

Changing Consumer Behavior and Influencing the Food Environment

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ABSTRACT SUMMARY

Promoting consumption of healthier grain-based foods is clearly an important challenge for public health and industry alike. In practice, however, public health and marketing initiatives are frequently characterized by dependence on superficially plausible but unsound research data and naïve assumptions about human behavior. As a result, many initiatives are compromised from the outset and wasteful if not in fact counterproductive. These limitations are avoidable. There exists a substantial body of knowledge on human decision making that is fundamentally at odds with common sense and conventional wisdom, and emerging insights from health psychology through to neurobiology offer important insights into just why behavior can be so resistant to change. Against this backdrop, some common sources of error in determinations on human behavior are identified, and data are presented to illustrate how seemingly plausible assumptions can lead to serious strategic miscalculations. Finally, a framework is proposed to guide research and strategic decisions in respect of consumer behavior, including the promotion of grain-based products and innovations.

Argument

The high failure rate of new products and generally low impact of health messages and interventions poses the question: what can we do better to understand, predict, and influence consumer behavior? In this paper, I 1) discuss common errors and misperceptions in consumer research, 2) report some things we know about human decision making and behavior, 3) present a case study to contrast two approaches to the same market challenge, and 4) propose a decision framework to inform our approach to promoting consumption of whole grains.

Symptomatic of much that is wrong with approaches to understanding consumer behavior is the reliance on statements like, “The consumer wants...” This invocation of a generalized notion of “the consumer” has several implications: it is a simplification that conceals diversity and encourages both the misuse of trend data and a one-size-fits-all approach to interventions.

At the heart of these simplifications and associated tendencies lies an endemic underestimation of the subject matter of human behavior. The core reason for this is simple: in everyday life, everybody is a self-appointed expert on human behavior, drawing on self-reference, common sense, and conventional wisdom to interpret and anticipate the behavior of others.

Compounding this presumption of expertise is the fact that, whereas most scientific endeavors require access to specialized equipment and the ability to use it, such barriers are less apparent when the subject of analysis is human behavior: it requires little in the way of resources to construct a rudimentary questionnaire or convene a focus group and thereby generate some semblance of behavioral research.

In a democratic society, this might be seen as a good thing, but should any science be open to all-comers, irrespective of credentials? Fig. 1 depicts the research enterprise as a sequence of steps, beginning with the rationale or assumptions underlying a research question, through the methodological operations by which it is tested, to the interpretation of the results in terms of their implications for consumer behavior. Irregularities at any one of these steps individually—let alone cumulatively—can render a study’s conclusions worthless. For a more developed overview of the scope for such irregularities than is possible here, the reader is referred to Mohr & Topping’s (2010) discussion of research into consumer acceptance of biotechnology innovations (5).

For present purposes, given the focus on consumer behavior *per se*, let us stow methodological considerations from sampling to statistical analysis under the general admonition that these require relevant expertise—the more relevant and the more expert, the better—and explore instead why lay notions of consumer behavior are no match for behavioral science as the basis for either research questions (i.e., the study rationale) or the interpretation of research data.

This requires us to acknowledge, in the first instance, that consumers are members of the species *Homo sapiens*. When we do that, we bring into play the products of a century of empirical behavioral science. The following are some examples of things behavioral science has taught us about humans.

- They respond better to immediate gratification; i.e., they are not good at deferring a reward now in the interests of future gain(4). They tend to deal with this mentally by

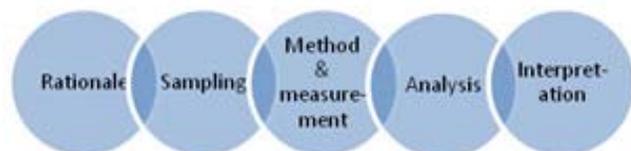


Fig. 1. Steps in the research process.

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discounting the value of delayed rewards. This is a self-serving bias.

- They are prone to other self-serving cognitions such as optimistic bias—evident in thoughts like “Health problems are for other people” (9)—and compensatory beliefs: e.g., that consuming a piece of fruit today offsets the damage done by yesterday’s dietary excesses (3).
- They are not fundamentally logical, but we do know how they think. This is commonly explained in terms of the operation of two reasoning systems. One is logical and systematic; it is also slow and labor-intensive. The other is intuitive or affective (feelings-based); this mode is fast and spontaneous and relied upon very heavily (1,11).
- Different ways of presenting (framing) the same information or messages can have radically different effects (8).
- There is much more to changing behavior than finding the right messages. Changing behavior—overcoming drives, habits, and hedonistic tendencies—is hard work. Neuropsychological evidence confirms that willpower is a limited resource, quickly depleted, and there is a need for interventions that cater to these biological constraints (2).
- Behavior change tends to happen in stages; a population comprises people at different stages on the path to a given behavior pattern, and the interventions required to help people progress vary according to stage. The needs of people who are unaware of a health issue or its relevance to them are different from those of people who are persuaded but struggling to change their behaviors (7,10).

In summary, what emerges from the body of behavioral science research is an image of *Homo sapiens* as complex to understand but remarkably predictable. This contrasts with the general conception of the consumer as simple to understand but strangely unpredictable.

The contrast can be nicely illustrated by a case study of two approaches to promoting health benefits of resistant starch—a form of dietary fiber believed to offer enhanced benefits for bowel health while having sensory qualities quite unlike those associated with fiber.

Approached from the perspective of the generalized consumer, these components might bring to mind the consumer mega-

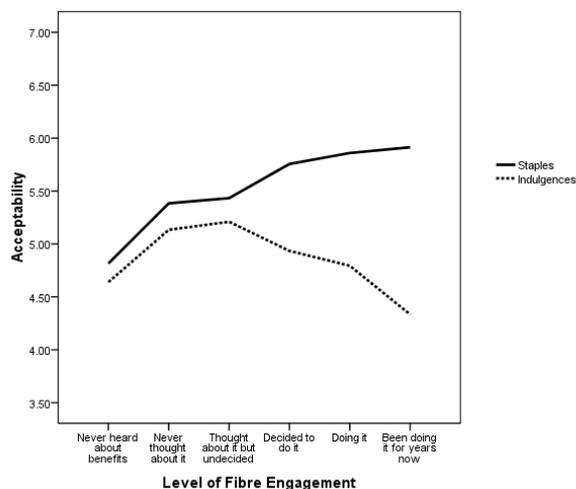


Fig. 2. Acceptability of food types by level of engagement with dietary fiber.

trends of health, convenience, and indulgence in the form: The consumer wants health + convenience + indulgence. The resultant market strategy would involve delivery of resistant starch in indulgence foods with a message like “Achieve health benefits easily while eating what you like.”

Plausible though this approach may seem, it has two fundamental problems. First, megatrends describe—they do not explain behavior. What, for example, does health as a market trend denote: is interest in diet cola and reduced-salt chips the same as interest in whole grains and fiber? The second, related problem is that megatrends are not necessarily complementary or additive. There is no reason to assume that two megatrends are better than one: i.e., that different megatrends are compatible or driven by the same people.

An alternative, psychologically based approach involved the behavioral segmentation of respondents by their stage of engagement with the health benefits of dietary fiber (5). This study demonstrated that increased fiber engagement was associated with both increased receptiveness to health messages and increased preference for healthy staples over indulgence foods as potential sources of resistant starch (Fig. 2). The resultant recommendation was for promotion of resistant starch as providing health benefits of fiber with the added reduction of risk of serious disease and its delivery through healthy staples. Importantly, these data provide no support for the alternative approach, revealing no apparent market for the particular combination of trend-based values of health, convenience, and indulgence.

Conclusions and Recommendations

The following are suggested as fundamental considerations in a smarter approach to research to inform approaches to influencing consumer behavior. First is the need for soundness of method, from sampling through instrument design to statistical analysis. Second is the need for theoretical soundness—here simply stated in terms of the banishment of explanatory concepts such as a generalized notion of “the consumer” and the naive interpretation of consumer trends as explanatory. The third is the need for a comprehensive multifaceted conceptual approach to the task.

To this end, a proposed decision framework is outlined below. It poses five key questions, each with associated subsidiary questions or tasks that should guide the research process and eventual strategy.

What type of product do we have?

- Serious health product?
- Trivial health product?
- Define product attributes

Whom in the population do we target?

- On what rationale?
- Define relevant behavioral characteristics of the target group

What outcomes do or can we hope to achieve?

- Sensitization to an issue?
- Self efficacy?
- Response efficacy?
- Product/behavior adoption?
- Product/behavior substitution?

What might be collateral effects on other groups?

- Facilitative?
- Innocuous?
- Counterproductive?

What will it take for the target group?

- Message: what type?
- Resources: what type?
- Stealth?
- Coercion?

Whereas “What type of product do we have?” is likely to be the first question to be asked, the process is not otherwise linear: a response to any one of the remaining questions has potential implications for others in a general feedback model. In making explicit the nature of the product, the target population, the desired outcomes, the proposed strategy, and the possible collateral effects on nontarget populations, this framework should help reveal underlying assumptions and potential pitfalls. What it is unable to do, however, is protect against the inadequacy of assumptions or research methods; these remain matters of relevant expertise.

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