

# *E-commerce, (Big) Data and Competition Law- Need for New Framework for the Application of Competition Law to Online Platforms*

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**Abstract-** The strength of any online platform is being determined by the amount, variety and quality of the data it holds. But the raw data do not hold any value. No commercial decisions can be taken based on raw data. Therefore, the online platforms employ business models that are dependent on the acquisition and monetisation of personal data of users. The data which provide competitive advantage to the online platforms is commonly termed as big data. With the usage of big data, providers of these platforms are able to improve their services for the users and advertisers by providing better search results, targeted advertising and purchase recommendations. Although there are many benefits of big data, concerns have been expressed that big data may lead to a dominant position for some market players. Such a dominant position can lead to anti-competitive practices like refusal to supply or constructive refusal to supply and can be detrimental to consumers and other companies leading to excessive prices and lack of innovation in the market, defeating the very objective of competition law. This situation therefore requires analysis to find out that whether online platforms merit earlier and more aggressive antitrust intervention.

This study is both analytical and doctrinal in nature which tries to examine that whether existing tools of competition policy could be made applicable with respect to the online platforms.

The paper will briefly propose a framework to determine the competitive significance of data. It will discuss issue of implications of big data for competition law, the big data as an essential facility and an attempt will be made to provide valuable suggestions on how the traditional rules and principles of competition policy could be applied to the online platforms. The paper will conclude with the discussion that existing tools of competition law can be applied loosely to the online platforms in order to assess the relevant market and to find out that whether the online portals have indulged in abuse of dominance activities on a case-by-case basis.

**Keywords:** *Big data, dominant position, essential facility, online platform.*

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## **I. INTRODUCTION**

The mushrooming growth and success of online platforms have initiated a debate among academics and policy makers alike: Do these online platforms strengthen competition or do they rather facilitate market monopolization or concentration?

Online platforms facilitate interactions between two groups of users on internet. Several types of platforms exist, e.g. search engines, e-commerce intermediaries and social media sites. They show characteristics whereby two groups of agents i.e. the buyers and the sellers come together at one place and interact with each other via the enabling platform. The most interesting feature of which is the strong network effects, which means that the existence of one user group increases the value of the platform for the other group. The presence of network economy may lead to entry barriers that protect the position of incumbents and make it difficult for new entrants to gain a foothold in the market.

The paper focuses on the point that data and algorithms can facilitate collusion and that e-commerce platforms that have exclusive access may “tip” markets [1]. Therefore, it becomes essential to study the potential abuses by these platforms carefully in order to avoid erroneous decisions by competition authorities. The paper tries to answer the question that whether the collection of large amounts of data often referred to as big data, in particular the data which is collected from users, leads to markets “tipping” to dominant online platforms and, as a result, whether e-commerce platforms merit earlier and more aggressive antitrust intervention [2].

It will be evaluated further that how existing competition tools and concepts can be applied to data-related competition concerns in online platforms/digital markets. The Asian especially Indian and European market will be taken into consideration for the analysis. The key focus will be on potential refusals of dominant firms to give access to data on online platforms. Data is increasingly becoming the most indispensable input for many products and services available in the market. If no appropriate mechanism is applied by the competition/antitrust regulators, the dominant players may

refuse to share the data with other competitors operating on online platforms. This in turn will reduce the overall competition in the market leading to a situation when consumers will be presented with less choices at high prices. In light of this, the question confronting the competition authorities is that if the dominant firm refuses to provide access to the data collected by it to other competitors operating in the market, will it constitute a refusal to deal under Article 102 of Treaty on the Functioning of European Union ('TFEU') [3] and Section 4 of the Competition Act, 2002 (Legislation in India), attracting the 'essential facilities doctrine'. This doctrine attacks anticompetitive conduct by which a dominant undertaking refuses to give access to any indispensable product/facility which is required by the rivals to be able to remain in the market and compete [4].

Therefore, in several perspectives, e-commerce platforms raise new challenges for competition enforcement. The traditional competition analysis may not be sufficiently able to reflect the way in which competition takes place because of the multi-sided nature of these platforms and the predominance of innovation as a parameter of competition [5].

## **II. NEED TO REDEFINE RELEVANT MARKET FOR ONLINE PLATFORMS**

There is a need to define the relevant market for online platforms separately. Online platforms exhibits completely separate set of characteristics when compared to offline or brick and mortar shops. Some of the characteristics are as follows:

1. Lower search costs;
2. Ease of comparison;
3. Information and reviews;
4. Lower fixed and variable costs;
5. Possibility to reach a wider audience of potential customers in a much shorter time;
6. Online platforms can act as gatekeepers which creates barriers to entry for new players in the market and slows down competition ; and
7. Have indirect network effect.

## **III. ONLINE PLATFORMS AND NETWORK EFFECTS**

The online platforms are characterized by the concentration of large market shares among a very limited number of players. Two-sided markets or platforms have two distinct user groups which produce network benefits for each other. Network effects occur when a consumer's benefit from a product or service increases with an increase in the number of other users [6]. In other words, the value increases with the overall size of the network. Network effects can also be indirect, as in the case of two-sided markets where users on each side of the market derive a positive effect from the addition of new users on the other side. Buyers and sellers on an online marketplace are always attracted to a platform that has a large number of users on the other side.

The platforms enable the user groups to minimize the transaction costs they would otherwise incur, in interacting with or searching for each other. Competition authorities cannot ignore the economics of two-sided markets in assessing market power in online platforms [7].

Network effects may lead to 'tipping' which can have negative effects on the market structure. It may cause barrier to entry for new start-ups if remain unregulated by the Competition authorities. The dominant position of any online platform in the market can allow the player to indulge into anti-competitive practices like predatory pricing. Predatory pricing might appear appealing to the consumers at the initial stage but it may distort the healthy competition at a later stage defeating the very objective of competition law, once the player starts recouping the losses and acquires monopoly.

## **IV. MARKET DEFINITION AND JUDICIAL APPROACH IN EUROPEAN UNION ('EU') AND INDIA**

In the context of abuse of dominance cases, the competition authorities initiates their investigation with relevant market definition. The relevant market includes all the products with which the product in question can be substituted [8]. Substitution, which comes from the demand as well as from the supply side of the product, is a key concept in this respect. The larger the relevant market, the less likely it is that any single entity will be found dominant in such market [9]. The particularities of two-sided markets have a direct impact on market definition. First, there is more than one market to examine, as there are two sides to the platform. Secondly, the tools used in traditional markets must be used with care, so as to account for the feedback effect between the two sides [10].

A clear conceptual framework has not yet emerged in either EU or India, which can deal with the anti-competitive behaviour exhibited by these two sided platforms. The existing case laws are not of great help either. There are still number of loopholes and inconsistencies which can be observed. By way of example, in EU in the Google/Double Click case (COMP/M.4731), only one market was taken into account during the merger's assessment. On the contrary, in the MasterCard case (COMP/36.518), the European Commission shifted its approach and looked at two interrelated markets. Moreover, while usually the two sidedness of a market is rightly taken into account when defining the relevant market, in at least one case, that is Microsoft/Yahoo Inc., the Commission looked at this peculiar feature only at the stage of the competitive assessment [11]. While in the Indian jurisprudence, Competition Commission of India, the antitrust regulator of India, held that online market constitutes just a 'separate channel of distribution' and is not a separate relevant market different from offline markets as the consumer is absolutely free to buy the product either online or offline through brick and mortar shops depending on the offers and convenience. This has a major impact on regulating competition, as in the relevant market of retail it has been stated that market share of e-commerce is miniscule which is less than 1% of the total retail in India [12]. This kind of approach makes it difficult to

determine the relevant market in case of online platforms which in turn makes it impossible to determine whether the online platform is holding a dominant position in the market and whether it is abusing its position.

## **V. MEANING OF BIG DATA**

Big Data is a term gaining great popularity. Every single click on a website we view and every purchase we make, and even every single step we take can, and typically is, being turned into a data point and analysed. This is of particular concern as collusion in a big data context is likely to take more tacit forms. An analysis has been made by Ezrachi and Stucke [13] about how the algorithmic models which are built around big data can promote greater collusion.

As the name suggests, big data [14] often consists of large volumes of data, but the term can sometimes be used only in reference to the techniques employed to analyse the data. Big data is commonly characterized by 4 V's which are as follows [15]:

1. Volume – the sheer amount of data available;
2. Velocity – the rate at which new data are generated and analysed;
3. Variety – the differences in types of data used and the increasing complexity of data analysis;
4. Variability – the different interpretations of data analysis and the extent to which data is consolidated, cleaned and consistent.

## **VI. INNOVATION IS THE CURRENCY FOR ONLINE PLATFORMS- BIG DATA AND COMPETITION LAW**

The online platforms depend greatly on the data collected from the users for the purposes of targeted advertising and recommended pricing. The collection of large amounts of data sometimes referred to as big data in particular data collected from users, leads to markets tipping to dominant online platforms and, as a result, online platforms merit earlier and more aggressive antitrust intervention. Data has been famously referred as the new oil of the digital markets. Data is being collected by different type of undertakings in the course of their businesses. This is referred to as data monetization. In order to provide better services to the users, the online platforms collect users data and in order to encash those services the online platforms enter into activities like targeted advertising as a result of which the services are offered to the consumers at almost zero price. The user data provides a competitive advantage to the online platforms and also enhances the benefits for the consumers [16]. Therefore, it can be said that 'innovation is the new currency of the online platforms/digital world'.

## **VII. BIG DATA AND ESSENTIAL FACILITIES DOCTRINE**

The question arises that how existing competition tools and concepts can be applied to data-related competition concerns in digital markets. Big Data is increasingly assuming the status of an indispensable input, the denial of which by the dominant online platform to the other market players may reduce the competitive pressure and attract the application of 'essential facilities doctrine'. The potential competitor firms may be denied access to the data either through outright refusal to supply, or through constructive refusal to supply i.e. by providing the data to the competitors at very high price. The concept of 'essential facilities doctrine' comes into play when the data is indispensable i.e. when none or very few substitutes of the data are available and that too in modified versions and in absence of data either the competitors will be driven out of the market or will end up providing inferior products and services [17]. This effect may be increased manifold due to the data network effect. Big data is increasingly concentrated in a small number of 'super platforms' like e-bay, google, amazon, flipkart and facebook amongst others. The dominant firms may detrimentally effect healthy competition in the market by refusing to share information with the potential competitors or by providing the information at exorbitant rate [18]. This may limit effective competition in the market to the detriment of consumers diminishing innovation and availability of better quality of products in the market [19]. In this context therefore it can be safely considered subject to further research that the denial of a dominant firm to grant competitors access to its dataset could constitute a refusal to deal under Article 102 of TFEU or under Section 4 of the Competition Act, 2002 in India and lead to competition law liability under the so-called 'essential facilities doctrine'.

## **VIII. CONCLUSION**

With respect to EU and India, despite the large body of literature available regarding the theory of multisided markets [20] and its implications for competition cases, the courts and competition authorities do not have a very consistent record of accomplishment in terms of application of the available literature for the analysis of cases involving multisided markets as discussed in this paper.

Therefore, in several perspectives, online platforms raise typical challenges for competition enforcement. The traditional competition analysis may not be sufficiently able to reflect the way in which competition takes place because of the multi-sided nature of these platforms and the predominance of innovation as a parameter of competition. Although these platforms have some specific characteristics that have to be taken into account in competition law analysis, the tools that are used to define relevant markets and to assess dominance are flexible enough to be adequately applied to these services. By defining separate relevant markets for both side of these platforms and by considering the interaction between these two sides when assessing dominance, account can be taken of the

multi-sided nature of online intermediaries in the competition analysis. However, the question is whether the European Commission and Indian competition authorities are also willing to adapt existing competition tools to the dynamic nature of the markets in which these platforms operate.

Based on the above discussion it can be concluded that in light of the fast-moving nature of the online platforms, market boundaries are fluctuating and online platform providers may impose competitive pressure on each other despite offering different functionalities to users.

There are no definitive criteria to define the online platform as a separate relevant market. Each situation should be analysed case-by-case. A final result would depend on specificity of industry; condition of market, nature of the product, particular circumstances etc. It is really important to evaluate each case carefully. Keeping in view the current scenario it is difficult to assess that whether online platforms constitutes a separate relevant market, or only act as a separate distribution channel, which competes with traditional retail channel, and lies within the same market. There are no explicit set of arguments to find answer to this issue. However, the existing tools can be applied loosely to the online platforms to assess the relevant market and in turn find out the abuse of dominance by the online portals on a case-by-case basis.

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