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**ORIGINAL ARTICLE** 



#### ECONOMIC LESSONS FROM THE IBM AND THE MICROSOFT CASES

#### Nidhi Gupta

Assistant Professor, Department of Economics, Shri Ram College of Commerce, University of Delhi, Delhi.

#### Abstract:

This paper presents an interesting economic analysis of two classic antitrust cases in the US history – The US v. IBM and The US. v. Microsoft. The cases illustrate two particular facts - one, that innovation (with or without monopoly) can lead to socially beneficial actions that competitors dislike (IBM Case); and second, leveraging, packaged in form of innovation, can be used to preclude the possibility of new innovations that could otherwise destroy the existing monopoly (Microsoft Case). Here it goes without saying that the question of monopoly leveraging (misuse of monopoly) cannot arise until presence of monopoly is justified. These cases nicely fit into a similar realm of analysis as they both revolve around the charges of monopoly leveraging and issues of bundling. Still, both considerably differ in terms of the facts involved and hence have particularly diverse results to offer. The economic investigation of these cases reveals that IBM's act reflected 'superior skill and foresight' while what Microsoft did was abuse of monopoly in one market to shut-out competition in new areas that could affect the original monopoly. Section I of the paper discusses the basic backdrop and understanding of both the cases. This is followed by Sections II and III that analyze both the cases respectively. Section IV summarizes the differences between the two cases and the last section concludes by giving some final words on what we can learn from these cases.

#### **KEYWORDS:**

Economic analysis, IBM, Microsoft, Monopoly leveraging, Bundling

#### **INTRODUCTION**

The epic IBM case of the 1970s was perhaps thought to be an antitrust case that attracted enormous attention over the years. The Microsoft case of 1990s, not unlike the IBM case, has attracted even more consideration recently. On a generalized basis, we can classify both these cases as violations of Section 2 of the Sherman Act which declares that:

"Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a felony..."

There are two areas where the anti-trust authorities need to struggle in cases falling under violation of Section 2. First, whether the company possesses 'monopoly power', which is indicated through a careful analysis of defendant's market-share and barriers to entry in the industry. And second is concerned with

attempts to monopolization which can be identified by keeping a check on anti-competitive conduct of the

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defendant. While scrutinizing these, it should be borne in mind that – a large market share could be a result of "superior skill, foresight and industry" and we should never take size of market share by itself as an offense.

Apart from many other things that could be listed as a basis for commonality in IBM and Microsoft cases, an important overlapping element was a person named *Franklin M. Fisher*: Notably, he was the *chief economic witness for IBM* in the US v. IBM case (United States v. International Business Machines Corporation, Docket No. 69 Civ.DNE, S.D. NY) and the *chief economic witness for the US* in the US v. Microsoft case (United States of America v. Microsoft Corporation, Civil Action No.98-1232 TPJ, D.C.). The whole issue, as he elaborates in these cases, surrounds the economic analysis and interpretation of *competition, monopoly and innovation*. He did not switch sides in the Microsoft case (as it could have been argued), rather as he explains, the facts that they were faced with in Microsoft's case were drastically different from those in the IBM's case.

Fisher's expert testimony for the IBM case developed a pioneering view that in order to remain competitive in a rapid technologically changing industry, firms need to continuously innovate to beat the competition. There sometimes exists a very thin line difference between the actions that are designed exclusively to gain monopoly power and ordinary actions of an efficient competitor that automatically lead to monopoly. Hence, it remains to be identified by the anti-trust authorities whether the monopoly is an automatic result of innovation or is packaged to look like innovation but indeed is a case of monopoly leveraging in an existing market.

In the IBM's case, Fisher et al. (1983a and 1983b) identified that IBM did not possess monopoly power and hence there were a number of errors on which government's charges were based. He explained the fact that firm's share of market at any given point of time is an incomplete indicator of whether the firm has monopoly power. It was also brought to notice that anything that makes it expensive or time-consuming to enter a market does not constitute a barrier to entry. Also, all profits accruing to a firm does not necessarily mean the firm is a monopolist; and any price cutting by an incumbent firm (especially one with a large market share) does not mean the firm is following a predatory policy to monopolize the market.

In the Microsoft's Case, on the other hand, Fisher and Rubinfeld (2000) recognized that not just Microsoft had monopoly power but there were a number of reasons to support the fact that Microsoft was deliberately making an attempt to protect its monopoly power. There were a number of actions that Microsoft resorted to, which according to Fisher "made no business sense". Microsoft did try to justify its practices by calling them beneficial for customers, but was in a way forcing customers to take Internet Explorer even if they wish to obtain Windows 98 without Internet Explorer.

Keeping this background in mind, let us now discuss both the cases in a little more detail so as to understand the analysis behind them.

#### **II. THE IBM CASE**

Brought in January 1969, the IBM case went into trial in 1975, which lasted for over six years with trial transcript containing over 104,400 pages and thousands of documents placed in the record! The case presented significant problems to the authorities because not just the data processing industry was a dynamic one, but also because there were both price competition and product innovation at stake. The case was dismissed in January 1982 by being stated as "without merit".

Government suspected that this act of IBM also forced other hardware producers to bundle and hence raised barriers to entry into the electronic data processing market. Fisher responded to this allegation by explaining the fact that IBM's bundling in relatively early days of computer industry was a response to consumer's demand - consumers who were large firms and government agencies that had the knowledge to assess the suitability of prices charged and ability to switch to a new supplier. Bundling of these support services was a result of high desirability from consumer side. Had the consumers not wanted the bundle, IBM bundling would instead have made entry simpler for other firms (not harder) – this would have been possible through provision of hardware services without the support or software, which would be relatively more attractive for consumers. The first alleged charge on IBM concerns the bundling of support and software with its computer system at no separately stated charge. It was interpreted as IBM's refusal to price its hardware boxes separately and offering the entire system at a single price. The second charge on IBM involved bundling of formerly separate hardware components together. With the announcement of System/370 line, IBM introduced two controlled devices that were placed inside the central processor (earlier the disk drives were located in a separate control box). Government alleged that this involved anticompetitive acts that were designed to extend or preserve IBM's power over the (supposed) market for disk drives. Even introduction of new memory devices (far smaller than the old) met with discomfort by government which was claimed to be an attempt to reduce competition in memory market. Fisher 2 Review Of Research | Volume 3 | Issue 7 | April 2014

responded to these by alleging that these new devices improved customers' gains as they were both cheaper and faster and hence were obvious innovations. The placement of control circuitry and memory inside the central processor made computers fast because it achieved the minimization of travel distance of light and electrical signals important.

The IBM case also had a number of other erroneous facts presented by the Government which the defendant's side took care of. The case depended crucially on whether overwhelming market share of IBM meant monopoly power and barriers to entry into the industry. The government saw only that the *lower* prices (that IBM charged) and *better* products (that IBM supplied) have significant effects on the competing firms willing to enter the market. It failed to notice that low price and better product are indeed exact opposite of monopoly power and have significant social benefits to provide. What did not strike the government was the fact that every fall in price (holding price substantially above the costs) does not imply predatory pricing on behalf of the firm to drive out competitors. Since IBM operated in a rapidly growing technological market in which superior new technologies succeeded each other in breath-taking speed, it was indeed subject to intense competition. The rewards that competition provided IBM for innovation and efficiency were not ill-gotten gains that result from a monopolistic action of restricting output and refraining product improvement. IBM's declining share and market leadership in later years of the case justified these conceptions and became a partial basis of withdrawal of the case.

The case was, hence, dismissed with a significant realization thus: 'IBM did not have monopoly power in the data processing industry and that its conduct was a legitimate response to the dynamic nature of competition in that marketplace.'

#### **III. THE MICROSOFT CASE**

At the time when the anti-trust battle US v. Microsoft began in 1997, Microsoft dominated the market for operating systems with roughly 90 percent of its operating systems installed on Intel x86 chip personal computers. The main charges on Microsoft were – alleged monopolization of the market for operating systems for personal computers by Windows and anti-competitive bundling of Internet Explorer with Windows (Declaration of Franklin M. Fisher in the United States District Court for the District of Columbia; United States of America (Plaintiff) v. Microsoft Corporation (Defendant)). Fisher pointed out that the dominant position of Microsoft was protected by 'application barriers to entry' (ABE) that emerged due to operation of the *indirect network effects* in this market. Note that direct network effects would be such as the benefit to a telephone user from being able to reach lots of other telephone users that are connected to the network. In the computer industry, generally it happens that the application software written for one operating system cannot run on different operating system without extensive and costly modifications (major cost being fixed cost of writing and debugging the software). Hence, the fact that users wish to have operating system that has large number of applications written for it, itself generates pressures for more applications to be written for that operating system. This increased the desirability of Microsoft's Windows 9x by consumers and consequently Microsoft's dominance.

This acted as "chicken-egg problem" for an operating system entrant as it would not find customers for its operating system unless it could assure them that it would be able to arrange thousands of applications with it and at the same time, it could not get applications for it unless it already had millions of customers using their operating system. Two noteworthy points regarding these barriers to entry are: (a) This does not imply that there can never be a threat on Microsoft's monopoly; and (b) Though there is nothing inherently anti-competitive about this phenomenon, there is a possibility that anti-competitive acts by Microsoft could further affect competition and entry in this industry.

An interesting story began when these barriers to entry acted as a motivation for the development of middleware such as Netscape's browser 'Navigator' and cross platform language 'Java'. Microsoft correctly anticipated the possibility that its dominant position in operating system market could be eroded by such internet browsers and cross-platform languages, which are capable of supporting software applications that are operating-system independent (For example, Netscape's internet browsers could operate on 17 different operating systems). Hence, being able to support applications independent of operating system, browsers would indeed lessen the reliance on operating system and eventually affect Microsoft's dominance.

With these emerging threats in mind, Microsoft started bundling its browsers with the operating system and giving away its browser for "free". This is unlike Microsoft's prior practice of charging for browsers separately as there was always a *demand for browsers separate from the demand of operating systems*. Along with bundling, Microsoft also started following a number of *anti-competitive* acts to exclude competition in Internet browsers:

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1.It decided to support only Windows-based technology, so that developers continue to have incentives to create applications that run best on Windows.

2.It entered into restricted agreements with PC original equipment manufacturers (OEMs) to pre-install Microsoft's Internet Explorer if they wanted to pre-install Windows 98.

3.It also promoted Internet Explorer by striking deals with Internet Access Providers (IAPs) and Internet Content Providers (ICPs).

All these and a number of other strategies meant that unless a company has successfully entered the operating system market, it would be very difficult for it to enter the browser market. The fact that Microsoft was also able to impose onerous conditions on OEMs and others who wanted to access Windows operating system clearly explains Microsoft's dominant position and its strategy of obscuring the availabilities of consumer choices and shutting down competition in any new area.

Microsoft attempted to justify its practices with two technological claims – the first was that the so called 'integration' of Internet Explorer with Windows 98 provides a benefit to customers to have a single browsing experience and second that Internet Explorer could not be removed from Windows 98 without damaging the workings of the operating system. These claims, however, did not have much content. Neither was it clear that the customers desired common browsing experience nor was the non-removal claim justified until Microsoft was using restrictive design choice.

It can also be argued that if Microsoft's Internet Explorer was indeed a superior product, then competition would automatically lead the OEMs, IAPs, ICPs and customers to choose it. By tying it to Windows, Microsoft clearly distorted the channels through which other browser producers could reach the consumers. The fact that consumers' computers already have a perfectly capable browser greatly reduced the incentive to install a second browser and hence act as a barrier to entry for other producers of browsers. In conclusion, it would not be wrong to say that Microsoft's actions were deliberate attempt to protect its monopoly power which was being threatened by the development of new browsers and that they are indeed violations of Section 2 of the Sherman Act.

#### IV. IBM AND MICROSOFT CASES: THE DIFFERENCES

#### There are two major differences in both the cases:

#### 1. Question of Presence or Misuse of Monopoly Power

At the time when the IBM anti-trust case was filed, IBM dominated the data processing market. But the presence of low barriers to entry and rapid technological change in the market made dominance an inadequate basis of IBM's monopoly. On the other hand, in the Microsoft case authorities went beyond identifying the monopoly power. Not just the monopoly was identified; but the authorities were also able to identify monopoly leveraging and competition restriction. An important point that could be highlighted is that firms do not retain their dominance or market power forever, this holds true even in the markets that are characterized by network effects.

#### 2. Question of Desirable and Undesirable Bundling

#### Bundling in both the cases seems to differ in one major aspect – its desirability.

In the IBM case, it was the consumer's desirability of bundling that acted as a barrier to entry in the otherwise *competitive* data processing market. In the Microsoft case, however, it was not clear that the 'common browsing experience' was actually desired by the consumers or not (Fisher, 2000). Microsoft could use bundling to preserve monopoly power because it had the authority over market; IBM, on the other hand, could not have used this to create monopoly because entry was not restricted due to reasons other than this. This arises from the fact that so long as entry is not difficult for other reasons, bundling that is undesired by a significant group of customers only creates an opportunity for rivals.

#### V. INNOVATIONS AND INCENTIVE TO INNOVATE: A FINAL WORD

#### The IBM and Microsoft cases give us two underlying principles:

(1)There are certain innovations that necessarily involve the extension of monopoly power and they should be allowed. These innovations automatically involve acts that might seem competition-restricting, but any Review Of Research | Volume 3 | Issue 7 | April 2014

competitive firm would undertake them to bring social welfare effects.

(2)There are other innovations that should be discouraged because they are simply a process of monopoly leveraging accompanied by deliberate superfluous anti-competitive acts. For example, if integration of browsers did bring social welfare then there would have been no need of offering the browser for free (or at low predatory price) or forcing the vendors to supply the integrated product.

As a final word it can be argued that the process of monopoly leveraging may have significant effects on the incentive to innovate. One view suggests that the ability to leverage monopoly gains in future may result in greater enticement to innovate (example, the presence of patents). But with this, it is important not to forget that the process of monopoly leveraging may hamper the process of innovation in an industry by discouraging the incentives that accrue to the competitors (as in the Microsoft case). Further it continues to hold that an innovative firm does not get a license to engage in anti-competitive activities designed to preserve monopoly power.

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#### Nidhi Gupta

Assistant Professor, Department of Economics, Shri Ram College of Commerce, University of Delhi, Delhi.

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