Factors affecting food decisions made by individual consumers

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Abstract

Food decisions made by individuals affect the healthfulness of their food intakes and influence the success or failure of food products in the consumer-oriented food marketplace of today. Because consumers develop their own systems of deciding what to eat and how to follow the Food Guide Pyramid, it is difficult to know which factors or combinations of factors that influence those decisions are most important. Some of these factors that influence consumer food choices are discussed in this paper. These include cultural factors, psychological factors, lifestyle factors, and food trends. Barriers to food decisions that follow Food Guide Pyramid recommendations for healthy diets are identified. These are barriers related to food, consumer food behavior and dietary guidance. Approaches are summarized for modifying consumer food decision-making behavior in the direction of healthful diets that follow the Food Guide Pyramid. © 1999 Elsevier Science Ltd. All rights reserved.

Introduction

Consumers are the most important segment of the US food system. Their role as food decision-makers determines the success or failure of food products in today’s consumer-driven food marketplace (Senauer et al., 1991; Sloan, 1994a). Recent survey data give an indication of the power of consumers in the food marketplace (Sloan, 1994b). An industry survey found that the success rate for new food products introduced into the retail sector was 17%, thus 83% of these products failed. This high failure rate is extremely expensive because, according to Sloan (1994b), the costs to introduce each new product nationally can be US$5–10 million or more.
Greater attention to product development based on consumer demand, acceptance and use has the potential to improve this situation.

The success of dietary guidance materials such as the Food Guide Pyramid (FGP) can be determined by the extent to which food consumption of individuals meet these dietary recommendations. The status of consumer compliance with FGP recommendations was covered in the background paper for this conference (McNamara et al., 1997). This analysis of food consumption data from the 1994 Continuing Survey of Food Intakes of Individuals showed an upward trend in the number of servings consumed from each food group, but these continued to be lower than the mean FGP serving recommendations. Intakes continued to be higher than FGP recommendations for percentage of energy from fat and amount of added sugars. Data from the 1998 Food Marketing Institute Annual Survey of Food Shoppers also indicated that these shoppers were slowly increasing their use of FGP recommendations (Food Marketing Institute, 1998). In 1998, 27% of them “Changed purchases because of the FGP guideline”. This was not a high percentage, but was the same as in the 1997 survey and was up from 23% in 1996.

The projected food supplies needed for the United States in 2020 that are presented in the background paper (McNamara et al., 1997) which would provide adequate food supplies to meet the recommendations of the FGP in 2020 do not guarantee that Americans will eat according to the pyramid recommendations. Other factors besides food availability need to be considered that can help consumers meet the mean serving recommendations of the FGP when making decisions about what to eat. Some of these factors discussed here include cultural, psychological and lifestyle factors; food trends; barriers that can prevent consumer compliance with FGP recommendations; and selected strategies to influence consumer food decisions in the direction of the FGP.

Cultural factors

Food habits are a component of culture that make an important contribution to the food decisions consumers make and thus to meeting FGP recommendations. Over 50 years ago Dr. Margaret Mead described the relationship between culture and food habits when she was a member of a National Research Council Committee on Food Habits. She stated that “Food habits are seen as the culturally standardized set of behaviors in regard to food manifested by individuals who have been reared within a given cultural tradition. These behaviors are seen as systematically interrelated with other standardized behaviors in the same culture” (Mead, 1943, p. 21). Although some view culture and food habits as static and unchanging, it is now recognized that they are continually changing as they adapt to travel, immigration, and the socio-economic environment (Jerome, 1982; Lowenberg et al., 1974; Senauer et al., 1991; Kittler and Sucher, 1995). When modifying food intakes to meet dietary recommendations there are certain aspects of food habits that are difficult to change, such as the concept of meals, meal patterns, the number of meals eaten in a day, when to eat what during the day, how food is acquired and prepared, the etiquette of eating and what is considered edible as food.
Classification of the edibility of plants and animals and their parts in terms of what is considered food greatly influences individual and family attitudes toward food and what to eat (Committee on Food Habits, 1945; Lowenberg et al., 1974; Kittler and Sucher, 1995). In this system there are different designations for edibility. Items can be considered inedible by humans in a culture; edible by animals but not by humans in my culture; edible by humans in some cultures but not in my culture; edible by humans in my culture but not by me; and edible by me.

Culture also establishes how people use food and thus affects food intakes (Lowenberg et al., 1974; Kittler and Sucher, 1995). Food is always used to satisfy hunger and to meet nutritional needs. Food is used to promote family unity when members eat together. It can denote ethnic, regional and national identity. It is used socially to develop friendships, provide hospitality, as a gift, and as an important part of holidays, celebrations and special family occasions. In religious rituals and beliefs certain foods have specific symbolic meanings, or there may be prohibited foods or food taboos. Food can be used to show status or prestige, make one feel secure, express feelings and emotions, and to relieve tension, stress or boredom. Food controls the behavior of others when used as reward, punishment or as a political tool in protests and hunger strikes. Because food has artistic characteristics, it is used as the subject of creative expression by cooks, artists, photographers, restaurants, and advertisers to influence food choices.

Psychological factors

Psychological factors are among the strongest determinants of what foods an individual eats. Of these factors, food preferences, food likes and dislikes, and response to sensory attributes are closely related to making food choices to meet FGP guidelines and are the ones discussed here based on Lyman (1989).

Food preferences play an important role in food selection because they give an indication of the amount of satisfaction an individual anticipates from eating a food. Preferences are a result of physiological and psychological development and social experiences, and are related to the degree of liking a food. Liked foods are those that are familiar, considered pleasant, and are usually the ones eaten, thus food preferences predict consumption. Disliked foods are rejected either because they are considered unpleasant or they are unfamiliar foods that have never been tasted. Studies show that more foods are disliked than liked.

Food preferences also are related to psychological and physiological perceptions of the sensory attributes of food (Lyman, 1989; Charley and Weaver, 1998). Of the sensory attributes, taste is the one considered most important in food selection by 89% of the respondents to the 1998 Food Marketing Institute Survey of Food Shoppers (Food Marketing Institute, 1998). This trend has been stable for several years in this survey.

Other sensory attributes that contribute to food preferences are texture, color, shape, form, size of pieces and temperature.
Lifestyle factors

In recent years, lifestyle factors have become important in describing how consumers make food decisions and the value they would place on meeting FGP recommendations (Senauer et al., 1991). Lifestyles describe how people seek to express their identity in many areas, including food selection. Lifestyle classification systems are continually being developed by consumer information and market research companies for marketing purposes. These systems combine psychographics (attitudes and values based on psychology), sociology, theology, economics and politics with demographic and geographic data to classify consumers into groups in order to identify consumer segments and predict consumer behavior in the marketplace, including the food marketplace.

Food trends

The extent to which individuals follow FGP guidelines can be affected by how they respond to food trends. Some food trends enhance the healthful eating concept of the FGP and others do not. Some food trends are popular and enduring, while others are short-lived.

Several established and emerging food trends identified by Sloan (1994a, 1996, 1998) affect the food decisions individuals make. These include foods that taste good because they are fresh, particularly fruits and vegetables; convenient foods that are quick to cook; ethnic foods with distinctive ingredients, flavors and spices; fusion foods (that combine ethnic cuisines); prepared home meal replacements, more food mixtures particularly those with less meat; more vegetarian meals; foods labeled natural or organic; food that is available in a variety of places to be eaten anywhere at any time by grazers and snackers; foods that promote health (e.g. probiotics and nutraceuticals that contain phytochemicals and other ingredients with special medicinal properties); and physical performance-enhancing energy foods.

Barriers to selecting foods for healthful diets

It is important to identify and remove potential barriers that tend to prevent consumers from choosing foods that meet FGP recommendations. Barriers can be grouped according to those related to food, consumer behavior, and dietary guidance (Lowenberg et al., 1974; Lyman, 1989; Senauer et al., 1991; Kittler and Sucher, 1995: Nestle et al., 1998).

Barriers related to food

Food safety is a major barrier confronting consumers making food buying decisions that will meet FGP guidelines. Contamination of fresh produce with pathogenic microorganisms, whether domestic or imported, presents a barrier in meeting
fresh fruit and vegetable recommendations (Anon, 1997b). It is also pointed out here that imported produce has the same problem as it does in the originating country where tourists are advised not to eat it unless it is peeled or boiled. Prepared pre-cut produce also can contain microorganisms from several sources, including processing water that can cause spoilage and sometimes food-borne illness (Gordenker and Briley, 1997).

Also of concern is microbiological contamination of fresh eggs, poultry, meat; fresh fruit juices, and organically grown fresh produce (Anon, 1997b; Novotny and Anderson, 1997; Anderson, 1997a). It has been found that contamination occurs by different microorganisms in products in different regions of the United States, making it difficult for consumers to know how to select and handle their food.

Concerns about the effectiveness of home cooking procedures and new processing and preservation technologies such as irradiation in making food safe to eat have been discussed in the literature and at professional meetings (Anon, 1997a,b; Anderson, 1997a; Novotny and Anderson, 1997). The possibility of allergens from various sources in food, including in transgenic plants, can have a significant effect on food decisions made by consumers (Anderson, 1997b).

Processed and convenience foods are considered undesirable in quality and cost by some consumers and thus present barriers to them, while other consumers who cannot cook or choose not to cook need these foods and find them desirable.

Barriers related to consumer food behavior

Some cultural and psychological factors already discussed can be barriers to meeting FGP recommendations. These can include: food habits; food preferences and food likes and dislikes. Some barriers also can be related to issues in changing food behavior, such as resistance to change, lack of motivation to change, and lack of confidence in being able to change. Other individual barriers include lack of adequate meal planning skills; no cooking skills; no time to cook; no cooking utensils or place to cook; limited knowledge of food terms, such as ingredient names, and preparation terms in recipes.

Barriers related to dietary guidance

Numerous similar dietary recommendations and food guides for different audiences have been developed and used by various health-related organizations and governmental agencies in the last 30–50 years (Senauer et al., 1991; Porter et al., 1998). Although significant efforts have been made by health professionals and others to use these materials to communicate food guidance information to the general public, consumers continue to have problems using this information (Willett, 1994, 1998; Nestle et al., 1998; Porter et al., 1998). This situation seems to indicate that the warning Dr. Margaret Mead made in the early 1940s could have been considered more carefully in the development of such materials. According to Dr. Mead, “The long-time task is to alter American food habits so that they are based upon tradition which embodies science and to do so in such a way that food habits at any
period are sufficiently flexible to yield readily to new scientific findings. In order to accomplish this goal, the food habits of the future will have to be sanctioned not by authoritarian statements which breed rigid conformity rather than intelligent flexibility, but by a sense of responsibility on the part of those who plan meals for others to eat.” (Mead, 1943, p. 29).

A major barrier to use of the FGP diagram is lack of enough information on it to enable consumers to follow its recommendations. No serving sizes are given, no nutrient content information is specified for the food groups, and little information is included about the kinds of foods in the food groups. Listing representative product names in the food groups and the major nutrients they contain, either along with or in place of diagrams of food such as suggested by Krummel (1994) and Achterberg et al. (1994), would be informative. In addition, an example is needed in a footnote showing how to assign food groups to food mixtures, convenience foods, and restaurant foods.

To make the FGP consumer-friendly, it needs to stand alone with enough serving size and nutrient content information and lists of foods in the groups to make it useful to consumers. With the current difficulty in obtaining copies of ‘The Food Guide Pyramid’ bulletin (USDA, 1996), it is extremely important to re-design the FGP diagram to include bulletin information that would make the diagram more complete. In addition, since the bulletin very clearly presents information needed to use the FGP, it would be very useful to have the FGP bulletin widely distributed.

Another difficulty with the FGP is the assumption that the FGP recommendations are up-to-date. Recent research studies seem to indicate that the FGP diet may not be good for everyone and that more specific guidelines are needed for carbohydrate and fat (Willett, 1994, 1998; Jeppesen et al., 1997; Jacobs et al., 1998). This would include greater flexibility in carbohydrate recommendations to accommodate those who do not prefer or tolerate a high carbohydrate diet. Also, the increased use of whole grains and monounsaturated fatty acids and decreased consumption of saturated and trans fatty acids and meat would need to be emphasized.

**Strategies to influence consumer food decisions**

The greatest challenge when attempting to change food choices of individuals is changing their food habits, attitudes and priorities. According to Lyman “...the major task is to turn dislikes into likes, not only because there are many more classes of disliked than liked foods, but also because getting people to refrain from eating a specific food often involves getting them to substitute a disliked food for a liked one” (Lyman, 1989, p. 140).

Several educational and intervention models have been developed and used separately or in different combinations to influence food choices made by consumers. The models vary in focus and approaches used. Selected models with culture-based emphases on food habits include: a dietary patterning model (Jerome, 1982); the application of Maslow’s theory of human maturation to food habits (Lowenberg et al., 1974; Kittler and Sucher, 1995); and Lewin’s channel theory and gatekeeper
concept of household organization of food distribution to study “why people eat what they eat” and “methods of changing these food habits” in a culture (Lewin, 1943, p. 35). Selected models that also have behavior modification-based emphases include: social marketing theory (Kotler and Roberto, 1989; Heimendinger and Van Duyn, 1995); social learning theory (Glanz et al., 1990; Shumaker et al., 1990; Heimendinger and Van Duyn, 1995); health belief model (Glanz et al., 1990; Shumaker et al., 1990; Heimendinger and Van Duyn, 1995); diffusion theory (Rogers, 1995; Heimendinger and Van Duyn, 1995); and the stages of change or the transtheoretical model of behavior change (Prochaska et al., 1998; Green et al., 1994; Heimendinger and Van Duyn, 1995; Green and Rossi, 1998).

Summary

Monitoring the status of consumer compliance with the FGP recommendations needs to be continued on a regular basis. It would be helpful if the FGP could be updated and modified to make it more consumer-friendly. Future research should continue to address how consumers are using the FGP when deciding what to eat. Findings could be important guides to development of effective FGP educational materials for consumers.

References


