

Market share regulation?[☆]Hideo Konishi^{a,*}, Çağlar Yurtseven^b^a Department of Economics, Boston College, 140 Commonwealth Avenue, Chestnut Hill, MA 02467, USA^b Bahçeşehir University, Department of Economics, Cıragan Cad. 34353, Besiktas, Istanbul, Turkey

ARTICLE INFO

Article history:

Received 30 August 2013

Received in revised form 15 November 2013

Accepted 27 November 2013

Available online 10 December 2013

JEL classification:

D43

L13

L4

L66

Keywords:

Market share regulation

R&D

Oligopoly

Predation

ABSTRACT

In the 1950s and 60s, Japanese and US antitrust authorities occasionally used the degree of concentration to regulate industries. Does regulating firms based on their market shares make theoretical sense? We set up a simple duopoly model with stochastic R&D activities to evaluate market share regulation policy. On the one hand, market share regulation discourages the larger company's R&D investment and causes economic inefficiency. On the other hand, it facilitates the smaller company's survival, and prevents the larger company from monopolizing the market. We show that consumers tend to benefit from market share regulation. However, the social welfare including firms' profits would be hurt if both firms are equally good at R&D innovation. Nonetheless, if the smaller firm can make innovations more efficiently, then protecting smaller firms through market share regulation can improve the social welfare. We relate our analysis to a case study of Asahi Brewery's introducing Asahi Super Dry to become the top market share company in the industry.

© 2013 Elsevier B.V. All rights reserved.

1. Introduction

Traditionally, antitrust authorities have monitored the degree of concentration (or the market shares of firms) of an industry as an important measure of the market's competitiveness. In the US, the Department of Justice and the Federal Trade Commission monitored the degree of concentration of each industry to protect consumers against firms' colluding in more concentrated industries. This view, that a high degree of concentration leads to collusion, is based on the old industrial organization theory (the "Harvard School" or "structuralists") that proposes a framework to analyze industries—the Structure–Conduct–Performance Paradigm (the SCP: see Bain, 1959 for details; Viscusi et al., 2005, pages 62–69, for a summary). The SCP emphasizes the role of market structure (the degree of concentration, the condition for entry to the market, etc.), market conduct (pricing strategies, investment decision, etc.), which in turn determines market performance (efficiency, fairness, etc.). Thus, the theory presumes that the market structure of an industry determines the performance of a market. Bain (1959) provided a

series of empirical evidence showing that in highly concentrated markets the profit ratios are high, and concluded that if the market structure is highly concentrated, collusions tend to occur, hurting the market's performance. The structuralists suggested that the antitrust authority should use structural regulation, that is, divide dominant firms in an industry if the market structure of the industry satisfies a certain set of conditions.¹ In contrast, the Chicago School, especially Demsetz (1973), argued that the high profit ratios in highly concentrated markets may be caused by the cost efficiency of firms in the industry, and that having many smaller firms in the industry may result in inefficiency.² Demsetz also cautioned that regulations based on the degree of concentration may cause

[☆] The authors thank anonymous associate editor and referee for helpful comments. The first author thanks Tadao Konishi for attracting his interest to the subject of the paper.

* Corresponding author. Tel.: +1 617 552 1209; fax: +1 617 552 2308.

E-mail addresses: hideo.konishi@bc.edu (H. Konishi), cayurtseven@yahoo.com (Ç. Yurtseven).

¹ The Neal report (1968) to President Lyndon Johnson is based on S-C-P paradigm. The proposed legislation was designed to reduce concentration in any industry in which any four or fewer firms had an aggregate market share of 70% or more. However, in the transition to the next Nixon administration, the policies suggested in the Neal report were ignored (see Foer, 2003).

² To measure concentration, the most widely used measure is still the concentration ratio, which is simply the share of total industry sales accounted for by the m largest firms. However, clearly, there is fundamental problem with this measure, since this measure does not distinguish the market in which all largest firms have equal shares and the one in which the top firm is really a dominant firm in comparison with other large firms. The Herfindahl = Hirshman Index (HHI) fixes this problem and has a nice theoretical support if applied to a Cournot market (Viscusi et al., 2005). However, as Viscusi et al. precisely point out, it is not clear what policy implications can be drawn from HHI. Demsetz's criticism applies to HHI as well.

efficiency damages in the market by discouraging firms' R&D investments.³ Following the Neal report, in late 1960s and early 1970s, influenced by the structuralists' view, the US Department of Justice and the Federal Trade Commission sued corporate giants such as IBM, ATT, Xerox, and Kelloggs based on the fact that these firms had exceedingly high market shares in their industries. However, these court battles revealed that using market shares as a measure of competitiveness of industries is not accurate and not very useful. After these court battles, the Chicago School's view defeated the Harvard structuralists' view in practice, and the market shares of firms in industries per se are no longer regarded as an important measure in US antitrust policies.

However, in some countries the antitrust authorities still seem to be concerned with the market shares of firms. Pressure may be put on to the dominant firm by the antitrust authority's explicitly referring to the country's antitrust law, or by implicit threats from the general public to firms that wield monopoly power in the markets. For example in Turkey, the antitrust division still gives guidance to dominant firms, although they no longer announce direct market share limits since the EU accession process has started. It appears that if the antitrust authority observes a firm with over 50% of the market share, they regulate the dominant firm. If the dominant firm's market share is 55%, then it is not allowed to have a contract with a retailer such that it sells only the dominant firm's products. However, if its market share is 35%, it is allowed to make such an exclusive contract.⁴ The antitrust division of Turkey has given high priority to complaints against firms with more than 50%, and it is known that the fines are harsher for these firms. In addition, if a firm has a market share more than 50%, it must ask the antitrust division for permission when purchasing another firm. In the Turkish mobile phone industry, the dominant firm, Turkcell, was under heavy pressure from the antitrust division until recently when its share reduces to 50%.⁵

However, are these structural regulations by the antitrust authorities ever useful? If firms know that they can be punished if their market shares exceed some threshold level, then they would try to keep their market shares below that level. Such response by a firm would cause inefficiency in resource allocation as long as the dominant firms are more cost efficient than other firms, as Demsetz (1973) pointed out.⁶ On the one hand, the dominant firms should be more cost-efficient than other firms, and forcing them to reduce their market shares by a market share regulation may cause resource misallocations. Moreover, even if a small firm exits the market, the resource that is used to pay the fixed operation cost could be saved.⁷ A market share regulation could do even more harm if we consider firms' R&D activities. A successful R&D investment may improve the quality of product, or may reduce production cost through improvements in production process. In either case, it will increase the market share of the firm. It can be particularly harmful for society if the most cost efficient firm is discouraged from engaging R&D investment for the society.⁸ On the other hand, however, there is also a good reason to fear that the

dominant firm will exercise monopoly power after the smaller firms exit the market. These acts must harm consumers quite a bit, and the dominant firm indeed may attempt a "predation" exercise by improving its technology through R&D investment in order to totally monopolize the market, raising market price. This predation practice through R&D investment can be considered a "non-price monopolization practice" (Motta, 2004, page 454), but it is hard for the anti-trust authority to prove the motivation of investment. If structural regulation provides a temporary relief to a small firm that can grow into a competitive rival of the dominant firm through their R&D activities, preventing this non-price monopolization practice, then the increased competition may improve resource allocation. In this paper, we will investigate this possibility. We employ a model of an oligopolistic market with stochastic R&D and fixed costs of operations to evaluate the welfare effects of regulation on R&D decisions.

Although the concentration measure of an industry is no longer considered significant in Japan's antitrust policies, at one time the structuralists' principle was more thoroughly applied there than in the US. In the post-war Japan, right after the World War II, under the rule of the US military, many *zaibatsu* conglomerates were divided into many pieces, and some dominant firms were also divided into smaller companies after being cited as the monopolists with very high market shares. In the next subsection, we will look in detail into episodes that the Japanese beer industry went through under a market share regulation policy conducted by the Japanese government. This case study appears to provide a best supporting case for a market share regulation policy and will highlight the possible pros and cons of a structural regulation policy.

1.1. A case study: history of the Japanese beer industry

After World War II, the Allied Powers General Headquarters (GHQ) demilitarized Japanese society, democratized the political process, and decentralized the wealth and power in the first phase of the military occupation of Japan between 1945 and 1947. In decentralizing wealth and power, the GHQ engaged in breaking up Japan's *zaibatsu* conglomerates, fostering the growth of labor unions and carrying out a rural land reform program. Subsequently, General MacArthur pressured the Japanese Congress to pass the Law for the Elimination of Excessive Concentrations of Economic Power, which authorized dismantling any company that so dominated a particular market that potential newcomers were unlikely to survive (McClain, 2002, Chapter 15). Enjoying 75% share of the market, the Dai-Nippon Brewery was divided into Asahi and Nippon (later Sapporo) Breweries in 1949. Due to dysfunctional organization and unnecessary rivalries between the two newly created companies, Asahi and Sapporo lost their market shares over the years to a third smaller company Kirin Brewery, and Kirin rapidly became the leading company. In 1973, when Congress proposed an amendment of the Antitrust law to give *Kousei Torihiki linkai* (the Japan Fair Trade Commission) the power to divide monopolistic companies, Kirin Brewery had a very good reason to be afraid of being divided into smaller companies by observing Dai Nippon Brewery's fate and Kirin's own success.⁹ From then on, Kirin Brewery stopped advertising their products completely for a few years, and tried not to expand their market share.¹⁰ With this effort, Kirin's market share stayed around the low 60s for 15 years. In this period, beer companies started to provide a new variety of beers (Japanese beer was rather homogeneous for many years until then). In 1987, Asahi Brewery introduced Asahi Super Dry to the market, which was an instant huge success: the market share of

³ After the release of the Neal report, a second commission, a group of University of Chicago academics led by George Stigler, wrote a report for the incoming Nixon administration (the "Stigler Report") denouncing the feasibility of attacking conglomerates using the existing antitrust laws (see Foer, 2003).

⁴ Block Exemption Communiqué on Vertical Agreements, amended by the Competition Board of Turkey Communiqués No. 2003/3 and 2007/2; Communiqué No. 2002/2.

⁵ Access to Mobile Network and Out-going Calls Market Analysis. (December 2009) Market Analysis Series, Information and Communication Technologies Authority of Turkey.

⁶ Lahiri and Ono (1988) show that helping inefficient firms can reduce the social welfare by misallocation of resources.

⁷ See, for example, Creane and Konishi (2009).

⁸ For the literature on R&D investments, see surveys by Tirole (1988) and Reinganum (1989).

⁹ Although the amendment of the Antitrust law was passed in 1977, no specific number on the market share was listed in the guidelines.

¹⁰ <http://www.kirinholdings.co.jp/company/history/group/07.html>.

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات