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A consumer behavior approach to modeling monopolistic competition

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Abstract

In this paper, we attempt to integrate research on consumer information processing and the consumer choice process with the goal of proposing a general framework for modeling consumer behavior in monopolistically competitive industries. Following a pattern of inductive reasoning, we posit a set of consumer behavior propositions that is consistent with observed results from context effects experiments and the phased decision-making literature. We propose that, faced with many competing brands in a monopolistically competitive environment, consumers can be said to construct consideration sets on the basis of non-compensatory rules and subsequently to choose from among competing brands within a consideration set on the basis of compensatory rules. We identify five product–market characteristics that consumers use as heuristics to maximize the probability of making the optimal brand choice while minimizing the cost of acquiring and processing information about competing brands. We propose that consumers use memory and stimuli based information to evolve their unique perceptions of these product–market characteristics. As a follow-up to our inductive approach, we show that the empirically documented context effects are consistent with our behavioral propositions. Finally, we use the propositions to explain several classic cases of consumer behavior observed in the beer, ice cream, and automobile industries.

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1. Introduction

Within the psychology and consumer behavior literatures, there exists a wealth of experimental data focusing on consumer choice in the presence of "brands" (i.e., heterogeneous variations on a product). Much of the experimental findings, including the attraction effect, the substitution effect, the compromise effect, the lone-alternative effect, and the polarization effect, are collectively known as *context effects*. To date, the literature on context effects and the consumer choice process remains largely empirical in nature. Lacking is a theoretical foundation that attempts to explain, in terms of consumer behavior, *why* context effects exist. In concluding their seminal work on the attraction and substitution effects, Huber and Puto (1983, p. 41) remark that context effects "could be specified as a part of a general framework". Simonson (1989, p. 159) similarly challenged researchers.

While the marketing literature has devoted much effort to detecting context effects, the mainstream economic literature has remained relatively silent on the topic. Our hope is to create a bridge between these two disciplines by offering a theoretical framework that attempts to explain the empirical observations. We believe that evidence from the context effects and consumer choice experiments suggests a compelling framework within which economists can create rich models of consumer behavior in monopolistic competition and marketing researchers can refine their experiments in context effects. In this paper we develop a general framework that is consistent with the phased decision-making literature and empirical evidence from published context effects experiment. In developing the general framework, we suggest a possible integration among three disparate streams of research: consumer information processing, context effects, and the consumer choice process. Our general framework rests on four important premises.

1. In a monopolistically competitive environment, consumers may be uncertain about the attributes of some or all of the brands, and may be unaware (and cognizant of their unawareness) of the existence of some brands. In an attempt to maximize the likelihood of making the best purchase decision while minimizing the cost of acquiring and processing information necessary for that decision, consumers can rely on heuristics (cf., Bettman, 1979; Bettman, Johnson, & Payne, 1991; Biehal & Chakravarti, 1986; Nedungadi, 1990).
2. Consumer choice involves sequential stages that result from consumers' attempts to resolve uncertainty. This notion of phased decision-making is well documented (cf., Bettman, 1979; Biehal & Chakravarti, 1986; Kardes, Kalyanaram, Chandrashekaran, & Dornoff, 1993).