Chapter 28

THE ECONOMIC ANALYSIS OF ADVERTISING

KYLE BAGWELL

Columbia University

Contents

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Abstract

This chapter offers a comprehensive survey of the economic analysis of advertising. A first objective is to organize the literature in a manner that clarifies what is known. A second objective is to clarify how this knowledge has been obtained. The chapter begins with a discussion of the key initial writings that are associated with the persuasive, informative and complementary views of advertising. Next, work that characterizes empirical regularities between advertising and other variables is considered. Much of this work is conducted at the inter-industry level but important industry studies are also discussed. The chapter then offers several sections that summarize formal economic theories of advertising. In particular, respective sections are devoted to positive and normative theories of monopoly advertising, theories of price and non-price advertising, theories of advertising and product quality, and theories that explore the potential role for advertising in deterring entry. At this point, the chapter considers the empirical support for the formal economic theories of advertising. A summary is provided of empirical work that evaluates the predictions of recent theories of advertising, including work that specifies and estimates explicitly structural models of firm and consumer conduct. This work is characterized by the use of industry (or brand) and even household-level data. The chapter then considers work on endogenous and exogenous sunk cost industries. At a methodological level, this work is integrative in nature: it develops new theory that delivers a few robust predictions, and it then explores the empirical relevance of these predictions at both inter-industry and industry levels. Finally, the chapter considers new directions and other topics. Here, recent work on advertising and media markets is discussed, and research on behavioral economics and neuroeconomics is also featured. A final section offers some concluding thoughts.

Keywords

Advertising, Survey, Theory, Empirical analysis

JEL classification: M300, L100, D800

"What makes the advertising issue fascinating ... is that it is fundamentally an issue in how to establish truth in economics." (Phillip Nelson, 1974a)

1. Introduction

By its very nature, advertising is a prominent feature of economic life. Advertising reaches consumers through their TV sets, radios, newspapers, magazines, mailboxes, computers and more. Not surprisingly, the associated advertising expenditures can be huge. For example, Advertising Age (2005) reports that, in 2003 in the U.S., General Motors spent $3.43 billion to advertise its cars and trucks; Procter and Gamble devoted $3.32 billion to the advertisement of its detergents and cosmetics; and Pfizer incurred a $2.84 billion advertising expense for its drugs. Advertising is big business indeed.

From the current perspective, it is thus surprising to learn that the major economists of the 19th century and before paid little attention to advertising. The economic analysis of advertising is almost entirely a 20th-century project. Why did not 19th-century economists analyze advertising? Two reasons stand out.

First, 19th-century economic research is devoted largely to the development of the theory of perfect competition, and this theory does not immediately suggest a role for advertising. As Pigou (1924, pp. 173–174) remarks, "Under simple competition there is no purpose in this advertisement, because, *ex hypothesi*, the market will take, at the market price, as much as any one small seller wants to sell". Of course, whether a firm is competitive (i.e., price-taking) or not, it might advertise if it were thereby able to shift its demand curve upward so that a higher price could be obtained. But here a more basic problem arises: under the conventional assumptions that consumers have fixed preferences over products and perfect information with regard to prices and qualities, there is no reason for consumers to respond to advertising, and so the posited demand shift is unjustified.[1]

Second, while advertising has long been used by merchants, its transition to "big business" is more modern. In the late 19th and early 20th centuries, following significant advances in transportation (railroads) and communication (telegraph) networks, manufacturers were motivated to pursue innovations in the machinery of production and distribution, so that economies of scale could be reaped. These economies, however, could be achieved only if demand were appropriately stimulated. The turn-of-the-century technological innovations that are associated with mass production and

[1] As Braithwaite (1928, p. 28) explains: "Under conditions of perfect competition producers would gain nothing by spending money on advertisement, for those conditions assume two things – (1) that the demand curve is fixed and cannot be altered directly by producers, and (2) that since producers can sell all that they can produce at the market price, none of them could produce (at a given moment) more at that price than they are already doing".

distribution thus gave significant encouragement to large-scale brand advertising and mass marketing activities.[2]

At the beginning of the 20th century, advertising was thus a ripe topic for economic research. The economic analysis of advertising begins with Marshall (1890, 1919), who offers some insightful distinctions, and then gathers momentum with Chamberlin's (1933) integration of selling costs into economic theory. Over the second half of the century, the economic analysis of advertising has advanced at a furious pace. Now, following the close of the 20th century, a substantial literature has emerged. My purpose here is to survey this literature.

In so doing, I hope to accomplish two objectives. A first objective is to organize the literature in a manner that clarifies *what* is known.[3] Of course, it is impossible to summarize all of the economic studies of advertising. Following a century of work, though, this seems a good time to bring to the surface the more essential contributions and take inventory of what is known. Second, I hope to clarify *how* this knowledge has been obtained. The economic implications of advertising are of undeniable importance; however, the true nature of these implications has yielded but slowly to economic analysis. There is a blessing in this. With every theoretical and empirical methodological innovation in industrial organization, economists have turned to important and unresolved issues in advertising, demonstrating the improvements that their new approach offers. Advertising therefore offers a resilient set of issues against which to chart the progress gained as industrial organization methods have evolved.

It is helpful to begin with a basic question: Why do consumers respond to advertising? An economic theory of advertising can proceed only after this question is confronted. As economists have struggled with this question, three views have emerged, with each view in turn being associated with distinct positive and normative implications.

The first view is that advertising is *persuasive*. This is the dominant view expressed in economic writings in the first half of the 20th century. The persuasive view holds that advertising alters consumers' tastes and creates spurious product differentiation and brand loyalty. As a consequence, the demand for a firm's product becomes more inelastic, and so advertising results in higher prices. In addition, advertising by established firms may give rise to a barrier to entry, which is naturally more severe when there are economies of scale in production and/or advertising. The persuasive approach therefore suggests that advertising can have important anti-competitive effects, as it has no "real"

[2] The emergence of large-scale advertising is also attributable to income growth, printing and literacy advances, and urbanization. See also Borden (1942), Chandler (1990), Harris and Seldon (1962), Pope (1983), Simon (1970) and Wood (1958).

[3] Surprisingly, there does not appear to exist another contemporary and comprehensive survey of the economic analysis of advertising. Various portions of the literature are treated in other work. For example, Ekelund and Saurman (1988) offer an interesting discussion of early views on advertising by economists, and Comanor and Wilson (1979) and Schmalensee (1972) provide valuable surveys of early empirical analyses. Tirole (1988) discusses in detail a few of the recent theories of advertising. Finally, in Volumes 1 and 2 of the Handbook of Industrial Organization, Schmalensee (1989) provides further discussion of empirical findings, while Stiglitz (1989) offers some brief reflections on the theory of advertising.

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