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## **Effectiveness of Article 102 of the Treaty on the Functioning of the European Union (TFEU) in Regulating Digital Markets**

### BACHELOR THESIS

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DECLARATION OF HONOUR:

I declare that this thesis is my own work, and that all references to, or quotations from, the work of others are fully and correctly cited.

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## **Abstract**

The effectiveness of Article 102 of the Treaty on the Functioning of the European Union (TFEU) in regulating digital markets is at doubt. Research has shown that due to advancement of digital markets and its specific characteristics, the impact on traditional standards is high, requiring modifications. This study aims to evaluate the effectiveness of EU competition law and demonstrate proposals to enforce the law more efficiently. By targeting the digitalization era, it asks: To what extent EU competition law, in particular Article 102 TFEU is effective in regulating digital markets?

Based on a review of Article 102 TFEU, the European Commission's decisions, the Commission's Guidance, the CJEU case law and economic concepts, analysis demonstrated that by enforcing Article 102 TFEU, there are far more downsides than strengths in regulating digital markets efficiency. The results indicate that EU competition law, in particular Article 102 TFEU is effective in regulating digital markets to low extent. On this basis, it is recommended to supplement enforcement of Article 102 TFEU by sector-specific regulation, broader definitions, different standards of proof and replace traditional tests.

## Summary

The title of the Bachelor Thesis is Effectiveness of Article 102 of the Treaty on the Functioning of the European Union (TFEU) in Regulating Digital Markets. It concerns the topic of digitalization, new economy and dynamic innovation. Digitalization offers free services, increases data availability for society and modifies the current standards and economic models. However, it draws attention to supremacy by some of the digital platforms. Thus, the issue of the thesis is that current framework of EU competition law, specifically Article 102 TFEU, in regulating digital markets is questionable. This thesis has two major purposes: (1) to evaluate the effectiveness of EU competition law in regulating digital markets; (2) to demonstrate the neediness of supplementing it by more efficient enforcement and regulation. The Bachelor Thesis is examined by doctrinal research or qualitative research, placing importance to teleological interpretation. Additionally, the thesis is based on interdisciplinary research of law and economics, integrating concepts.

The Bachelor Thesis has four body parts and each of them is dealing with the issue described above. Part I describes Article 102 TFEU, its history, types of abuses, the procedure of abuse cases, the concepts of 'dominant position' and 'abuse', definition of relevant market, market power, issues of Article 102 TFEU in respect to digital markets. Part II analyzes multi-sided markets, its characteristics, innovation, network effects, economies of scale, marginal costs, lock-in effects and interoperability. Moreover, presents the *Google Android* case as multi-sided market from the perspective of the Commission and Kent Walker (Google's Senior Vice President and General Counsel). Part III emphasizes tying and bundling issue involved in Article 102 (d) TFEU and why it is considered as an abuse, referring to the leading case *Microsoft v. Commission* and analyzing Microsoft's arguments against. Part VI underlines the need of strong technical resources and sufficient economic analyses and proposes that in order to effectively regulate digital markets, taking into account the view of legal scholars and European Parliament. Furthermore, it discusses the solutions proposed by three experts appointed by Margrethe Vestager, such as broadening definitions, imposing timeframe and use different tests conducting analysis when enforcing competition law.

The Bachelor Thesis concludes that by enforcing Article 102 TFEU, there are far more downsides than pluses in regulating digital markets efficiency as (1) price model is irrelevant; (2) there is no sufficient effects-based approach; (3) there is a risk of protecting competitors rather competition; (4) there is no 'safe harbour' incorporated in the Commission's Guidance; (5) there is no efficient method to assess interdependency in two-sided platforms; (6) it is time consuming to define the relevant market. Furthermore, it gives an answer to a research question that EU competition law, in particular Article 102 TFEU is effective in regulating digital markets to low extent. Finally, it recommends to increase effectivity of Article 102 TFEU in regulating digital markets, namely, to enforce Article 102 TFEU by supplementation of sector-specific regulation, broaden definition of consumer welfare, rethink the standard of proof, impose timeframe, not to focus on defining the relevant market, integrate error-cost test and place attention to consumers biases.

## TABLE OF CONTENTS

Introduction	6
Part I - Article 102 TFEU	8
1. The concept of ‘dominant position’ and ‘abuse’	11
2. Issues of Article 102 TFEU	14
Part II - Multi-sided markets	17
1. Characteristics of the digital market	23
2. The Google Android Case	29
Part III - ‘Tying’ and ‘bundling’	32
1. The Microsoft Case	36
Part VI - Proposals for regulating digital markets effectively	39
1. Proposals by Crémer, de Montjoye and Schweitzer	40
Conclusion	43
Bibliography	46
APPENDIX 1. Multi-sided platform	53

## INTRODUCTION

The current topic is changing the view on the traditional world. The digital era has brought innovation and technologies in daily interactions within businesses and social processes. “Digitisation has fundamentally altered the way data is generated, stored, processed, exchanged and distributed.”<sup>1</sup> The data and information are now more accessible from every part of the world with an emergence of the Internet. The free services, such as communication, has greatly benefited society and economy together. The consumer choice is expanded in terms of free access to diverse sources. Digitalization shows how the timeliness of bypassing the problems in many situations is decreasing. It now fosters the development in all industries starting from information technology to financial services and healthcare. Along the online network, the digitalization has come with an advanced economic models. Thus, “Digitisation requires profound organizational changes in firms and public services in order to yield the gains in productivity it promise.”<sup>2</sup> For example, to train the employees to use certain technology or device. Furthermore, the concerns of digitalization involves the significant supremacy by some of the digital environments and platforms, “...by the end of September 2018, the first largest firms in the world by market capitalization were in the digital sector, namely Apple, Amazon, Microsoft and Alphabet.”<sup>3</sup>

It leads to the research issue of the present paper, which deals with the new emerging standards, productive innovation by digital sector companies and the effective regulation by European Union Competition law. The research issue lies in hypothesis that the current framework of EU competition law is not fully appropriate for the regulation of digital markets. Namely, whether or not it is effective, and if no, then how the competition law could be enhanced, “...whether – and if so which type of – regulation is needed.”<sup>4</sup>

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<sup>1</sup> Jacques Crémer, Yves-Alexandre de Montjoye and Heike Schweitzer. *Competition Policy for the Digital Era*. (Luxembourg: Publications Office of the European Union, 2019), p. 12, accessed April 29, 2019, <http://ec.europa.eu/competition/publications/reports/kd0419345enn.pdf>.

<sup>2</sup> *Ibid.*

<sup>3</sup> *Ibid.*, p. 13.

<sup>4</sup> *Ibid.*, p. 14.

The issue is embodied in Article 102 of the Treaty on the Functioning of the European Union<sup>5</sup> (TFEU) which states

Any abuse by one or more undertakings of a dominant position within the internal market or in a substantial part of it shall be prohibited as incompatible with the internal market in so far as it may affect trade between Member States.

Such abuse may, in particular, consist in:

- (a) directly or indirectly imposing unfair purchase or selling prices or other unfair trading conditions;
- (b) limiting production, markets or technical development to the prejudice of consumers;
- (c) applying dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage;
- (d) making the conclusion of contracts subject to acceptance by the other parties of supplementary obligations which, by their nature or according to commercial usage, have no connection with the subject of such contracts.<sup>6</sup>

Yet, reflecting the issue, the Bachelor Thesis focuses primarily on Article 102 (d) TFEU where it emphasizes the prohibition of “...making the conclusion of contracts subject to acceptance ... which...have no connection with the subject of such contracts.”<sup>7</sup>

Thus, the following Research Question for the Bachelor Thesis is: **“To what extent EU competition law, in particular Article 102 TFEU is effective in regulating digital markets?”**

The aim of this research paper is to evaluate whether EU competition law is effective in regulating digital markets, additionally whether it should be supplemented by more efficient tools, tests, etc.

Part I focuses on describing Article 102 TFEU, its characteristics in assessing the anticompetitive effects and resulting issues of investigation process, Part II brings about the analysis of multi-sided markets and presents the *Google Android* case as a subject matter to such markets, Part III emphasizes the problem at stake involved in Article 102 (d) TEFU leading to an example of *Microsoft v. Commission*<sup>8</sup> case and finally Part VI proposes a findings on mitigating the matter.

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<sup>5</sup> Treaty on the Functioning of the European Union (Consolidated version 2012), OJ C 326, 26.10.2012. Available on: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A12012E%2FTXT>. Accessed April 2, 2019.

<sup>6</sup> *Ibid.*

<sup>7</sup> *Ibid.*

<sup>8</sup> Judgment of the Court of First Instance of 17 September 2007, *Microsoft Corp. v Commission of the European Communities*, T-201/04, ECLI:EU:T:2007:289.

The Bachelor Thesis is examined by using primary and secondary EU law, in particular, Article 102 TFEU, an emphasis placed on its application in EU competition enforcement, including the European Commission's decisions, the Guidance on the Commission's enforcement priorities in applying Article 102 TFEU<sup>9</sup>, CJEU case law and lastly other legal scholarly writings and documents accompanied by economic papers consisting of economic concepts without which the analysis of EU competition law would not be feasible.

## **PART I - ARTICLE 102 TFEU**

The beginning of Article 102 TFEU is found in 1957 when 6 original founding Member States signed the Treaty establishing the European Economic Community (EEC Treaty). The main article was 86 EEC and it prohibited an abuse of dominant position. Historically, Article 86 EEC was changed to Article 82 EC and then to Article 102 TFEU which is now operating for more than 60 years. In general, the inspiration when drafting this article were German competition law, European Coal and Steel Community Treaty and the source which is underestimated was United States antitrust law. Article 102 TFEU is not based only on rights and obligations but also "... reflects a number of the underlying political, legal, economic, and social objectives of the EC Treaty."<sup>10</sup> It has been extensively interpreted, especially in the last decade. The reform in the enforcement of Article 102 TFEU focuses on covering the gaps through bringing theories of harm and being closer with economic analysis. Nowadays, the influencer of such development of Article 102 TFEU is mainly the digital age.

"Article 102 is designed to deal with monopoly and substantial market power."<sup>11</sup> It manages the unilateral behavior by an undertaking rather than agreements between undertakings, as Article 101 TFEU does. It applies only to dominant undertakings and prohibits them to abuse a dominant position. Article 102 TFEU does not apply to undertakings that reach a dominant

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<sup>9</sup> European Commission, "Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings," *Official Journal of the European Union* C 45 Volume 52, No. 2 (2009): pp. 7-20, accessed April 3, 2019, available on: [https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52009XC0224\(01\)](https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52009XC0224(01)).

<sup>10</sup> Robert O'Donoghue and Atilano Jorge Padilla, *The Law and Economics of Article 102 TFEU* (Oxford: Hart Publishing, 2013), chap. 2.1.

<sup>11</sup> Alison Jones and Brenda Sufrin, *EU Competition Law: Text, Cases, and Materials* (New York, NY: Oxford University Press, 2016), p. 258.



position by anti-competitive conduct or non-dominant firms. It prohibits undertakings to take an advantage from dominant position by imposing unfair prices, limiting production etc. The case law suggests that "...the provision also covers anti-competitive conduct by which a dominant undertaking excludes actual or potential competitor from the market."<sup>12</sup> It is known as 'exclusionary' conduct. The application of Article 102 TFEU by competition authorities, courts is usually disputed because of

- (1) contentious assessment whether an undertaking is dominant;
- (2) attention is focused on the form of the behavior, not its effects;

It has often been applied in a formalistic way, focusing on the form of the conduct and drawing presumptions from that, rather than analyzing the actual effects on the market.<sup>13</sup>

- (3) no clear policy objectives as "Article 102 itself is silent on its precise objective(s) and the test of 'abuse' not stipulated therein."<sup>14</sup>

In general, Article 102 TFEU has a prohibitive nature. "Article 102 TFEU prohibits undertakings from committing an abuse of dominant position..."<sup>15</sup> The examples of abuses are stated in paragraphs (a) to (d), but the list is not exhaustive, thus the specific types of abuses are not listed. "The provision does not set out a separate procedure for declaring an undertaking to be dominant and so subject to Article 102."<sup>16</sup> It is deemed to have a dominant position if it matches the benchmark for dominance and has potential to depend on prohibition. Article 102 TFEU contains no exceptions. "...it is settled case law that no exemption of any kind may be granted in respect of abuse of a dominant position."<sup>17</sup> But an undertaking is allowed to show that its conduct is 'objectively justified'. And there is no de minimis threshold with respect to assessing the 'substantial part' and the 'effect on inter-State trade'. In general there are following essential features that must be established before the prohibition of Article 102 TFEU applies:

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<sup>12</sup> *Ibid.*

<sup>13</sup> *Ibid.*, p. 257.

<sup>14</sup> Pinar Akman, *The Concept of Abuse in EU Competition Law: Law and Economic Approaches* (London: Bloomsbury Publishing, 2012), p. 1.

<sup>15</sup> Jones and Sufrin, *supra* note 11, p. 259.

<sup>16</sup> *Ibid.*

<sup>17</sup> Lorenzo Federico Pace, *European Competition Law: The Impact of the Commission's Guidance on Article 102* (Cheltenham: Edward Elgar Publishing, 2011), p. 113.

- (a) one or more undertakings;
- (b) a dominant position;
- (c) the dominant position must be held within the internal market or a substantial part of it;
- (d) an abuse; and
- (e) an effect on inter-State trade.<sup>18</sup>

“The application of Article 102 TFEU...entails merely one phase, namely the determination of whether an undertaking has abused its dominant position.”<sup>19</sup> The problematic features are assessing the dominant position and the abuse. The dominant position makes it challenging for the Commission to establish the market definition, undertaking’s position on the market. It is possible that if the investigation is not concluded correctly, the mistake of pro-competitive behavior that is subject to Article 102 TFEU prohibition may arise. It is known as Type 1 ‘false positive error’. Assessing whether an undertaking abuses its power can also create challenges. It is needed to determine what conduct of a dominant undertaking is allowed and what conduct is not legitimate. Thus, it depends on Article 102 TFEU wholly, which has no clear objectives, “... lack of clarity about the goals to be achieved will inevitably lead to inconsistent decisions.”<sup>20</sup> Finally, there is a tendency to integrate both elements, not separately assessed.

The cases on abuse of dominance often start from complaints, usually competitors of an undertaking at stake. The Commission introduces the case right after the complaint has been passed. It is “...noticeable in the high technology sector, with the Commission opening investigations, for example, after complaints from Microsoft about Google...”<sup>21</sup> Where the Commission investigates an undertaking and finds it breaching Article 102 TFEU, the Commission issues a decision. It is usually accompanied by imposing fines up to 10 % of the annual turnover of an undertaking, as it will be discussed in relation with *Google Android* case. It can compel an abuse to be stopped and, where necessary, impose a behavioral or structural remedy. Under Regulation 1/2003<sup>22</sup>, Article 9, the completion of the case can be made through

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<sup>18</sup> Jones and Sufrin, *supra* note 15.

<sup>19</sup> Pace, *supra* note 17, p. 114.

<sup>20</sup> Akman, *supra* note 14, p. 51.

<sup>21</sup> Jones and Sufrin, *supra* note 11, p. 261.

<sup>22</sup> Council Regulation (EC) No 1/2003 of 16 December 2002 on the implementation of the rules on competition laid down in Articles 81 and 82 of the Treaty, OJ L 1, 4 January 2003, pp. 1–25.

commitments decision. In this case, an undertaking is offering commitments, which are accepted by the Commission. The Commission is using this option frequently, however it has a negative impact on development of Article 102 TFEU as “...it is never established whether...conduct did amount to an infringement of Article 102...the matter never goes before the EU courts.”<sup>23</sup>

The decisions of the Commission is usually very complex in terms of facts. It makes it challenging for the court to review the Commission’s decisions. Thus, the judicial review is not the strongest part of the whole process. “Many of the Commission’s decisions are controversial... and the extent to which they are reviewed by the GC is therefore of great concern.”<sup>24</sup> However, lately the General Court accepted to use the in-depth analysis more. Additionally, “...it is very rare for the Commission to lose Article 102 cases on the substance.”<sup>25</sup>

## **1. The concept of ‘dominant position’ and ‘abuse’**

The definition of dominance is clarified in *United Brands*<sup>26</sup>, the Court of Justice stated that dominant position is “...a position of economic strength enjoyed by an undertaking which enables it to prevent effective competition...by affording it...to behave...independently...”<sup>27</sup> In *Hoffmann-La Roche*<sup>28</sup>, the Court of Justice added that the dominant undertaking has an “...influence on the conditions under which that competition will develop...”<sup>29</sup> The notion ‘behave independently’ brings uncertainty to Article 102 TFEU application as it is debated whether it is a separate element from notion ‘prevent effective competition’.

Furthermore, the dominant position is measured directly or indirectly. The competition law assesses it indirectly through establishing market definition and undertaking’s position on the specific market. “Dominance relates to an undertaking’s market power on a particular market and

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<sup>23</sup> Jones and Sufrin, *supra* note 21.

<sup>24</sup> Jones and Sufrin, *supra* note 11, p. 262.

<sup>25</sup> *Ibid.*

<sup>26</sup> Judgment of the Court of 14 February 1978, *United Brands Company and United Brands Continentaal BV v Commission of the European Communities*, 27/76, ECLI:EU:C:1978:22.

<sup>27</sup> *Ibid.*, para. 65.

<sup>28</sup> Judgment of the Court of 13 February 1979, *Hoffmann-La Roche & Co. AG v Commission of the European Communities*, 85/76, ECLI:EU:C:1979:36.

<sup>29</sup> *Ibid.*, para. 39.

not to the size of the market or the size of the firm.”<sup>30</sup> The market definition is used to answer whether an undertaking is dominant. The wider is market, the fewer chances to find a dominance in it, thus it is relevant to define it.

In respect to the relevant product market, the Commission uses Small but Significant Non-transitory Increase in Price (SSNIP) test to define the market. It is a quantitative method to assess whether the consumers will substitute the product with another if the first product’s price is increased by 5-10 %. However, the test is problematic in application to digital markets. It will be discussed in more detail in next parts. In general “The usual way of assessing dominance is problematic in some new economy markets.”<sup>31</sup>

With regard to relevant geographic market, it can be found that there are national markets or narrow markets. National markets are usually one or more European Union Member States. On the other hand,

Narrow geographic markets may be created through factors such as EU regulation, high transport costs, language, marketing infrastructures, consumer preference, or national or local regulations.<sup>32</sup>

Sometimes, the over-narrowly defined geographic markets are misleading, but it can be made better if the external competition of the market is considered. Additionally, the market definition and assessment of market power are dealt ‘hand in hand’ with each other.

Statutory monopoly of an undertaking tells automatically that the undertaking is dominant, however if it not the case, the first step is to assess the market shares. The market power is assessed through the market share of an undertaking and barriers to entry. “...in the absence of barriers to entry high market shares are not themselves indicative of dominance.”<sup>33</sup> Barriers to entry encompasses that competitors are unable to entry or expand in the market, for example high switching costs indicate that the consumer is unwilling to change the supplier. Market shares present a current situation of the market. Even if a firm has a market share of 100% it does not mean that it has a substantial power in a market. However, a firm which has a

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<sup>30</sup> Jones and Sufirin, *supra* note 11, p. 268.

<sup>31</sup> *Ibid.*, p. 284.

<sup>32</sup> *Ibid.*, p. 312.

<sup>33</sup> *Ibid.*, p. 321.

market share of more than 50% is usually considered dominant. But it is also possible that the undertaking is dominant if the market share is, for example, 40%. It is not clear at which point an undertaking is dominant. Moreover, "The Guidance Paper does not establish a safe 'harbour'."<sup>34</sup> The issue holds that "...market share analysis is 'static' and not suited for application to dynamically competitive markets such as those in the new economy."<sup>35</sup>

In *Hoffman-La Roche*, an abuse was considered as "...behaviour of an undertaking in a dominant position...where...the degree of competition is weakened... hindering the...growth of that competition."<sup>36</sup> There are exclusionary and exploitative abuses. The former means that an undertaking hinders or slows the competition by excluding competitors, the latter involves an undertaking that is exploiting its market participants, for example, limiting production. There are also discriminatory abuses, for example, charging discriminatory prices. Also, there is a long-term harm and short-term harm on welfare. The former occurs when "...the abuse prevents the entrant from becoming as efficient as the dominant undertaking..."<sup>37</sup> The abuse is also defined as

...conduct that does not amount to "competition on the merits" - that is by lower prices and better products, the "special responsibility" of a dominant firm not to restrain any remaining competition...<sup>38</sup>

However, the competition on merits is not definite as "...great deal of uncertainty exists regarding the relative merits..."<sup>39</sup> The Guidance Paper introduces a concept of anti-competitive foreclosure effects, which includes exclusion of competitors and harm to consumers. "Article 102 TFEU has mainly been applied to 'exclusionary abuses', i.e. to conduct which impedes effective competition by excluding (foreclosing) competitors."<sup>40</sup> For example, one type of exclusionary abuse is 'tying' and it is controversial to perceive it as an abuse, which will be discussed in later stages of this research paper.

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<sup>34</sup> Jones and Sufrin, *supra* note 31.

<sup>35</sup> Jones and Sufrin, *supra* note 33.

<sup>36</sup> *Hoffmann-La Roche v. Commission*, *supra* note 28, para. 91.

<sup>37</sup> Renato Nazzini, *The Foundations of European Union Competition Law: The Objective and Principles of Article 102* (Oxford: Oxford University Press, 2011), p. 149.

<sup>38</sup> Padilla, *supra* note 10, chap. 2.4.

<sup>39</sup> *Ibid.*

<sup>40</sup> Jones and Sufrin, *supra* note 13.

## 2. Issues of Article 102 TFEU

The traditional and new economy cases are both operating under a concept of effective competition. “Effective competition connotes the idea that firms are subject to a reasonable degree of competitive constraint.”<sup>41</sup> At some point the effective competition is at doubt. As Article 102 TFEU is effectively dealing with an abuse of dominance in standard cases, such as to supply a competitor, it has its drawbacks as well, specifically in connection with fast developing digital industry and rapidly changing economic conditions. Tech companies are becoming the rulers of innovation, subsequently Article 102 TFEU, nowadays, is viewed not capable of effectively dealing with tech firm cases anymore. For example, one of the most significant tech trends is digital platform, which importance is increasing rapidly over the past few years. It leaves EU competition law enforcement under challenge at the moment and underlines the potential issues in the future.

In general, the challenge for competition policy remains under the question due to the relatively new industry of computer network, Internet and its development, in particular, is it possible for competition law to successfully integrate along the digitalized era and “...protect consumers without causing harm from interfering in complex businesses that are both rapidly moving and not fully understood.”<sup>42</sup> Some legal researchers suggest that intervening by competition policy in the digital platforms may cause costly mistakes. “Economic complexity... coupled with an insufficiently deferential approach to innovative technology...portend a potentially erroneous—and costly—result.”<sup>43</sup> It is criticized that competition enforcement interferes with healthy economic management and has provisional economic costs due to over-enforcement and under-enforcement. As it is hard to evaluate the abusive behavior by undertaking in digital platform market “...the likelihood of over-enforcement is high.”<sup>44</sup> Over-enforcement can cause a long-term issues for financial prosperity because such errors can

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<sup>41</sup> Richard Whish and David Bailey, *Competition Law* (Oxford: Oxford University Press, 2015), p. 18.

<sup>42</sup> Howard A. Shelanski, “Information, Innovation, and Competition Policy for the Internet,” *161 U. Pa. L. Rev.* 1663 (2013): p. 1666, accessed March 28, 2019, available on: [https://scholarship.law.upenn.edu/penn\\_law\\_review/vol161/iss6/6](https://scholarship.law.upenn.edu/penn_law_review/vol161/iss6/6).

<sup>43</sup> Geoffrey A. Manne, and Joshua D. Wright, “Google and the Limits of Antitrust: The Case Against the Antitrust Case Against Google,” *Harvard Journal of Law and Public Policy*, Vol. 34, No. 1, (2011): p. 172, accessed March 29, 2019, available on: <https://www.harvard-jlpp.com/wp-content/uploads/sites/21/2013/10/ManneFinal.pdf>.

<sup>44</sup> Shelanski, *supra* note 42.

discourage innovation and investment. However, under-enforcement can have consequences in short-term, where the market balances itself. As Shelanski suggests<sup>45</sup>, there is a dissonance between innovative tech companies with their approach for establishing a competition operating in digital industry and the price or traditional model on the other hand when enforcing competition. Tech companies having digital platforms and providing their technology to the public domains are not easy to characterize and they are less likely to match with the traditional assumptions of competition law. For example, the innovative companies do not offer their product for money but focus on creating competition with their innovative technologies, such as Google offering its pre-installed apps on mobile devices through agreements with manufactures and mobile network operators. Such price model would not be necessary in this case.

Furthermore, as the price model is 'static' rather than competition in tech industry which is driven by innovation and progressive technologies, Shelanski emphasizes the Schumpeterian argument<sup>46</sup> that tech firms are known to have an innovation cycles, which is their nature how to make progress. If there is an interference of competition enforcement into this industry and innovation cycles, it can have negative impact on the market and it can chill the innovation down.

The crucial disadvantage lies in the application of Article 102 TFEU that is much criticized for having a basis of *per se* rule. It means that the attention is put on the actions of the undertakings but not the competition itself. It is contradictory to the functioning of market taking into account the economic practices. The application of the law by CJEU is more formalistic than it should be and "...is excessively based on per se rules that do not allow the net effects of the market practices on welfare to be correctly taken into account."<sup>47</sup> The broad economic practice is reasoned by the per se rules and usually the likely abuse of the undertaking is found irrespective of the actual or potential economic influence on the competition. For example, in *Michelin*<sup>48</sup>, the

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<sup>45</sup> *Ibid.*, p.1667.

<sup>46</sup> Michael L. Katz and Howard A. Shelanski, " 'Schumpeterian' Competition and Antitrust Policy in High-Tech Markets," *Competition*, Vol. 14, (2005): p. 4, accessed March 27, 2019, available on: <https://ssrn.com/abstract=925707>.

<sup>47</sup> Frédéric Marty, "Towards an economics of convention-based approach of the European competition policy," *Historical Social Research* 40 (2015): p. 106, accessed March 29, 2019, available on: <http://dx.doi.org/10.12759/hsr.40.2015.1.94-111>.

<sup>48</sup> Judgment of the Court of First Instance of 30 September 2003, *Manufacture française des pneumatiques Michelin v Commission of the European Communities*, T-203/01, ECLI:EU:T:2003:250.

court said that “...it is apparent from a consistent line of decisions that a loyalty rebate...is contrary to Article 82 EC.”<sup>49</sup> However, lately the CJEU tried to improve its position with regard to per se illegality. For example, the notable step was made by the European Commission in 2005 when it “...issued a comprehensive discussion paper which rejected the former legalistic straight-jacked approach in favour of an effects-based approach.”<sup>50</sup> In *Intel*, the CJEU emphasized effects-based approach as the examination of facts in this case was carried out more detailed, “... Commission...carried out an in-depth examination...setting out...a very detailed analysis...”<sup>51</sup> It is observed that the situation is slightly improving and EU competition law application is moving towards effect based approach rather than form based, however some legal writers, such as Diker Vanberg believe that “...such reform was rather ambiguous and inadequate for incorporating efficiencies.”<sup>52</sup>

Article 102 TFEU directs that the undertaking which is considered to be dominant has “... a special responsibility not to allow its behavior to impair genuine undistorted competition on the common market...”<sup>53</sup> It means that such undertakings are put under a disadvantage, because they are performing the same actions as other companies but they alone will be considered as worsening the competition. For example, Google Android is tying apps and its competitors are doing the same, but only Google is doing it illegally. In a such way, the law cares about the competitors and not the competition. It also points out that Article 102 TFEU is directing at the competitors of the dominant firm and not the consumers, “...criticism of Commission practice is that it sometimes runs the risk of protecting competitors at the expense of competition.”<sup>54</sup> In the opinion of the assistant Attorney General for the Department's Antitrust Division

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<sup>49</sup> *Ibid.*, para. 56.

<sup>50</sup> Competition Competence Report. *More economics based approach in Article 102 TEFU: New test procedures*, p. 1. Available on: [https://www.ee-mc.com/fileadmin/user\\_upload/ccr\\_en/New\\_tests\\_Article\\_102.pdf](https://www.ee-mc.com/fileadmin/user_upload/ccr_en/New_tests_Article_102.pdf). Accessed April 25, 2019.

<sup>51</sup> Judgment of the Court of 6 September 2017, *Intel Corp. v European Commission*, C-413/14 P, ECLI:EU:C:2017:632, para. 142.

<sup>52</sup> Diker A. Vanberg, “From Archie to Google -Search engine providers and emergent challenges in relation to EU competition law,” *European Journal for Law and Technology*, Vol. 3, No. 1 (2012): chap. 4, accessed April 3, 2019, available on: <http://ejlt.org/article/view/115/198>.

<sup>53</sup> Judgment of the General Court of 1 July 2010, *AstraZeneca AB and AstraZeneca plc v European Commission*, T-321/05, ECLI:EU:T:2010:266, para. 379.

<sup>54</sup> Padilla, *supra* note 38.



...the standard applied...by the CFI, rather than helping consumers, may have the unfortunate consequence of harming consumers by chilling innovation and discouraging competition.<sup>55</sup>

In addition, the Commission's Guidance on Article 102 TFEU in itself is directing to the likeliness of the harm and is not describing the actual harm. For example, the guidelines refer to the "...the allegedly abusive conduct is likely to lead to anti-competitive foreclosure."<sup>56</sup> Thus, it is not linking the actual harm of the particular undertaking which is foreclosing its competitors with unfavorable effect on consumer prosperity. The notion of 'compete on merits' is not a definite explanation "...it is not...illegal for an undertaking to be in a dominant position and such a dominant undertaking is entitled to compete on the merits."<sup>57</sup> It means that the Commission is not drawing the limits on competition boundaries of the undertaking and can take uncertain measures to deal with an abuse of dominance cases. In the end, there is no guidance on the interpretation when weighting the case effects. The Commission's Guidance on Article 102 TFEU does not have sufficient grounds to consider whether articular practice by undertaking is abusive. Undertakings cannot really be guided by the Guidance because there are many exceptions made and it makes it hard to evaluate the case and determine the possible protection clearly. Moreover, Article 102 TFEU can be interpreted in many ways because it has a comprehensive formulation in that way increasing the level of ambiguity.

## **PART II - MULTI-SIDED MARKETS**

Multi-sided markets are also called 'platforms', where two or more interdependent groups interact to share the benefits.

See Appendix No. 1: *Multi-sided platform*

Many small firms try to establish a multi-sided market. Any mistakes while trying to make a multi sided market are covered by the profits of it later. Multi-sided markets are not linear. It means that it is very attractive to build such a network because the value of it comes not

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<sup>55</sup> Department of Justice. Assistant Attorney General for Antitrust, available on: [https://www.justice.gov/archive/atr/public/press\\_releases/2007/226070.htm](https://www.justice.gov/archive/atr/public/press_releases/2007/226070.htm). Accessed April 5, 2019.

<sup>56</sup> *Commission's Guidance*, *supra* note 9, para. 20.

<sup>57</sup> *Ibid.*, para. 1.

only from each part of the platform separately but much more than that. As Esko Kilpi suggests “...there is an ever-widening gap between the network-economy platforms and incumbents driven by traditional asset leverage models.”<sup>58</sup> It requires strong knowledge and skills in order to make it work successfully. For example, if the employer is contacting the potential employee through LinkedIn, it has a multi-sided effect on this communication. There are many more multi-sided market, such as Apple, Microsoft, Amazon, Facebook or Google etc. The question of whether Google is a multi-sided platform will be addressed in the next paragraphs.

In digital sector almost every platform is multi-sided, which gives rise to a more progressive industry. The competition among digital companies occur when they are “...integrating multiple platforms and creating synergies by linking them through user data.”<sup>59</sup> As the counterparts of the platform are interdependent, it creates a challenge for the competition authorities to assess the interdependency rather than each part separately. “There is a risk that competition authorities analyze two sides of one platform but subsequently ignore relationships with other platform markets.”<sup>60</sup> However, there are more challenges to overcome. Firstly, when assessing the dominance of an undertaking there are issues in defining the relevant market because there could be more relevant markets at the same time, where the product is functioning. There are transaction markets and non-transaction markets. The latter means that “...a product competes on one side of the market, but not the other.”<sup>61</sup> Thus, in a non-transaction markets there should be defined more than one relevant market. For example, in the *Google Android* case the Commission’s decision states that there are three relevant markets

Google is dominant in the markets for general internet search services, licensable smart mobile operating systems and app stores for the Android mobile operating system.<sup>62</sup>

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<sup>58</sup> Esko Kilpi. A New Growth Theory, available on: <https://eskokilpi.wordpress.com/tag/supercell/>. Accessed April 20, 2019.

<sup>59</sup> European Parliament. Directorate General for Internal Policies, available on: [http://www.europarl.europa.eu/RegData/etudes/STUD/2015/542235/IPOL\\_STU%282015%29542235\\_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/STUD/2015/542235/IPOL_STU%282015%29542235_EN.pdf), p. 54. Accessed April 10, 2019.

<sup>60</sup> *Ibid.*

<sup>61</sup> *Ibid.*, p. 53.

<sup>62</sup> European Commission - Press release. *Antitrust: Commission fines Google €4.34 billion for illegal practices regarding Android mobile devices to strengthen dominance of Google's search engine*. Available on: [http://europa.eu/rapid/press-release\\_IP-18-4581\\_en.htm](http://europa.eu/rapid/press-release_IP-18-4581_en.htm). Accessed April 3, 2019.

Secondly, referring to the part about issues of Article 102 TFEU, the usage of the price model in tech industry companies makes it difficult to characterize the market and competition restrictions, thus it is questionable way how to assess it because in most cases tech companies are offering their products for free. Usually there are two sides of the platform form which one is financed whereas the other side pays for the services, "...one side usually pays nothing to use the platform. This is a mainstream strategy in multisided markets to...generate revenues."<sup>63</sup> In particular, "...one side of a platform is charged less than the other, often even charged at zero prices."<sup>64</sup> If there are no prices then it "...could lead to the view that there is no market at all to investigate on that side."<sup>65</sup> Due to defining the relevant market, there is a (SSNIP) test carried out, which

...assesses the extent to which the customers of a product in question would switch to suppliers located in other territories in response to a hypothetical small but permanent increase in price of that given product.<sup>66</sup>

It is believed that such test does not apply in multi-sided markets because the product does not have a price and "...the application of the SSNIP test...cannot be usefully applied to one side of the platform in isolation."<sup>67</sup> To produce innovative products, multi-sided markets should have a huge investment, usually in Research and Development category, thus they "...have high fixed or sunk costs and low marginal costs of production..."<sup>68</sup> The SSNIP test applied in multi-sided markets would result in false assumptions, specifically "...it may lead to incorrect, particularly over-narrow, definitions."<sup>69</sup> That is why it is suitable only in one-sided markets in respect to the digital industry. Similarly, the critical loss analysis (CLA) has the same issues. However, in the application of EU competition law, the two tests SSNIP and CLA, could be used only with significant modifications. Thirdly, there is a challenge for competition authorities in the lengthy

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<sup>63</sup> Gönenç Gürkaynak, Öznur İnanılır, Sinan Diniz and Ayşe Gizem Yaşar, "Multisided markets and the challenge of incorporating multisided considerations into competition law analysis," *Journal of Antitrust Enforcement*, Volume 5, Issue 1 (2017): p. 107, accessed April 7, 2019, available on: <https://doi.org/10.1093/jaenfo/jnw007>.

<sup>64</sup> Joé Lamesch. Market Definition in the Google Android Case, available on: <http://hdl.handle.net/2268.2/1812>, p.10. Accessed April 8, 2019.

<sup>65</sup> *Ibid.*

<sup>66</sup> Competition Committee. Market Definition, available on: [http://ec.europa.eu/competition/international/multilateral/2012\\_jun\\_market\\_definition\\_en.pdf](http://ec.europa.eu/competition/international/multilateral/2012_jun_market_definition_en.pdf), para. 10. Accessed April 9, 2019.

<sup>67</sup> *Ibid.*, para. 26.

<sup>68</sup> Joyce Verhaert, "The Challenges Involved with the Application of Article 102 TFEU to the Market for Search Engines as Part of the New Economy and the Implications for the Google-Case," *SSRN Electronic Journal* (2013): p. 12, accessed April 10, 2019, available on: <http://dx.doi.org/10.2139/ssrn.2340958>.

<sup>69</sup> Jones and Sufirin, *supra* note 11, p. 74.

process of defining a relevant market. More specifically, the Commission can achieve a static view on it, however tech firms are developing quickly and the innovation can change very fast, in turn the relevant market can change fast as well because there are more and more markets involved. It is called a 'fluid market boundaries'. With such a changing nature it is hard to gain control over fast evolving market boundaries and hold them within the static laws. Keeping in mind those expectations about two-sided markets, many legal writers believe that the standard laws are not well balanced with highly innovative digital sector. According to Evans (2003) and Wauthy (2008)

...standard antitrust principle...need to be adapted to deal with two-sided markets where there are strong interactions between each side of the markets.<sup>70</sup>

For example, Google has strong links among its business participants. The *Google Android* case presents a set of different market sides such as device manufacturers, mobile network operators, app developers, consumers and Google itself. Stylianou calls it a 'systematic efficiencies' which "...occur in large complex systems through the interaction of multiple distributed components... coordinated by an entity that can exercise pervasive control..."<sup>71</sup> Thus, the sides participating in the multi-sided market can gain benefits from each other. In other words build collaborations. The balance between the benefits of systematic efficiencies and possible anticompetitive behavior of the company should be coordinated carefully, in fact the anticompetitive behavior must not be outweighed by the benefits because there is a conflict between these two. "The conflict between the large benefits that arise from systemic efficiencies and the large losses that result from potentially anticompetitive acts..."<sup>72</sup> In this respect, the *Google Android* case is a good example of systematic efficiencies developed by Google and a device manufacturers. The situation is that Google requires manufacturers to pre-install its suite of apps on devices only if the manufacturers sign the MADA, so it is optional. Other manufacturers can put Android devices in the market with other pre-installed apps. It is also true about Google approving the Android forks before they can enter the market. As Stylianou suggests "...a unified update process speeds up the

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<sup>70</sup> Alexandre de Stael, "The Relationship between Competition Law and Sector Specific Regulation: The Case of Electronic Communications," *Reflets & Perspectives de la vie économique*, vol. tome xlvii, no. 1 (2008): p. 64, accessed April 11, 2019, available on: <https://doi.org/10.3917/rpve.471.0055>.

<sup>71</sup> Konstantinos Stylianou, "Systemic Efficiencies in Competition Law: Evidence from the ICT Industry," *Journal of Competition Law & Economics*, Volume 12, Issue 3 (2016): p. 557, accessed April 11, 2019, available on: <https://doi.org/10.1093/joclec/nhw022>.

<sup>72</sup> *Ibid.*, p. 559.

dissemination of new features and facilitates testing and error detection.”<sup>73</sup> It happens only for the sake of benefits, not only by Google but also other participants in the chain.

Apart from defining the relevant market, there are difficulties in assessing the firm’s dominance in line with its market power. If there are inaccuracies in defining the relevant market of the multi-sided company, there will be also errors in assessing the dominance. Moreover, if the relevant market is defined correctly, the dominant position to assess in digital sector is still challenging. The dominance is determined by competition authority assessing the market power in the first place using “...quantitative indicators such as concentration ratios, market shares, price levels, or profit margins to determine market power.”<sup>74</sup> Specifically, the “...market shares... can be calculated on the basis of their sales of the relevant products in the relevant area.”<sup>75</sup> The Court states a 50 % market share is indicative of a dominant position 'except in exceptional circumstances'.<sup>76</sup> In that case the firm has a special responsibility not to abuse its dominant position. It means that companies with high market shares are prohibited from competing with other companies on the same level as others.

As the tech firms usually compete on the level of technology rather than price and offer the products for free, some firms making almost no profit, it is very hard to determine the dominance using the static factors listed above. That is why it is not efficient for the Commission and CJEU to assess the tech sector firm’s power by using the market share indicator.

Overall, referring to the case of Google Android investigated by the Commission, which is the most important antitrust case at the moment, the question is whether Google is functioning in a multi-sided market, because it is one of the main tech driver companies, which keeps their development rapid.

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<sup>73</sup> Ibid., p. 582.

<sup>74</sup> European Parliament, *supra* note 59, p. 56.

<sup>75</sup> European Commission, “COMMISSION NOTICE on the definition of relevant market for the purposes of Community competition law,” *Official Journal of the European Communities* C 372 Volume 40, No. 3 (1997): para. 53, accessed April 12, 2019, available on: [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31997Y1209\(01\)&from=EN](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31997Y1209(01)&from=EN).

<sup>76</sup> Judgment of the Court of 3 July 1991, *AKZO Chemie BV v Commission of the European Communities*, C-62/86, ECLI:EU:C:1991:286.

According to Luchetta<sup>77</sup>, a multi-sided market is an economic circumstance and it occurs where two separate groups of users are bonded on a platform and they create reciprocal cross-side network externalities for each other. The two classes of users are advertisers and searchers and network externalities are to be understood as ability of searchers and advertisers to realize gains when interacting on a platform. In this case Luchetta argues that Google cannot be considered as a two-sided platform pursuant to the definition stated above because "...for most of the queries performed on Google, inter-side positive network externalities from advertisers to users are absent or at best negligible."<sup>78</sup> Moreover, Luchetta emphasizes that it is "...a business strategy and not a structural feature of the market."<sup>79</sup> In addition, Luchetta believes that there are two transactions occurring on a platform instead of single one. It means that the searchers are searching for information on Google platform, while advertisers are looking for the users attention, "...the two transactions are not the two parts of a single interaction..."<sup>80</sup> The writer claims that the advertisers can benefit from the searchers, but the searchers do not gain any network externalities from advertisers. In general, Google can be considered as a non-transactional multi sided market or it is not a multi sided market at all. However, this view is much criticized.

Many scholars, Evans and Schmalensee and others, believe that the Google platform is operating on a two-sided market because "...there is a self-reinforcing loop between the number of searchers and advertisers..."<sup>81</sup> Evans claims that there are three groups of forces, namely, websites, searchers and advertisers that benefit from the search engine. He describes them as

- (1) websites that are indexed and made available to people through search queries;
- (2) people making search queries; and
- (3) advertisers who are seeking to reach the people who are looking at the search-results page from the query.<sup>82</sup>

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<sup>77</sup> Giacomo Luchetta, "IS THE GOOGLE PLATFORM A TWO-SIDED MARKET?", *Journal of Competition Law & Economics*, Volume 10, Issue 1 (2014): p. 190, accessed April 13, 2019, available on: <https://doi.org/10.1093/joclec/nht026>.

<sup>78</sup> *Ibid.*, p. 201.

<sup>79</sup> *Ibid.*, p. 198.

<sup>80</sup> *Ibid.*, p. 195.

<sup>81</sup> Luchetta, *supra* note 78.

<sup>82</sup> David S. Evans and Richard Schmalensee, "The Antitrust Analysis of Multi-Sided Platform Businesses," *University of Chicago Coase-Sandor Institute for Law & Economics Research Paper Series* No. 623 (2012): p. 11, accessed April 13, 2019, available on: [https://chicagounbound.uchicago.edu/cgi/viewcontent.cgi?article=1482&context=law\\_and\\_economics](https://chicagounbound.uchicago.edu/cgi/viewcontent.cgi?article=1482&context=law_and_economics).

Furthermore, all three groups are interacting and through generating positive network externalities, for example if the business decisions by Google are changing, it will influence one group and this one group will affect the other groups. That is why there is ‘self-reinforcing loop’. Evans is explaining this interconnection as the platform seeking attention of searchers to provide the advertisers with it. As an example is serving the previous case with Microsoft, where its platform was also considered as multi-sided “...serving end users, developers who write applications, and hardware makers.”<sup>83</sup> All three components were connected through network externalities and Windows platform had “...a critical mass of customers on all three sides, and each group had made investments in the platform.”<sup>84</sup>

In this view, Google is operating on a two-sided market because there are positive externalities on the Android platform between the “...handset manufacturers, users, mobile operators, and software developers...”<sup>85</sup>

## **1. Characteristics of the digital market**

### **1.1. Innovation**

The most recognizable feature of the digital industry is innovation. It is an integral part with which the search engines are operating in order to survive in the market. To transcend technologies of Google the new entrant should have a higher level of innovation and new technologies to offer, to “... demonstrate and sustain a level of innovation which is higher than current industry standards...”<sup>86</sup> Furthermore, the high tech firms are required to invest in the development of innovation because “Competition in the New Economy is driven by investment and innovation.”<sup>87</sup> The innovation is necessary not only to improve the technologies but also to reduce costs of production, thus in most cases the firms are transforming themselves or the market is shifted to creation of the new ones. The consumer benefits depend on the cost reduction as the “...competition from the new commodity, the new technology, the new source of supply,

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<sup>83</sup> *Ibid.*, p. 18.

<sup>84</sup> *Ibid.*

<sup>85</sup> *Ibid.*, p. 16.

<sup>86</sup> Vanberg, *supra* note 52, chap. 3.

<sup>87</sup> Verhaert, *supra* note 68, p. 11.

the new organization...commands a decisive cost or quality advantage.”<sup>88</sup> Despite the positive effects on consumer welfare, the high growth of the digital industry challenges the competition authorities in assessing that market.

## 1.2. Network effects

The most important characteristic of the multi-sided platform is network effects or demand side economies of scale, also called as arising ‘network externalities’. In general, the more users use the platform, the higher the value of the platform. It makes it influential because when investigating the antitrust case, assessing the multi-sided digital platform with strong, mostly indirect network externalities (INE) play a decisive role in defining the market power. Evans suggests<sup>89</sup> that antitrust authorities should adjust their tools in analyzing the market power of a multi-sided firm. Further strengthening the point, Lam finds that one-sided analysis avoids analyzing, for example, switching costs and “Policies that ignore these effects may overestimate the extent to which switching costs can reduce welfare.”<sup>90</sup> To clarify, there are two types of network effects: indirect and direct network effects. Direct network effects emerge when the users of a product directly contact. For example, “...a social network: a larger numbers of users increases its utility for users.”<sup>91</sup> However, the indirect network effect occurs due to massive usage of the product which attracts outsiders and benefits the actual users of the product. For example, “... a fax machine: the more people that own such a machine, the more valuable it is as fax owners have more users to communicate with.”<sup>92</sup> The INE presents the two sides of the platform that are interconnected and depend on each other. The benefit of the one part depends on the amount of users of the other part. The indirect network externalities are traveling to both parts of the platform and consecutively producing feedback loops between them, however it does not mean that the INE are certainly evenly powerful in respective sides. “The strength of these

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<sup>88</sup> *Ibid.*

<sup>89</sup> David S. Evans, "Multisided Platforms, Dynamic Competition, and the Assessment of Market Power for Internet-Based Firms," *University of Chicago Coase-Sandor Institute for Law & Economics Research Paper Series No. 753* (2016): p. 5, accessed April 13, 2019, available on: [https://chicagounbound.uchicago.edu/cgi/viewcontent.cgi?article=2468&context=law\\_and\\_economics](https://chicagounbound.uchicago.edu/cgi/viewcontent.cgi?article=2468&context=law_and_economics)

<sup>90</sup> W. M. W. Lam, “Switching Costs in Two-Sided Markets.” *Journal of Industrial Economics* Volume LXV, No. 1 (2017): p. 136, accessed April 13, 2019, available on: 10.1111/joie.12133.

<sup>91</sup> Verhaert, *supra* note 68, p. 15.

<sup>92</sup> *Ibid.*



feedback loops...should be taken into account in any assessment.”<sup>93</sup> In general, the network effects are beneficial for the platforms and in turn they are generating the dominant market leaders and it is nothing unexpected. If there is a platform established, it should protect itself from the rivals by being different because the new competitors will compete with higher technologies. And the platform can be protected in the presence of competitor’s no-differentiation and the network effects on the platform. The network effects are also present on the platform of the search engine of Google as the larger the number of the searchers, the higher the value of the advertising platform, in turn the advertisers are receiving the benefits and it results in Google operating on a two-sided market.

### **1.3. Economies of Scale**

Supply side economies of scale is well established concept which implies that a company is gaining an advantage due to saving in costs per unit while the production or output level is increasing. There is a difference between the demand side economies of scale or network affects and supply side because the former entails that the value of a product is increased for its users. The traditional sectors such as the process of car production or supermarkets buying in bulk benefit from economies of scale, however the relatively new industry of search engines bases the benefits on it as well. The industrial model of a search engine or the associated platform “...tend to rely on volume impact, distributing electronic content and services at low marginal cost and high unit margins.”<sup>94</sup> The digital markets relate to economies of scale as “...increased data from users leads to more accurate search algorithms.”<sup>95</sup> As the network effects characterize the digital platforms closely, those combined with economies of scale improve the quality of a product “... meaning that the more users a search engine has the more accurate the results it produces.”<sup>96</sup> Moreover, if both are strong then the company usually has a huge market share and low marginal

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<sup>93</sup> Organisation for Economic Co-operation and Development (OECD). Directorate for Financial and Enterprise Affairs Competition Committee, available on: [https://one.oecd.org/document/DAF/COMP/WD\(2017\)35/FINAL/en/pdf](https://one.oecd.org/document/DAF/COMP/WD(2017)35/FINAL/en/pdf), para. 6. Accessed April 14, 2019.

<sup>94</sup> Organisation for Economic Co-operation and Development (OECD). Directorate for Science Technology and Industry, available on: <https://www.oecd.org/internet/ieconomy/44949023.pdf>, p. 16. Accessed April 14, 2019.

<sup>95</sup> Organisation for Economic Co-operation and Development (OECD). Directorate for Financial and Enterprise Affairs Competition Committee, available on: <http://www.oecd.org/daf/competition/The-Digital-Economy-2012.pdf>, p. 8. Accessed April 14, 2019.

<sup>96</sup> *Ibid.*, p. 143.

costs resulting in monopoly. Google recognizes that "...economies of scale allow Google Apps to operate at higher levels of efficiency..."<sup>97</sup>

#### **1.4. High fixed and low marginal costs**

The digital sector firms have high fixed costs or sunk costs and low marginal costs. It is so because the tech sector requires a huge investment in R&D to produce innovative products or "... investment is required in order to create a physical or virtual network to produce and distribute products."<sup>98</sup> After these primary investments, the additional costs associated with reproducing the product are insignificant. The search engine sector has such a nature, high fixed costs are used to develop the search engine itself and make it attractive to users, however the marginal costs of hosting an addition searchers and expanding are low. "The marginal cost for answering an additional search query and displaying an additional advertisement is close to zero."<sup>99</sup> In the search engine industry the fixed costs are linked with R&D expenses to continuously manage the platform and make progress to it, stay competitive as well. For example, in 2018 Google had spent over \$16 Billions on Research and Development, which is roughly 15% of their revenues.<sup>100</sup> Nevertheless, the costs other than R&D arise from "...providing the hardware, support, monitoring etc to keep a search engine running, responsive and up-to-date...in order to improve the service."<sup>101</sup> The R&D and other associated costs are fixed and high, but costs of hosting a new user, whether it is a searcher or an advertiser are marginal and low or almost zero. The search engine nature of division of costs on both sides therefore is compared to the monopoly situation.

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<sup>97</sup> Google Cloud Official Blog. Google Apps and the cloud: Maximum economies of scale, available on: <https://cloud.googleblog.com/2010/04/google-apps-and-cloud-maximum-economies.html>. Accessed April 14, 2019.

<sup>98</sup> Verhaert, *supra* note 68.

<sup>99</sup> *Ibid.*

<sup>100</sup> Statista. *Companies with the highest spending on research and development, 2018*. Available on: <https://www.statista.com/statistics/265645/ranking-of-the-20-companies-with-the-highest-spending-on-research-and-development/>. Accessed April 15, 2019.

<sup>101</sup> Rufus Pollock, "Is Google the next Microsoft? Competition, Welfare and Regulation in Internet Search," *Cambridge Working Papers in Economics* 0921 (2009): p. 18, accessed April 15, 2019, available on: <http://www.econ.cam.ac.uk/research-files/repec/cam/pdf/cwpe0921.pdf>.

## 1.5. Lock-In effects and Switching Costs

“Switching costs are costs incurred by a user in moving from one product to another, such as exit charges, learning costs...”<sup>102</sup> In digital sector, in particular, the search engine industry and platforms, there are no switching costs or they are low, because if consumers decide to switch to other platforms they can do it without difficulties. Despite the fact that enlarged switching costs are usually dominant in markets with substantial network effects, it is not the case with digital markets. As the digital market is known to have multi-homing feature, that is when “One or both sides of the market are present on multiple platforms,”<sup>103</sup> and it “May arise from competitive sampling, product differentiation...”<sup>104</sup>, the possibility of tipping is weakened. The sides of the market are its users or app developers. It means that the user of a one platform is not prevented to use and promote to the value of other platform. In general, the users are free to participate in competing platforms and it is common in digital markets. Since the users can switch to the platforms they want without bearing the costs, there are no lock-in effects. However, there might be other sorts of costs, for example, loss of time or convenience. The digital companies as such are not dependent on price of the service, because they are offering services for free, it gains profits from ads. The Google Android platform entails that their users can switch to another operating systems easily, let it be Microsoft Windows phone or iPhone IOS. It implies that there are no switching costs and lock-in effects.

## 1.6. Interoperability

In the digital sector, the interoperability is a common characteristic. It is also called as compatibility thorough the digital firms.

Interoperability is the ability of different information systems, devices or applications to connect, in a coordinated manner, within and across organizational boundaries to access, exchange and cooperatively use data.<sup>105</sup>

Google has an Android Compatibility Definition Document (CDD) and it requires original equipment manufacturers (OEM’s) to follow various standards imposed by it. The CDD ensures

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<sup>102</sup> OECD, *supra* note 95, p. 9.

<sup>103</sup> *Ibid.*, p. 184.

<sup>104</sup> *Ibid.*

<sup>105</sup> Healthcare Information & Management Systems Society (HIMSS), *HIMSS Dictionary of Health Information and Technology Terms, Acronyms and Organizations* (Boca Raton: CRC Press, 2019), p. 113.

the interoperability for Android platform and among running Android applications. “The CDD thereby creates a stable platform for applications, both from Google and other Android based apps developers.”<sup>106</sup> In the CDD it is stated that the OEM’s are allowed to create Android forks or substitute the Android apps with other apps based on a condition that they will follow the interoperability demands. Furthermore, the Microsoft and Google Android examples underline the importance of interoperability in the case law. In the Microsoft case the Commission stressed the abuse of dominance not only with regard to tying but also “...Microsoft had withheld essential interoperability information from its competitors...”<sup>107</sup> in that way restricting the competitors ability to compete and producing innovative products. However, Google “...offers the whole Android code on a royalty-free, open source basis to every maker of mobile devices.”<sup>108</sup> Google, therefore, states the necessary information on interoperability in CDD to its competitors, OEM’s and app developers. In general, from the above mentioned the “Google’s licensing practices...conform to the legally applicable standard regarding tying and interoperability requirements (even if...it were dominant).”<sup>109</sup>

Google has also a "Mobile Application Distribution Agreement" (MADA) document, which has to be signed by OEM’s in order to get access to Google apps and offer them on devices running on Google’s Android or approved Android forks. But even if signing the MADA is not obligatory, the users are expecting the Android devices with pre-installed Google applications, thus it is more convenient for OEM’ to sign it.

The MADA furthermore improves interoperability of devices and apps throughout the Android ecosystem...helps to reduce the costs of app development to the advantage of app developers and consumers alike.<sup>110</sup>

Overall, the advantages of ensuring interoperability among the digital industry are recognizable. The benefits are distributed both for the users of the devices and app developers.

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<sup>106</sup> Torsten Körber, “Let’s Talk About Android – Observations on Competition in the Field of Mobile Operating Systems,” German Version: *NZKart* (2014): p. 7, accessed April 16, 2019, available on: <http://dx.doi.org/10.2139/ssrn.2462393>.

<sup>107</sup> *Ibid.*, p. 33.

<sup>108</sup> *Ibid.*, p. 34.

<sup>109</sup> *Ibid.*

<sup>110</sup> *Ibid.*, p. 45.

## 2. The Google Android Case

In 2018 the EU Commission fined Google 4.34 billion euros for an abusive practice, which aimed to strengthen Google's search engine and breached EU competition law, Article 102 TFEU specifically. In the opinion of the Commission there are three abusive practices. First, Google "... has required manufacturers to pre-install the Google Search app and browser app (Chrome)..."<sup>111</sup> in order for them to be able to get the licence for Google app store, which is the Play Store. Second, Google restricted manufactures from selling a smartphones which do not operate on Android and "...that were not approved by Google (so-called "Android forks")."<sup>112</sup> in cases where manufactures wanted to pre-install Google apps. And thirdly, particular manufactures were paid by Google in order to demand from them to only pre-install Google Search app.

And what is important here is that the Commission and the Commissioner Margrethe Vestager see those breaches as a restrictions Google imposed on the Android manufacturers and other mobile network operators "...Google has imposed on Android device manufacturers and network operators to ensure that traffic on Android devices goes to the Google search engine..."<sup>113</sup> However, there is a much broader purpose of it. What Google's Senior Vice President and General Counsel Kent Walker is explaining is that the Commission is wrong about the fact that the Android does not compete with Apple's iOS, he stresses "To ignore competition with Apple is to miss the defining feature of today's competitive smartphone landscape."<sup>114</sup> The evidence for that can be found in the Commission Press release, which says that "Google's app store dominance is not constrained by Apple's App Store, which is only available on iOS devices."<sup>115</sup> From Google's point of view and survey held by Commission, where 89% people surveyed responded are of opinion that Google and Apple are competing, it is not reasonable to say that they do not compete against each other.

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<sup>111</sup> European Commission - Press release, *supra* note 62.

<sup>112</sup> *Ibid.*

<sup>113</sup> *Ibid.*

<sup>114</sup> Kent Walker, "Android: Choice at Every Turn," *Google in Europe* (2016), accessed March 27, 2019, available on: <https://www.blog.google/around-the-globe/google-europe/android-choice-competition-response-europe/>.

<sup>115</sup> European Commission - Press release, *supra* note 62.

The second point further gives explanation of three restrictions listed above in this part, the reasons of Commission to accuse Google of. It is know that “When Google develops a new version of Android it publishes the source code online.”<sup>116</sup> It means that third parties can download it and adjust the code and build the Android forks. Furthermore, this publicly available Android source code does not cover the Android apps owned by Google. If manufacturers want to gain an access to Android apps they have to open their relationship into agreements with Google, where in the decision by Google are listed three restrictions that Google put on those manufacturers who want to gain an access to the Android apps and services. Google agreed not only with device manufacturers but also particular mobile network operators where they agreed on the process of selling devices. Combining those three restrictions put forward, Commission believes that “These have enabled Google to use Android as a vehicle to cement the dominance of its search engine.”<sup>117</sup> However, what is again explained by Kent Walker is that while the source code is publicly available and every manufacturer can download and change it, it is hard to establish and protect the Android from fragmentation issues because Android is unsafe against fragmentation. It is hard to “...ensure there’s a common, consistent version of the operating system, so that developers don’t have to go through the hassle and expense of building multiple versions of their apps.”<sup>118</sup> Undoubtedly, there should be work done in order to avoid it. Google is working with hardware makers to ensure a bare minimum to keep compatibility thorough Android devices. Because of ensuring compatibility in the first place, device manufacturers are given a wide range of possibilities to make their phones, in other words “... wide latitude to build devices that go above that baseline..”<sup>119</sup> Google calls it as 'voluntary compatibility agreements' rather than Commissions view on restrictions that Google put on those manufacturers. It is also supporting the app developers to make apps confidently that will work smoothly on many devices. In fact, it is other way around, “This balance stimulates competition between Android devices as well as between Android and Apple’s iPhone.”<sup>120</sup> Moreover, 94 % people surveyed by

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<sup>116</sup> *Ibid.*

<sup>117</sup> *Ibid.*

<sup>118</sup> Walker, *supra* note 114.

<sup>119</sup> *Ibid.*

<sup>120</sup> *Ibid.*

Commission are of opinion that Android platform is harmed due to fragmentation issue. If Commission desires to stop Google from entering into agreements with manufacturers and mobile network operators, restricting Google's ability to balance compatibility among Android forks then fragmentation issue would be even worse, Android platform would be harmed and there would be worse competition among Android devices.

Thirdly, the Commission is against the bundling of Google app store, Google Search app and browser app and supplying it to the manufacturers. It means that under this license system of Google manufacturers can have all three apps but not separately. They can pre-install all apps together. Commission is concerned about the possibility of users to download the Play Store legally, while manufacturers are of opinion that "Play Store is a "must-have" app, as users expect to find it pre-installed on their devices."<sup>121</sup> The Commission divides this restriction into two parts. One is tying of Google Search app and another of browser app. It found that 95 % of Android users search information using Google Search where it is pre-installed, while 75 % of Windows Mobile users search thought also pre-installed Microsoft Bing and 25% users download Google Search which is not pre-installed on Windows devices. The Commission suggests that Google in that way is decreasing the desire of manufacturers to pre-install other searching apps other than Google Search and furthermore is damaging the competitors ability to challenge Google. Commission ensures that

Google achieves billions of dollars in annual revenues with the Google Play Store alone, it collects a lot of data that is valuable to Google's search and advertising business from Android devices, and it would still have benefitted from a significant stream of revenue from search advertising without the restrictions.<sup>122</sup>

Apparently, here Commission answered its own question, because if Google still gets almost the same revenues with or without tying their apps and then it is clear that Google is not trying to abuse its dominant position in the market because there has to be a reason for it which is not put forward by Commission, Google is just making it simpler for manufacturers and the users to work with Android devices. Google's general council again defends Google by saying that manufacturers are not compelled to pre-install any Google apps and that Google presents and offers a line of apps "...so that when you buy a new phone you can access a familiar set of basic

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<sup>121</sup> European Commission - Press release, *supra* note 62.

<sup>122</sup> *Ibid.*

services...”<sup>123</sup> Most importantly, the Android’s competitors, such as Microsoft Windows or Apple phones are also pre-installing a line of apps on their phones, specifically Microsoft Windows phones have 39 from 47 apps pre-installed and Apple’s iPhones have all apps pre-installed, while Android has 11 from 38. Thus, it is more than Google does. Also, Google allows “...hardware makers and carriers can pre-install rival apps right next to ours. In competition-speak, that means there’s no “foreclosure”.”<sup>124</sup> Kent Walker stresses that offering Google Search, browser app and Play Store together is for free and it helps to avoid licensing fees. In general, the prices for manufacturers and users are reduced.

Overall, it is clear that Android platform is a huge plus for Google’s image and ads, but the issue at stake for Commission remains that Google is restricting manufacturers and mobile network operators and restricting competition, while Google is defending and explaining the purpose of its actions, Google wants to reduce costs for app makers and device manufacturers, create stable devices and services. “An analysis of the effects of a specific type of conduct needs to take into account both pro and anti-competitive effects and resolve possible tradeoffs.”<sup>125</sup> Since the Android went to the market, phones become much cheaper and more accessible to people. Now, the app industry is booming the economy.

### **PART III - ‘TYING’ AND ‘BUNDLING’**

Tying or bundling encompasses two or more products offered by undertakings in one suite. There are three different ways of typing and bundling: pure bundling, mixed bundling and tying. The first occurs when acquiring two or more products is possible only in bundle, that is they are sold only together, thus it is not possible to purchase them separately. The second entails that the products are offered together, however the products are also available separately, but the buyers usually choose the products in bundle because it is financially cheaper. The third entails a case where the products are offered in bundle, however some of them are available for purchases

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<sup>123</sup> Walker, *supra* note 114.

<sup>124</sup> *Ibid.*

<sup>125</sup> Eirik Østerud, *Identifying Exclusionary Abuses by Dominant Undertakings Under EU Competition Law: The Spectrum of Tests* (Alphen aan den Rijn: Kluwer Law International B.V, 2010), p. 3.



separately and some can be bought only in suite. As all three ways have the same idea, they are perceived similarly.

The digital markets are very sensitive in antitrust cases in respect to tying and bundling in their businesses. “A practice that harms the competitive process may appear almost identical to one that constitutes vigorous and effective competition.”<sup>126</sup> As the digital markets are operating in a ‘winner-takes-all’ economy, it is expected that they are safe against their rivals and their technologies, but Shapiro ensures that “...the information economy is populated by temporary monopolies...today’s leading technology...will...be toppled in short order by an upstart with superior technology.”<sup>127</sup> As an example, the iPhone iOS was released in 2007, Google Android in 2008, finally Microsoft released its windows mobile operating system two years later. Thus, it is observed that there are sequential effect on producing technologies. It is only logical if Microsoft Phone would have the superior technology as it was the last one to propose new technology, however it is not the case. The statistics show that on a global scale the Android has 75.33% of market share, iOS 22.4% and Windows 0.28%<sup>128</sup>. These results might slightly differ due to the regions with no information on the usage, but its clearly seen that the Android has the first position.

Holzweber argues<sup>129</sup> that the ‘winner-takes-all’ creates barriers to entry and lower incentives to innovate for others. It “... might transform a temporary monopoly into a stable monopoly which is not endangered of being toppled.”<sup>130</sup> Additionally, the typing and bundling is at the case of lowering incentives to innovate making the company’s position in the market stable. Thus, it is beneficial for an undertakings to involve in typing and bundling process.

The leverage theory of tying suggests that the dominant undertaking in one market might transfer or leverage its dominance to another market through tying one dominant product with

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<sup>126</sup> *Ibid.*, p. 2.

<sup>127</sup> Carl Shapiro and Hal R. Varian, *Information Rules: A Strategic Guide to the Network Economy* (Boston: Harvard Business Press, 1998), chap. 7.

<sup>128</sup> StatCounter. *Mobile Operating System Market Share Worldwide, 2019*. Available on: <http://gs.statcounter.com/os-market-share/mobile/worldwide>. Accessed April 17, 2019.

<sup>129</sup> Stefan Holzweber, “Tying and bundling in the digital era,” *European Competition Journal*, VOL. 14, NOS. 2–3 (2018): p. 353, accessed April 17, 2019, available on: <https://doi.org/10.1080/17441056.2018.1533360>.

<sup>130</sup> *Ibid.*

another product. In Google case, the EU Commission finds that Google is dominant in the markets of search engine (Google Search), mobile operating system (Android), distribution of applications for OS. The Commission claims that Google is transferring its power of dominant position in OS market through tying its applications and providing them in bundle for OEM's to other markets, such as search market, where the Microsoft Bing is competing against Google. It means that the

Tying allows the firm to attract consumers of the tied good market and...obtain the profit from the advertising side of the same market.<sup>131</sup>

Consequently, EU Commission finds an abuse of dominant position by Google Android "...by forcing smartphone makers to pre-install its applications on Android devices in an all-or-nothing manner."<sup>132</sup>

According to Choiy and Jeon theory of levering of tying in a two sided markets<sup>133</sup>, Google is one of the such platforms. They suggested that the Google Play is serving as a dominant product and is a tying good, while the Google Search is the tied good where Google leverages its market power. Google offers the Google Play and Google Play Services in suite free of charge. As clarified by Etro and Caffarra, the purpose is "...to convince OEMs to adopt its OS ...and persuade consumers to opt for Android devices. ..."<sup>134</sup>

The tying practices are included in the optional Mobile Application Distribution Agreement (MADA), where Google requires OEM's to preinstall Google apps. According to the leaked version of MADA (2011) published by Ben Edelman<sup>135</sup> between Google and HTC corporation there are rules which need to be signed by OEM's. Paragraph 2.1. of leaked MADA states that

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<sup>131</sup> Doh-Shin Jeon, Interview on Digital Economy, "Don't be evil: Is Google abusing its power?" *Toulouse School of Economics*, May 03, 2017, accessed April 20, 2019, available on: <https://www.tse-fr.eu/dont-be-evil-google-abusing-its-power>.

<sup>132</sup> *Ibid.*

<sup>133</sup> Jay Pil Choi and Doh-Shin Jeon, "A Leverage Theory of Tying in Two-Sided Markets," *TSE Working Paper*, n. 16-689 (revised 2018): p. 18, accessed April 20, 2019, available on: <https://www.tse-fr.eu/publications/leverage-theory-tying-two-sided-markets>.

<sup>134</sup> Federico Etro and Cristina Caffarra, "On the economics of the Android case," *European Competition Journal*, VOL. 13, NOS. 2-3, (2017): p. 294, accessed April 20, 2019, available on: <https://doi.org/10.1080/17441056.2017.1386957>.

<sup>135</sup> Google Inc. Mobile Application Distribution Agreement (MADA) between Google and HTC, available on: <http://www.benedelman.org/docs/htc-mada.pdf#page=3>. Accessed April 21, 2019.

Devices may only be distributed if all Google Applications (excluding any Optional Google Applications) ...are pre-installed on the Device, unless otherwise approved by Google in writing.<sup>136</sup>

Paragraph 3.4. (4) of leaked MADA states that

Google Phone-top Search must be set as the default search provider for all Web search access points on the Device. Notwithstanding the foregoing, there are no placement requirements for Optional Google Applications.<sup>137</sup>

Eric Schmidt, at that time a Chairman of Google, wrote that

Manufacturers can choose to pre-install Google applications on Android devices,...but they can also choose to pre-install competing search applications like Yahoo! and Microsoft Bing.<sup>138</sup>

Kovacevich mentioned that "...it is "not true" that Android manufacturers must make Google Search the default."<sup>139</sup> Google confirms that the OEM's are not restricted to place other rival apps next to the Google apps, moreover they can choose whether to place Google apps at all. Manufacturers are free to set Google apps and rival apps in a mixed way.

According to EU competition law, tying practices are considered as an infringements when

(i) the company concerned is dominant in the tying market; (ii) the tying and tied goods are two distinct products; (iii) the tying practice is likely to have a market distorting foreclosure effect; (iv) the tying practice is not justified objectively or by efficiencies.<sup>140</sup>

EU competition law refers to tying and bundling in Article 102 (d) TFEU. It is observed that the law remained unchanged since it was created, nonetheless re-interpreted many times. The legislators are unable to keep up with the rising issues of digitalization "...requiring judges to apply legal doctrines which were originally conceived for the analogue world and thereby modifying them."<sup>141</sup> Furthermore, "...competition concepts made up for the brick-and-mortar

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<sup>136</sup> *Ibid.*, para. 2.1.

<sup>137</sup> *Ibid.*, para. 3.4.

<sup>138</sup> Benjamin G. Edelman, "Does Google Leverage Market Power Through Tying and Bundling?", *Journal of Competition Law and Economics* 11, no. 2 (2015): p. 395, accessed April 21, 2019, available on: <http://dx.doi.org/10.2139/ssrn.2436940>.

<sup>139</sup> *Ibid.*

<sup>140</sup> European Commission. *DG Competition discussion paper on the application of Article 82 of the Treaty to exclusionary abuses*, para. 183. Available on: <http://ec.europa.eu/competition/antitrust/art82/discpaper2005.pdf>. Accessed April 22, 2019.

<sup>141</sup> Holzweber, *supra* note 129, p. 343.

economy needed to be broadened in order to cope with Google...<sup>142</sup> The emerging digitalization era is the reason why the concept of tying and bundling is expanded “... hardly any doctrine of competition law was broadened more markedly with the advent of the internet economy...”<sup>143</sup>

## 1. The Microsoft Case

The case on the tying issue *Microsoft v. Commission* started back in 1998 when the Commission received a complaint by Sun Microsystems against Microsoft and reached its end in near 2007 when the Court of First Instance upheld the Commission’s decision to impose a fine with an amount of €497 million. The complaint was based on a fact that the Microsoft refused to present the compatibility information to other competitors and they could not make secure that their products were compatible with the Microsoft operating system ‘Windows’. Moreover, the Commission investigated the tying practices of the Microsoft and viewed it as an abusive behavior.

The decision was based mainly on two abusive practices:

- 1) “...the refusal to supply and authorise the use of interoperability information...”<sup>144</sup>
- 2) “...the tying of the Windows client PC operating system and Windows Media Player.”<sup>145</sup>

The interoperability information was needed by Microsoft’s competitors “...to viably compete as a work group server operating system supplier.”<sup>146</sup> If comparing with *Google Android* case, the question of interoperability is mitigated for investigation because Google has openly accessible CCD where it states all necessary information on interoperability plus the MADA which enhances interoperability.

With regard to tying, the question is highly relevant for the *Google Android* case as the facts behind both are similar. The principles developed in *Microsoft* are relevant in relation to

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<sup>142</sup> *Ibid.*

<sup>143</sup> *Ibid.*

<sup>144</sup> *Microsoft Corp. v. Commission*, supra note 8, para. 83.

<sup>145</sup> *Ibid.*

<sup>146</sup> Commission of the European Communities. *COMMISSION DECISION of 24.03.2004 relating to a proceeding under Article 82 of the EC Treaty (Case COMP/C-3/37.792 Microsoft)*, para. 3. Available on: [http://ec.europa.eu/competition/antitrust/cases/dec\\_docs/37792/37792\\_4177\\_1.pdf](http://ec.europa.eu/competition/antitrust/cases/dec_docs/37792/37792_4177_1.pdf). Accessed April 22, 2019.

Google Android. Furthermore, the Commission assessed if the tying included infringement on the basis of Article 82 EC (Article 102 TFEU) according to four criteria: firstly, Microsoft's dominance in PC operating systems market, secondly, the products, namely media player and PC operating system are distinct, thirdly, there is no way consumers can buy Windows without Windows Media Player and in the fourth place assert that the tying restricts competition across media players market. The Commission found it true for all aspects and in the decision required Microsoft to offer Windows PC operations system separately from Windows Media Player and imposed a time limit of 90 days. The Commission allowed a bundle of Windows and WMP, however it meant that only the manufacturers had to decide whether to put together those two products and then sell them.

While the first and third matters are obvious, the second and fourth raise questions. In respect to distinct products, the Commission put a following argument forward

...there existed independent manufacturers who specialised in the manufacture of the tied product, a fact which indicated that there was separate consumer demand and hence a distinct market for the tied product.<sup>147</sup>

Microsoft disputed that the question is not set correctly, instead the Commission should have asked whether the tying and tied products are offered together frequently and what are the consumer needs with regard to Windows and WMP . The Court supported the Commission's findings and stated "...it is quite possible that customers will wish to obtain the products together, but from different sources."<sup>148</sup> It puts the argument in doubt, because the main coordinator is Microsoft itself, thus selling the PC from different sources can only be reached through different manufacturers who are not fully able to integrate the Windows and WMP sufficiently. Microsoft was dissatisfied with the decision because the Commission paid attention only whether the tied product as they claimed, that is media player, and the tying product as they asserted, that is PC the operating system, are available separately from each other. Therefore, Microsoft stated that the right question to ask is "...whether the tying product is regularly offered without the tied product."<sup>149</sup> Microsoft further claimed that there is no demand from consumer side to acquire Windows PC operating system without media player or so called 'media functionality', thus there

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<sup>147</sup> *Ibid.*, para. 802.

<sup>148</sup> *Microsoft Corp. v. Commission*, supra note 8, para. 922.

<sup>149</sup> *Ibid.*, para. 887.

is no manufacturer or operator who would market them separately. Microsoft insisted that "...a product should be defined primarily in terms of customer expectations and demands."<sup>150</sup> However, the Commission at no time has analyzed the consumer intention and desire to buy client Windows PC operating system without Windows Media Player. Microsoft argued that the Commission applied the incorrect test in relation to distinct products, yet this Microsoft argument that the Commission should have instead asked whether there is consumer demand for such separate system for both products was not recognized.

The fourth matter concerns an anticompetitive effects. The Court stated that Microsoft leveraged its monopoly in PC OS market to the media player market, limited possibility to access other rival media players and made higher barriers to entry due to INE. Microsoft claimed that the Commission "...had to apply a new and highly speculative theory, relying on a prospective analysis of the possible reactions of third parties..."<sup>151</sup> to conclude that there are anticompetitive and foreclosing effects, having acknowledged that it is not traditional tying case "At recital 841 to the contested decision, the Commission acknowledged that the present case was not a 'classical tying case...'"<sup>152</sup> Microsoft claimed that the Commission puts dominant undertakings which are trying to develop technology and innovate in a disadvantage, when the Commission obliges that "...such features be made removable whenever a third party markets a standalone product that provides the same or similar functionalities."<sup>153</sup> Finally, Microsoft argued that the merging of the Windows Media Player into the Windows PC operating system since 1999 is a rational and essential procedure in order to innovate and develop such a system. Moreover, it ensured the regular advancement of the media functionality. Microsoft additionally stated that the matter that "...tying takes the form of the technical integration of one product in another..."<sup>154</sup> is enough to find out that the tying does not mean that "...integration cannot be qualified as the bundling of two separate products."<sup>155</sup>

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<sup>150</sup> *Ibid.*, para. 890.

<sup>151</sup> *Ibid.*, para. 1032.

<sup>152</sup> *Ibid.*, para. 989.

<sup>153</sup> *Ibid.*, para. 888.

<sup>154</sup> *Ibid.*, para. 16.

<sup>155</sup> *Ibid.*

Overall, it can be observed that the *Google Android* case has the same issues with tying as Microsoft was dealing more than a decade ago. The difference is that Google is working on a mobile platform Android rather than PC. Consequently, Google is tying the Google Search app and browser app (Chrome) in bundle with Google Play Store.

## **PART VI - PROPOSALS FOR REGULATING DIGITAL MARKETS EFFECTIVELY**

The *Google Android* case serves as a good indication that the competition law in digital sector, particularly, Article 102 TFEU, has some weak points in regulating the highly innovative firms operating in a digital network. Additionally, it requires a large amount of time to give a court decision, as it is observed in *Microsoft*. The digital companies are changing so fast that when the court gives its decision, the digital company is not dominant anymore or the matter becomes irrelevant. For example, when the Court of First Instance rejected Microsoft's appeal in 2007, there was little demand left for WMP and it became old-fashioned as the last ever known version of Windows Media Player was released in 2009.

...an antitrust case involving a new-economy firm may drag on for so long relative to the changing conditions of the industry as to become irrelevant.<sup>156</sup>

Many legal writers are of opinion that current competition law is not well suited with regard to highly dynamic development of digital sector. The digital platforms are of high complexity. Diker Vanberg suggests<sup>157</sup> that the issue at stake is that competition authorities do not base the investigation on strong economic analysis. "...the influence of economics had not been felt as strongly under Article 102 TFEU as it has been under 101 TFEU..."<sup>158</sup> For example, Article 101 TFEU has guidelines prepared by leading economists, block exemptions specified. Another view is that the issue remains on institutional side. Posner argues that

...enforcement agencies and courts do not have adequate technical resources, and do not move fast enough, to deal effectively with a very complex business sector that changes very rapidly.<sup>159</sup>

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<sup>156</sup> Richard A. Posner, "Antitrust in the New Economy," *University of Chicago Coase-Sandor Institute for Law & Economics Research Paper Series* No. 106 (2000): p. 9, accessed April 20, 2019, available on: [https://chicagounbound.uchicago.edu/cgi/viewcontent.cgi?article=1057&context=law\\_and\\_economics](https://chicagounbound.uchicago.edu/cgi/viewcontent.cgi?article=1057&context=law_and_economics).

<sup>157</sup> Vanberg, *supra* note 52.

<sup>158</sup> Padilla, *supra* note 38.

<sup>159</sup> Posner, *supra* note 156, p. 2.

The fact that the competition authorities and courts are working on cases with weak technical resources and insufficient economic analyses puts them in difficulties and inaccuracies when assessing the general market and dominance. For example, the European Parliament “... welcomes...the appointment of special advisers to the Commissioner focusing on future challenges of digitalisation for competition policy....”<sup>160</sup>

As Dolmans and Leyden specify<sup>161</sup>, this analysis is difficult because digital platforms incur ever changing competitive character. Moreover, the digital platforms lead in multi-homing and generate no switching costs. The issue is underlined in the expressed opinion by the European Parliament in the Annual Report on Competition policy. In particular, European Parliament

...stresses the urgent need for a framework that while promoting data innovation and new business models, effectively addresses the challenges of the data-driven and algorithm economy...<sup>162</sup>

As the new economy sectors are distinct from the initial ones, they impose new challenges for competition authorities to produce analysis. “In literature, both lawyers and economists agree that a new way to approach competition law is required.”<sup>163</sup> There is a potential for the current assessment of market and dominance to improve. Thus, there is a need to specify how EU competition law could be advanced in order to be more efficient in relation to innovative economy companies.

## **1. Proposals by Crémer, de Montjoye and Schweitzer**

The report on competition policy for the digital era produced by a legal scholar, engineer and economist implies that the basis of EU competition law integrated in Article 102 TFEU is sufficient to safeguard competition in digital era. However, the basis should be improved as “... specific characteristics of platforms, digital ecosystems, and the data economy require established

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<sup>160</sup> European Parliament. *European Parliament resolution of 31 January 2019 on the Annual Report on Competition Policy*, para. 11. Available on: [http://www.europarl.europa.eu/doceo/document/TA-8-2019-0062\\_EN.html?redirect](http://www.europarl.europa.eu/doceo/document/TA-8-2019-0062_EN.html?redirect). Accessed April 22, 2019.

<sup>161</sup> Maurits Dolmans and Andrew Leyden, “Internet & Antitrust: An overview of EU and national case law,” *e-Competitions Bulletin Internet & Antitrust*, Art. N° 45647 (2012): p. 2, accessed April 23, 2019, available on: <https://www.concurrences.com/en/bulletin/special-issues/internet-antitrust/anticompetitive-practices/internet-and-antitrust-an-overview-of-eu-and-national-case-law-45647>.

<sup>162</sup> European Parliament, *supra* note 160.

<sup>163</sup> Verhaert, *supra* note 68, p. 35.



concepts, doctrines and methodologies...competition enforcement...to be adapted and refined.”<sup>164</sup> The core of the report claims that innovation can be stimulated by stronger enforcement of competition rules, therefore the amendments of competition enforcement regime should be made. In general, the goals for EU competition law in digital era are based on stronger enforcement of competition rules, thus the following adjustments are proposed.

First of all, the standard of consumer welfare should be broadened. “In recent years many competition authorities have stressed the central importance of consumer welfare when interpreting and applying competition law.”<sup>165</sup> In the digital economy consumers are not considered only as the end users but also ‘business users’ or ‘intermediate consumers’ operating within digital platform in order to reduce misunderstandings. Consumer welfare standard includes both. Moreover, the report suggests that “...the relevant timeframe and the standard of proof need to be rethought.”<sup>166</sup> Otherwise assessing harm results in a high degree of probability. In some cases it is even possible to compute the “expected” consumer welfare to reduce hypothetical assumptions. The main difference from current framework is that the dominant undertakings, however, are not prohibited to apply their strategies in the presence of “...clearly documented consumer welfare gains.”<sup>167</sup>

Secondly, the definition of market boundaries is not certain in digital industries as it is in traditional markets. Therefore, the report suggests that the definition of the market should be laid aside

...less emphasis should be put on the market definition part of the analysis, and more importance attributed to the theories of harm and identification of anti-competitive strategies.<sup>168</sup>

Thirdly, the market power should be assessed case by case. It has to be based on “...behavioural economics insights about the strength of consumers’ biases towards default options...”<sup>169</sup> because it might be the case that there are no objections towards tech companies from consumer side in

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<sup>164</sup> Crémer, de Montjoye and Schweitzer, *supra* note 1, p. 3.

<sup>165</sup> Whish and Bailey, *supra* note 41, p. 19.

<sup>166</sup> Crémer, de Montjoye and Schweitzer, *supra* note 1, p. 42.

<sup>167</sup> *Ibid.*

<sup>168</sup> *Ibid.*, p. 46.

<sup>169</sup> *Ibid.*, p. 50.

relation with default options. In this sense the firm can be considered powerful only if it 'doing its own thing' despite consumer objections. Moreover, the competition authorities should take into account the access to data. “Any discussion of market power should...analyse...the access to data available to the presumed dominant firm but not to competitors...”<sup>170</sup>

Fourthly, as the tech giants produce uncertainties due to dynamic change of technologies “...there will be uncertainty about the consequences of any competition policy intervention or non-intervention.”<sup>171</sup> Thus, it would be effective to base investigation on a Joskow and Klevorick<sup>172</sup> ‘error-cost’ test. It is not current ‘more likely than not’ approach but the error cost framework. The decision of EU competition authorities to intervene or not would be different under both approaches. Under the error cost framework, it is even attainable that the behavior of an undertaking with a smaller probability of being anticompetitive results in higher costs in the case of not interfering in it. Hence, the report suggests that competition authorities should try to integrate the error costs into legal tests.

Fifthly, EU competition law is general, broad and flexible, but at the same time there is no specificity, which reduces flexibility and makes investigations lengthy, “...competition law – and in particular Article 102 TFEU – plays a useful role as a “background regime” ”<sup>173</sup> while “...a better understanding of many of the characteristic features of the digital economy....will inform the development of competition policy.”<sup>174</sup> Furthermore, the report stresses that “...we will find that some issues...arise frequently and systematically enough that a new regulatory regime is warranted.”<sup>175</sup> Finally, the competition enforcement is not substituted by regulation but rather supplemented.

In relation to the importance of access of data by an undertaking when assessing the market power, the regulation has a special role. The report calls to include the use of regulation

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<sup>170</sup> *Ibid.*, p. 49.

<sup>171</sup> *Ibid.*, p. 50.

<sup>172</sup> Paul Joskow and Alvin K Klevorick, “A Framework for Analyzing Predatory Pricing Policy,” *The Yale Law Journal*, Volume 89, Number 2 (1979): pp. 213-270, accessed April 24, 2019, DOI: 10.2307/795837.

<sup>173</sup> Crémer, de Montjoye and Schweitzer, *supra* note 1, p. 5.

<sup>174</sup> *Ibid.*, p. 52.

<sup>175</sup> *Ibid.*

on a sector specific bases. For example, the general rule which obliges firms to ensure data access, probably interoperability, is derived from Article 102 TFEU, but if a dominant undertaking is required to ensure constant data access, the “...ensuring frictionless data interoperability on an ongoing basis will surpass the capacities of competition authorities.”<sup>176</sup> Therefore, such cases require an ongoing regulation and sometimes it should be sector specific. The writers of the report ensure that “...mandated data access will therefore, in the end, be a sector-specific regime, subject to some sort of regulation and regulatory oversight.”<sup>177</sup>

Overall, considering all propositions of the report, the current case decisions, such as *Google Android* would differ as the investigation is forecasted to go in another direction and analysis of anti-competitive behavior is based on different tests and concepts. The report is directed under the request of current Commissioner Margrethe Vestager, thus the directions of stronger enforcement proposed in the report will be introduced by her successor, following 2019. In the coming years, the report will serve as an enforcement program for digital markets.

## CONCLUSION

Digitalization transformed the view on new economy markets. The dynamic advancement in innovation by digital companies brought challenges for competition authorities mainly from two perspectives. Firstly, the dynamic nature of digital markets adds to the complexity of competition authorities in the process of assessment. The progressive and unstable economic outlook produces uncertainty about competition, the harm on consumers and the effects on disturbing innovation. Secondly, the enforcement of competition law extent in dealing with dynamic competition in digital markets is questionable. The new economy markets bring the new types of transactions, data amounts, new economic models and business schemes, exercising a deep economic analysis. It all makes EU competition law, its strengths and effectiveness controversial.

Due to these challenges, application of Article 102 TFEU has its downsides in dealing with digital markets. The research has revealed the following disadvantages:

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<sup>176</sup> *Ibid.*, p. 74.

<sup>177</sup> *Ibid.*, p. 109.

- I. Price (SSNIP) or traditional model of assessing market power by having a look on market shares is not suited for digital platforms and its innovation cycles as the digital companies are usually offering their products for free;
- II. No sufficient effects-based approach indicates that there is no detailed examination of the case facts and economic analysis e.g. 'tying' in *Google Android* is treated as abusive although it provides convenient way for manufacturers to pre-install apps, helps to avoid licensing fees and reduces prices for manufacturers and users, e.g. in *Microsoft*, the consumer demand was not taken into account;
- III. There is a risk of protecting competitors rather competition, when placing a special responsibility on a dominant undertaking, in can deter innovation;
- IV. The Commission's Guidance on Article 102 TFEU does not provide a 'safe harbour' due to incorporated 'likeness' and 'competition on merits';
- V. No efficient way of assessing interdependency of sides in two-sided platforms;
- VI. It is time consuming to define the relevant market, as digital platforms have many of them. There is a risk to achieve a static view on it.

Furthermore, despite the benefits of the basis of Article 102 TFEU and its broad scope, there are far more drawbacks and EU competition law is not effective in regulating digital markets. The answer to the Bachelor Thesis question is that EU competition law, in particular Article 102 TFEU is effective in regulating digital markets to low extent. On the basis of the above mentioned, it is objective to add that the hypothesis 'the current framework of EU competition law is not fully appropriate for the regulation of digital markets' is efficiently justified.

It is recommended that the enforcement of Article 102 TFEU should be supplemented by more efficient definitions, tools, tests. To improve it is suggested for competition authorities to enforce it by conducting solid analysis on new economy markets and rethink the tools used before, namely, supplement Article 102 TFEU enforcement with sector-specific regulation, broaden the standard of consumer welfare, allow for standard of proof by presenting consumer welfare, impose timeframe, not to focus on defining the market, place more attention on theories

of harm, take into account consumers biases and to base investigation on error-cost' test to replace current 'more likely than not'.

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5. Judgment in *Hoffmann-La Roche*, 85/76, ECLI:EU:C:1979:36, paras. 39, 91.
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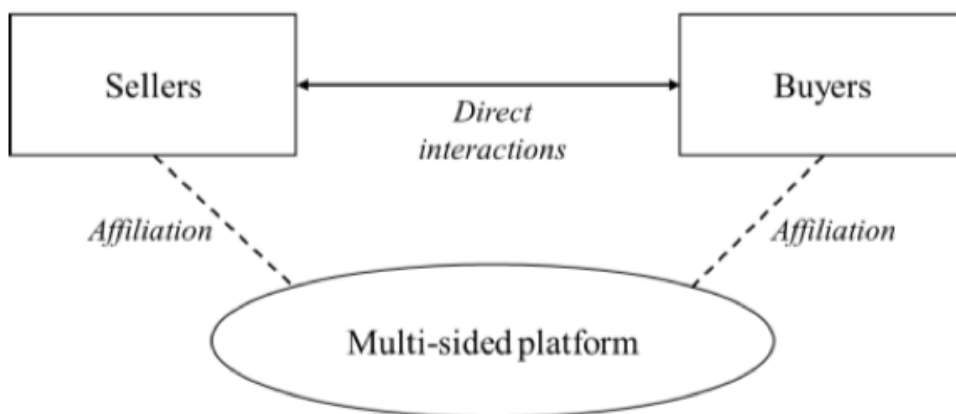
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## APPENDIX 1. Multi-sided platform



**Source:** Pontus Huotari, "Too Big to Fail? Overcrowding a Multi-Sided Platform and Sustained Competitive Advantage," HICSS (2017): p. 5276, accessed April 10, 2019, DOI:10.24251/HICSS.2017.639.