Black Box Principle in Food technology

Introduction

The relationship between the customer (also called the buyer) and the provider (the seller) forms through a phenomenon called a market exchange. During the exchange process, each party assesses the relative trade-offs they must make to satisfy their respective needs and wants. On the part of the seller, the trade-offs are guided by company polices and objectives. For example, company policy may dictate that it can proceed with an exchange only when the profit margin is 10 percent or greater. The buyer—the other party in the exchange—also has policies and objectives that guide his or her decisions in an exchange. For individual buyers, these are usually unwritten personal policies and objectives that people make at each stage of a purchasing decision based on the information and options available to them. Even more likely, individuals often are not fully conscious of what prompts them to behave in a particular manner.

Essential Questions About Buyer Behavior

Buyers are essential partners in the exchange process. Without them, exchanges would stop. Buyers are the focus of successful marketing; their needs and wants are the reason for marketing. Without an understanding of buyer behavior, it isn't possible to tailor an offering to the demands of potential buyers. When potential buyers are not satisfied, exchange does not proceed, and the goals of the marketer are not met. As long as buyers have free choice and competitive offerings from which to choose, they are ultimately in control of the marketplace.

A *market* can be defined as a group of potential buyers with needs and wants and the purchasing power to satisfy them. During the exchange process, the potential buyers "vote" (usually with their dollars) for the market offering they feel best meets their needs. When marketers understand how buyers arrive at a decision, they can create offerings that will attract buyers. Two key questions a marketer needs to answer related to buyer behavior are:

- How do potential buyers go about making purchase decisions?
- What factors influence their decision process and in what way?

The answers to these two questions form the basis for the design of a market offering.

When we use the term "buyer," we are referring to an individual, group, or organization that engages in market exchange. In fact, there are differences in the characteristics of these three entities and how they behave in an exchange. Therefore, individuals and groups are traditionally placed in the *consumer* category, while *organization* is the second category. This module will first discuss consumer purchasing decisions, followed by business-to-business purchasing decisions.

Opening the "Black Box" of Consumer Behavior

Consumer behavior refers to buyers who are purchasing products for personal, family, or group use. Over time, marketers have turned to the work of behavioral scientists, philosophers, economists, social psychologists, and others to help them understand consumer behavior. As a result, there are many different theories and models used to explain why consumers act as they do. Are consumers fundamentally active or passive? Rational or emotional? How do they make buying decisions?

The Economic Man Theory

One early theory of consumer decision making based on principles of economics is known as the "economic man." According to the "economic man" model, consumers are rational and narrowly self-interested. This theory assumes people act selfishly as consumers, always trying to maximize the benefits they derive from the exchange process. (This theory asserts that the seller/producer is also an economic man, who always strives to maximize his profits from an exchange.) The economic man model suggests consumers actively use information about all the available options before making a decision to purchase.

Although this model may help explain some consumer decisions, most would agree it is too simplistic to explain every consumer choice. In fact, people often make decisions based on irrational factors as well. For example, some consumers may be heavily influenced by word-of-mouth information from friends or peers. They might choose something because of herd mentality rather than because it provides the greatest objective value. Similarly, many people are averse to change, and so they make suboptimal consumer choices because a familiar choice seems easier or safer.

The Stimulus-Response Model

Another model of consumer behavior, called the stimulus-response or "black box" model, focuses on the consumer as a thinker and problem solver who responds to a range of external and internal factors when deciding whether or not to buy. These factors are shown in Figure 1, below:

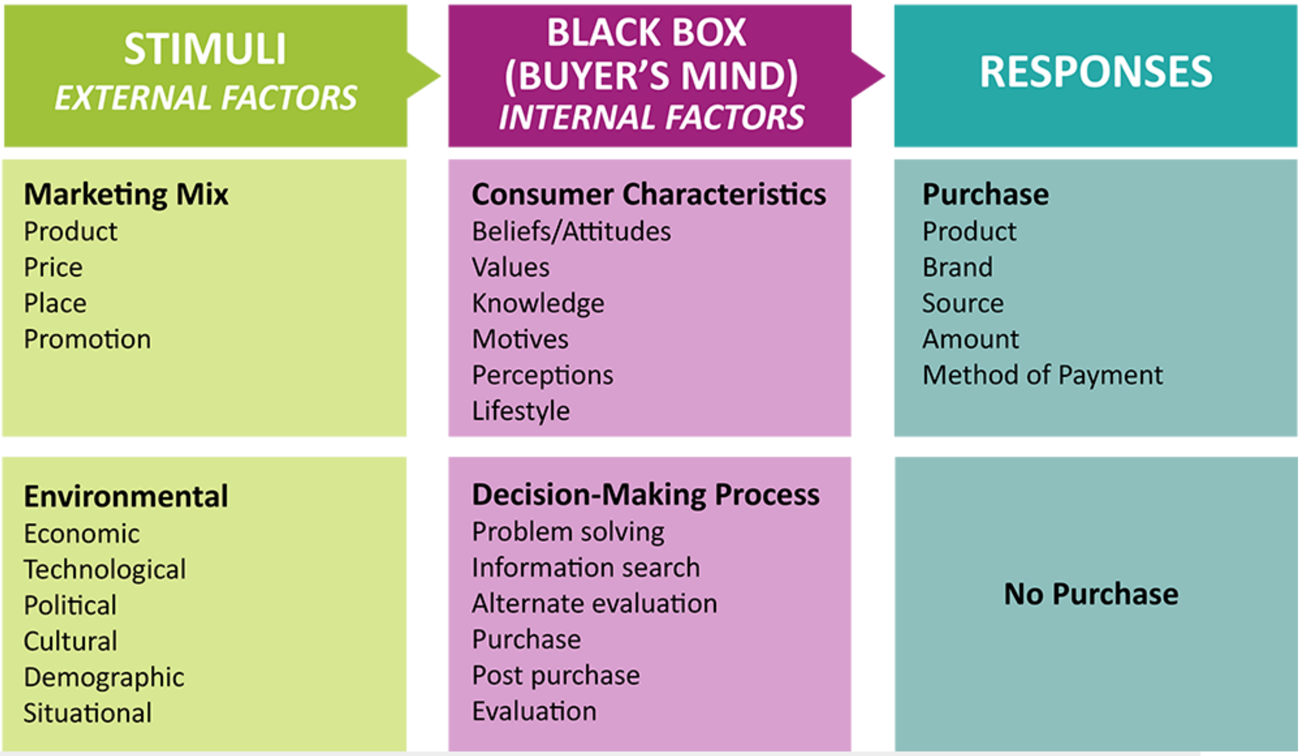

Figure 1. Black Box Model

As illustrated in the figure above, the external stimuli that consumers respond to include the marketing mix and other environmental factors in the market. The marketing mix (the four Ps) represents a set of stimuli that are planned and created by the company. The environmental stimuli are supplied by the economic, political, and cultural circumstances of a society. Together these factors represent external circumstances that help shape consumer choices.

The internal factors affecting consumer decisions are described as the "black box." This "box" contains a variety of factors that exist inside the person's mind. These include characteristics of the consumer, such as their beliefs, values, motivation, lifestyle, and so forth. The decision-making process is also part of the black box, as consumers come to recognize they have a problem they need to solve and consider how a purchasing decision may solve the problem. As a consumer responds to external stimuli, their "black box" process choices based on internal factors and determine the consumer's response–whether to purchase or not to purchase.

Like the economic man model, this model also assumes that regardless of what happens inside the black box (the consumer's mind), the consumer' response is a result of a conscious, rational decision process. Many marketers are skeptical of this assumption and think that consumers are often tempted to make irrational or emotional buying decisions. In fact, marketers understand that consumers' irrationality and emotion are often what make them susceptible to marketing stimuli in the first place.

For this reason, consumer purchasing behavior is considered by many to be a mystery or “black box.” When people themselves don’t fully understand what drives their choices, the exchange process can be unpredictable and difficult for marketers to understand.

Buyer Behavior As Problem Solving

A common way for marketers to think about consumer behavior today is as a set of activities a person goes through in order to solve problems. This problem-solving process is triggered when a consumer identifies some unmet need. For instance, a family consumes all of the milk in the house, or a birthday party is coming up and a gift is needed, or a soccer team is planning an end-of-season picnic. Each buying scenario presents a problem the buyer must solve. These problems can involve two types of needs: physical (such as a need for milk, a birthday gift, or picnic food) or psychological (for example, the need to feel secure, the need to be loved, or the need to have fun).

This problem-solving process also involves needs and wants. A *need* is a basic deficiency for an essential item. You need food, water, air, security, and so forth. A *want* places specific, personal criteria on how a need must be fulfilled. To illustrate, when we are hungry, food is a need. When we have a specific food item in mind, that item is a want. That difference is illustrated by the familiar scenario of standing in front of a full refrigerator and complaining that there is nothing to eat.

Most of marketing is in the want-fulfilling business, not the need-fulfilling business. Swatch and Timex do not want you to buy just any watch. They want you to want their brands of watches. Likewise, H&M wants you to desire their brand of clothing when you shop for clothes. On the other hand, the American Cancer Association markets to you in the hope that you will feel the *need* to get a checkup, and it doesn’t care which doctor you go to. But in the end, marketing is mostly about creating and satisfying *wants*.

This model of consumer behavior acknowledges that both rational and irrational factors may shape a buyer’s purchasing decisions. It also recognizes that internal and external factors play a role in the decision process. In fact, the problem-solving model helps us map a consistent process individuals go through as they make buying decisions. When marketers understand this process and the factors that influence it, they can take action to influence buyer perceptions and behavior at various stages of the process.