



Available online at www.sciencedirect.com

SCIENCE @ DIRECT®

International Journal of Industrial Organization
22 (2004) 693–713

International Journal of
Industrial
Organization

www.elsevier.com/locate/econbase

Innovation, market structure and the holdup problem: investment incentives and coordination[☆]

Abraham L. Wickelgren^{*}

Federal Trade Commission, 600 Pennsylvania Ave., NW Mail drop NJ 4264, Washington, DC 20580, USA

Received 13 September 2002; received in revised form 27 March 2003; accepted 12 June 2003

Abstract

I analyze the innovation incentives under monopoly and duopoly provision of horizontally differentiated products purchased via bilateral negotiations, integrating the market structure and innovation literature with the holdup literature. I show that competition can improve local incentives for non-contractible investment. Because innovation levels are generally strategic substitutes, however, there can be multiple duopoly equilibria. In some circumstances, monopoly can provide a coordination device that can lead to greater expected welfare despite inferior local innovation incentives. The conditions for this to be the case, however, are quite restrictive.

© 2004 Elsevier B.V. All rights reserved.

JEL classification: L10; L40

Keywords: Holdup; Competition and innovation

1. Introduction

While many papers have analyzed the effect of market structure on innovation incentives (Arrow, 1962; Dasgupta and Stiglitz, 1980; Bulow, 1982; and many others), there has been very little analysis of this issue in markets where trade occurs in bilateral contracts rather than in a spot market. Most prior papers dealing with bilateral contracts and non-contractible investments have assumed the existence of bilateral monopoly (Williamson, 1985; Tirole, 1986; Grossman and Hart, 1986; Hart and Moore, 1990

[☆] This paper does not reflect the views of the Federal Trade Commission or any individual commissioner.

^{*} 2022 Columbia Road NW #710, Washington, DC 20009, USA. Tel.: +1-202-326-2470; fax: +1-202-326-3443.

E-mail address: awickelgren@ftc.gov (A.L. Wickelgren).

among others), bypassing the question of how market structure affects investment incentives.

When customers are not final consumers, but rather firms purchasing inputs, these firms will often negotiate with multiple suppliers. In fact, this paper grows out of analysis of a proposed merger between the two dominant suppliers of accounting software for large law firms. In that market, law firms would negotiate with two different software firms over prices for a customized version of that firm's software. The welfare consequences of this merger hinged to a large extent on how the merger would affect the incentives of the merged firm to improve each product. Similar negotiations occur in all types of business planning software. Companies such as Oracle or PeopleSoft offer large, customizable software packages that perform a myriad of essential tasks such as billing and accounting, human resources management, supply chain management and many others. Large companies do not buy these products "off the shelf." Rather, they send out a request for proposal to several firms and negotiate with each one. Health maintenance organizations negotiate with multiple hospitals in an area to choose which one will be their exclusive provider. Corporations often bargain with many different law firms before choosing which one will represent them in a certain class of cases. Indeed, any time a business buys a service or a customized good that cannot be easily resold, there can be individualized pricing resulting from direct negotiations with the supplier.

In markets where trade is governed by bilateral contracts, the issue of output distortion does not arise because trade is negotiated individually.¹ The effect of market structure on welfare is only through its effect on non-contractible investments. Moreover, the effect of market structure on product innovation incentives is substantially different when there are no set prices. For example, the "replacement effect" and the "product inertia effect" that greatly influence innovation incentives in standard models (Greenstein and Ramey, 1998 is one such example) are not present in this paper.

I use a model with a continuum of consumers uniformly distributed along the unit interval and two products, A and B, located at the endpoints. Consumers demand at most one unit of one product. Each product has a common value to all customers, which a firm can increase through quality-improving investment. Each product also has an idiosyncratic value to each consumer based on the consumer's location. When different firms own A and B, each firm bargains with each customer (under complete information), who chooses the product that provides her with the greatest net surplus. If one firm owns both products, the firm offers each consumer only the product that a given consumer values more. Consumers always have the option of buying a third product (which could be in-house production), but this product provides less gross value (i.e., not net of price) to all consumers than does either product A or B. So, while this third

¹ Of course, there can be bargaining failures. In the model below, I assume that bargaining always results in the efficient transaction taking place. Even when bargaining failures can occur, however, market structure still won't affect the degree of output distortion unless the probability of a bargaining failure is correlated with market structure.

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