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Externalities of the Microsoft's Network Goods

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EXTERNALITIES OF THE MICROSOFT'S NETWORK GOODS

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ABSTRACT

This paper aims to make a public statement about the strategy implemented by Microsoft in order to reinforce its market power across the networked users of Windows Operative System, and Xbox Games Console.

It is presented an economic view that supports the anticipating (not predatory) position assumed by Microsoft against its direct competitors.

KEYWORDS

Externalities, Microsoft, Software Industry, Regulation Policies.

1. INTRODUCTION

The case of US *versus* Microsoft, dated 1998, has been much discussed among economists all over the world. The reason for this paper is to make a public statement about the charges against Microsoft's initiative of making a kind of market foreclosure, which affected direct competitors.

Remember that Microsoft has been accused of executing a vertical foreclosure, by integrating the Internet Explorer (IE) browser on the Windows Operating System, in competition with the Netscape browser.

In 1995, when Microsoft announced that it would distribute its new Internet Explorer browser free of charge, it prevented the success of Netscape's initial business plan of charging consumers for the use of this graphic software.

After this procedure, Microsoft was accused of executing a type of strategy that is based on the exploitation of network externalities and practice of predatory pricing, which imposed restrictions on original equipment manufacturer's (OEMs), Internet Content Providers (ICPs), and Internet Service Providers (ISP).

The impact of this strategy was felt at two different levels; on the one hand, it was ensured that new personal computer users would have access to a previously installed version of IE; on the other hand, the Netscape browser could not be installed on those machines.

2. IE: INFORMATION GOOD

In the present text, the IE it will be called as information good, because, this kind of good is clearly free, and in the present digital context it should be considered as a public good.

Considering the large number of antitrust cases, that have been judged by the Federal Trade Commission, in US, an analogy can be found with the case US versus Microsoft, where it was considered that the information good's (IE) offers an acceptable mechanism to stimulate demand for Windows.

By taking the IE as information good, it may be considered that information goods include everything that can be digitalized, or codified by a flux of bits.

Information goods establish an interaction between two fundamental and complementary elements which are information (software) and supporting infrastructure (hardware).

This relationship provides the likelihood of strongly dependent utilities, which originate from the interaction between the producer's utilities (in a conscious way) and consumer's utilities (in a non deliberately conscious way), which contribute to a large degree of mutual satisfaction.

A browser has, in fact, three basic features of a public good. First, this kind of good is indivisible and independent on the quantity consumed by a set of consumers, it is always possible to include additional users, and this practice will not reduce the individual satisfaction degree or the collective satisfaction degree of the initial set of users.

Second, the browser makes exclusion impossible, since the quantity produced of this kind of information good, has to be accessible to the additional users who wish to use it.

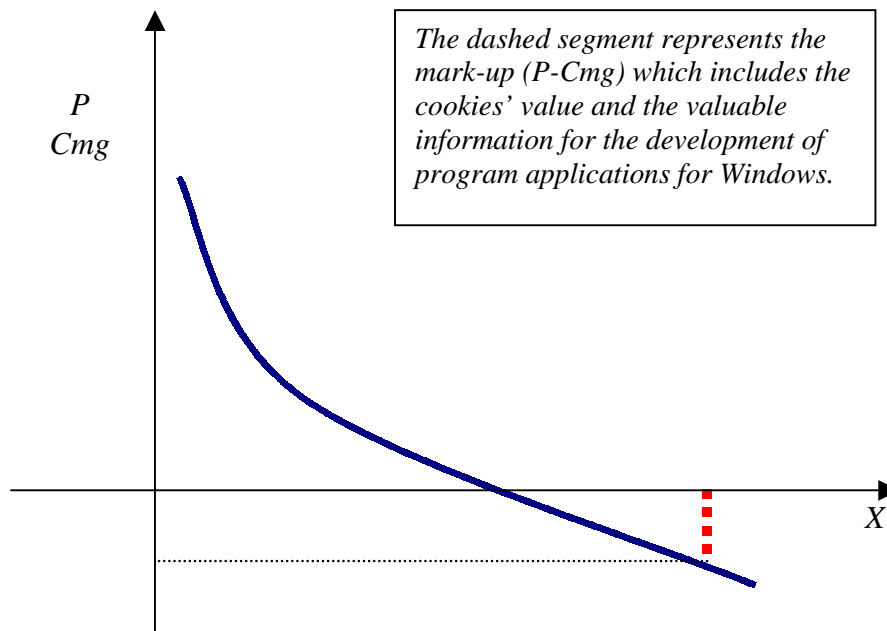
Third, the integrated functioning of the web makes the rejection of this kind of information good impossible, since there is a necessity for all the current users of Web, to use this kind of information good, even if they do not want it.

3. PRICING OF NETWORK GOODS

It should nevertheless be stressed that the marginal cost of an additional copy of IE, could be negative, because the production cost of the copy is nearly zero, and the cost of the “Webgrafia”¹ of the consumer profile may imply a saving of costs for the producer.

This costs saving, which is due to the elimination of the costs associated with market research, leads to the possibility of implying negative marginal costs.

Figure 1 – Pricing of Network Goods



Furthermore, the information obtained by the process of “Webgrafia”, may create an extra benefit, by the additional profits that can be achieved introducing new complementary products.

In fact, a negative price may be set, because by setting a price equal to zero, above the marginal cost, a mark-up should be obtained which could lead to the availability of alternative program applications for Windows, taking into account the optimal trajectory of increasing profit.

Another form of vertical restraint which could be observed was the use of bundling, which began with the offer of Windows 98, including the IE as an integrated component of this version of the Windows Operating System.

¹ Set of techniques used in the classification and quantification of some characteristics that may help on the design of the consumer (user) profile.

Without forgetting the classic argument that this procedure presents as a source of barriers to entry, starting on a rational basis, it should be stressed that the services integration, including the browser and the operating system, provided a unified experience, and was sometimes, more efficient, for the final users, since its availability provided access to all the users, in the same way as to the resident information on the Web.

The methodology used in the evaluation of the antitrust cases, especially in high technology industries, is based on the observation of the producers' market power, in other words, on their capacity of setting prices above marginal cost, for long periods of time.

In the case of the Software Industry, we should take into account that the market boundaries are extremely fuzzy, and the leader is often threaten by competitors that absorb other software categories, or by competitors that are able to move from other related industries, in order to capture some specific and highly differentiated markets.

As we may observe, there are plenty of possibilities to enter in this industry. However, the temporal question assumes here an important role, because everything depends on the length of time that Microsoft could maintain the price above the marginal cost.

As the software industry only makes sense if it is thought as an integrated and complementary platform, labelled usually as a "hardware-software" system, which is characterized by the effects of network externalities, we may assume that Microsoft only responded, by anticipating the present scenario which is dominated by the revealed preferences of the consumers. Furthermore, the consumers rewarded the Operating System that permits them to run all the applications programs they want to use, in an interface that allows them to reach positive externalities, and reduces the opportunity costs by using other Operating Systems.

4. XBOX: THE NEW CHALLENGE

Nowadays, Microsoft is facing other big challenge with the Xbox games console. Last year, the Microsoft's chief executive officer estimated that his company will loose \$ 125 on each machine sold. Due to this situation, Xbox might not break even within five years.

Microsoft has therefore been accused of predatory pricing, and developing a kind of market foreclosure by covering only some games' software producers in the exclusive pack which is presently offered to the consumer network.

In turn, the retailers are promoting sales of Microsoft games in exchange for more favourable distribution of consoles, and in fact the most software bundled with Xbox belongs to Microsoft.

The main principle is simple; the consumers may choose the games they want to include in their Xbox. Obviously, they will include on their preferences the more advertised

games, and the games that count with more network users, in order to play it on the Cyberspace.

Microsoft does not make the choice, but induces the consumer to do it. The Xbox's long-term success is guaranteed if Microsoft is keeping in mind that consumer buy consoles, but who sells consoles is the software. Then, Microsoft expects to reach increasing returns to scale, with unit's cost sharp reductions.

5. CONCLUSION

We are in the "Age of Access",.... so the improvement of conditions to access to information, should not be penalized, since the improvement of these conditions, reduces information asymmetries, and lowers the transaction costs associated with any kind of operation established between two interdependent economic agents.

Presently, when we launch onto to the market new information goods, we have to take into consideration that information is a real productive factor, and make clear the nature of the induced benefits, which may be generated by the individual satisfaction of the consumers, more and more expressed by a collective consumer network.