How the Cookie Crumbles: The Case of Gluten-Free Cookies

by

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Executive Summary

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The gluten-free product line falls within the natural products market channel, and the natural products channel is experiencing tremendous growth. Even in the difficult financial year of 2008, natural products increased to nearly 4.2 billion USD, which is a 10.9 percent increase compared to the previous year. For the 52 weeks ending December 27, 2008, natural product gained 412.9 million USD in sales (SPINS, 2009a). Gluten-free products are the darlings of this channel.

The market for gluten-free market is multifaceted. The first facet of the market reflects individuals who perceive gluten-free products as the next good-for-you product to remedy a variety of ills. Another facet is the one lived by people with celiac disease (CD), a negative immune response to gluten, which is a protein in some grains. Similarly some families with autistic members are also living gluten-free. Another group of consumers particularly interested in gluten-free products are those who are committed consumers of natural products.

This case considers consumers of gluten-free products and their motivation to consume these products. First, the case reviews the market for gluten-free products, then the cookie market with an emphasis on natural and premium cookies. Second, the case looks at Arico Natural Foods Company and its first foray into the market through its line of gluten-free cookies and sustainability initiatives. Third, through an interdisciplinary approach, the case considers the four consumer types. Issues of ethical and political consumerism play an important role in the marketing of these products. Fourth, the case concludes with a comparison of the expansion of the gluten-free market with the low-carb diet of the early 21st Century.

Abstract

In 2008, natural product sales increased to nearly 4.2 billion USD, a 10.9 percent increase compared to 2007 (SPINS, 2009a). One of the most exciting food products in this segment is gluten-free products. Gluten is a protein in wheat and similar grains. People living with celiac disease cannot live without gluten-free products, but other consumers are picking up interest in the products because of perceived benefits to health and sustainability. This case explores the consumers of gluten-free products in the context of gluten-free cookies and attempts to steer the industry from the fate of the low-carb diet.

Key words: natural products, gluten, celiac disease, ethical consumerism, low-carb diet

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> He takes her to a health-food place near the housewife rehab. "What's spelt?" he asks.
> "It's the new-old whole wheat."
> "And what's gluten--why do some people want it and some don't."
> "It's not good in the gut," one of the customers says. (Homes, 2006, p. 317)

In the über-bizarre world of 21st Century Los Angeles, the characters in *This Book Will Save Your Life* are consumed with wholeness and healthy lifestyles. From meditation retreats to personal nutritionists, eating new-old foods to avoiding modern foods, whatever is new, foreign or ancient (or some complex combination of the three) will alleviate or at least mitigate the aliments of the modern urbanite.

This characterization is only one side of the multifaceted gluten-free market. Another facet is the one lived by people with celiac disease (CD), a negative immune response to gluten, which is a protein in some grains. Similarly some families with autistic members are also living gluten-free. Another group of consumers particularly interested in gluten-free products are those who are committed consumers of natural products.

This case considers consumers of gluten-free products and their motivation to consume these products. First, the case reviews the market for gluten-free products, then the cookie market with an emphasis on natural and premium cookies. Second, the case looks at Arico Natural Foods Company and its first foray into the market through its line of gluten-free cookies and sustainability initiatives. Third, through an interdisciplinary approach, the case considers the four consumer types. Issues of ethical and political consumerism play an important role in the marketing of these products. Fourth, the case concludes with a comparison of the expansion of the gluten-free market with the low-carb diet of the early 21st Century.

The Natural Products Market and Gluten-Free Products

The gluten-free product line falls within the natural products[1] market channel, and the natural products channel is experiencing tremendous growth. Even in the difficult financial year of 2008, natural products increased to nearly 4.2 billion USD, which is a 10.9 percent increase compared to the previous year. For the 52 weeks ending December 27, 2008, natural product gained 412.9 million USD in sales (SPINS, 2009a). This increase is greater than the 3.6 percent increase in the previous year. Some of this increase was the result of a price increase in these products. The average price of natural products increased from 3.75 USD to 3.94 USD, but unit sales increased by 5.7 percent or 58 million units. Of the products in this channel, bread and baked goods were the largest contributors to the dollar growth adding 25 million USD, a 26.7 percent growth in dollar sales. Additionally this category expanded shelf/freezer space as measured by a 714 point increase in total distribution points (SPINS, 2009a).

At the Natural Products West Expo 2008, Steve Preston, Senior Director of Marketing of Pharmaca Integrative Pharmacy argued that the natural products market is fueled by significant cultural shifts in the American consumer mind called "Doctor Me". Preston (2008) defines doctor me as a trend that reflects "an increasing interest on the part of consumers to maintain control of their own health and well-being." These are consumers who are "Taking health care to self-care."(Preston, 2008) Wilson (2005) noted as similar phenomenon in the demand for functional foods.

Gluten-Free Products, a Constituent of the Natural Products Channel

Gluten-free products have the greatest growth trends in the natural products channel. SPINS (2006), a natural products marketing research group, reported that gluten-free products increased in value by 50 million USD from 2004 to 2005, a growth rate of 14.7 percent. Over the same time period, gluten-free product introductions in natural supermarkets increased by 9.1 percent, but in conventional food stores, gluten-free products increased in introductions of new products by 18 percent.

In a 2007 survey, Mintel, a market research firm, found that eight percent of the US population looked for gluten-free products when shopping (Cromley, 2008). Many products are now provided that are gluten-free such as breads, crackers, cake mixes, etc. With more than 3,000 products touting a gluten-free label these days, the segment has exploded into a 921 million USD business, with dollar sales escalating by 16 percent in 2008 versus the previous year. While most of the dollar sales can be attributed to the conventional food channel which focuses on selling the fastest-moving items, the natural channel has generated a higher growth rate (SPINS, 2009b).

Paul Enderle, vice president and merchandiser for produce and nutrition centers at Fred Meyer noted " 'We're seeing gluten-free products grow three times faster than [other products] in our nutrition centers…The segment has grown from 4 feet to 8 feet-and up to 12 feet at some stores-and we've developed a 'gluten-free' logo in other departments, including the frozen foods case.'" (Zwiebach, 2007, p.20)

The Cookie Market

The US cookie market is facing challenges. In 2006, the US cookie market was valued at 5.6 billion USD, which is a decline of 8 percent since the 2001 high of 6 billion USD (Heller, 2006). Packaged Facts, a market research firm, noted that the declines are the result of price increases from rising input prices, growth of alternative snack products, and increased interest by consumers of healthy snacks (Heller, 2006). The segment of the cookie market that appears to be experiencing growth is the "better-for-you" segment. In the 52 weeks ending in December 2, 2006, low-fat cookies increased in sales by 17.7 percent while gluten-free cookies experienced a 30.2 percent increase in sales dollars.   According to Stephanie Torlakson of Pamela's Products, gluten-containing cookies have been experiencing a decline but the gluten-free product category of Pamela's Products is experiencing double-digit growth (Goldschmidt, 2007). Despite the tremendous rate of growth, these better-for-you products are relatively small in terms of sales. In 2006, the low fat cookies had sells of 198 million USD while the gluten-free cookies were around 5.5 million USD (Goldschmidt, 2007). See table 1 for a comparison with the top cookie brands by sales in the US.

Gluten-free products are part of the group of allergen-free products making headway in the cookie and snack market. However this product segment faces challenges in meeting the needs of consumers. Anne Munos-Furlong, CEO and founder of the Food Allergy & Anaphylaxis Network (FAAN) argues that food-allergic consumers must know that the ingredient statement is "accurate, reliable and clear." (Gorton, 2007). With the need for accuracy, some firms are moving to dedicated facilities and dedicated inputs for their allergen-free products.   Currently the US Food and Drug Administration (FDA) is still trying to establish regulations on appropriate labeling for gluten-free products. In the proposal, the FDA has suggested that a product can be considered gluten-free if the ingredients used have a presence of gluten below 20 part per million (FDA, 2007). As of this writing, the FDA is developing a study "to gauge perceptions of characteristics related to claims of 'gluten-free' and allowed variants (e.g., 'free of gluten,' 'without gluten,' 'no gluten'), in addition to other types of statements (e.g., 'made in a gluten-free facility' or 'not made in a facility that processes gluten-containing foods') on the food label." (FDA, 2009, p. 9822)

Another challenge associated with creating allergen-free products is getting the texture-flavor profile correct. For example, gluten provides baked goods structure. The way that gluten-containing cookies crumble in the mouth is based in part on gluten. Removing gluten requires finding other flours from beans, rice and the "ancient grains" like amaranth, millet, quinoa, sorghum and teff which do not have gluten. Some of these flours such as teff, quinoa and bean do not generate the same texture, and these non-wheat flours can generate different flavor profiles (Gorton, 2007). Angela Ichwan, co-founder of Arico Natural Foods Company says "'As consumers, we tend to take wheat flour as our baseline. To those accustomed to wheat flour's flavor, other flours may taste funny'" (Gorton, 2007, p 89.). Therefore, additional work and testing is necessary to achieve flavor profiles that are amenable to consumer tastes.

One area of promise in the cookie market is the premium cookie. Consumers view these products as "an indulgent reward" (Fox, 2007a). While these premium cookies may not necessarily have lower fat or sugar content, they tend to taut their better-for-you or premium ingredients such as the cacao content, organic or fair-trade ingredients or country of origin, as an indicator of its exotic origins. In reflecting on the globalized cookie, Fox (2007a) argues

> We've become a nation of people defined by experience and travel, and food products and manufacturers are also examined for their cultural and ecological impact. This everyday exposure to a global marketplace suggests consumers increasingly possess a greater awareness of world cultures, not to mention the implications of occasional domestic and internal food safety problems. As a result, each trip to the grocery store reveals the world is smaller than we once perceived it to be. (Fox, 2007a, p. 62)

Arico Natural Foods Company

Angela Ichwan and her husband Hermanto Hidajat are founders of Arico Natural Foods Company. Angela was inspired to create a line of gluten-free and casein-free (a protein in milk) products by her niece, who lives on a gluten-free and casein-free diet. After tasting some of the food products that her niece consumed, Angela realized that these consumers should have access to a greater variety of products, ones that she could create given her food science background (Ichwan, 2008). Angela also saw a nutritional need for her customers. She noted that individuals with gluten and dairy sensitivities often do not get enough calcium. Additionally people with CD tend to have fiber deficiencies in their diets. Therefore, Arico tries to provide a good source calcium and fiber in product formulations (Gorton, 2007).

With 500,000 USD from 14 angel investors, Arico began production in March 2005 with the introduction of four lines of organic, gluten-free and casein free cookies in the following flavors: double chocolate chip, lemon, peanut butter and almond cranberry (Kish, 2006). Eventually, Arico brought to market six varieties of cookies for consumers avoiding gluten and casein. Additionally, in 2007, Arico introduced four lines of cassava chip products in Sea Salt Mist, Barbeque Bliss, Ginger on Fire and Original, which contains, evaporated cane juice, sea salt and garlic powder. Cassava (also known as manioc, yucca root, manihot, mandioca and eddoes) is a root consumed throughout the Global South in a manner similar to potatoes in the Global North. The Arico cassava chips are free from refined sugars, cholesterol, artificial flavors and preservatives, colorings, yeast, wheat, gluten, dairy and casein with twice the fiber of potatoes. Compared to potato chips the cassava chips contain 30 to 40 percent less fat because during the frying process cassava chips absorb less oil. (Fox, 2007b) Additionally, Arico sets out to produce products that are safe and tasty alternatives for individuals who have a restricted diet. However, Arico is also producing products that are interesting enough for those who do not have restricted diets. The ultimate goal was to create products that promote "Mindful Snacking" by providing "safe snacks that can improve the lives of those who consume them." (Arico, 2005)

With a national distribution, Arico products can be found in 30 states and nearly 500 stores such as New Seasons, Whole Foods and Wild Oats. Arico products can be purchased at its online store as well as a myriad of other online retailers such as Amazon.com. In 2006, SPINS, named Arico the fastest-growing gluten-free cookie company in the US. In 2008, despite the weak economy, Arico sales revenue jumped from 400,000 USD to 1.2million USD (Siemers, 2009). Co-founder Hermanto Hidajat stated "'The economy is affecting everybody. I'm sure it's affecting us, too…But because we're in this steep upward trajectory we're still growing in multiples." (Siemers, 2009, p.28).

Mindful Snacking

In an interview in The *Natural Foods Merchandiser* (2008), Angela stated that Arico is carbon-neutral through the purchase of carbon offsets. For every store that purchases cassava chips from Arico, a tree is planted in Sumatra in an orangutan habitat. Additionally, Arico donates five percent of net profits to Women for Women International, a civil society organization that supports the engagement of women in politics around the world (Arico, 2008). Of this socially-conscious collaboration, Angela states:

> We're not just about selling great products; we truly believe in making a positive impact on society…We look forward to growing this partnership and helping to make a difference in the lives of women in need. As citizens of the world, it's everyone's responsibility to do their part to ensure that women live free from violence. (Arico, 2008)

In a review of Arico's website, the issues and themes of sustainability, both environmental and social, are evident and explicit. While authenticity is truly hard to gauge, Arico makes great efforts to support and communicate sustainability as is noted in its mantra "mindful snacking."

Gluten-Free Consumers

SPINS/IRI (2004) categorizes consumers of natural products into four groups of consumers (see Table 2). Consumers progress through phases from trial to committed consumers of natural products. For the purpose of this case study, I re-interpret these four groups as indicators of possible consumers of gluten-free products, especially cookies.

Approximately 60 percent of the US population is a "Trial" consumer of natural products. The reasons for their natural purchases are accidents, promotions and diet or food allergies. These consumers represent 15 percent of the natural product volume and only 1 percent of the organic volume. The products these consumers are purchasing are energy bars, non-dairy beverages and meat alternatives. These products represent incidental consumption. Consumers who pass the trial stage may become "Transitional" consumers of natural products. Representing 20 percent of the US population, transitional consumers purchase 30 percent of the natural products and 15 percent of the organics. These consumers are typically interested in natural products for their diet (weight loss) and/or food allergies (not CD but other food allergies). As entry-point consumers, they mainly purchase produce and animal products. I assert that these two categories cover two types of gluten-free consumers: self-diagnosed gluten-sensitive consumers and families living with autism.

For a consumer who progresses beyond the transitional phase, the consumer becomes a "Regular" consumer of natural products. Some 10 percent of the US population consumes natural products regularly. These consumers reflect 30 percent of the natural products market and 35 percent of the organics market. With an eye toward consumption of natural products because of the benefits to themselves and their families, these consumers have entire meals and snacks dedicated to the consumption of natural products. Of the gluten-free consumers, I suggest that persons with CD are regular consumers of natural products.

The final stage of the progression of natural product consumers is the "Committed" consumer. These consumers are small in terms of numbers representing only two percent of the US population; however, these consumers purchase up to 20 percent of natural products and 50 percent of the organics. The committed consumers' purchasing world view is shaped by ethical consumerism. They purchase products because the products are good for the world, their families and them. These consumers are not only purchasing full meals of natural products, but they are also purchasing personal care products and household products that are environmentally and socially sustainable and conscious. These consumers may be interested in gluten-free products for the various reasons that gluten-free products are considered natural, but these products are more attractive to these consumers if the products are sustainable. Let's consider the four types of gluten-free consumers given the progression of natural product consumers

Self-Diagnosed Gluten-Sensitive Consumers

Kelly Corbet (2007) provides an excellent narrative of the self-diagnosed, gluten-sensitive consumer:

> In my own family, 'gluten intolerance' meant a burned bottom and vomiting for my young son, and constant stomachaches and, well, socially embarrassing consequences for me. No clear tests identified our intolerance, but once we removed gluten from out diets we miraculously felt better. If you suspect a gluten problem for yourself or a family member, here's the information that you need. (Corbet, 2007, p. 49)

These consumers have only anecdotal evidence of a gluten-sensitivity. According to Dr. Joseph A. Murray, a gastroenterologist at the Mayo Clinic in Minnesota and specialist of CD, "'There's this 'go blame gluten' thing going on…it's difficult to sort out science from the belief.'" (Murphy, 2007, p.1) Self-diagnosed consumers may not have even seen a doctor, but they believe that, if they reduce or eliminate the amount of gluten in their diets, they will experience health benefits. Reports on the Internet and in health and lifestyle magazines argue that avoiding gluten can improve digestion, reduce the symptoms of rheumatoid arthritis, depression and a myriad of other maladies. Oprah Winfrey went on a "21-day cleanse" in summer 2008 in which she gave up meat, dairy, sugar, caffeine and gluten. (Painter, 2008). Even the trade press is picking up on the trend. For example, *Progressive Grocer* (2009) reports that gluten is associated with multiple sclerosis, attention-deficit/hyperactivity disorder (ADHD), repetitive strain or stress injury (RSI), among others.

Ben Wheely, a Free-from buyer[2] at Sainsbury's, notes a similar, more general phenomenon in England. Wheely (2007) argues that some wheat-avoiders or self-diagnosed customers simply believe that certain diets are better for them and are demanding gluten-free products. Some consumers perceive that gluten-free products will help them lose weight (*The Grocer*, 2007). Clare Marriage, marketing director for Doves Farm Foods, a gluten-free food producer in the UK, concurs with Wheely and says that some gluten-avoiders perceive that these products are healthier than gluten-containing products (*The Grocer*, 2007).

With this great interest in gluten-free foods, concerns exist. Cynthia Kupper, a dietician, executive director of the Gluten Intolerance Group of North America and a celiac, believes that some of the interest in gluten-free foods is a fad (Painter, 2007). Another dietician and celiac, Dee Sandquist suggests that some avoiders of gluten are not gluten intolerant. They feel better on a gluten-free diet because they are eating fewer fast foods and processed products. (Painter, 2008) Michael da Costa, managing director of The Food Doctor, argues that there is a conflation of wheat-free, gluten-free and lactose-free products and products in the better-for-you category.

He concludes "In fact, the free-from factor is not necessarily a better-for-you option for the majority of consumers." (de Costa, 2007, p. 53)

In terms of the progression of natural product consumers, the self-diagnosed gluten-free consumer is potentially a trial or transitional consumer. They have read about gluten intolerance and determined that they have similar symptoms. They try a few gluten-free products. However, they may not be committed. The self-diagnosed may never progress to the committed consumer if other factors intervene in their progression: they discover the true nature of their ailments; they lose weight; the cost is too great relative to the benefits; among others.

Families with Members with Autism

Autism is one of several disorders under the heading of autism spectrum disorders (ASD). ASD can impair the social interactions and communications and generate unusual behavior (CDC, 2007). The rate of ASD is rising in the US. In the 1970s and 1980s, the prevalence was 5:10,000. By the 1990s, the prevalence of ASD was around 1:166-1:250 (Caronna, Milunsky and Tager-Flusberg, 2008). New data from a 2002 Centers for Disease Control (CDC) study suggest that the number of ASD persons in the United States is 1 in 150 children (Kuehn, 2007). Nearly 6.7 million persons between 3-21 receive treatment for autism in the US (US Department of Education, 2007). Anecdotal evidence exists that gluten-free diets are beneficial for autistics, though the scientific community does not provide strong evidence (Elder, et al, 2006 and Christison and Ivany, 2006). Some parents of autistic children consider gluten-free products as a way to improve the quality of their family's life.

Dr. Robert Simpson (2008), former co-director of the Auburn Autism Center, suggested that less than 50 percent of the families who have children at the center are on gluten-free diets. Typically, the entire family will go gluten-free, at least for the meals shared with the autistic child. Simpson argued that it is particularly challenging for these families to produce simultaneously gluten-free and non gluten-free meals. The coordination of meals is important, but these families have many more complicating concerns in the care of their autistic child.

Another complicating factor is the cost. Lee, *et al.* (2007) found evidence that gluten-free foods are harder to find and on average cost 240 percent over their gluten-containing counterparts, which may impact compliance. All families do not experience the improved behavior of their autistic child as the anecdotal evidence suggests. Therefore, for some families, a trial with a gluten-free diet may not progress into to a committed gluten-free lifestyle for their autistic child, and especially not for the entire family.

Food Allergics

As an immune-mediated disorder, CD (also known as celiac sprue or gluten-sensitive enteropathy) is triggered in genetically susceptible individuals by consumption of gluten-containing grains (wheat, barley, rye and hybrids thereof) (Fasano, *et al*., 2003). CD manifests itself in “chronic inflammation of the small intestinal mucosa that may result in atrophy of intestinal villi, malabsorption, and a variety of clinical manifestations, which may begin in either childhood or adult life.” (NIH, 2004, p.1) Fasano, *et al*. (2003) reported that 1:133 not-at-risk individuals[3] in the US (over 2 million people) potentially have CD. Because of atypical symptoms and asymptomatic forms, CD may be underdiagnosed (Fasano and Catassi, 2001). Individuals with CD must live a gluten-free life for the rest of their life as no cure exists and consumption, over time, of gluten can lead to life-threatening diseases and immediate short-term, illnesses and pain.

These consumers are serious about gluten-free products. They must have assurance that the products are gluten-free. They will not take any compromises on the gluten status of the products they consume. Consider the comments of Catherine Oddenino, a person with CD:

> "I've been to so many places where the managers and waiters have been irritated and annoyed…Too often, they don't understand the gravity of the situation. Last year, I had to go to a work holiday dinner at an upscale restaurant. I called ahead and triple-checked what I could and couldn't eat with the management and still wound up with a huge crouton at the bottom of my salad. It's extremely frustrating." (Romolini, 2007)

People with CD are highly organized. In a survey conducted by the Gluten Intolerance Group (GIG) and TastesLikeRealFood.com (2008), nearly 87 percent of survey persons with gluten intolerance are a member of a gluten support group. These support groups provide members information from new research and recipes to alerting members to gluten-contaminated products. In the aforementioned survey, 71 percent of those surveyed agreed with the statement "My gluten-intolerance group is an important source that helps me maintain a gluten-free diet." (GIG and TasteLikeRealFood.com, 2008). Persons with CD have developed in a marketplace without clear government regulations, though this is changing. Trust matters significantly for these consumers not only because of the health consequences but also the expense.

As noted by Lee, *et al*. (2007) a person on a gluten-free diet spends more on food than those who are not. Fifty-five percent of the gluten-sensitive respondents reported that they spend more than 30 percent of their monthly food budget on gluten-free products. The average household of the survey was composed of 2.66 persons. Based on the US Internal Revenue Service, the national standard for food expenditures is 625 USD per month for a family of three (IRS, 2009). Therefore, the monthly expenditure on gluten-free products is approximately 187.50 USD per month.

Taste also matters. Over 40 percent of respondents in the GIG and TastesLikeRealFood.com (2008) survey said that they expect new gluten-free products to taste good. Sixty-three percent of respondents agreed with the question “If I find gluten-free foods that are good, I don’t worry much about the price.” These consumers are willing to try new products. Over 57 percent of these customers have tried 10 or more new products in the last year, and 85 percent said that they like to try new products. The percentage of persons in search of new products is high because 71 percent of respondents agreed that finding good-tasting gluten-free products is hard.

The percentage of respondents who agreed that gluten-free products taste as good as gluten-containing products was between 19 and 25 percent in categories of frozen meals, packaged desserts, frozen cookies and bread mixes. Packaged cookies did better with 35 percent of respondents agreeing that the taste was as good as gluten-containing products. GIG and TasteLikeRealFood.com (2008) concluded “Category growth is being driven by consumer necessity not by product quality. There are few, if any, premium-priced categories with this kind of quality differential.” (p. 24)

Committed Consumers of Natural Products

While a small segment of the US population, committed consumers of natural products are the major consumers of these products. As a group, their interest in natural products is a complex mix of motivations of ethical consumerism, sparked in part by enchantment, and political consumerism. In light of these motivations, these consumers may purchase a gluten-free product not because it is sans gluten alone. Rather, these consumers are motivated by how the product fits into their overall lifestyle and is beneficial to the environment, socially conscious, globally aware, that is “mindful snacking”.

Thompson and Coskuner-Balli (2007) define enchantment as “theoretically linked with experiences of magic, wonderment, spontaneity and transformative feelings of mystery and awe that are presumably lacking in commodified, ‘Diseyfied’ and ‘McDonaldized’ consumption experiences.” (p.280) Committed natural product consumers, like community supported agriculture (CSA) consumers in Thompson and Coskuner-Balli (2008), attempt to redress disenchantment brought about by sterile, routinized and highly ordered food chains through a romanticized product. If the natural product helps the consumer feel connected to a larger community, to people and ideals beyond themselves, to another time, then some level of enchantment is achieved.

Additionally, committed consumers of natural products are lifestyle consumers who, in a reflexive manner, are influenced by the ethos of the producers of the goods that they consume. Therefore if these consumers are purchasing natural household cleaners from firms that donate profits to environmental groups or who purchase carbon offset, the consumers may in turn donate and look for other products by other firms that do likewise. As Thompson and Coskuner-Balli (2008) reflected “[CSA customers] describe switching to alternatives that they believe to be more natural, more ecologically friendly and supportive of local businesses: actions that they interpret as striking small, but consequential, blows against the hegemony of global corporate capital.” (p. 289)

While not all committed natural product consumers share these Marxist ideas, some consumers participate in this market for political reasons. Because issues like global warming and child labor extend beyond national boundaries, national governments are not fully equipped to manage these globalized issues. One of the ways that consumers can address this governance failure is through political consumerism. Micheletti (2003) defines political consumerism as "actions by people who make choices among producers and products with the goal of changing objectionable institutional or market practices" (p.2). These actions are informed by the concerns of the agents for justice, fairness and noneconomic issues for themselves and their families and their political or ethical assessment of business and governmental activities.

One expression of political consumerism is ecological modernization, which "acknowledges that economic prosperity and environmental concerns are compatible" (p. 8). However, governance failures may not just occur with these globalized issues, the consumer-citizen is looking for ways to access power in a system that may have denied them or simply cannot represent them. More importantly, these consumers are looking for ways to manage the risks and uncertainties of long global supply chains. Reflexive modernization defines the agency of consumers to address these concerns through the market (Micheletti, 2003). "Consumers in Europe and the United States who are concerned with these problems search for food that is problem- and risk-free, and their search is strengthening the need for organically labeled food products…" (Michelitti, 2003, p. 9) With ethical and political consumerism, many products have a meaning beyond the face value. Products that authentically satisfy these multiple meanings are attractive to the committed natural product consumer.

Fad versus Growth Trend

James Mellgren, senior editor of *The Gourmet Retailer*, stated in *Progressive Grocer* (2009) "The category [gluten-free foods] has absolutely exploded, making this the most significant product trend since the low-carb craze of a few years ago, except this time, it's based on real medical conditions rather than quick weight-loss plans…" (p. 1) In contrast, Suzy Badaracco, president of Culinary Tides a food trends forecasting company, argues " 'A lot of people are going gluten-free…but they really don't know why…It's just like, 'Quick it's gluten-free, it must be good.'" (Cromley, 2008)

The growth in gluten-free products could be a fad, like the low carbohydrate (low-carb) diets. Many food product manufacturers in the US, Canada and the UK developed low-carb products to satisfy the demand of consumers on the Atkins, South Beach or other low-carb diets. New low-carb formulations of pastas, cookies, cakes, beer, etc. saturated the market by 2004. The new products were not just from specialty firms like Atkins Nutritionals, Inc, whose founder Dr. Robert C. Atkins is credited with popularizing the diet, but also large food and beverage providers such as Anheuser-Busch, Unilever and McDonalds. In the first quarter of 2004, food and beverage manufactures introduced 586 distinct new low-carb foods and beverages to retailers compared to the 633 new products in all of 2003 and 339 in 2002. At the height of the craze, LowCarbiz, a trade publication, expected sales to reach 30 billion USD by 2004 (Kadlec, *et al.* 2004).

The Diet Worked for Some…

In a May 2004 survey[4] conducted by Lawrence Shiman of Opinion Dynamics, he showed that 78 percent of the people surveyed, who tried low-carb diets, lost weight. Of those who lost weight 66 percent said that they continued or have kept the weight off. Only 9 percent said that they actually gained the weight back. The median weight loss for those surveyed was 16 pounds. Seventy-eight percent of current and 59 percent of past dieters said that they would be on the low-carb diet in the next two years (Shiman, 2004). This loyalty and sustained use of the low-carb diet sparked and fed the low-carb diet hysteria.

But the Market Failed.

Given the stated commitment of the persons on the low-carb diet, many manufactures felt that despite a downturn in the market, the low-carb diet was still a worthy investment. However, the downturn was substantial. The tide began to turn in the summer of 2004. Food industry analysts at Morgan Stanley surveyed 2500 adults, in 2004, and found that 10 percent were on a low-carb diet in June as compared to 12 percent in January (Arndt, 2004). According to NPD, a market research firm, 9.1 percent of Americans followed the low-carb diet in February 2003 by February 2004 2.2 were on a low-carb diet. Alan Beyda, CEO of J. A. M. B. Business Enterprises, Inc. of Florida said that there were 15 or 16 national distributors of low-carb products in 2003 by 2004 his firm was the only one left. His business shrank to one-sixth of its size compared to its height in 2003 (Pressler, 2005). Up to 2004, the low-carb craze buoyed the sales of Evans Food Group, a manufacturer of naturally low carb pork rinds[5], by the tune of 96 million USD, triple its sales of over five years. By 2005, Evans Food predicted a 15 percent reduction in production (McGinn and Springen, 2005). Worse of all, Atkins Nutritionals, Inc. filed for bankruptcy in August 2004.

Like most diet fads, if people lose weight, why continue with the diet? On the other hand if the diet never worked, why continue with the diet? The diet was hard to follow despite the proliferation of products. To be on the true Atkins diet, a person had to eat no more than 20 grams of carbohydrates a day for weight loss; however NPD suggested that the most careful dieters consumed 128 grams of carbohydrates a day. Another complexity of the low-carb diet was that all carbs are not created equal. Some labels noted total carbs (good plus bad carbs), and others noted net carbs (bad carbs less good carbs). The FDA argued that all carbs are created equal. With labels such as “Carb Smart”, “Carb Fit”, etc. how could a consumer make a good choice (Kadlec, *et al.* 2004)? In the end, the diet still exists with fewer adherents and fewer market opportunities.

Conclusion

Is the low-carb crazy a cautionary tale for gluten-free market? Companies like Arico have seen substantial gains in sales because of the mass appeal of gluten-free diets. What can Angela learn from the low-carb craze? How can Arico remain a strong company in the potentially fragile market where consumers like the ones described in the beginning of the case see gluten-free as the next new good-for-you food? With CD consumers and committed gluten-free families of autistic children, what must Angela do to keep these customers, yet expand her business to other consumers? When asked what are the biggest challenges facing the naturals industry, Angela responded, “To ensure the soul of the naturals industry can remain intact despite going mainstream”(*The Natural Foods Merchandiser*, 2008, p. 24). Why does the “soul” of Arico matter, and how can Angela keep it in tact?

Case Questions:

1. To whom should Arico expend the greatest effort to reach?
2. Compare and contrast the low-carb craze to the phenomenal growth in the gluten-free market.
3. Why does the soul of Arico matter, and how can Angela keep it in tact?

Table .Top 10 Cookie Brands (for the 52 weeks ending September 9, 2007 - total category sales $3,166 million)

Brand name	US Dollar Sales
Kraft Nabisco Oreo	483,304,300
Kraft Nabisco Chips Ahoy!	333,979,500
Private Label	319,815,300
Kraft Nabisco Newtons	113,144,400
Keebler Chips Deluxe	101,727,200
Kraft Nabisco 100-Calorie Packs	91,228,550
Pepperidge Farm Milano	85,359,700
Kraft Nabisco Nilla	82,659,380
Keebler Fudge Shoppe	82,292,760
Pepperidge Farm Chunk	79,241,740

Source: *Corporate Profiles & Industry Statistics*, November 2007, p. 110 Data obtained from Information Resources Inc. (excludes Wal-Mart)
https://www.aibonline.org/resources/statistics/2007cookies.htm

Table 2. The Progress of the Natural Products Consumer

	Trial	Transitional	Regular	Committed
		Percentage		
US Population	60	20	10	2
Natural Product Volume	15	30	30	20
Organic Volume	1	15	35	50
		SPINS Conclusions		
Categories	Incidental • Energy Bar • Non-Dairy Beverage • Meat Alternative	Entry-Point • Produce • Meat, Seafood • Milk, Eggs	Complete Meals • Yogurt • Pasta Sauce • Snacks/Beverages	Complete Baskets • Personal Care • Household Cleaners • Paper Products
Purchase Rationale	Accidental Promotion Diet/Food Allergy	Promotion Diet/Food Allergy Good for Me	Good for Me Good for My Family	Good for Me Good for My Family Good for the World

Source: SPINS/IRI Natural Products Consumer Solutions, 2004

Table 3. Of the total household grocery spending, how much do you spend on gluten-free foods?

Percentage of Spending on Gluten-Free Products	Total Percentage[1]
0-10	9
11-20	19
21-30	17
31-40	16
41-50	10
51-60	4
61-70	4
71-80	7
81-90	4
91-100	10

[1]Fifty-five percent of shoppers spend more than 30 percent of grocery budget on gluten-free foods.

Source: GIG &TastesLikeRealFood.com, 2008

References

Arico Natural Foods Company (2005), "Arico Natural Foods Hits the Market with Goal to Change the World through 'Mindful Snacking'" Press Release, December 12.

---.(2008), "Arico Natural Foods Supports Women Survivors of War" Press Release, September 22.

Arndt, Michael (2004), "Dude, Where's My Carb?" *Business Week*, (August 9) http://www.businessweek.com/magazine/content/04_32/b3895101_mz020.htm. Downloaded July 25, 2008.

Caronna, E. B., J. M. Milunsky, and H. Tager-Flusberg (2008), "Autism Spectrum Disorders: Clinical and Research Frontiers", *Archives of Disease in Childhood*, 93(June):518-523.

Center for Disease Control and Prevention (CDC) (2007) "Autism Spectrum Disorders Overview", Autism Information Center. February 9. http://www.cdc.gov/ncbddd/autism/overview.htm. Downloaded April 28, 2009

Christison, George W. and Kristin Ivany (2006), "Elimination Diets in Autism Spectrum Disorders: Any Wheat Amidst the Chaff?" *Developmental and Behavioral Pediatrics*, 27(April): S162-S170.

Corbet, Kelly (2007), "The Gluten Question: What you need to know" *Delicious Living* (October).

Cromley, Janet (2008), "Getting away from Gluten" *Los Angeles Times*, Home Edition (July 7): F1.

Elder, Jennifer Harrison, Meena Shankar, Jonathan Shuster, Douglas Teriaque, Sylvia Burns and Lindsay Sherrill (2006), "The Gluten-Free, Casein-Free Diet in Autism: Results of a Preliminary Double Blind Clinical Trial", *Journal of Autism and Developmental Disorders*, 36(April):413-420.

Fasano, Alessio, and Carlo Catassi (2001), "Current Approaches to Diagnosis and Treatment of Celia Disease: An Evolving Spectrum", *Gastroenterology*, 120(2001):636-651.

Fasano, Alessio, Irene Berti, Tania Gerarduzzi, Tarcisio Not, Richard B. Colletti, Sandro Drago, Yoram Elitsur, Petter H. R. Green, Stefano Guandalini, Ivor D. Hill, Michelle Petzak, Alassandro Ventura, Mary Thorpe, Debbie Kryszak, Faviola Fornaroli, Steven S. Wasserman, Jospeh A. Murray, Karoly Harvath (2003) "Prevalence of Celia Disease in At-Risk and Not-At-Risk Groups in the United States: A Large Multicenter Study". *Archives of Internal Medicine,* 163(February):286-292.

Food and Drug Administration (FDA) (2007), "Food Labeling; Gluten-Free Labeling of Foods", *Federal Register* 72:14(January 23):2795-2817

---. (2009), "Agency Information collection Activities; Proposed Collection; Comment Request; Gluten-Free Labeling of Food Products Experimental Study", *Federal Register* 74:43(6 March):9822-9823.

Fox, Jennifer Barnett (2007a), "Taste Travels". *Baking & Snack*, (October):57-66.

---. (2007b), "Getting to the Root". *Baking & Snack* (November):126.

Gluten Intolerance Group (GIG) and TastesLikeRealFood.com (2008), "Understanding Gluten-Free Shoppers: 2008 First Annual Survey", Private Survey.

Heller, Lorraine (2006), "Health Could Boost Declining US Cookie Sales, Report" Food Navigator-usa.com, http://www.foodnavigator-usa.com/content/view/ringt/112344. Downloaded, April 27, 2009.

Ichwan, Angela (2007), Personal Interview by Norbert Wilson on March 17.
Information Resources, Inc. (2009), "Top Cookie Brands, 2008." Center Store - A Supplement to Grocery Headquarters, August, 2008, p. 42, Market Share Reporter 2009. Online Edition. Gale, 2009.
Internal Revenue Service (IRS) (2009), "National Standards: Food, Clothing and Other Items", Last updated February 25, http://www.irs.gov/businesses/small/article/0,,id=104627,00.html. Downloaded April 29, 2009.
Kadlec, Daniel, Julie Rawe, Alice Park, Daren Fonda Wendy Cole, Jeanne DeQuine, Rita Healy, Marc Hequet, Hilary Hylton, Laura A. Locke and Sean Scully (2004), "The Low-Carb Frenzy" *Time* (May 3) http://www.time.com/time/magazine/article/0,9171,994064-1,00.html. Downloaded July 7, 2008.
Kish, Matthew (2006), "Arico Strives with Gluten-Free Spin on Snacks", *Portland Business Journal*, 23(November 24): 1.
Kuehn, Bridget M. (2007), "CDC: Autism Spectrum Disorders Common" *Journal of the American Medical Association*, 297(March7):940.
Lee, A. R. D. L. Ng, J Zivin, and P. H. R. Green (2007), "Economic Burden of a Gluten-Free Diet" *Journal of Human Nutrition and Diet*, 20:423-430.
Micheletti, Michele (2003), *Political Virtue and Shopping: Individuals, Consumerism, and Collective Action*. Palgrave Macmillan, New York.
National Institutes of Health (NIH) (2004), NIH Consensus Development Conference on Celiac Disease National Institutes of Health Consensus Development Conference Statement, June 28–30, 2004 http://consensus.nih.gov/2004/2004CeliacDisease118html.htm. Downloaded April 26, 2009.
The Natural Foods Merchandiser (2008), "40 under 40: Angela Ichwan" 28(August): p. 24.
Natural Product Association (2008) "Natural Products Association Standard and Certification Program for Personal Care Products" News Release provided May 1, http://www.naturalproductsassoc.org/site/PageServer?pagename=ic_natural_standard#factsheet. Downloaded August 22, 2008.
Painter, Kim (2008), "Gluten for Punishment: Intolerant or Not, People Are Avoiding Grain Protein" *USA Today*, (August 18): 10B.
Pressler, Margaret Webb (2005), "Low-Carb Fad Fades, And Atkins is Big Loser" *The Washington Post*, (August 2):A1.
Preston, Steve (2008), "Doctor Me," Presentation given in the session entitled "Today's Trends Tomorrow's Market" at the Natural Product Expo West & Supply Expo on March 14.
Romolini, Jennifer (2007), "For the Gluten-Averse, A Menu that Works" *New York Times* (July 25):F1.
Shimen, Lawernce (2005), "What Happened to the Low-Carb Craze?" http://www.opiniondynamics.com/docs/LowCarb-Aug05.pdf. Downloaded July 27, 2008.
Simers, Erik (2009), "Growing Fat in Lean Economy" *Portland Business Journal*, 25(January 30):1, 28.
Simpson, Robert (2008), Personal Interview by Norbert Wilson, October 10.
SPINS (2006), "Gluten-Free Product Sales" http://www.spins.com/assets/pdf/SPINS_GF_forWeb.pdf

---. (2009a), "Double Digit Dollar Growth in Natural" http://www.spins.com/assets/pdf/NaturalGrowth_1.09.pdf. Downloaded April 19, 2009.
---. (2009b), "Gluten-Free Sector Still Hot in Tough Times" Press Release, http://www.spins.com/news/03.31.09_Gluten_Free.php. Downloaded April 23, 2009
SPINS/IRI Natural Products Consumer Solutions (2004), http://www.spins.com/assets/pdf/np.consumer.progression_web.pdf. Download August 16, 2008.
Thompson, Craig J. and Gokcen Coskuner-Balli (2007), "Enchanting Ethical Consumerism: The case of Community Supported Agriculture" *Journal of Consumer Culture*, 7(3):275-303.
U.S. Department of Education, Office of Special Education Programs, Data Analysis System (DANS),OMB #1820-0043: "Children with Disabilities Receiving Special Education Under Part B of the Individuals with Disabilities Education Act," 2006. Data updated as of July 15, 2007.
Wheeley, Ben, (2007), "Focus on…The buyer's View: Retailers will focus on NPD" *The Grocer*, (February 17). www.thegrocer.co.uk
Wilson, Norbert L. W. (2005), "Cape Natural Tea Products and the US Market: Rooibos Rebels Ready to Raid." *Review of Agricultural Economic*, 27(Spring):139-148.
Zwiebach, Elliot (2007), "Import Controversy Stokes COOL Debate" *Super Market News*, November 5. Accessed through Nexis Lexis March 13, 2009.

Endnotes

[1]What is natural? It all depends. According to the Natural Products Association, a natural care product is one in which "the product must be made up of at least 95% truly natural ingredients or ingredients that are derived from natural sources:

- No ingredients with any potential suspected human health risks
- No processes that significantly or adversely alter the purity/effect of the natural ingredients
- Ingredients that come from a purposeful, renewable/plentiful source found in nature (flora, fauna, mineral)
- Unnatural ingredients only when viable natural alternative ingredient are unavailable and only when there are absolutely no suspected potential human health risks"

[2]Free-from products are ones in the United Kingdom that are products without certain allergens such as gluten or nuts.

[3]"Not-at-risk" individuals are ones who are not relatives of CD patients, presented CD-associated symptoms or associated disorders (Fasano, *et al.*, 2003).

[4]Each survey consisted of questions added to a random national telephone omnibus survey of 900 residents aged 18 and over. The surveys have been conducted independently - no outside organization paid for any of the low-carb research. The first study was conducted in December 2003, and the most recent study was conducted in May 2004. Questions on low-carb behavior were asked of those people who have tried a low-carb diet over the past two years, accounting for 24 percent of the US adult population, according to our most recent survey (Shimen, 2005).

[5]Pork rinds are deep-fried skins of pig meat.