

Competition and Innovation: The Microsoft Case

Rachel Griffith

rachel.griffith@ucl.ac.uk

Office hours by appointment

Recap

- Competition policy
 - aims to correct market failures that arise due to firms' market power
- Innovation policy
 - aims to correct market failures that lead to underinvestment in innovation
 - one policy response is to give firms market power to increase incentives to invest in innovation
- Is there a conflict? How do we reconcile these potentially different policy objectives?

bundling

- when two separate products are sold together
- bundling can lead to efficiency gains, where both producers and consumers are better off
 - nuts and bolts example

Nuts and bolts example

- Nuts and bolts are complementary products, if you buy a bolt you also want a nut

- Assume demand is given by $Q = 12 - (P_B + P_N)$

-

- Assume product by two different firms, inverse demand curves

$$P_B = (12 - P_N) - Q_B$$

$$P_N = (12 - P_B) - Q_N$$

- marginal revenue

$$MR_B = (12 - P_N) - 2Q_B$$

$$MR_N = (12 - P_B) - 2Q_N$$

Nuts and bolts example

- each firm's demand curve depends on the other firm's prices; there is an externality from one firm to the other
- profit maximisation means $MR=MC$ (we assume $MC=0$), and gives us

$$Q_B = (12 - P_N)/2$$

$$Q_N = (12 - P_B)/2$$

- and the best price choices

$$P_B = (12 - P_N)/2$$

$$P_N = (12 - P_B)/2$$

Nuts and bolts example

- substitute in to get

$$P_B = \frac{(12 - P_N)}{2} = \frac{\left(12 - \frac{(12 - P_N)}{2}\right)}{2} = \frac{12}{4} + \frac{P_N}{4}$$

- equilibrium values

$$P_B = P_N = 4$$

$$Q_B = Q_N = 4$$

- with two monopolists selling bundled nuts and bolts

$$PQ = (4 + 4)4 = 32$$

Nuts and bolts example

- Now consider outcome if two firms merged

$$Q = 12 - (P_B + P_N)$$

$$P_B + P_N = 12 - Q$$

$$MR = 12 - 2Q$$

$$P = 6, Q = 6$$

$$PQ = (6)6 = 36$$

potential benefits from bundling

- Nuts and bolts example
 - without bundling the price will be higher and profits lower than with bundling
 - if there is no other impact than both producers and consumers benefit from bundling
- but can also be used by a firm with market power to extend its market power
 - could have long term effects on competition and innovation

The facts of the Microsoft case

- Microsoft bundled Internet Explorer, a web browser, with Microsoft Windows, its operating system
- Microsoft changed its "application programming interfaces" to favour Internet Explorer over other web browsers
- Microsoft insisted on restrictive licensing agreements with original equipment manufacturers

What impact did these actions have?

- The DOJ claimed that these activities represented an abused of Microsoft's monopoly power in order to reduce competition in the computer and internet industry
- Microsoft argued that these actions were the results of innovation and part of the normal competitive process, and that consumers benefited from these actions

Did Microsoft have a monopoly position?

- what is the relevant market?
 - computing potentially shifting from
 - PC only to
 - PC plus internet
- was the market contestable?

Could Microsoft's monopoly have ended if they didn't abuse their market power?

- Divided technological leadership
- Java offered standard to which creators of applications could write without regard for underlying operating system
 - provided a "middleware" layer of software between applications programs and the underlying operating system
 - Netscape's Navigator browser was distribution vehicle for Java
 - Also possibility that Netscape Navigator could grow into substitute for Microsoft Windows, or facilitate server-based applications that made minimal use of the desktop operating system

Did Microsoft's behaviour harm consumers?

- in the short-run
- in the long-run
- which consumers?

Were Microsoft's action anti-competitive?

- Microsoft's actions:
 - prevented widespread distribution of internet browsers and Java - technologies that if successful outside Microsoft's control might form the foundation for divided technical leadership
 - Microsoft introduced its own variant (Internet Explorer) and ensured its short-run success and changed its character to make it consistent with the persistent windows monopoly

What happened next?

- Findings
- Remedies
- Implications for future cases