IMPLICATIONS OF NEUTRALITY RULE:

AN APPLICATION TO OTHER SECTORS

Introduction

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1. INTRODUCTION

The purpose of this study, conducted for Telefónica S.A., is to analyze telecommunications "net neutrality" from a new perspective. We will examine the hypothetical imposition of neutrality rule in other industries. To this end, after examining current "net neutrality" economic literature and the regulation in place, we will first identify and set the bounds for a general definition of "neutrality rule". We will, then, determine the restrictions that such imposition would entail for the optimal performance of firms and customers satisfaction and welfare.

To illustrate these distortions we will examine the impact of "neutrality rule" a number of specific industries that typically use a wide range of commercial strategies towards both suppliers and customers. All of this will help us go through the different commercial strategies. We will show the effects of an eventual regulation addressed to limit such strategies, not only in terms of firm's efficiency loss, but also and particularly referring to damages on end-customers welfare.

2. NEUTRALITY: GENERAL DEFINITION

Net neutrality does not have a universally accepted definition. It generally brings about the notion that all traffic contents going through a network are treated equally, both technically and commercially, irrespective of the application, content or services to which the traffic is related. For its proponents, it fully restricts Internet Service Providers (ISPs)' ability to use different traffic management tools, pricing techniques and/or vertical integration to justify traffic management among contents and that as such the Internet network behaves in a completely standardized manner with respect to the traffic running over it.

Under a strict neutrality rule, all Internet traffic contents would be subject to a very similar quality (so called best-effort) for all users and at the same cost, regardless of the service chosen.[1]

From an economic perspective, strict net neutrality would have a number of **meanings and implications which have been described as: 1) no pricing of (the user's) ISP on the content provider side; 2) no prioritized access (at a positive price); 3) no price or non-price discrimination based on type of content or service; and 4), no vertical foreclosure[2].**

Hence, "net neutrality" is, in general terms, an obligation of uniform treatment to all

[1] See: GSR 2012. Discussion paper. International Communication Union.
[2] See: Peitz, M.; Schweitzer, H. *et al*. (2014) *Market Definition, Market Power and Regulatory Interaction in Electronic Communications Markets*. Centre on Regulation in Europe (CERRE).

content providers, aside from technical reasons or capacity restrictions, and fully restricts Internet Service Providers (ISPs)' ability to use pricing tools, and/or vertical integration to justify traffic management among contents.

If net neutrality were applied to other industries, firms would be forced to use uniform pricing strategies or equal treatment to customers or suppliers in terms of preferences, quality, quantity or priority.

However, uniform pricing or equal treatment for customers is far from being a common behavior among other industries. Economic literature has shown that such situation would not necessarily drive to an efficient outcome, as most commercial strategies aim to distinguish market participants according to their profiles or market position. These strategies have been extensively analyzed by some of the most well-known economists in the "The Theory of Industrial Organization" and they are commonly gathered around the term *discriminatory pricing.* This concept will be broadly used in this study as the economic term referring to commercial strategies that entail any sort of discriminatory practices among market participants.[3]

Firms frequently use such strategies in their regular activity. Discriminatory pricing is a companies' attempt to apply different conditions or charge different prices to final customers and suppliers according to their preferences or their bargaining power. For instance, supermarkets discriminate among consumers with special discounts for elderly people or squeeze margins to smaller suppliers. ATM owners charge different user fees to their own cardholders than to competitors' cardholders.

There is discrimination not only related to prices, when firms charge different unit prices for the same physical good or service, but also to qualities, when firms offer different reliability, operability, accessibility and accuracy facilities depending on the consumer. For instance, courier, parcel and express companies charge different prices depending on the shipment' urgency and quality of service; or hotels may charge lower room prices to most loyal customers.

From the social welfare's perspective, these strategies have positive effects, as they improve the efficiency and they usually increase market access. Discounts for unemployed people in supermarket chains or low premium for families in health insurance might be a good example. Furthermore, establishing different prices may be particularly positive if it responds to different delivery costs or prevent the closure of markets as, for instance, higher delivery prices for more expensive destinations in parcel industry. As a consequence, limiting the options for differentiation strategies through regulation may entail a loss for consumers.

Discrimination practices are also frequently used on upstream providers, for example when downstream companies enjoy a bargaining power or they are vertically integrated with upstream activities. In most cases, these asymmetrical relationships are not implied - from the outset - to be bad for consumers as they do not necessarily produce

[3] Tirole, J. (1988). *The theory of industrial organization*. MIT press.

harmful effects on downstream competition. Therefore, they normally imply better conditions for final consumers possibly at the expense of firms operating on downstream activities.

In economic terms, discriminatory pricing usually have a positive impact in efficiency and lead to a Pareto improvement[4].[5] On the contrary, imposing uniform conditions may lead not only to the reduction of a firm's benefits, but also to the closure of markets for some groups of customers and damage of social welfare.

[4] It can be defined as an action done that harms no one and helps at least one person.

[5] To use discriminatory practices, customers should have different price elasticity. The transition from a unique price to different prices according to price elasticity of demand could allow high-elasticity customers no willing before to pay a higher uniform price to access to the market, being thus better off. For low price elasticity customers, discriminatory pricing could imply a higher price. However, if price discrimination only lead to a reduction on prices on high-elasticity consumers, the result is a Pareto improvement.

3. NEUTRALITY RULE IN OTHER SECTORS

To illustrate the economic impact of a “neutrality rule”, we will analyze the performance of several traditional industries that typically use discriminatory strategies on prices and/or conditions when such restrictions are imposed. To this aim, we will use the following general definition of “neutrality rule”:

Under “neutrality rule” firms lose their ability to practice any sort of discriminatory pricing among market participants, and are forced to implement uniform conditions for all of them. When neutrality occurs, all market participants should be treated equally in terms of prices, preferences, quality, quantity or priority. Furthermore, firms are not allowed to use discriminatory pricing according to delivery costs, or whatever the vertical relationships with their customers are. Thus, “neutrality rule” restricts the firm’s optimal behavior; regardless of producers and consumer’s needs, and consequences on access to the market.[6]

[6] Prepared by the author on the basis of ITC (2012). *Net Neutrality: A regulatory perspective*. GSR 2012. Discussion Paper.

4. ANNEX: MAIN BIBLIOGRAPHICAL REFERENCES

Theoretical Framework references

- International Telecommunication Union (2012). *Net neutrality: A regulatory perspective*. GSR 2012. Discussion paper.
- Peitz, M.; Schweitzer, H. *et al*. (2014) *Market Definition, Market Power and Regulatory Interaction in Electronic Communications Markets*. Centre on Regulation in Europe (CERRE).
- Pigou, A. C. (1924). *The economics of welfare*. Transaction Publishers.
- Tirole, J. (1988). *The theory of industrial organization*. MIT press.