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Advertising and the screening role of mass media

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Abstract

We argue that there exists a problem of adverse selection in the provision of advertising which makes it impossible to establish direct markets for it. The media are regarded as intermediaries that can channel advertising and allocate it efficiently by screening consumers. This role of media may result in excessive quality and prices of media products. These distortions will be more severe if consumers' quality preferences are relatively homogenous.

JEL classification: D82; L11; L82

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1. Introduction

Both in the US and in Europe numerous professional websites offer consumers money for reading E-mail advertisements, viewing advertising banners in their browsers, and the like. Those websites are financed by the firms that book the advertising. What they offer is something that is a rare phenomenon; they are direct suppliers of the product advertising, which is typically provided indirectly, as a bundle with some media product.

The question arises why there are so few markets on which advertising is traded directly. We argue that this is mainly due to adverse selection. Clearly, firms are willing to pay different amounts of money to different consumers depending on unobservable characteristics like income, age, or interest in the advertised product. Hence, every consumer has an incentive to claim that he has profitable characteristics. Following Akerlof's (1970) classical paper, this incentive may lead to a market unraveling so that only consumers with bad characteristics can trade. The market for rich consumers (who require a relatively high compensation since they usually have higher opportunity costs of time) breaks down because it is not possible to distinguish them from consumers who are less attractive as advertising targets.

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This phenomenon is precisely what can be observed at the websites that were mentioned above. All of the major advertising providers are visibly plagued by adverse selection. Most of them pay extremely low rates – usually around one cent for viewing an on-line advertisement for a significant amount of time and then following a confirmation procedure. Also, the advertising that they feature is obviously targeting low income consumers. Major advertisers are bargain-websites, loan-sharks, financial institutions offering credit cards without solvency check, and dubious internet business opportunities. Clearly, the average payout rate is too low for high income consumers, who drop out of the market, reducing the quality of the pool; this implies that the payout rate has deteriorated even more, and the process repeats until only the lowest income type remains.[1,2]

As will be demonstrated below, the same kind of adverse selection problem exists when people are not directly paid for consuming advertising – that is, when advertising is provided through the media. We show, however, that distributing advertising through media platforms can at least mitigate the problem of adverse selection from which direct markets suffer so severely. There are some obvious ways in which this happens. For instance, tennis rackets are advertised in tennis magazines. Also, high income types can be targeted by placing ads in golf magazines. But there is a limit to this kind of targeting. In particular, most companies want to reach broader audiences of high income consumers than the very small subset of those happening to read golf magazines. In addition, a great many products are not as target-group specific as tennis rackets. Hence, most advertisers have to rely on mass media like TV broadcasting in order to get their messages across.

TV broadcasters sell a bundle of products consisting of a primary product (the content) and a secondary product (the advertising). Agents have to pay for consuming programs and they receive a reimbursement for consuming the advertising in the form of a lower (possibly even zero) subscription fee. In trading the advertising, the broadcaster acts as an intermediary on behalf of the advertising companies. Since it offers both products as a bundle, the broadcaster can tackle the adverse selection problem; by distorting the market for its primary product (for example by altering its price or quality), it can mitigate the distortion in the secondary market. Thus, the two-sided market nature of media firms allows more efficiency in the provision of advertising.

As an illustration of what we have in mind, consider a broadcaster that offers two movie channels in an attempt to discriminate between rich and poor viewers. If the channel that targets high income viewers contains less advertising, that channel will attract low income viewers, counteracting the broadcaster's intent to show more advertising to low types (who generate lower advertising revenues). Therefore, the broadcaster may increase the subscription fee or alter the content of the high type channel in order to discourage low income viewers, leading to lower profits than would be possible if it could identify viewers without having to rely on self-selection. In competitive environments, this adverse selection problem will entail a softening of price competition; price reductions exert a negative externality on the profitability of the advertising side of the market as they attract consumers who are less valuable to advertising clients than inframarginal consumers. Hence, the incentive to decrease prices is reduced and competition will take place in other dimensions. It will be shown below that one such dimension is quality, leading to the overall result that media products will tend to have higher prices and more quality than would be the case if firms could identify consumer types.[3]

Our results are well in line with empirical evidence on media markets. In particular, Thompson's (1989) and Kaiser's (2003, 2005) analyses of newspaper and magazine markets show that media firms face a severe trade-off between increased sales and deteriorating advertising rates when considering a cover price cut. Such a trade-off is generated by adverse selection in our model. Lowering the price not only attracts clients from com-

[1] For instance, the media data of Bonimail, the largest German provider (http://www.bonimail.de/) show that only around one third of their customers stated that they were currently employed or self-employed.

[2] Obviously, the webpages also have to handle a problem of moral hazard, as it is difficult to guarantee that consumers pay sufficient attention to the advertisements. However, software technologies tackle this problem quite efficiently. For instance, websites that pay for viewing banners only award credits if the user clicks a confirmation button in regular intervals in order to prevent that the ads are run while she is absent from the computer.

[3] If broadcasters were able to identify consumers' identities, it would be possible to directly discriminate between different types of consumers and to offer them customized products which would depend on their attractiveness as advertising targets. Given that this is not possible, media markets will bring about a differentiated product space that guarantees self-selection of consumers towards the efficient product.