product is activated (Cheong & Kim, 2011). The individual's schema has been used as a reference point to bring to light the individuals' previous expectations of the food and the typical attributes found in the food (Cheong & Kim, 2011). Cognitively, the consumer will compare his or her previous expectations and perceived attributes with the food-product presented to form an attitude (Sujan & Bettman, 1989). If the new information does not fit within past experiences or reactions, a person will experience an internal conflict (Axelrod, 1974). Although schema theory describes how an individual processes information attempting to make sense of it, the theory does not describe how a decision is made (Axelrod, 1974); however, cognitive dissonance theory has provided an overview of the thought process a person undertakes when he or she thinks about a decision internally (Festinger, 1962).

Festinger (1962) concluded cognitive dissonance occurs when a person's attitudes and beliefs are challenged with a decision inconsistent with their attitudes and beliefs. Individuals tend to have a set opinion or attitude toward certain situations and will strive to maintain consistency within his or her self (Festinger, 1962). However, when an individual is met with a decision that is inconsistent with his or her previous ideas, psychological discomfort is experienced (Hunt, 2004). Festinger (1962) described two actions that may occur when an individual is met with unfavorable information or ideas and attempts to restore cognitive balance:

1. The existence of dissonance, being psychologically uncomfortable, will motivate the person to try to reduce the dissonance and achieve consonance.
2. When dissonance is present, in addition to trying to reduce it, the person will actively avoid situations and information, which would likely increase the dissonance. (Festinger, 1962, p. 3).

Thus, individuals have experienced dissonance (1) when choosing to make the decision that has negative attributes and (2) when choosing not to make the decision that has positive attributes (Aronson, 1969). Cognitive dissonance has been experienced during the product selection stage (Lindsey-Mullikin, 2003). A consumer may experience cognitive conflict when he or she decides to choose an alternative product. For example, in the example of Gulf seafood, the consumer may be interested in buying a local product; however, the consumer will be met with dissonance when deciding not to buy the local product based on knowledge of the oil spill and perceived safety concerns with the seafood.

While dissonance has occurred during the product selection stage, dissonance has been reduced when information meets an individual's current and prior beliefs (Lindsey-Mullikin, 2003). An individual's dissonance has been diminished by choosing an alternative product that meets his or her standards; or through messages, provided by communicators, to reduce negative attitude or cognitive change (Gorham et al., 2015; Lindsey-Mullikin, 2003). In each of these cases, the consumer re-evaluated his or her previous expectations about a product (Lindsey-Mullikin, 2003). When dissonance is diminished through a re-evaluation of ideas, the consumer purchases the product (Lindsey-Mullikin, 2013). Cognitive dissonance theory does not suggest a correct decision; but more rather, the theory provides a description of how individuals rationalize decisions psychologically within themselves (Goodwin, 2010).

Purpose and Research Questions

The purpose of this study was to determine the influence of pre-existing schema and cognitive dissonance on consumers' intent to consume or purchase Gulf seafood after the DWH oil spill. This study adds to research priority 1 of the *AAAE National Research Agenda* to understand how food safety plays a role in a consumer's perception of a product (Doerfert, 2011). To complete the purpose, the following research questions guided the researchers in this study:

1. How has pre-existing schema influenced participants' perception of Gulf seafood following the DWH oil spill?
2. How has cognitive dissonance influenced participants' perception of Gulf seafood following the DWH oil spill?

Methods

Public perceptions are complex, and when perceptions are examined within the scope of a given crisis, the complexity shifts and deepens. Qualitative research is often used to develop a comprehensive understanding of complex and social issues, and therefore was used in this study to understand how schema and cognitive dissonance influenced perceptions of and purchase decisions related to Gulf Seafood following the DWH oil spill (Ary, Jacobs, & Sorensen, 2010). One specialized form of qualitative research is focus groups, which allow for group interaction during a discussion (Morgan, 1988). During the group interaction, participants "talk to one another: asking questions, exchanging anecdotes and commenting on each others' experiences and points of view" (Kitzinger, 1995, p. 299). The conversations and discussions that occur as a result of the group interaction are recorded as data (Kitzinger, 1995). Often, researchers are able to gain insight into how and why participants think the way they do, as people will agree or disagree with different opinions, attitudes, and beliefs (Ary et al., 2010). Focus groups are used in many communication studies to understand participants' "knowledge and experiences and can be used to examine not only what people think but how and why they think that way" (Kitzinger, 1995, p.

299). Several previous studies have utilized focus groups to examine the influence of schema and cognitive dissonance on decisions and perceptions (Bray, Johns, & Kilburn, 2011; Gomez, Schieble, Curwood, & Hassett, 2010; Hares, Dickinson, & Wilkes, 2010; Woods-Giscombé, 2010).

For this study, the Florida Survey Research Center recruited participants for a series of focus groups in 2012. In accordance to Krueger's (1994) recommendations, participants were screened and selected as having a characteristic in common; in this case, participants were required to be a consumer of seafood and reside in one of the top five media markets in Florida (Daytona Beach, Jacksonville, Miami, Pensacola, and Tampa). Each focus group was composed of seven to 10 participants (Kreuger, 1994).

Ten focus groups were conducted for this research during a three-week period to help minimize the threat of history effect (Ary et al., 2010). Focus groups were conducted in five different locations corresponding to the top five Designated Market Areas (DMAs) in Florida. Two focus groups, each with a different group of people, were completed at each of the five locations. Each focus group was approximately two hours long and directed by the same moderator. Further, the use of five locations helped to ensure environmental triangulation, which aims to resolve the influence of environmental factors that may bias discussion (Guion, Diehl, & McDonald, 2011).

During each focus group, an assistant moderator and two note takers accompanied the moderator. Each focus group was audio recorded for use in the transcription process. A summarize-by-confirmation technique was used for member checking. The moderator verbally summarized the discussion at the end of the focus group. After the discussion was summarized, the participants were asked to verify the conversation (Kreuger, 2002). If information was missing from the summarized conversation, the participants were asked to identify the missing information or anything else they would like to add to the discussion.

Because much of the success of a focus group is dependent on the quality of questions and organization during the discussion, a moderator's guide was developed to guide the focus group discussion (Krueger, 1994). The moderator's guide was developed to fulfill the research questions. Questions were developed pertaining to understanding the participant' perceptions of seafood, experiences when purchasing or consuming seafood, and barriers and incentives to purchasing Gulf seafood after the DWH oil spill (i.e. Discuss why you purchase seafood; Describe the barriers/ benefits to purchasing seafood; When you go to a grocery store to buy seafood, describe the type of attributes you look for in your seafood product?). Focus group participants were provided with clarification of the questions asked by the moderator when needed.

After the focus groups were completed, an external researcher transcribed the data. The data were then prepared and organized into themes using Weft-QDA (Creswell, 2007). The primary and co-researchers who analyzed the data were graduate students studying agricultural communications, who had previously been trained in qualitative data collection and analysis. Themes were identified using the constant comparative method of qualitative analysis (Glaser, 1965). Similar themes were constructed from different phrases, patterns, and words presented in the data (Glaser, 1965). Credibility and accuracy were ensured in the data analysis, as two researchers analyzed the data individually. Afterwards, using the methods of peer debriefing, the two researchers compared and contrasted their results (Huberman & Miles, 1994).

Findings

The 79 participants in this study held various occupations, including working class, teachers and caregivers, medical professionals, and others. The majority of the participants held a bachelor's degree, graduate school degree, or professional degree. The majority of participants reported an annual household income of more than $45,000. The participants represented Caucasian, African American, Hispanic, and other races and ethnicities. Forty-five of the participants were female and 34 were male.

Research Question1: How has pre-existing schema influenced participants' perception of Gulf seafood following the DWH oil spill?

Research question one was used to determine consumers' pre-existing schema associated with buying and consuming seafood. When discussing seafood, and their preferences for seafood, it became clear that the participants had a pre-existing schema associated with the themes of local seafood, seafood origin, health benefits of seafood, and the safety of seafood.

Local seafood.

Participants discussed a preference for local seafood as they associated local seafood with a fresher and preservative free product. In Miami(b) a participant said,

> Well, I prefer local seafood as opposed to species that are flown in or shipped. Because I fear that they are not fresh, they have been frozen or [processed]. I have seen people add chemicals to preserve things. So I think fresh caught local fish is a preference for me.

Other participants in the location echoed this participant's preference for local seafood and further elaborated on the importance they put on having fresh seafood. What was considered local varied across the participants. Most referred to local as something that could be caught and eaten later that same day. However, some participants like those in Miami(a), related local seafood to coming from the United States or as close as possible. Many participants also discussed the accessibility of fresh-caught seafood in their area. One participant in Miami(b) said, "I would rather have something that a family caught when they were out fishing, or when we go down to the docks sometimes and get [seafood] right at the docks." Another participant added, "Yeah, that is what we are used to. [We are used to having] what everybody catches. Especially if you are native to here: everybody fishes. Fresh is the preference."

The discussion of personal experiences fishing was prevalent throughout the other focus groups as well and reinforced the participants' preference for local seafood. "If you can find somebody that's gone fishing that's like the best," said a participant in Jacksonville(b). Reminiscing about eating fresh sushi on a fishing trip the participant continued and said, "Or go fishing [yourself], yellow fin [tuna] on the deck and cut it open, now you got real sushi." A fellow participant also recounted personal experiences fishing, and the value found in eating fresh and locally caught fish. Similar accounts were seen in Daytona Beach(a) and Tampa(a). A participant in Tampa(a) discussed his or her preference for local fresh-caught seafood and said, "We are fortunate enough to eat fresh seafood because we have friends that go out fishing in the Gulf of Mexico. My husband and I have a fishing boat, so we fish for recreation and catch what we eat."

Seafood origin.

The origin of seafood was important to the participants, and they associated seafood from a farmed, fresh water, or foreign origin to be of lower quality and accompanied by safety hazards. As discussed in the local seafood schema, the participants preferred fresh, locally-sourced, seafood from the wild. Expressing concerns with the quality and safety of farm-raised foreign shrimp a participant in Daytona Beach(a) said, "Living conditions of farm raised shrimp. I know in certain countries, like China, where they farm raise their shrimp; they are put in these really small containers, really scrunched together, dirty, disgusting water. So, I'm very conscious about that." Another participant in the same focus group echoed these concerns and added that he or she was concerned with higher levels of mercury and antibiotic residue in farm-raised seafood. Participants in Jacksonville(b) discussed concerns with farm-raised seafood as well with one participant expressing specific concerns with farm-raised salmon. "Another thing I look at is whether salmon farm raised or wild. My dad always told me they put peach coloring in the farm raised so I look at that, when I'm looking at salmon." Concerns with farm-raised seafood were seen throughout the focus groups with participants discussing concerns with genetically modified salmon, unsanitary living conditions of farmed seafood, decreased personal health benefits, and environmental concerns.

Seafood originating from other countries was also a concern for some participants. A participant in Miami(a) said, "Can't eat anything imported anymore." This statement encouraged laughter from other participants in the group. In Jacksonville(b), a participant discussed looking to see where seafood was from before purchasing it because of concerns with the origin of the seafood. "Where it is from, I don't like to buy products from China and certain countries where I have heard that the water might be more contaminated. So, I look where it is from," said the participant. A participant in Miami(b) expressed concern with seafood from other countries and was greeted with agreement from other participants in the group. "Oh, I will also only buy from the American side. I tend to steer clear of international fish of any kind, food of any kind," said a participant in Orlando(a). However, in this group a participant who was raised outside of the United States expressed a preference for imported fish. This participant said,

> I am not going to say I am disagreeing, but I eat fish from South America. It comes from Guyana; that is where I am actually from. And we have a special type of fish out there that they usually bring here, so we usually cook it.

Another participant in Miami(a), with an international background, shared this preference for international fish.

Some participants also expressed concerns with seafood originating from fresh water. In Miami(b) a participant disliked seafood from fresh water because of the muck bottoms often found in fresh water bodies of water. Similarly, a participant in Tampa(a) said, "I won't eat freshwater fish. Most of the lakes are fairly polluted in the state of Florida, with runoff and everything."

Health benefits of seafood.

Nearly all of the focus groups discussed the health benefits associated with eating seafood. Health benefits commonly discussed included the presence of omega three fatty acids, protein, and low fat. Participants in three different focus groups discussed the ease of digestion seafood products. A participant in Daytona Beach(a) said, "It's very easily digested when you eat it late.

Digests faster than any other meat I can think of." Other participants noted that "it gives you a little better glow in your skin" (Daytona(b)), "helps your memory" Jacksonville(b), and "very good for cardiac sorts of things" Tampa(a). Throughout the focus groups, the participants discussed the health benefits as being a main reason they eat seafood.

Safety of seafood.

Many participants' concern with the origin of seafood was associated with safety or quality concerns with seafood, but the participants were generally concerned about the safety of seafood overall. The presence of mercury in seafood concerned many participants and they discussed being cautious about the seafood they consumed. In Miami(a), a participant said, "I'm always told to stay away from the big fish because of the mercury." Other participants in this focus group agreed and another participant added "I agree, we have a rule like that, too. Anything that's too big, like it's the grandpa that's been living and eating too long, we stay away from that." Mercury was also a concern of participants in Daytona Beach(a). Participants in Miami(a) also expressed safety concerns with seafood after recounting food poisioning incendents they were aware of. "My brother got really bad food poisoning from [a roadside fisherman] one time; I wouldn't buy it from them anymore." Another participant knew of a friend who also got food poising from a similar situation. Participants in Jacksonville(b) also discussed food poisoning concerns. A participant said,

> The closer you are to a beach, you would think, the fresher the fish, you think, are going to be. Sometimes you catch those little fishermen that are selling out of the back of their truck, but, you never know how long they've had that bucket of shrimp, so you have to be careful. Because, like I said, if you have ever been sick on seafood, it's not pleasant.

Food poisioning associated with bacteria, particularly in shellfish, was discussed by participants in Jacksonville(b) and Tampa(b). The participants in Jacksonville(b) debated on the rule associated with the "safe" months for bacteria in oysters. A participant said "Well, that's kind of like what I was saying like it used to be only in months with "R" and that doesn't apply anymore now." Another participant responded and said, "I still live by it. Are you sure about that? I thought the months without an "R" are too warm and so they have more bacteria."

Participants in Orlando(a) discussed food safety concerns with the packaging and preparation of seafood. Particularly these participants were concerned with the presence of lemons with their seafood. A participant said, "Yes, a lot of times they are served with lemons and the studies have shown that the lemons are really dirty, right? I try and avoid the lemons." This group was also concerned with the length of time seafood had been at a store or restaurant.

Research Question 2: How has cognitive dissonance influenced participants' perception of Gulf seafood following the DWH oil spill?

Research question two was used to determine consumers' decision process, and resulting cognitive dissonance, associated with buying and consuming seafood after the DWH oil spill. When discussing their willingness to purchase Gulf seafood, it became clear that the participants pre-existing schema associated with seafood were sometimes conflicting with their knowledge of the DWH oil spill. Three themes emerged: Will not buy, will buy with fear, and will buy.

Will not buy.

At least one participant in nine of the ten focus groups indicated that they would not buy Gulf seafood as a result of the DWH oil spill. Some participants were concerned about reports they had heard about the health of fish following the oil spill. A participant in Tampa(b) said,

> I have actually stopped eating a lot of the grouper and if it is marked as 'Gulf,' I won't, just because I have heard some stories about fish having lesions from the oil spill and that sort of thing. It can't be good.

Similarly, in Orlando(a), dying fish was a concern of a participant who said, "It is hard for me to think of it as clean and healthy when I have seen that the fish are actually dying there. If the fish are dying, how is it that the other seafood is clean and healthy?"

Uncertainty and the unknown effects of the oil spill caused some participants to discontinue buying Gulf seafood. A participant in Daytona Beach(b) said, "We don't know what the effect is on the environment and the fish that is there." Other participants in this group agreed and one participant said,

> I kind of agree with him. I try to avoid that as well because I don't really believe that it is all clean. And who knows what is going to happen in two or three years down the line? They will say that now they are finding that it caused cancer or something like that. That is normally what happens. (agreement heard) Three or four years down the line, they do some other research and then you hear about that. So, I do avoid [Gulf seafood].

Participants in Jacksonville(b) also agreed that they would prefer not to buy Gulf seafood until they could be certain of the long term and unknown impacts. A participant elicited much agreement when he or she said,

> If given the opportunity, I would prefer not to eat [Gulf seafood] right now. It's only been a few years since this happened, so nobody really knows to what extent that the damage is done, you know? And, they're not making that great of an effort to even say anything about it. They don't advertise Gulf seafood much, at least not that I've seen. So if they want you to buy it, they're not telling you to.

Many participants indicated that they were simply not willing to take the risk of eating Gulf seafood when they were not certain of what the outcome might be. A participant in Orlando(b) said, "I don't know if it's safe from the oil spill. I mean, it's not like I'm going to test it. You know?"

Will buy with fear.

About half of the focus groups had participants who discussed being willing to buy Gulf seafood after the DWH oil spill, despite their fears. In Miami(b), a participant tried to rationalize his or her willingness to purchase Gulf seafood. This participant said,

> I think in a weird way I want to believe that everything is okay. And I kind of just want to, you know, have that illusion, at least that all the fears didn't come true and everything is okay. But once again, I don't know how rational that is.

Another participant in this group recognized that his or her fears were not reflective of their seafood purchasing. "I know I worry about it when I am watching the news, but then when I go to a restaurant, I forget all about it," said the participant. Similarly, a participant in Tampa(a) said, "I was going to say, I do think about [the oil spill] when I eat Gulf shrimp. Wondering how much dispersants are on my shrimp. That is a concern, but it sure tastes good." A participant in Daytona Beach(a) was still leery about buying Gulf seafood, but thought he or she could maybe buy it now because a lot of the restaurants reopened on the Gulf.

Will buy.

Many of the focus groups included some participants who were willing to buy Gulf seafood. Some participants felt that it was really important to support and purchase Gulf seafood to help the industry recover from the DWH oil spill. In Jacksonville(b), a participant with a lot of experience fishing in the Gulf as well as experience on oilrigs expressed sentiment and desire to eat Gulf seafood. "That's a lot of good eating right there. So, yes, I eat from the Gulf." Participants in Orlando(a) and Tampa(a) also said they wanted to help the industry recover economically. A participant in Daytona Beach(a) discussed going on vacation in effected areas of the Gulf to help the economy recover, but the participant realized that he or she had not thought about buying Gulf seafood regularly to help in the recovery. This participant said,

> We did specifically plan a family vacation to that area afterwards, because of the economic impact. And we thought well, instead of going to [city] or the [city], which everyone goes to, let's go to a beach up there and hang out for a few days. But, I never really thought about purposely buying seafood from the Gulf to support the fishermen there.

One participant in Daytona Beach(b) and another in Jacksonville(b) referenced going to New Orleans and enjoying seafood. These participants had a preference for seafood prepared in New Orleans and did not let the oil spill deter their preference. The participant in Daytona Beach(b) said, "I went to New Orleans and ate everything, I didn't care. (laughter) Raw oysters, shrimp, whatever."

Some participants expressed confidence that the clean up efforts and monitoring of the seafood ensured that the seafood was safe to eat. These participants commonly also wanted to support the Gulf coast economies through their purchases. A participant in Miami(a) said,

> I believe that it's safe and I want to help build it back up. I'm not scared. In fact I believe, whatever they've done to clean it up, it's better now probably than it was, because they cleaned out all of the other garbage that no one complained about. (laughter)

The faith in the recovery of the Gulf expressed by this participant encouraged others in the group that maybe it was okay to once again eat Gulf seafood. Similarly, in Orlando(b) two participants told stories of eating Gulf seafood after the oil spill and having confidence in the safety. Another participant in the group responded to their stories and said, "you're not growing horns or anything." The personal accounts shared by these participants and evidence of their continued health seemed to assure other participants that the seafood was once again safe to eat.

Conclusions, Implications, and Recommendations

The purpose of this study was to determine the influence of pre-existing schema and cognitive dissonance on consumers' intent to consume or purchase Gulf seafood after the DWH oil spill. Through the focus groups discussion, it was discovered that participants had pre-existing schema associated with local seafood, seafood origin, health benefits of seafood, and the safety of seafood. When discussing whether or not they would buy Gulf seafood, it was evident that the pre-existing schema of the participants influenced the participants' decisions to not buy, buy, or buy with fear. In the discussions of the participants' decisions associated with buying Gulf seafood it was sometimes apparent that their pre-existing schema combined with their knowledge of the oil spill created cognitive dissonance.

Participants who indicated they would not buy Gulf seafood following the oil spill because they were uncertain or fearful of the safety and unknown effects of eating the seafood. This finding is consistent with previous research indicating that food safety risks impact food purchasing decisions (Brewer & Rojas, 2008), and consumers will abandon their preference for local food when expectation of quality or safety are not met (Gorham et al., 2015). Additionally, in the discussion participants seemed to reason through their decision not to buy Gulf seafood. It is likely that their pre-existing schema, perhaps related to concerns with the safety of seafood, aided them in processing information about Gulf seafood and making a decision not to purchase (Cheong & Kim, 2011). This is reflective of the process described by Sojan and Bettman (1989), which explained the process of comparing previous expectations with the product presented to form an opinion. It is also possible that the participants were experiencing dissonance during this reasoning process and were trying to balance their schema for local seafood and the health benefits of seafood with their concerns with seafood safety, particularly that of Gulf seafood. Thus, challenging existing thoughts and beliefs about local seafood and the health benefits of seafood (Festinger, 1962).

Those participants who would buy Gulf seafood, but still had fears or concerns seemed to also be experiencing dissonance when considering their wants and fears. For many, the participant's fears about Gulf seafood were originally on top of mind, but when at the store or given the opportunity to consume Gulf seafood they often made the decision to consume despite the potential associated negative outcomes. It is possible that this risk did not outweigh passing up seafood with good attributes, such as good taste (Aronson, 1969).

Those who indicated that they would buy Gulf seafood likely had strong pre-existing schema associated with local seafood. These participants valued the local economy and helping the industry recover from the DWH oil spill. Other participants believed the Gulf seafood was safe and had eaten it and not experienced any adverse effects. In these instances the participants' stories of eating gulf seafood gave other participants reassurance in Gulf seafood. It is likely that this communication helped reduce dissonance in the minds of other participants and helped them return to a place of cognitive balance and product selection based on strong pre-existing schema, such as that of local seafood and the health benefits of seafood (Lindsey-Mullikin, 2003).

While the participants' pre-existing schema did include concerns with seafood origin and seafood safety, these items were discussed in contexts outside of the DWH oil spill. The participants never once mentioned an adverse reaction to seafood of Gulf origin or being concerned about the safety of seafood coming from the Gulf when initially asked their perceptions.

It was not until participants were asked about buying Gulf seafood that concerns with Gulf seafood arose. Therefore, concerns of Gulf seafood are likely not a part of the participants' pre-existing schema, but rather thoughts that challenge their pre-existing schema and create dissonance (Festinger, 1962; Sujan & Bettman, 1989).

Recommendations

In order for the Gulf seafood industry to continue to recover from the Gulf oil spill and continue to remain economically viable it is critical that consumers purchase Gulf seafood. Those working to restore the reputation of the Gulf seafood should be encouraged that the pre-existing schema of these participants did not include negative associations with Gulf seafood. It is recommended that those associated with this crisis take advantage of the opportunity to reinforce the health benefits and local origin of Gulf seafood, both of which were found to be strong positive schema in this study. Other benefits to purchasing Gulf seafood, such as benefits to the economy, supporting local fisherman, and desirable tastes should continue to be reinforced as consumers are more likely to purchase a product if they are reminded of the positive attributes of their purchase (Rasco, 2010).

Additionally, communicators should use personal messages and stories to help consumers overcome any remaining fear or dissonance associated with Gulf seafood, as demonstrated by those willing to buy in this study (Lindsey-Mullikin, 2003). When participants shared their stories of buying, other participants' fears associated with the safety of Gulf seafood were eased, thus providing insight to the relationship between consumers' attitudes and their decision to purchase Gulf seafood (Hicks et al., 2008).

Future Research

It is recommended that further research be conducted to establish a full understanding of how the nation views Gulf caught seafood. Seafood from the Gulf of Mexico is a $3 billion industry providing the United States with over one-third of its seafood (Johnson et al., 2012). It is important to understand national perceptions of Gulf-caught seafood in order to effectively market and restore consumer confidence in Gulf caught seafood. In addition, a quantitative national study will allow for the results to be generalizable.

Further research should also examine the influence of communication strategies appealing to existing schema on consumers' intent to buy Gulf seafood. This could be tested through various communication channels and with different target audiences. Additionally, the effectiveness of messages aimed at reducing dissonance surrounding the purchase of Gulf seafood should also be examined.

The findings of this research are limited to the questions asked by the researchers, and how the researchers interpret participant discussion, both of which are common limitations in qualitative research (Pauly, 1991).

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