

Consumer Behavior and Food Science

Arnout RH Fischer, Wageningen University, Wageningen, The Netherlands

© 2016 Elsevier Inc. All rights reserved.

The current abundance, quality, and safety of food in large parts of the world is rare in human history as food has been a scarce resource for most of that history. The availability of food at such a scale is largely due to technological innovations in food production, supported by the food science discipline. The abundance and safety of foods has had some negative consequences for consumers as well. Overconsumption of readily available and affordable food with high caloric value leads to obesity. The high quality and safety of food has resulted in less careful food handling in the home. Spoilage and food safety hazards resulting from careless handling by consumers still exist (Nauta et al., 2008). Large quantities of food are wasted in the consumer's home, due to overpurchasing and inconsistent storage and handling. Food that was a valuable resource may thus end up as an undesirable waste or a health hazard, which creates ambivalence with consumers about foods in general.

Food science provides the foundation for the current quantity and high quality of foods. However, besides being safe and plentiful, in the mind of the consumer, foods should be fresh, traditional, authentic, and natural (Saeed and Grunert, 2014). In addition, this abundant, safe, tasty, high quality, healthy, fresh, natural, and authentic food should all come at a low price. The food marketing chain is characterized by a market where large volumes are sold at very low profit margins. Nevertheless, the volume of food consumed means that these products still represent a substantial part of household budgets, which means that there is little space to increase profit margins through higher prices. Such a situation constitutes a substantial risk for primary agricultural producers as their investment in land and equipment is very high compared to small profit margins in the food domain. Food marketing can contribute to increased profit margin by adding consumer value in delivering foods of the type that consumers require at the quality, place, and price they demand (Bezawada and Pauwels, 2013). Food marketing bombards the public with communication about their products in order to increase sales, notably of high added-value products.

Food manufacturers devote a lot of time and effort in positioning their products in places that increase sales. Much of food science aims to deliver higher-quality, healthier, longer-lasting products. This means that novel foods are continuously being developed, ranging from really new products to extensions of product lines and categories to improved versions of existing products, including innovative packaging and more efficient production technologies. Whether consumers always want these novel products remains debatable (Sassatelli and Scott, 2001). Even if novel products are potentially in demand, retail assortments have grown to a level where it is high impossible to consider all alternatives so shortcuts in consumer decision making are needed (Simonson, 1999). Among the myriad of options, consumers make many food purchase and consumption decisions every day, and retail assortment decisions play an important role in the success or failure of products.

To complicate matters, not all consumers have equal demands, which means that options which are well suited to some consumers do not suit others at all. Food that is healthy for some may be worse for consumers at a different life stage, or even hazardous for people with an allergy (Schenk et al., 2011). Foods that are liked by some consumers are disliked, or even considered inedible by others, as evidenced by the many local delicacies across the world (Tan et al., 2015). Some consumers may have different lifestyles and value orientations leading to different food choices (van Dam and Fischer, 2015). Recognizing and quantifying such different consumer segments is essential in estimating the market potential of novel foods. But even when we have identified consumer groups, different eating contexts elicit different preferences. While consumers may be health conscious when selecting the main daily meal, they may prefer radically different products when choosing snacks, drinks, or foods for festive occasions, or when in a social context.

Food is the type of product loaded with most social, cultural, and religious rules of all products groups. Food taboos are found in many cultures and religions (Meyer-Rochow, 2009). Cultural rituals are abundant about the consumption of food and what specific substances are considered food. Consumers behave differently when emerged in a different context. This is, for example, illustrated by the difference in eating behavior between a formal banquet and a night out with friends from school (Honkanen et al., 2005). There are many such social and cultural contexts that determine what a specific food means for the social and self-identity of consumers. Food brands and marketing rely heavily on such social, cultural, and religious consumer identities in the way such brands are positioned in the market.

In this maelstrom of situations and demands, consumers have to make food decisions. They often do so while distracted or tired, for example, at the end of the working day, which makes conscious deliberation difficult. As a consequence, many of our daily food choices are routine decisions based on habits, automatisms, or heuristic cues at best (Honkanen et al., 2005).

Consumer science deals with this multitude of differences in food-related behavior. The broad range of different behaviors and contexts leads to apparent contradictions in the field of consumer studies on food. Many of these apparent contradictions can, however, be understood if we consider that opposing reports highlight different consumer strategies to deal with the many different elements, situations, and contexts of food choice in their daily lives. Different consumer science approaches capture different elements of this multitude of behaviors, and the field thus offers a kaleidoscopic view on how consumers behave (Fischer and Reinders, 2016). Consumer science recognizes relevant differences between consumer groups and how this affects consumer food behavior. Consumer science aims to understand the differences within the consumer themselves, where different situational contexts, consumption goals, motivations, and ability to think through all options may lead to radically different and seemingly

opposing behaviors from the same consumer. Consumer science investigates consumer choice, in the very complex choice environment presented by most supermarkets, and how social, cultural, and other contexts influence behavior.

This section on consumer behavior and food marketing presents articles that reflect the broad range of approaches and situations in the study of consumer science. Realizing that each situation may present a different, sometimes seemingly opposing view on consumer behavior, the reader is invited to find the approach(es) most suitable to the situation under study.

References

- Bezawada, R., Pauwels, K., 2013. What is special about marketing organic products? How organic assortment, price, and promotions drive retailer performance. *J. Mark.* 77, 31–51.
- van Dam, Y.K., Fischer, A.R.H., 2015. Buying green without being seen. *Environ. Behav.* 47, 328–356.
- Fischer, A.R.H., Reinders, M.J., 2016. Consumer acceptance of novel foods. In: Galanakis, C.M. (Ed.), *Innovation Strategies in the Food Industry*. Elsevier.
- Honkanen, P., Olsen, S.O., Verplanken, B., 2005. Intention to consume seafood—the importance of habit. *Appetite* 45, 161.
- Meyer-Rochow, V.B., 2009. Food taboos: their origins and purposes. *J. Ethnobiol. Ethnomed.* 5.
- Nauta, M.J., Fischer, A.R.H., Van Asselt, E.D., De Jong, A.E.I., Frewer, L.J., De Jonge, R., 2008. Food safety in the domestic environment: the effect of consumer risk information on human disease risks. *Risk Anal.* 28, 179–192.
- Saeed, F., Grunert, K.G., 2014. Expected and experienced quality as predictors of intention to purchase four new processed beef products. *Br. Food J.* 116, 451–471.
- Sassatelli, R., Scott, A., 2001. Novel food, new markets and trust regimes responses to the erosion of consumers' confidence in Austria, Italy and the UK. *Eur. Soc.* 3, 213–244.
- Schenk, M.F., van der Maas, R., Smulders, M.J.M., Gillissen, L.J.W.J., Fischer, A.R.H., Van der Lans, I.A., Frewer, L.J., 2011. Hypoallergenic food products as a novel approach to alleviate mild food allergy. *Food Qual. Preference* 22, 83–91.
- Simonson, I., 1999. The effect of product assortment on buyer preferences. *J. Retail.* 75, 347–370.
- Tan, H.S.G., Fischer, A.R.H., Tinchin, P., Stieger, M., Steenbekkers, L.P.A., van Trijp, H.C.M., 2015. Insects as food: exploring cultural exposure and individual experience as determinants of acceptance. *Food Qual. Preference* 42, 78–89.