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Demand Drivers Facing the Food System

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Introduction

This paper is an update of a previous paper entitled *Economic and Demographic Forces Affecting the Agri-Food System* that dealt with demographic forces and the main demand drivers facing the food system. That paper was written in 2007 and can be accessed online at http://aec.msu.edu/product/documents/Working/raepaper.pdf. The focus on this paper will be less on the demographic forces and more on the demand drivers. There have been two major changes in the demand drivers since the first paper was written. The first is that value has become relatively more important. The recession has made consumers more price conscious and trading down has become more common. For example, eating as restaurants has declined and the number of meals eaten at home has increased. Indulgence remains a demand driver but its position relative to value has declined.

The second major trend is the increased interest in products that are considered to be produced in a socially and environmentally responsible manner. The previous paper considered this trend has an aspect of the demand driver of indulgence. Over time this demand driver has become more and more important to some consumers, especially some consumers who have the purchasing power and the political acumen to alter the food system to reflect their preferences. As a result it is analyzed as a separate demand driver in this paper.

The main demand drivers affecting the food system are convenience, wellness, value, indulgence, social/environmental characteristics, and ethnicity. This paper will analyze each of these demand drivers individually and their impact of firms in the agri-food system. These demand drivers present opportunities for firms, and Michigan is well situated to take advantage of some of these drivers.

The identification of most of these drivers was the result of discussions with MSU Product Center staff and staff from the Hale Group. Taste is not considered. The reality is that it is extremely unlikely that food and beverage products that do not taste good will be successful. Consumers take products that are good tasting as a given.

The Demand Drivers Affecting the Agri-Food System

Wellness

Wellness is an important demand driver. According to one survey, 86 percent of those surveyed believe that eating healthy is either very important or somewhat important (Mintel, *Healthy Dining Trends*, p.50). Despite this fact many people do not eat a healthy diet. Developing products that make it easier to eat healthy could find a ready market, especially if health could be merged with good taste.

In this context, wellness reflects food attributes that have perceived impacts on consumers' health and wellbeing. One aspect is the desire for food products that do not cause harm as a result of pathogens and carcinogens. Examples are foods that are free of e-coli, hepatitis A and other pathogens that cause food poisoning. BSE remains a concern for some consumers. One manifestation of this concern is the increased emphasis on food traceability and Country of Origin Labeling (COOL). Pesticide residues remain a concern for some, not for their impact on the environment as much as its safety in food products. The growth in the organic market is driven more by the desire to consume safe foods than it is by environmental concerns (Mintel, *Organic Foods and Beverages*, p. 11).

One of the primary factors contributing to the demand for products that promote wellness is obesity, a major health issue facing U.S. society. Table 1 shows the percentage of Americans 18 and over who are overweight or obese.

Table 1: Percentage of Overweight and Obese Adults Aged 20 and Over 1994 – 2008

Year	Percent Overweight	Percent Obese
1994	35.4	14.4
1996	35.4	16.8
1998	36.3	18.3
2000	36.7	20.9
2002	37.0	22.1
2008	35.0	33.8

Sources: Mintel, Flegal, et al.

In 2008, it is estimated that 68.8 percent of the population was either overweight or obese. The percent of overweight people appears to be relatively stable, but the number of obese continues to increase. This epidemic now includes children. According to the Centers for Disease Control in 2003, 15.6 percent of people between the ages of 6 and 19 are overweight (Mintel, *Sugar and Sweeteners*, p.11). The number of overweight and obese people has become a major health policy issue. Foods that address this issue may find a market provided that taste is not sacrificed.

Another aspect of wellness is avoidance of foods that contribute to chronic diseases and conditions such as hypertension, and heart disease. Many of these diseases are a result of obesity.

The interest in foods that do not possess negative characteristics appears to be a global phenomenon. The Mintel Group's Global New Product Database (gnpd) tracks new product introductions throughout the world. Table 2 shows the new product introductions with what the gnpd refers to as “foods minus” claims; new food products that claim to have little or none of a negative product attribute. These figures are for the U.S. but food minus introductions are becoming more common throughout the world.

Table 2: Number of Selected Food Minus Claims Products Introduced March 2009-March 2010

Claim	Number of Products
Low/No/Reduced Allergen	798
Low/No/Reduced Calorie	819
Low/No/Reduced Carbohydrates	119
Low/No/Reduced Cholesterol	651
Low/No/Reduced Fat	1,341
Low/No/Reduced Glycemic	46
Low/No/Reduced Sodium	478
Low/No/Reduced Sugar	790
Low/No/Reduced Transfat	1,396
No Additives/Preservatives	1,187

Source: GNPD

There are several aspects of table 2 that need to be discussed. First is that a product could have multiple food minus claims. Secondly, the products included are food, drink and pet food introductions. From year to year the categories do not change too much. The large number of low/no/reduced fat and low/no/reduced calories introductions point out the interest curbing or controlling weight. Transfat claims have increased dramatically, and it is likely that glycemic claims will also increase over time. Low fat, low calorie and low sugar have traditionally popular product claims. Interestingly, there were still 119 product introductions that advertised themselves as low carbohydrates. While the Atkins craze has subsided, it appears that there is still some potential to introduce products that are low in carbohydrates.

No additives/preservatives have become a major claim for new product introductions. One reason is the belief that these products will promote wellness. Another reason is social responsibility, the belief that these products help the environment.

One important aspect of the food minus category of foods is the concept of “better for you”; foods and beverages that most would argue are not healthy but still better than the alternative. Examples include light beer, low salt potato chips, and candy bars made from dark chocolate. Better for You is a large category that presents many opportunities to entrepreneurs.

Products that make an explicit health claim are called functional foods (Mintel, *Functional Foods*, p.1). Often these products have added ingredients such as added vitamins or calcium. They could also be geared for a specific purpose or problem; an example of this is yogurt products with added ingredients that promote digestive health. It should be noted that entrepreneurs interested in functional foods need to be careful about making health claims, the regulations regarding medicine are stricter than those of food. Sales of functional foods have increased by 46 percent since 2004, and are now account for $6.3 billion of food sales (Mintel, *Functional Foods,* p.7).

An additional aspect of the demand for wellness is the creation of foods and beverages that actually promote or improve wellness. Examples are the promotion of foods that are high in vitamins and anti-oxidants. There is a growing trend toward foods that promote themselves are actually burning fat. There are also a growing number of food and beverage products that have pharmaceutical benefits. Food and beverage products that are high in probiotics, prebiotics and Omega 3-fatty acids are examples. Table 3 shows some new product introductions with food-plus added claims.

As is the case with table 2, table 3 includes food, beverages and pet food. One thing to notice is that there are many fewer food-plus categories, than there are food-minus categories. This indicates that there are potential opportunities for new products.

Table 3: Food Plus Product Introductions
March 2009-March 2010

Claim	**Number of Introductions**
Added Calcium	84
Added Fiber	63
Diabetic	34
Vitamin/Mineral Fortified	586
High Protein	370

Source: GNPD

Interestingly products that promote weight loss are not listed. Developing such products would find a ready market (Mintel, *Functional Foods*, p.63). There are also relatively few products that make a direct diabetes claim. Given the increasing rate of diabetes this is another area with growth potential.

However, the "food plus" market does not seem to be as well developed as the "food minus" market. Functional foods tend to be concentrated in yogurt, margarine, eggs, grain bars and snacks and drinks (Mintel, *Functional Foods*, p.7,8). One implication of this is that there may be more room for growth and new product development in the area of "food plus" products. General Mills, Kellogg, and Groupe Danone are the dominant firms in this sector (Mintel *Functional Foods*, p.9), but there are opportunities for smaller firms.

There are a number of economic and demographic factors that have made wellness a demand driver. An older and more sedentary population is more interested in food and beverage items that either improve health or do not adversely affect health. Chronic problems such as diabetes and osteoporosis are also driving the demand for products that are low in sugar and carbohydrates as well as the demand for food and beverages with added calcium (Mintel *Functional Foods*, p.13). It appears that one way to develop products that appeal to wellness is to develop products either to the young or to the old. Young people tend to buy functional foods to make up for unhealthy eating habits and the old buy functional foods to address a specific health issue (Mintel, *Functional Foods* p.84). Some consumers now have the income to afford to pay for products that impact health in a positive way.

While wellness is an important driver, so is value. Products that appeal to both the waistline and the pocketbook are more likely to be successful. Products that taste good and provide value are important considerations when appealing to health (Mintel, *Healthy Dining Trends*, p.7). Offsetting this issue somewhat is the fact that people in higher income brackets apparently are more interested in eating healthy compared to those in lower brackets, especially those who make less than $25,000 a year (Mintel, *Healthy Dining Trends,* p.62).

When appealing to wellness it might pay to target women and seniors. Both of these groups place more importance on wellness than other groups (Mintel, *Healthy Dining Trends*, p.9). Also, women are most likely to be the primary food shopper in the household. One way to do this is by focusing on freshness. According to a survey, freshness and fat content are the two things people look for when searching for healthy items (Mintel, *Healthy Dining Trends,* p.26).

Ethnicity

Ethnic products can be defined as those that have food and beverage traits that appeal to specific ethnic groups. This driver has two sub-categories: foods with an authentic appeal to the ethnic group itself; and foods marketed to the wider U.S. population that has been influenced by ethnic tastes and ingredients.

Obviously, a major source of this demand driver is the growing ethnic diversity of the U.S. According to one source, 33.5 million people, or 11.7 percent of the entire population living in the U.S. are foreign born (Mintel, *Emerging Restaurant Trends,* p.38). This has impacted the demand for number of ethnic foods and markets. Table 4 shows the growth of Hispanic and Asian populations in the U.S. During this time the black population has held its own while the percentage of whites has declined.

Table 4: Percent Asian, Hispanic, and Black U.S. 2000-2008

	Year				
	2000	2002	2004	2006	2008
Asian	3.8	4.0	4.2	4.3	4.5
Black	12.7	12.7	12.7	12.8	12.8
Hispanic	12.6	13.4	14.0	14.7	15.4

Source: Population Division, U.S. Census Bureau

The makeup of the households represented by these ethnic groups is also different. For example, Hispanic Households tend to be larger and have more children than white households (Mintel, *In-Store Bakeries*, p.36). This presents options to those interested in offering products that appeal to households with children who are Hispanics.

Food retailing firms that are geared towards Asian products have become common. Restaurant establishments that specialize in Indian, Thai, and Middle Eastern cuisines are also becoming more common.

In one important respect table 4 is somewhat misleading. Asian and Hispanic are broad categories that encompass a wide range of ethnicities. East Asian food is considerably different than Indian food for example, and even within East Asia there are significant differences between Korean, Japanese and Chinese cuisines. The same holds true of Hispanic consumers. For examples there are differences between Mexican and Cuban foods. These differences present opportunities for firms willing to provide and authentic experience for members of these communities.

Another opportunity in the ethnic market is offering halal foods; foods that are produced and processed in accordance to Islamic standards. It has been estimated that there are 300,000 Arabs in Southeast Michigan, the second largest concentration of Arabs outside the Middle East. Furthermore, it has been estimated that there are 8 million Muslims in the U.S. (Knudson, p.4). This is clearly a growing market, and food processors in Michigan are well positioned to take advantage of this opportunity.

The influence of ethnic food will likely become more widespread. Americanized versions of foreign foods have developed. This has happened with Italian food, and may be happening with Mexican food. These foods will be a combination of foreign and American tastes. Flavors typically thought of foreign, such as curry, might work their way into foods traditionally thought of as American.

There appears to be two ways in which this happens. The first is the interaction between the ethnic group and the larger society. Over time what once was exotic has become mainstream. The second is increased foreign travel and other exposure to foreign food. Television channels such as the Food Network and the Travel Channel as well as more and more Americans travelling overseas has exposed consumers to foods and beverages that they were previously unaware of.

Ethnic foods appeal to some consumers' sense of adventure. These consumers are looking for new flavors, tastes and food experiences. In this respect, the ethnic food driver is very similar to the indulgence driver.

Indulgence

Indulgence is a broad category that covers many product attributes and characteristics. Products that appeal to indulgence are those designed to meet the consumer's deeply felt desires as opposed to their needs. Indulgence in this sense does not necessarily mean unimportant or frivolous, but rather food and beverage items need to possess characteristics above and beyond the simple ability to maintain life or to provide minimum quality at a minimum price.

As a result, indulgence can cover a wide range of products. One such characteristic is luxury. Examples include beer from a microbrewery, expensive wines and chocolates, gourmet coffees and cheeses. According to a somewhat dated survey, 45 percent of the respondents stated they enjoyed eating foreign foods (Mintel, *Edible Fats and Oils*, p.11). Another aspect of indulgence is cooking as a hobby, cooking gourmet meals as a lifestyle choice. According to one survey, 20 percent of respondents like to cook for fun and 49 percent "really enjoy" cooking (Mintel, *Edible Fats and Oils*, p.11). For some, cooking and preparing food is a basis for social connectedness, an opportunity to interact with others. Fine dining at a restaurant is another example of using luxury appealing to the sense of indulgence. The experience of the food and atmosphere meeting the desire of the consumer is the primary indulgence attribute. This includes the desire to experience new foods, tastes and varieties.

Emotional connectedness is also an attribute of indulgence. Some foods appeal to a consumer's sense of nostalgia. The phrase "comfort food" points this out. Meat loaf and homemade chocolate chip cookies are examples of foods that appeal to emotional connectedness.

One area of indulgence that clearly seems to have a great deal of potential is developing pet food products. Households have become smaller over time, and it appears that pets have taken the place of children; aging "empty nesters" may also put more effort and spend more money on their pets. According to the Global New Products Database (GNPD) From March 2009 through March 2010, there were 222 pet food product introductions that made product claims with respect to promoting animal health in the U.S.. Examples include products are promoted to improve eyesight, the brain and nervous system, and a wide range of other bodily functions.

A secondary source of the growth of indulgence is an aging population. Households with the income and the time are better able to pursue hobbies and develop new interests. This includes new experiences with food and beverages.

One way to appeal to indulgence is through wellness. Some products that appeal to indulgence also can appeal to wellness. One example of this is by linking a healthy item with an indulgence item. The idea is that the indulgence item is a “reward” for healthy eating or other healthy behavior (Mintel, *Healthy Dining Trends*, p.10). It is also possible to combine indulgence with other product attributes, especially ethnic products.

Another way to appeal to indulgence is through offering restaurant type experiences at home. As a result of the recession and other factors people are going to the restaurant less often than in the past. By offering restaurant quality items at a lower price, an agri-food entrepreneur could conceivably appeal to both indulgence and value simultaneously, a very unusual combination. Examples of this are artisan breads (Mintel, *In-Store Bakeries*, p.27), and artisan cheeses.

Another way to appeal to appeal indulgence is to provide a unique high quality experience. Examples of this are wine and beer. Given the increasing restrictions on alcohol consumption, consumers may be willing to substitute smaller quantities of high quality wine and beer for larger quantities of lower quality wine and beer. Beer in particular has potential given the fact that it sold at a lower price point than wine. Another way to expand the craft beer market is to pair food with beer similarly to what currently happens with wine.

The same trend appears to apply to cheese as well; natural cheese sales are increasing while processed cheese sales are flat or declining (Mintel, *Food-US*, p.56). Most mass produced cheeses are represented by a few varieties. There is a great potential in the production of artisan cheeses.

Social/Environmental Characteristics

An evolving but increasingly important demand driver is the desire on the part of some consumers to buy products that represent and promote their values. This is manifest in several ways. Products that promote animal welfare are one example. Products that minimize impacts on the environment or more specifically reduce or offset the impacts of climate change are another. Some producers dedicate some of their profits to charities that could be supported by consumers. Another popular trend is “fair trade” products that are produced from commodities that do not use child labor, or pay input suppliers a “fair” wage.

Table 5 shows the number of product introductions over the past 12 months in the U.S. with some type of ethical product claim.

Table 5: Ethical Product Introductions U.S. March 2009-March 2010	
Claim	**Number of Introductions**
Animal Welfare	119
Charitable Contributions	257
Environmentally Friendly Packaging	1,618
Environmentally Friendly Product	298
Human Welfare	261

Source: GNPD

Perhaps the most interesting aspect of table 5 is the number of product introductions that make environmentally friendly packaging claims. This is likely because environmentally friendly packaging often cuts costs as well as promoting a clean environment.

The issue of animal welfare is becoming increasingly contentious. Some activist groups have pressured restaurants and food processors into buying commodities from farmers who follow certain production practices. Alternatively, the activist groups have been successful in altering production practices through legislation or ballot initiative. Most consumers may or may not care how an animal is conceived, born, raised and slaughtered but an aggressive group of consumers has been effective in changing the entire system. Costs incurred by livestock producers are likely to increase.

One manifestation of this may be an increased interest in vegetarianism. It is expected that processed vegetarian meals will increase by 39 percent from 2008 through 2013 (Mintel, *Food – US*, p.259). These products are an example of combining two demand drivers, social/ethical and convenience.

Locally produced is another example of this trend. Locally produced foods are often considered to have a lower carbon footprint than food produced further from the market. Some consumers are interested in locally produced food because these items promote the local economy. According to one survey, 43 percent of respondents thought that buying food produced by local farmers was important (Mintel, *Emerging Restaurant Trends,* p.51). They also have the potential of being fresher. This is particularly important for products such as fruits and vegetables as well as baked goods (Mintel, *In-Store Bakeries*, p.6). A further positive aspect of appealing to locally produced is the fact that consumers interested in locally produced products tend to have higher incomes than those consumers who are not interested in this product attribute (Mintel, *In-Store Bakeries*, p.10). With the passage of time the percentage of food purchased at groceries stores has declined while the percentage purchased at farmers markets and other outlets appears to be increasing (Mintel, *Grocery Store Retailing,* p.23).

Convenience

Of all the demand drivers shaping the agri-food system convenience may be the most important. Convenience can be defined as anything that makes life easier for the consumer such as: prepared foods that can be consumed “on the run” or at home; hand held foods that enable the consumer to do something else while eating such as driving; partially prepared foods that reduce or eliminate preparation time e.g. instant oatmeal, precut salads; foods in packaging that makes consumption easier such as microwavable popcorn, “Lunchables”, and single serve yogurts; or bundling of products such as “Hamburger Helper”, frozen dinners etc. Convenience is a very popular product attribute, according GNP, between March of 2009 and March of 2010 there were 3,484 food and beverage products introduced in the U.S. that had a product claim related to convenience.

Several factors have led to the demand for convenience. Smaller families increase the per person time and effort cost of cooking. It also makes packaging for smaller households more important. An aging population will also lead to an increased demand for easy opening packaging. More women in the workforce and long daily commutes also reduce the amount of time many households have for food preparation. The work week of many households has increased also reducing the time available for preparing meals.

For many households that earn $75,000 or more, time has become more valuable than money. As a result, these households are willing to pay a price premium for foods that are convenient. Additional packaging, ease of use etc. in exchange for a higher price is considered a good trade-off for these consumers.

While time is one important aspect of convenience it is not the only one. Another important aspect of convenience is ease of preparation. Pre-cut salads are an example. Another example is the growth of foods that can be prepared in one dish, such as premixed crock pot dishes. These meals are very easy to prepare but may actually take several hours to cook. However, there is little oversight or thought involved in the actual cooking of the meal.

Another consideration of convenience is the development of meal solutions. Packaged or pre-prepared food items that provide an entire meal. Meal solutions not only save time and effort, but also reduce time shopping and planning meals. As is the case with the other demand drivers, convenient products still must meet consumers’ expectations with respect to taste and quality (Mintel, *In-Store Bakeries*, p.14).

The changing nature of where food and beverages are purchased is also a reflection of convenience. More and more shoppers are using one stop hypermarkets like Meijer and Walmart. Also, more food is being purchased at drug stores and other outlets such as dollar stores (Mintel, *Grocery Store Retailing*, p.5).

Value

The final demand driver is the best understood. Food and beverages that meet the consumer's needs at the lowest price fulfill the consumer's preference for value. Price coupled with a basic level of performance is the hallmark of value. The role of price is also the best understood product attribute in economics.

Value can be expressed in the following equation:

$$\text{Value} = \frac{\text{Satisfaction}}{\text{Price}}$$

A value driven consumer will want to maximize this ratio. Obtain the most satisfaction while paying the lowest price. This thinking is behind the current trend of "trading down" spending less on luxury items, while trying to economize on a wide range of purchases. While being a "smart" shopper has always been desirable, this concept has increased in importance as a result of the recession.

In addition to high unemployment resulting from the recession there are other factors that have made value more important to consumers. Declining house values have reduced household wealth as did the decline the value of stocks and other investment items, high gas prices have reduced discretionary income (Mintel, *Healthy Dining Trends,* p.6). As a result of these and other factors, household saving is increasing which means that spending on luxury goods has declined. These factors have also increased uncertainty making consumers less wiling to purchase goods and services even if they have jobs and their income and wealth have not declined.

There are a number of examples that appeal to value. Private label brands that sell at a price discount are an example, as are canned fruits and vegetables. Private label sales accounted for 18.3 percent of food sales in 2009 (Mintel, *Grocery Store Retailing,* p.43). Certain restaurant chains that sell pre-made standardized products are another example.

While perhaps less exciting than the other demand drivers, value will continue to be important with many consumers. The 76.2 percent of households that earn less than $75,000 will likely remain price conscious for many, if not most products. This is particularly true for those households that earn less than $50,000 which is still more than 50 percent of all households. Immigrants with limited incomes may also be value oriented. In some respects this limits the ability to charge price premiums for ethnic foods.

An aging population may also place more emphasis on value. Many retired people have fixed incomes. While it is true some seniors are financially independent, other will have limited budgets for their remaining years. Policy issues such as rising health care costs and the future viability of social security may also affect the purchasing choices of older consumers, with the result being a greater emphasis on value being placed by these consumers.

Implications for Firms in the Agri-Food System

The demand drivers create opportunities for firms in the agri-food system. Controlling costs will continue to be the most important aspect for firms interested in providing products that offer value to consumers. To be successful providing value, a firm will need to be the low cost producer. Value has become increasingly important as a result of the recession.

Costs are less important in providing products that address the other drivers. Increased ethnicity will increase the demand for authentic foreign foods and foods that are influenced by foreign flavors and characteristics. This increases the range of products that can be offered to consumers, and creates additional markets available to firms in the agri-food industry. This transcends beyond the Mexican market and includes markets such as the Indian and Middle Eastern market.

Convenience remains a very important demand driver. More affluent households facing time constraints place a higher value on foods that are easy to prepare and can be consumed on while doing something else. The growth of two income households will also make convenience more important. Smaller households increase the demand for packaging that reflects servings for one or two individuals. This demand driver is well understood, but opportunities remain.

Wellness is a driver that presents a great deal of potential for firms willing to meet this driver. An aging and affluent society is becoming more interested in healthy foods, both those foods that are free of “bads” such as fat and sodium and have more “goods” such as antioxidants and vitamins and other attributes. This demand driver also has a great deal of potential in the area of functional foods. In many ways, the wellness market is just developing as the science and consumer awareness continues to grow. This is an area that may have a great deal of potential for firms and new product introductions.

Of all the demand drivers, indulgence perhaps provides the most options for firms in the agri-food sector. Indulgence covers many submarkets including luxury, social interaction, and religious concerns to name a few. Also there are many consumer segments that agri-food firms may wish to pursue. Insofar as indulgence appeals to the most deeply held preferences and beliefs of these consumers the potential to obtain price premiums may be the highest. Pet food products also are a potential source of innovation with respect to this demand driver.

Related to indulgence are products that appeal to the social and environmental values of consumers. With the passage of time this driver has become more important. Interest in ethical production practices and environmental sustainability has increased. One manifestation of this is the interest in locally produced foods. Given Michigan’s relatively close location to both areas of production and major population centers, this demand tend has great potential for entrepreneurs.

One way firms in the agri-food industry can capture higher profits is by developing products and markets that address one or more of these drivers. These demand drivers are stackable. Examples include prepared ethnic foods that would appeal to ethnicity, convenience and perhaps indulgence. Another would be prepared organic foods in single serve containers; this would appeal to wellness and convenience while taking into account smaller household size. Products that appeal to a number of drivers simultaneously have the greatest potential to be successful.

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