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Consumer Search Behavior and Its Effect on Markets

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# Consumer Search Behavior and Its Effect on Markets

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## Abstract

The purpose of this review is to provide an overview of various literatures related to consumer search for information, and its effect on markets. Normative models of consumer search prior to purchase, and of consumer search through experience, are reviewed first. Models of consumer consideration set formation are also outlined. These models are generally based on consumers balancing the costs and benefits of search, which implies that search should be limited if it is costly. The extensive empirical literature on consumer search, which is reviewed next, does indicate that search is limited. The third major section of this review discusses the effect of search on market equilibrium, and market forces related to the supply of information. These include models of how advertising, retailing, and the Internet become organized to facilitate consumer search. The review concludes with a discussion of overall findings and suggestions for further research.

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Marketing is fundamentally about facilitating exchanges, and much of the exchange process involves the search for information. Consumers must determine what is available, where it may be found, and how much it will cost. Firms can help their cause by providing consumers with information about availability and prices in the form of advertising or personal selling. Firms must also determine what consumers want and what they are willing to pay. These requirements make information search on the part of both consumers and firms a fundamental part of marketing.

Since the search for information by firms already forms the cornerstone of courses in marketing research and new product development, we will not directly consider it in this review. Instead we will focus on the consumer side of the market, on what is known about how consumers search for needed information, and on how this impacts the behavior of markets. I will discuss three broad strands of this literature: normative models of search and their application to consumer search; empirical studies of the search process; implications of consumer search for the behavior of markets, including pricing, advertising, and retailing. I will pay particular attention to the impact of the Internet

#### 2 Introduction

on markets since this is a recently developed, and increasingly important, channel for information and transactions. Given the abundant literature in these areas, there is a need to limit the coverage of this review. Therefore, I will not directly consider the extensive literature on the various micro aspects of information processing, such as eye movement studies that track the sequence of viewing information in advertisements or store shelves, or whether consumers use conjunctive or lexicographic decision rules in a given case. Rather my concern is with broader issues about alternatives considered, sources consulted, extent of consumer knowledge, and the impact of these factors on markets and marketing institutions.<sup>1</sup>

In general I will consider external search, the search for information from sources other than memory, where search from memory is termed internal search. Search may take place prior to purchase, or may take place through actual trial of one or more brands.

I will first consider normative models of search, which were first applied to consumer search by Stigler (1961) in an attempt to explain observed price dispersion. This spawned a very large literature in economics and marketing, which includes work on sequential search (Weitzman, 1979; Moorthy et al., 1997), and on formation of consideration sets (Hauser and Wernerfelt, 1990; Roberts and Lattin, 1991). Models of limited information processing capability of Shugan (1980), and de Palma et al. (1994) can also be classified into this general stream. More recent work has integrated models of search and learning into empirical work (e.g., Erdem et al., 2005). While the above work mainly considers search prior to purchase, search through experience is also important, especially for packaged goods. I will review recent work on Bayesian updating of brand quality beliefs with consumption (e.g., Erdem and Keane, 1996; Shin et al., 2007).

I will next consider empirical studies of the search process, which became popular around the same time as the theoretical literature in economics was developing. While this literature initially developed independently of the economics literature, it provides rich descriptions

<sup>&</sup>lt;sup>1</sup>While the review by Ratchford (2009) covers some of the same topics, that review was focused on pricing, while the current review has a more general focus. The current review is also much more extensive.

of search behavior that shed light on the validity of the theoretical models. The pioneering study in this stream appears to be Katona and Mueller (1955). Since then, two separate streams of empirical research on search for durables and search for groceries and other nondurables have developed. I will review both streams in Section 3.

While the theoretical and empirical models that will be discussed initially in this review are focused on the individual consumer, important questions are how this individual consumer behavior relates to the functioning of markets, and, in turn, how the supply side affects the alternatives that consumers are faced with when they undertake search. In the 1970s economists began to address these questions, and a very extensive literature that considers the impact of search costs on markets, prices, advertising, selling, and retailing has developed. I will summarize the major findings and implications of this literature in Section 4.

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