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"APPLICATION OF EU COMPETITION LAW TO DATA-DRIVEN MARKETS"

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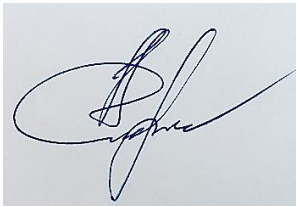

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LIST OF ABBREVIATIONS

EU - European Union

TEU - Treaty on European Union

TEC - Treaty establishing the European Community

TFEU - Treaty on the Functioning of the European Union

SAAS - Software as a service

EC - European Commission

EEA - European Economic Area

GDPR - General Data Protection Regulation

ECJ – The European Court of Justice

EDPS – European Data Protection Supervisor

EFTA – European Free Trade Association

INTRODUCTION

In the fast paced world of technological developments the data become a valuable resource which is able to give a competitive advantage on the market. Data-driven markets is not completely new market, however the last times, the mostly developed. Data is on high level of importance, and we have observed active development of data protection regulation, new standards which came into force strength regulation in connection with data regulation in EU. From the theory, implementation of new regulation is the answer to the "call" which tremendously arising data market give to the society. When we discussed about data, big data, collection, storage, operations with data, the very first we start considering this from the data protection point of view. However, with the increasing of commercial operations with data, development of media giants, data becomes economic asset.

The more data were collected by technological companies, the more it becomes obvious that data gives competitive advantage for those who operates with data, over the others. Moreover, by holding and processing of data it is even possible to coordinate people's behavior, help them to make decisions based on the information on their own. With the advent of social networks, and digital platforms which can collect information directly from the users, data become a subject of trade. Other businesses in non-digital sphere always want to obtain new customers, and access to the customers from all over the world seems attractive. In such a way data-driven market was created and in a simple words can be considered as a collective concept, which include the main subjects: big data collectors (for example technological companies, data platforms, social networks) which obtain huge amount of data through the interaction with users and other market players.

All this raises a new issue related to the competition between the companies for data, since data start to convert into the revenue. Here the data protection law, which is obviously applicable to the operation with data becomes impossible to regulate issues the nature of which lays below the line of simply data protection. It becomes necessary to apply of the direct competition law rules to the completely new sphere in the competition law.

The relevance of the topic is explained by the several factors which coincide between each other. Firstly, as it was described above – the increasing size of the data-driven markets. Secondly, imperfection of competition law policies for application to the new types of anticompetitive abuses related to obtaining a market power, due to the collection of large amounts of data by fast-growing digital companies. Current situation highlights the

classic problem of the legal theory when the law does not keep up with the technological development of business. Thus, the application of EU competition law to data-driven markets becomes important and need comprehensive analysis.

The aim of this Master thesis is to examine the application of EU competition law to data-driven markets. The primarily objective is to clarify how the current competition policies apply to new forms of anticompetitive conduct related to the collection of data.

To achieve the aim the following tasks were identified, and performed in this work:

1) to determine the nature of data-driven markets;
2) to clarify the concept of market power and its connection with the dominant position of a company in the view of EU competition law;
3) to analyze the legal framework of the operations with data and the intersection of data protection and competition law;
4) to identify the main types of anti-competitive abuses on the data-driven markets.
5) to analyze how the EU competition law applies to conduct of data-driven companies which abuse the market power;
6) to define which mechanisms of competition law, apply to prevent the abuse of market power, through the analysis of the case law;

In the course of research and writing of this paper were used various methods, in particular, methods of descriptive analysis, comparative analysis, and deductive methods. The established task in Master Thesis performed and explained by giving an analysis of the general nature of data-driven markets and then turned to particular violations concerning the collection and usage of data. In this part were used the deductive method. Methods of descriptive and comparative analysis were used during the research of the legislation and case – law. Firstly, we compare the relevant cases and then described the most accurate and actual cases in this work.

The originality of this work lies primarily in determining the nature of data-driven markets and find out how today's antitrust law regulates a new area of legal relations, through the prism of analysis of case law and decisions of the European Commission. This approach makes it possible not only to describe the application of EU antitrust law but also to trace in detail the causal link between the existence of infringements by digital companies.

The main sources of competition law regulation which discussed in this work are the Treaty establishing the European Community, Treaty on the Functioning of the European

Union, The Agreement on the European Economic Area, which address equal rights as well the competition law rules between the EU Members and EE EFTA States. Also, another important, secondary sources of EU competition law is the Directives of the European Parliament and Council, Guidelines of the European Commission, European Parliaments Resolutions. Other sources in this work are the European Commission Decisions and Case law. It is primarily important sources, which is in detail overviewed in this work since many issues addressed regarding the application of EU competition law to data-driven markets go directly from European Commission decisions and Case law. In another word, since the current competition law rules doe did not prescribe the direct regulation, competition policy on the data-driven markets, in this work we take the most outcomes from these sources. Also, for the reason mentioned above, in this work described the various reports of the competition authorities of the EU Member states. As for the doctrine of competition law, in this work we use the experience of such authors as Lennart Ritter, W.David Braun, Torsten Körber, etc. All articles, summaries, monograph used in this work illustrate the actual calls of which issues arised in data-driven markets addressed to competition law.

The main reason for choosing the topic was primarily interest to the new issues faced by EU competition law. Some legal practice and own experience in the competition law sphere brings understanding, that issues related to the data-driven market currently are highly debatable. In this view, it becomes necessary to clarify and provide research in this field.

1. PART I. DATA AS A SOURCE OF DATA-DRIVEN MARKETS

1.1. Chapter I. The nature of data-driven markets

Data-driven markets is a very broad term, which includes many subjects who collect, store, operates with data and make it commercially valuable. Data-driven markets, in the view of competition law, are slightly different from common markets. In this work the term "market" will be used to identify a specific field, where the borders of market identify by its participants - digital businesses, and specific object - data. Those participants, in other words - subjects on the data-driven markets are various digital businesses, online platforms, the work of which mainly based on the multi-sided business models. Obviously that businesses, based on multi-sided business models, which will be widely considered in detail in this work, are not the only subjects on the data-driven markets. However, the activity of such subjects helps to better clarify and make more precise research on the established tasks.

The appearance of multi-sided business models, which offer free internet searches, usage of social networks, access to the online goods and services consequently leads to the issues related to operations with data, "data ownership", the value of data as an economic asset of power[1]. Multi-sided business models, in general, included many participants, in the status of clients (the term "users" will be also used for indication of clients, persons, who use the service, either on a free or on a payment basis), other businesses which are in search for new clients for themselves, or any other third parties, who may benefit somehow from the interaction with multi-sided businesses. Since in this work particularly researched competition law issues related to the data, therefore multi-sided business models are considered in close connection with data-driven markets. In order to clarify the nature of data-driven markets, firstly, it is important to identify interrelations between such terms as "multi-sided business models", "multi-sided platforms" and "data-driven markets" itself.

A multi-sided business model, as it was explained above, is the basis of how multi-sided platforms operate. As it was simply indicated by David S. Evans, "multi-sided platforms coordinate the demand of distinct groups of customers who need each other in

[1] TORSTEN, K. *Data, Platforms and Competition Law.* University of Cologne. ("s.a") [2018]. [interactive]. [reviewed in 06 February 2020]. p. 1. Available at: <https://ec.europa.eu/competition/information/digitisation_2018/contributions/torsten_koerber.pdf>

some way"[2]. Definitely, such platforms connect users across many industries including media, e-commerce, payment systems, online researching, and the most significant, - social networking. The way, how such platforms operates, and the risks, arising from its activity has implications on the "shaping" of competition law and regulatory acts, which define the competition rules for multi-sided business. Some researchers also introduced the term "multi-sided market" on which above-mentioned subjects operates[3]. In our opinion, the term "multi-sided market" is rather general and does not exactly identify a specific type of relations researched in this work.

When it comes to discuss about the multi-sided business models, the insight come first is to define social networks as multi-sided platforms. Obviously, that social networks like Facebook, Twitter, Instagram, LinkedIn, - are great examples of multi-sided platforms. The functional side of this platforms will be discussed later, here it is necessary to clarify, that not only the data collected by such platforms are a part of data-driven markets. It also included other subjects, who collect user's data, for example two-sided platforms, such a payment provider, marketplaces, any other services which collect data or cookies to track user's behavior.

On 19th of January 2019 the European Commission organized the conference named "Shaping competition policy in the era of digitalization" on which were discussed the questions about "digital platforms' market power", competition law and data, digital innovations. During the conference arises the issue about non-obvious way of collection data and analysis of user's behavior, through "digital helpers", smart-home equipment, other hi-tech devices which collect data during interaction with customers. For example, voice control activation, "smart" interactions with home devices helps technological companies to gather information about its customers, and after that such information subsequently becomes a subject of trade. In this way one companies have an impact and competitive advantage over the others which does not have access to unique datasets in such way. To be on one competitive side, the companies strive to collect more and more customers data[4].

[2] S. EVANS, D. *The Antitrust Economics of Multi-Sided Platform Markets.* Yale Journal on Regulation. Vol. 20:325, 2003. p. 325; [interactive]. [reviewed in 10 February 2020]. <https://digitalcommons.law.yale.edu/cgi/viewcontent.cgi?article=1144&context=yjreg>

[3] Ibid, p.325

[4] European Commission. *Conferences "Shaping competition policy in the era of digitization".* Streaming service of the European Commission. Brussels. 2019-01-17. [interactive]. [reviewed in 15 February 2020]. Available at: <https://webcast.ec.europa.eu/shaping-competition-policy-in-the-era-of-digitisation>

This example wider our understanding of the real scope of participants and the ways of data gathering in the data-driven markets. In our view, the only way it is possible to identify the nature of data-driven-markets is to analyze the relations between participants on the market and to identify the source (an object) of such market. The reason, why multi-sided platforms (or digital platforms) seems more engaged and constitute the biggest part of the data-driven markets, is that its activity attract many users simultaneously. Multi-sided platforms collect more information than any other company and can easily influenced the market.

The central role and the way of commercialization and monetization of such business plays data (it is possible to use the wide-spread term "big data"). The data gathered from the customers (users) during their interaction, usage of a product. The point is that multi-sided platforms (including social networks and internet search tools namely "search engines") extract the value of collected data from one users, and "monetize" such data by providing it to the other customers (including businesses). On the other side, there is a reasonable economic point of view, which means that opportunity to collect data in a huge amount to make it commercially valuable subject to significant costs. Meanwhile, in most of cases the possibility to use a service provides generally for free. The amount of costs, which is needed to attract so many customers and accumulate data may prevent other, smaller companies or "new entrants" in the market from usage and collection of such data, since they have no resources for it[5]. Therefore, to obtain such data, and access to the "resource" to generate the money, such smaller market players become a "side", in other word the customers of multi-sided businesses.

The process of functioning of such platforms is that services used by several groups of users and this groups are valuable to each other. To generate value, the service needs to engage one type of users in order to attract another[6]. In the official registration statement of Facebook, Inc. indicated, that there are at least four sides engaged on a platform, namely: 1) users, "who stay connected with their friends and family, to discover what is going on in the world.."; 2) developers which can use social network as a platform for launching software applications and provide integration of websites with Facebook, therefore to generate value; 3) advertisers which have access to "more than 800 million monthly active

[5] Autorite de la concurrence and Bundeskartellamt. *Competition Law and Data*. Joint report, 2016. p.38. [interactive]. [reviewed in 15 February 2020]. Available at: <https://www.bundeskartellamt.de/SharedDocs/Publikation/DE/Berichte/Big%20Data%20Papier.pdf?__blob=publicationFile&v=2>

[6] S. EVANS, D. (no.2), p.328

users on Facebook or subsets of users based on information they have chosen to share…"[7]; 4) Facebook as a platform, which provide services for all above mentioned categories of users.

The data is the initial element of data-driven markets. In general, data is "information in digital form that can be transmitted or processed", another definition states that data "includes both useful and irrelevant or redundant information and must be processed to be meaningful"[8]. As it was already mentioned, multi-sided platforms transform collected data to make it valuable. That brings us to the point, that on the data - driven market all data is valuable, since further it will be transformed and processed. Considering the amounts of data, processed by digital platforms we can assume and call it "big data". European Parliament Resolution of 14 March 2017 on "Fundamental rights implications of big data" in the paragraph A states that "big data refers collection, analysis and the recurring accumulation of large amounts of data, including personal data, from a variety of sources, which are subject to automatic processing by computer algorithms and advanced data-processing techniques using both stored and streamed data in order to generate certain correlations, trends and patterns (big data analytics)"[9]. The European Parliament Resolution, on our point of view, identify some key features, which accurately characterize modern reality in relation to big data. In paragraph "F" the Resolution states that "increasing number of corporations, businesses, bodies and agencies, governmental and non-governmental organizations (as well as the public and private sectors in general), political leaders, civil society, academia, the scientific community and citizens as a whole have taken advantage of such data sets and big data analytics to bolster competitiveness, innovation, market predictions, political campaigns, targeted advertising, scientific research and policymaking in the field of transport, taxation, financial services, smart cities, law enforcement, transparency, public health and disaster response, and to influence elections and political outcomes through, for instance, targeted communications"[10]. This insight can help us to understand that data-driven market covers huge amounts of data, which used not only for commercial purposes, but also to contribute in the public welfare.

[7]United States Securities and Exchange Commission. *Registration statement of Facebook,Inc.* 2012-01-02. p.1.[interactive]. [reviewed in 15 February 2020]. Available at: <https://www.sec.gov/Archives/edgar/data/1326801/000119312512034517/d287954ds1.htm>

[8] Merriam-Webster Dictionary. *Definition of data.* ("s.a") [interactive]. [reviewed in 20 February 2020]. Available at: < https://www.merriam-webster.com/dictionary/data>

[9] European Parliament. *Resolution of 14 March 2017 on fundamental rights implications of big data: privacy, data protection, non-discrimination, security and law-enforcement.* Official Journal of the European Union, 2018/C 263/10. § A

[10] Ibid, § F

Meanwhile, processing of data help to optimize business efficiency, and provide an advantage in competition and decision-making process[11]. The process of digitization enables such companies to collect, store, analyze and make commercially valuable outputs of the received data. As a result, many companies on the market commercialize the data, including the personal data of its customers. It brings significant economic potential, opportunity to create new services, optimize production and even reduce costs of some business activities[12].

Many analytical and legal resources, including official reports of local competition authorities of different European countries elaborate on the question for categorization of data, identifying types of data and so on. Generally, there are many different types of data, as well as many different sources and ways for collection of data by companies. Obviously, companies mostly use and process personal data, while the users register on the digital platforms, use e-commerce services or smart-home devices. According to the Article 4 (1) of the General Data Protection Regulation "'personal data' means any information relating to an identified or identifiable natural person ('data subject'); an identifiable natural person is one who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person" [13].

Together with this, as it was defined in the Report (No.68, from 2015) of The Monopolies Commission of Germany "personal data may be roughly broken down into content data and inventory, traffic and usage data. Content data primarily includes data that the users provide deliberately, and mostly voluntarily, when using online services. Inventory, traffic, and usage data is by contrast frequently generated and collected without users' knowledge. It serves among other things to first facilitate online services technically and is frequently generated as a by-product of the interaction between users and the

[11] Ibid, § H

[12] LASSERRE, B.; MUNDT A. *Competition law and big data: the enforcers` view.* The New Frontiers of innovation and Competition, Big Data Debate. N.1, 2017. p.87-88. [interactive]. [reviewed in 20 February 2020]. Available at: <https://www.bundeskartellamt.de/SharedDocs/Publikation/EN/Fachartikel/Competition_Law_and_Big_Data_The_enforcers_view.pdf?__blob=publicationFile&v=2>

[13] The European Parliament and The Council. Regulation (EU) 2016/679 of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation).Official Journal of the European Union, L 119/1, 2016-04-05. Article 4 (1)

service"[14]. Data could automatically gather by using cookies. There is no definition of "cookies" in the legislation yet, however some legal acts, including the General Data Protection Regulation, the European Parliament and the Council Directive on privacy and electronic communications[15], mentioned this term, without clarifying the definition. In general, cookies constitute a text files, with placed on user's device while browsing the web. Cookies store a lot of data about users, their "behavior" on the websites and digital platforms, remember user's choice, etc. All this information subsequently used for target advertisement, since cookies can store user's personal data, - they subject to privacy regulation and those all companies who collect cookies subject to GDPR compliance[16].

Multi-sided or digital platforms, for example, a well-known giants like Google, Inc., Facebook, Inc., Microsoft Corporation, fully or partially provide free services to its users, and in exchange receive commercially valuable users data, which subsequently analyzed and processed by this companies. The point is, that users solely grant permission for the multi-sided platforms to collect, use, store, analyzed and even transfer such data. On the official website (as well as through mobile application) of social network Instagram, the parent company of which is Facebook, Inc., we can become familiar with the terms of how Instagram collect and use customers' data for advertisement. With the aim to show customized advertisement from relevant businesses, Instagram collect and use information on what users do on Instagram and Facebook, and on third-party websites or mobile applications[17].

There are several aspects which explains the grounds on which user's data is commercialized and showed us overall economic importance of data. One of the aspects is that treatment of data become very similar to the treatments of goods, and, therefore, now data is the object of contractual relations and some kind of "product on the market"[18]. The great example of this - Thomson Reuters. This company owns datasets, combines data collected through its own practice, and from the public, government, or third-party resources. After the processing, analyzing, of such data, Thomson Reuters transform it in

[14] The Monopolies Commission of Germany. *Competition Policy: The challenge of digital markets.* Special Report No.68, 2015. §74, p. 29. [interactive]. [reviewed in 2020. 25 February]. Available at: <https://www.monopolkommission.de/images/PDF/SG/s68_fulltext_eng.pdf>

[15] The European Parliament and of Council. Directive 2002/58/EC of 12 July 2002 concerning the processing of personal data and the protection of privacy in the electronic communications sector (Directive on privacy and electronic communications)

[16] KOCH, R. *Cookies, the GDPR, and the ePrivacy Directive.* GDPR.EU. ("s.a"). ([interactive]. [reviewed in 25 February 2020]. Available at: <https://gdpr.eu/cookies/>

[17] INSTAGRAM, Inc. *How does Instagram decide which ads to show me?* Official website. ("s.a"). [interactive]. [reviewed in 25 February 2020]. Available at: <https://help.instagram.com/173081309564229>

[18] TORSTEN, K. (no.1), p.2

commercial database, can further sell it, since such data obtain copyright through it transformation. This example is not closely related to personal data, however, illustrates us, how the data-driven market works.

The second point is that data can be treated as some sort of "Internet currency" in the view of relations between the users and multi-sided platforms[19]. As it was indicated above, some of the data-driven businesses, especially social networks like Facebook, or huge technological companies like Microsoft, Inc., offer free services for its users, but in exchange they received enormous amount of users data. Such way of interaction have several consequences, which may affect all participants of multi sided - platform. The users receive free services, the business received big data which will be subsequently commercialized.

The third economical point is that generation of data in the "hands" of one market player helps to improve business itself based on the human interests, behaviors, involvement in using a particular social network, technological products, or internet search platform. Analysis of received data helps to optimize all offered services and therefore to increase profits[20].

Another aspect, which is also important in the view of application of the EU competition law, is that concentration of data (which also means users generation as data "suppliers") by one "market player" has significant effect on the others. On the one hand, market players who generate a lot of data, and gathered a lot of users attract for cooperation other businesses, in other words "sell" access to users' data. Here we generally have "win-win" situation, when the multi - sided platform received revenues from commercialization of data, businesses have access to data, and users receive advertisement, better service, and customized offers to various goods and services. Such cooperation not always bring welfare for all participants, and at the last times more often constitute violation of the EU competition law. Companies by collection of big data often obtained a market power, which has consequences in the view of restrictions in access to data for other market players or competitive advantages for big data holders.

[19] TORSTEN, K. (no.1), p.2
[20] TORSTEN, K. (no.1), p.2,3

1.2. Chapter II. Data as a subject of market power

From the first side it seems that operations with data and potential violations related more to the data protection law, than to the competition law. Indeed, competition law is not directly applicable to the data protection, however, the data can be an object, which considered as a ground for violation of competition law. There are different actions which can be treated as violations of competition law. Professor Fiona M. Scott Morton during her speech on the conference "Shaping competition policy in the era of digitalization" said that "market power of digital platforms affects the consumer choice and producer options. The large shift in the technological frontier lead to the fact that antitrust regulation is not ready for the new forms of digital competition, and the consequence of this is under-enforcement"[21].

As it was mentioned in the previous sub-chapter, huge amounts of data collected may lead to the market power of the company in a specific sector of data-driven markets. In a simple word, market power characterized a dominance position of a company in the view of how much data its own. However, looking ahead, dominant position in relation to the market power could not be considered as a violation itself, therefore, we cannot focus our attention only on the amount of data hold by the company. Professor Torsten Körber from University of Cologne give an example, it is not possible to say, that if company A collected 90 percent of data of the customers in a particular economic sector (for example search engines), it automatically breach the law. One more point, is that not just rough data are taking into account when considering market power. As a rule, companies which has a market power in data sector, analyzed the "first party" data (which obtain directly from users), processed it and obtain quality and valuable data[22].

Market power takes place in those cases, where the amount of collected data gives opportunity for a company to benefit from the dominance position. In other words, the presence of power indicates, that company potentially can have anticompetitive conduct[23]. There are many ways to generate data, from direct collection or receiving data from the third parties, to obtain it through the procedure of merger and acquisition. By analyzing the nature of market power in data-driven markets in many legal and scholarly resources, we can conclude, that before concentration of big data, companies might comply with

[21] European Commission. *Conference "Shaping competition policy in the era of digitization".* (no.4)
[22] TORSTEN, K. (no. 1), p.3
[23] S. EVANS, D. (no. 2), p.356

competition law rules to exclude potential violations. The variety of data on the market, helps to foster competition and, as it was mentioned above, the access to big data helps to improve the quality of the services, make it possible to commercialize the data[24]. However, some issues can arise depending on the activity of the company which owns the data. In this view, the amount of collected data plays a big role, and can lead to the violations which will be further discussed in this work.

Imagine that there are several companies on the market on the same economic sector. Company A collected huge amount of data, including first party data or third-party data, attract users by providing free (or partially free) services. Company B is a relatively small enterprise, which does not have such number of users, therefore collect less data, despite the fact of offering the same services in the same economic sector. The point is that company B want to extend its business, but it seems impossible, because of the anticompetitive behavior of Company A, which presumably does not share valuable information, obtained from its customers. Considered the amount of data collected by Company A, it is possible to constitute a market power, that creates an obstacles for Company B to take a market share, and barriers for other new companies even to enter on the market. Company B is not able to gather data in such volume to raise on a "position" as the Company A already established on the market[25]. Such behavior "breach" a market transparency, makes an impact on competition, and becomes possible from the dominance position on the market. Thus, market power in data-driven markets become possible by the collection and processing of huge amounts of data. The data is a source of market power in the data-driven markets.

According to the paragraph 1 of the Article 102 of the Treaty on the Functioning of the European Union (ex-Article 82 of the Treaty establishing the European Community) "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"[26]. Paragraph 1 of the "Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings" (issued by European Commission) states that it is not a violation for undertaking to be in a dominant position and to compete in such dominant position. Behind this, it is on the responsibility of undertaking not to resort to

[24] Autorite de la concurrence and Bundeskartellamt. (no.5), p.11
[25] Autorite de la concurrence and Bundeskartellamt. (no.5), p.11-12
[26] Consolidated version of the Treaty on the Functioning of the European Union. Official Journal of the European Union, C 326. 2012-26-10. Article 102(1)

illegal actions and antitrust abuse on the common market[27]. In this view, Article 82 of TEC and Article 102 of TFEU established types of abusive, anticompetitive practice, which shall be further investigated and developed by European Commission as responsible body for competition enforcement, and local Competition Authorities.

Prior to constitute a violation of competition law, many aspects should be considered. During deep analysis of the different sources and recommendation, we can conclude that currently there is no unique approach to identify exact number of features regarding operations with big data, to constitute illegal actions. Each case will be considered separately, however based on the legal precedents (cases) and some recommendations of competition authorities, we can conclude some basic standpoints.

The factors discussed above includes accessing by competition authorities, whether data collected by a company leads to the market power of such company. In any case, data and its processing create a value, therefore it is necessary to evaluate economic advantage which collected data provides. Data can be collected from the different sources, that is why the differentiation of "first party" or "third party" data applies. It goes without saying, that nowadays absolutely all businesses understand the value of data gathering and analysis, however, not all companies have broad access to data. As our research showed, online service providers, search engines, social networks, SAAS service providers, - all these subjects often have broader access to data than others, since the number of users is greater. One of the situations, which can potentially lead to the market power and constitute a risk of competition law violations is the procedure of merger and acquisition of data-driven companies. Local Competition Authorities, as well as European Commission pays high attention to data-driven mergers[28].

1.3. Chapter III. Examination of data-driven mergers by EC Commission, as an example of prevention the market power

To better understand how the mergers, intersect with market power, we will refer to the case law. In Case 27/76 "United Brands Company and United Brands Continentaal versus Commission", in paragraph 65 the Court admit that the dominant position "relates to a position of economic strength enjoyed by an undertaking which enables it to prevent

[27] European Commission. *Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings (Text with EEA relevance).* Communication. Official Journal of the European Union, C 45. 2009-24-02. §1

[28] Autorite de la concurrence and Bundeskartellamt. (no.5), p.26

effective competition being maintained on the relevant market by giving it the power to behave to an appreciable extent independently of its competitors, customers and ultimately of its consumers"[29]. Therefore, acquisition of more data enable company to control the market, and moreover, some companies, especially multi-sided platforms intentionally come to the merger in order to gain control on the more amount of data, and take dominance position on data-driven market.

Dominance position on the market is also closely related to the concentration, which is a crucial point, prior accessed by undertakings, and further, if necessary, by the European Commission. According to the paragraph 1 of Article 57 of the Agreement on the European Economic Area "concentrations…which create or strengthen a dominant position as a result of which effective competition would be significantly impeded within the territory covered by this Agreement or a substantial part of it, shall be declared incompatible with this Agreement". According to the paragraph 2(a) "the control of concentrations falling under paragraph 1 shall be carried out by: the EC Commission in cases falling under Regulation (EEC) No 4064/89 in accordance with that Regulation and in accordance with Protocols 21 and 24 and Annex XIV to this Agreement. The EC Commission shall, subject to the review of the EC Court of Justice, have sole competence to take decisions on these cases"[30]. The most famous cases which examined relation to the mergers are Google and DoubleClick merger[31], Facebook and WhatsApp merger[32], Microsoft and Yahoo! Inc. merger[33], etc.

According to paragraph 1 Article 4 of the Council Regulation on the control of concentrations between undertakings, "concentrations with a Community dimension defined in this Regulation shall be notified to the Commission prior to their implementation and following the conclusion of the agreement, the announcement of the public bid, or the acquisition of a controlling interest"[34]. Therefore, companies (jointly or those company which acquires control over the other) which are going to merger or acquisition and have

[29] Judgment of the Court. 14 February 1978. Decision United Brands Company and United Brands Continentaal BV/Commission of the European Communities C-27/76. ECLI:EU:C:1978:22. §65

[30] Agreement on the European Economic Area. Final Act. Official Journal of the European Union, L 001. 1994-03-01. Article 57(1), Article 57(2a)

[31]Commission of the European Communities. 11 March 2008. Decision declaring a concentration to be compatible with the common market and the functioning of the EEA Agreement. Case Google/ DoubleClick, No. COMP/M.4731

[32] Commission of the European Communities. 17 May 2017. Decision imposing fines under Article 14(1) of Council Regulation (EC) No. 139/2004 for the supply by an undertaking of incorrect or misleading information. Case Facebook / WhatsApp, No. M.8228

[33] European Commission. Regulation (EC) No 139/2004 Merger Procedure. Case Microsoft/ Yahoo!, No COMP/M.5727. 2010-18-02

[34] Council of the European Union. Council Regulation (EC) No. 139/2004 of 20 January 2004 on the control of concentrations between undertakings (the EC Merger Regulation). Official Journal of the European Union, L 024. 2004-29-01. Article 4(1)

reasons to assume, that such actions could lead to concentration in the EU market shall notify European Commission prior to make a deal. Analysis of case Google and DoubleClick merger show us some issues arose when it comes to deal with a market power. As it goes from the case "both Google and DoubleClick are active in the "online advertising" industry. In this sector the main players are on the one hand, web publishers selling advertising space on their internet pages in order to generate revenues, and on the other hand, advertisers, who buy such space in order to place their advertisements ("ads") on the internet and target the audience of internet users". [35] Both companies accumulate huge amounts of data, meanwhile Google provide powerful search engine, and DoubleClick provide advertising services. Such merger raised concerns of competitors like Microsoft and Yahoo!, that it can significantly impact competition, or even eliminate other competitors from the market, since Google will obtain strengthen its market power and abuse competition[36]. However, the EC Commission states that "competition based on the quality of collected data thus is not only decided by virtue of the sheer size of the respective databases, but also determined by the different types of data the competitors have access to and the question which type eventually will prove to be the most useful for internet advertising purposes"[37]. "In this regard it must be noted that the combination of data about searches with data about users' web surfing behavior is already available to a number of Google's competitors today"[38]. Thus, in the end EC Commission decided that there is no concentration and abuse of market power.

In a joint Report "Competition Law and Data", issued by the local competition authorities Autorite de la concurrence (France) and Bundeskartellamt (Germany) was indicated one more relevant factor, which affect market power, - "multi-homing"[39]. In a broad sense, users can use various digital platforms (for example different social networks like LinkedIn or Facebook alternatively) to access to the same or related services. In such situation, the same customers data can be used several times by different market players. In the abovementioned Report local authorities referenced to the work of David S. Evans, Richard Schmalensee, and Mark Armstrong, who argued that multi-homing can lead to the reduction of market power[40]. We come to the point, that it is partially true, since indeed we

[35] Case Google/ DoubleClick, No. COMP/M.4731 (no.31), §8, p.6
[36] Case Google/ DoubleClick, No. COMP/M.4731 (no.31), §357, p. 95
[37] Case Google/ DoubleClick, No. COMP/M.4731 (no.31), §273, p. 71
[38] Case Google/ DoubleClick No COMP/M.4731 (no.31), § 365, p. 96
[39] Autorite de la concurrence and Bundeskartellamt. (no.5), p.28-29
[40] S. EVANS, D.; SCHMALENSEE R. *The Industrial Organisation of Markets with Two-Sided Platforms*. Competition Policy International, Vol. 3, Nr. 1. 2007. p. 151-179; Armstrong, M. *Competition in two-sided markets*. RAND Journal of Economics, Vol. 37, Nr. 3. ("s.a"). p. 668-691

have an example of Google/DoubleClick case, where the EC Commission take into account the availability of the same data (which potentially could create a market power after the merger), to Google competitors. Therefore, during the evaluation of market power by the competition authorities, the multi-homing factor and assessment of competitors to the same datasets (at list in the form of the "first party data") shall be considered. On the other side, in our point of view even in case of presence of multi-homing factor there is still possibility to obtain a market power by a company. There are various factors which can lead to the violation of law, for example, price discrimination, restrictive contractual provision between digital companies which violate competition law and create barriers to the competitors.

Thus, to conclude the results of the provided research in Part 1 of this work it is necessary to point out that data-driven market is a broad definition. We clearly defined that data-driven markets covers specific sector of collection, processing, analyzing, and transferring of huge amounts of data. The subject who operates with data are data driven companies, multi-sided (digital) platforms, which gathered data mainly through the interaction with customers while offering free services. In that view, the data become some sort of "Internet currency" and data-driven companies strive to obtain a market power in order to take leading position on a market. However, such situation often leads to violations of competition law. While analyzing the case about Google and DoubleClick, we come to the point that factor of access to the same data of other market players (competitors) foster competition. Such feature as availability of the same data to competitors, multi-homing factor, the behavior of the company who owns big data shall be passed by competition authorities while examining the violation of competition law.

PART II. LEGAL FRAMEWORK OF OPERATIONS WITH DATA

2.1. Chapter I. Operations with data as a subject of EU competition law

European Parliament in its Resolution of 14 March 2017 "Fundamental rights implications of big data" in the paragraph "K" elaborate to the fact, that the volume of the big data sector is constantly growing approximately on 40% per year. Meanwhile, such concentration of data can lead to the power in the hands of corporations, which therefore can "consolidate monopolies and abusive practices and have a detrimental effect on consumers' rights and fair market competition".[41] Indeed if we transformed the percentage of data-driven market growth into the revenue which received by companies from the collection and usage of data, we can see the market estimated in the billions of US dollars. For example, the research of private US company Statista, Inc. shows "big data market size revenue forecast" on the 2011-2027 years, where by 2027 the projected revenue on the big data market will reach 103 billion of U.S. dollars worldwide. As it shown on the Figure No.1, placed in the Annex No. 1 to this paper, in 2020 big data market is evaluated approximately in 56 billion U.S. dollars and will be increased almost twice to 2027.[42]

Such statistics gives us understanding of primarily importance of competition law regulations on the data-driven markets, operations with data shall comply not only with data protection laws, since data has economic value. In necessary to admit, that legal regulation of data collection lay on the intersection of data protection and competition law. It is not obvious from the legal regulation, since traditionally law defined in a strict manner. As for the data protection, paragraph 1 in the Article 16 of the TFEU prescribes that "everyone has the right to the protection of personal data concerning them". Paragraph 2 prescribes "free movement of data"[43]. The latest updates to the data protection law was the adoption of the General Data Protection Regulation, the aim of which, according to the paragraph 1 of the Article 1, is to "lay down rules relating to the protection of natural persons with regard to the processing of personal data and rules relating to the free movement of personal data"[44]. The fundamental competition rules prescribed in the

[41] European Parliament Resolution. (no.9), § K
[42] HOLST, A. *Big data market size revenue forecast worldwide from 2011 to 2027.* Statista, Inc. 2018. [interactive]. [reviewed in 04 March 2020]. Available at:<https://www.statista.com/statistics/254266/global-big-data-market-forecast/>
[43] Consolidated version of the Treaty on the Functioning of the European Union. (no.26), Article 16(1-2)
[44] General Data Protection Regulation (no.13), Article 1(1)

Articles 101-109 of the TFEU[45], however these rules were originally adopted in the Articles 81-89 of the Treaty establishing the European Community[46]. Also, regulation of competition matters stated in the Agreement on the European Economic Area, whereas the paragraph 1 of the Article 1 describes the aim "to promote a continuous and balanced strengthening of trade and economic relations between the Contracting Parties with equal conditions of competition"[47]. Other competition law articles, which were already mentioned in this work, related to the dominance position of a companies, abusive or restrictive behavior of undertakings, and almost copy the provisions of the TFEU. This short overview of the fundamental regulation brings us to the point, that data protection law is more related to human protection, while competition law primarily regulates the activity of entities, to promote the equal rules for competition. On the other side, one of the aims of establishing competition policy for companies remain the same, as for data protection law, - protection of the rights of consumers.

While researching the doctrinal point of view concerning the intersection of the data protection law and competition law application to the operations with data, we found out the position of Peter Swire (privacy and cyber law professor). He elaborates the point that breach of privacy can harm consumers welfare, which is on the other side – constitute an aim of competition law. "Privacy harms can lead to a reduction in the quality of a good or service, which is a standard category of harm that results from market power. Where these sorts of harms exist, it is a normal part of antitrust analysis to assess such harms and seek to minimize them"[48]. On our point of view, not always the existence of market power means "reduction in the quality of a good or service", as Peter Swire defines in his opinion. Obtaining a market power can even lead to better offerings, while access to big data helps to better customize service for its customers or propose a wider scope of services. However, market power may influence competitors, restrict competition on the market. The point that with the growing of data-driven markets and operations with data, which in the past mainly regulated only by data protection law, the new forms of abusive practice comes out. Therefore, now the operations with data lay out on the intersection of data protection and competition law.

[45] Consolidated version of the Treaty on the Functioning of the European Union. (no.26), Article 101-109
[46] Treaty establishing the European Community. Official Journal of the European Union, C 325. 2002-24-12. Article 81-89
[47] Agreement on the European Economic Area. (no.30), Article 1(1)
[48] SWIRE, P. *Protecting Consumers: Privacy Matters in Antitrust Analysis.* From Center for American Progress. 2007-19-10. [interactive]. [reviewed in 04 March 2020]. Available at: <https://www.americanprogress.org/issues/economy/news/2007/10/19/3564/protecting-consumers-privacy-matters-in-antitrust-analysis/>

On the other hand, competition law cannot apply to the direct data protection infringements. For example, in the Case C-238/05 "Asnef-Equifax and Administraticion Del Estado" one of the questions which were referred to the European Court of Justice was "whether the exchange of information on customer solvency and default may be regarded as compatible with the common market in credit and have the effect of restricting competition in the financial and credit institutions sector"[49]. The matter of this case was related to both data protection and competition law. In the paragraph 60 ECJ states that the market of financial services "are not highly concentrated" and "access to use of the information by financial institutions are not discriminatory", therefore the ECJ ruled, that by sharing information on this market it is not possible to restrict competition in the view of article 81(1) of the Treaty establishing the European Community. Here we can simultaneously provide the parallel with already described case about Google and DoubleClick merger, where the European Commission constitute absence of competition law violation, since the data was accessible to other competitors. The matter of this cases is totally different, however the fact that access to data on the market plays significant role is common.

Moving back to the application of competition law, the Court in the paragraph 63 of its judgment states that "any possible issues relating to the sensitivity of personal data are not, as such, a matter for competition law, they may be resolved on the basis of the relevant provision governing data protection"[50]. Thus, the line, on what issues is regulated by competition law is clearly stated.

The same position was clarified by the European Commission in the case No. COMP/M.7217 of the Facebook and WhatsApp merger. The European Commission received a notification about possible concentration, where Facebook, Inc. acquires the whole control of WhatsApp, Inc. by the purchase of its shares. This case will be further discussed in detail, since contain specific rules and outcomes concerning applying competition law to data-driven markets. Here we use this case to clarify the applicability of competition law to the operations with data. In the paragraph 164 European Commission states that "any privacy-related concerns flowing from the increased concentration of data

[49] Judgment of the Court. 23 November 2003. Decision Asnef-Equifax and Administraticion Del Estado, C-238/05. §11
[50] Ibid. § 60,63

within the control of Facebook as a result of the transaction do not fall within the scope of the EU competition law rules but within the scope of the EU data protection rules"[51].

Competition authorities Autorite de la concurrence (France) and Bundeskartellamt (Germany) in their Report "Competition Law and Data", to which we have already addressed in the Part I of this work, mentioned, that "even if data protection and competition laws serve different goals, privacy issues cannot be excluded from consideration under competition law simply by virtue of their nature. Decisions taken by an undertaking regarding the collection and use of personal data can have, in parallel, implications on economic and competition dimensions. Therefore, privacy policies could be considered from a competition standpoint whenever these policies are liable to affect competition, notably when they are implemented by a dominant undertaking for which data serves as a main input of its products or services"[52]. By analyzing the abovementioned statements, we also try abstract from the "mix" of competition law and law which directly regulates data. From the one side, we have the only operations with data or datasets, which is completely covered by data protection law. On the other side, we have the activity of the undertakings potentially violate competition law through anticompetitive conduct. The point is that data lay in the middle of both spheres of law (in the course of discussion about application of the competition law to data-driven markets), but the sides to which that law applies are different. We cannot apply competition law simply to data protection violations, but only if some anticompetitive conduct arises during operations on data-driven markets, - competition law shall be applicable.

In the Preliminary Opinion of the European Data Protection Supervisor (the EDPS), published on March 2014, were considered crucial questions for the interrelations between data protection and competition law in digital economy. The EDPS is the EU "independent data protection authority". In general, the mission of the EDPS "is to monitor and ensure the protection of personal data and privacy when EU institutions and bodies process the personal information of individuals"[53]. In the abovementioned Preliminary Opinion, the EDPS elaborate on the position that in the digital economy three spheres are interrelated, namely competition law, data protection law, and consumer protection law. "EU principles and rules on data protection, competition and consumer protection have been designed to

[51] European Commission. Regulation (EC) No 139/2004 Merger Procedure. Case Facebook/ WhatsApp, No. COMP/M.7217. 2014-03-10. § 1, 164

[52]Autorite de la concurrence and Bundeskartellamt. (no.5), p. 23

[53]European Data Protection Supervisor. *About European Data Protection Supervisor.* Official Website. ("s.a"). [interactive]. [reviewed in 10 March 2020]. Available at:< https://edps.europa.eu/about-edps_en >

promote a thriving internal market and to protect the individual. Greater convergence in the application of these policies could help meet the challenges posed by the big data economy"[54]. As is goes from the nature of data-driven markets, it is closely connected to the digital economy. We also conclude that digital economy correlates with data-driven markets as "general" and "concrete". It means that the digital economy includes all commercial relations connected with technological developments, big data, and data-driven markets. As for the interrelation with consumer protection, in our point of view it is indeed connected, but not directly. Rather the consumer protection aspect is a derivative of the competition aspect. Again, in this work the aspects of the interrelated spheres of law, as well as application of such law is assessed and considered in connection to data-driven markets.

The Monopolies Commission of Germany in the Report No 68 "Competition Policy: The challenge of digital markets" outlined that data protection regulations can indirectly influenced the competition. It states that "in competition-policy terms, it should be noted that the relative rigor of data protection law can impact companies' competitiveness, and hence also their innovativeness. Where the ability to collect and evaluate large data stocks is vital to success in competition, companies that are subject to less stringent data protection standards are likely to have a competitive advantage. It may be basically presumed that companies will make use of the opportunities granted to them to collect and process data. As such, competition to maintain higher data protection standards is also conceivable, but so far at least such competition tends to be more the exception than the rule"[55]. From the first side it is not obvious that rigor of data protection rules can influence the competition. We suppose that situation where the company used more favor data protection regimes to collect more data to obtain a better position over its competitors, can potentially constitute anticompetitive conduct. It is hard to imagine, that in the EU will be in force non-harmonized rules for data-protection or competition law. According to the paragraph 1 of the Article 7 "the Union shall ensure consistency between its policies and activities, taking all of its objectives into account and in accordance with the principle of conferral of powers"[56].

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[54] European Data Protection Supervisor. *Privacy and competitiveness in the age of big data: The interplay between data protection, competition law and consumer protection in the Digital Economy.* Preliminary Opinion, 2014. p.2, 6. [interactive]. [reviewed in 11 March 2020]. Available at: <https://edps.europa.eu/sites/edp/files/publication/14-03-26_competitition_law_big_data_en.pdf>

[55] The Monopolies Commission of Germany. *Competition Policy: The challenge of digital markets.* Special Report No.68, 2015. § 93, p.33. [interactive]. [reviewed in 15 March 2020]. Available at: <http://www.monopolkommission.de/images/PDF/SG/s68_fulltext_eng.pdf>

[56] Consolidated version of the Treaty on the Functioning of the European Union. (no.26), Article 7(1)

3. Part III. Anticompetitive activities on data-driven markets. Case-law

3.1. Chapter I. Importance of the market definition

The very first step which courts shall consider while analyzing the case concerning anticompetitive conduct is the definition of the relevant market. This point also goes from the Article 82 of the TEC, provided that "any abuse by one or more undertakings of a dominant position within the common market or in a substantial part of it shall be prohibited as incompatible"[57]. Market definition helps to identify "the boundaries, the 'arena' of competition between the parties, such as actual or potential competitors, customers or suppliers"[58].

Data-driven markets are, in other words, a sector of a digital economy, shall be analyzed concerning each case of potential infringement. European Commission issued a "Notice on the definition of relevant market for the purposes of Community competition law", where in the paragraph 2 states that market definition aims "to establish the framework within which competition policy is applied by the Commission. The main purpose of market definition is to identify in a systematic way the competitive constraints that the undertakings involved face. The objective of defining a market in both its product and geographic dimension is to identify those actual competitors of the undertakings involved that are capable of constraining those undertakings' behavior and of preventing them from behaving independently of effective competitive pressure. It is from this perspective that the market definition makes it possible inter alia to calculate market shares that would convey meaningful information regarding market power for the purposes of assessing dominance"[59].

Therefore, as the European Commission states, to define the market it is necessary to evaluate "product and geographic dimension", potential competitors, "calculate market share" to access dominance on the market. As regards to application of competition law to data-driven markets, we can assume that it is necessary to take into account the amounts of data collected, the access to such data of the other market participants, how the generation of data influenced the market, whether there are no infringements of the rights of customers.

[57] Treaty establishing the European Community (no. 46), Article 82
[58] RITTER, L.; DRAUN, W.D. *European Competition Law. Practitioner's Guide. Third edition.* Kluwer Law International. ("s.a"). p.24
[59] European Commission. Notice on the definition of relevant market for the purposes of Community competition law. Official Journal of the European Communities, C 372/5.1997-09-12. §2

To sum up the definition of market, in the ECJ Judgment concerning joined cases T-68/89, T-77/89 and T-78/89 "Società Italiana Vetro SpA, Fabbrica Pisana SpA and PPG Vernante Pennitalia SpA v Commission of the European Communities", the Court considers, "that the appropriate definition of the market in question is a necessary precondition of any judgment concerning allegedly anti-competitive behavior. Even if the Commission is not required to discuss in its decisions all the arguments raised by the undertakings, the Court considers that, having regard to the arguments of the applicants, the Commission ought to have examined more fully the structures and the functioning of the market in order to show why the conclusions drawn by the applicants were groundless"[60]. In our point of view, the definition of the market is particularly important while defining the anticompetitive conduct on the data-driven markets. As we defined in the first part of this work data-driven market is a sector, which includes from the one side the digital businesses and on the other – the customers. The center of this market is data. Considering multi-homing feature, which means that initial data can be shared to the different platforms and thus different platform providers can have access to such data, it will be impossible to constitute the violations of competition law without evaluation of the market, whether the one market players suffer from the activity of others.

3.1. Chapter II. Network effect and potential anticompetitive conducts

Simply collection of data on the market through offering services on the multi-sided platforms start the process of establishing the connection with the users, gathering a certain type of data, processing such data, and creating a unique datasets. On this level of growth, the companies often try to strengthen its positions on the market, since already take a part of market share. On the other side, users also become in some way dependent from the service, since already provide some amount of information, share data, make the efforts during the interaction with the service. In the competition law practice, it is called "network effect". The network effect can occur in different ways and generally it plays a big role for digital companies, which strive to obtain new customers and keep the attention of the already existing. Network effect depends on the number of users, in other words the more customers use the service, the more new customers will be attracted. Therefore, in case we

[60] Judgment of the Court of First Instance (First Chamber). 10 March 1992. Case Società Italiana Vetro SpA, Fabbrica Pisana SpA and PPG Vernante Pennitalia SpA v Commission of the European Communities. Joined cases T-68/89, T-77/89 and T-78/89. § 159

have a multi-sided platform, the existence of network effect will also attract more advertisers, since datasets are valuable asset.[61]

There are plenty of scientific works and researches over the implication of network effect on the competition law. Nowadays, as an example of services which has networks effect can be the Slack corporate messenger, Airbnb booking service, Apple iTunes, and other cloud based or social network services. The situation, which we described above about users' attraction is considered as indirect network effect. In the Harvard Business Review analytical article provides an example that users receive more "benefits as more of another type of users joins a platform". The author of the article, Catherine Tucker, also elabolate to the point that "for example, AirBnB would not be useful for travelers if there were no apartment-owners using the platform. Similarly, home-owners would not want to use AirBnB if travelers weren't using it to find a place to stay".[62] The indirect network effect have also positive sides, since it helps to improve the quality of service, save convenience for users. However, each case might be accessed individually, since companies often intentionally creates network effects which as result affect the competitors – by creation of barriers to entry of the market, or users – through the price discrimination or increasing switching costs. Digital companies often create such a conditions of using services, where a user, who what to change the service provider will faced the "switching cost". Imagine, some cloud platform where the user uploads some information for save purposes, and then, by deciding to change service provider faced obstacles on how to transfer data from one place to another. Thus, if some features, which connect customers to a particular service provider raised, it can be the ground for constituting anticompetitive conduct. More often it is become possible when a company has dominance position on the market.[63] According to the Article 82 of TEC prescribes the following types of competition abuse of the dominant position such as:

"(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;

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[61] GRUNES; ALLEN P. *Another Look at Privacy.* George Mason Law Review, Vol. 20 No. 4, 2013. p.1120, 1123. [interactive]. [reviewed in 20 April 2020]. Available at: <https://ssrn.com/abstract=2309713>

[62] TUCKER, C. *Why network effects matter less that they used to.* Harvard Business Review. [interactive]. [reviewed in 25 April 2020]. Available at: <https://hbr.org/2018/06/why-network-effects-matter-less-than-they-used-to>

[63] Autorite de la concurrence and Bundeskartellamt. (no.5), p.13, 27-30, 38

(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"[64].

Addressing to the theory of the competition law, Lennart Ritter and W.David Braun elaborate on the different types of abuse, which goes from the Article 82 of TEC. Thus "the main categories of abuse are: Exploitative Abuses, Exclusionary Abuses, Structural Abuses". The exploitative abuses related to the usage of market power in relations with customers by practicing unfair purchase or selling prices, or resort to the price discrimination. Exclusionary abuse means "abusing of market power to harm a competitor by anticompetitive means such as refusal to deal, predatory pricing or predatory actions". The last type, - structural abuse, which means "eliminating a competitor by merger of acquisition". The authors also stated that last category may be used as a sub-category of exclusionary abuse. The element which is necessary to prove in order to constitute the anticompetitive conduct (the elements is also identified, based on the Article 82 of TEC) is, firstly, the presence of "one or more undertakings", which is obvious and just formal remark to define the subject of infringement[65]. The next step is to access a dominance position "conferring market power within a relevant product and geographical market, within Common Market or in a substantial part thereof ". The last two are commitment "an abuse of the dominant position the may affect trade between member states".[66]

According to the European Commission`s notice on the definition of relevant market for the purposes of Community competition law, "geographic market definition might be summarized as follows: it will take a preliminary view of the scope of the geographic market on the basis of broad indications as to the distribution of market shares between the parties and their competitors, as well as a preliminary analysis of pricing and price differences at national and Community or EEA level."[67] On of the famous cases related to the unfair purchase conditions is the case where the European Commission decide to investigate of the Google activities over the allegations that Google, Inc. abuse of its dominant position is view of the Article 102 TFEU (ex-Article 82 TEC). The point is that

[64] Treaty establishing the European Community (no. 46), Article 82
[65] RITTER, L.; DRAUN, W.D. (no.58), p. 384-385
[66] RITTER, L.; DRAUN, W.D. (no.58), p. 384-385
[67] European Commission. Notice on the definition of relevant market for the purposes of Community competition law. (no.59), §28

Google provides two types of searching: paid searching results and unpaid searching results. When the user tries to make some search, Google provides lowering of ranking the unpaid results of searching[68]. In this case by the EC were discussed other important factors such as existence of barriers and features which foster market dominance. In the decision to the Case AT.39740 Google Search (Shopping) the EC clearly identified that dominance position is a combination of factors, which assessed separately by the EC. From the position of the EC, we can conclude that such factors, while taking separately, do not constitute a violation, however by analysis of the interrelations of such factors we can conclude market dominance. One such factor is offering free of charge services. In a particular case, users expect to receive free services, however, the offering of more favorable results (which are paid) can potentially harm the users. On the other hand, in order to prevent the switching of users to another service, it is necessary to implement constraints, in a rough word the barriers. Such a situation works on two sides, from the one side it is applicable to the customers, on the other to competitors. On the side of the customers, it could be some technical or economic factors (again switching costs, availability of services, etc.). On the side of the competitors, the barriers could be the high amount of investments, needed to take such a big market share.[69]

As it goes from the summary of the European Commissions' decision the Google commits an abuse of competition law in the relevant market for internet searching by showing the more favorable results based on Google`s own comparison. At the end of the investigation, EC constitutes that Google's conduct has several anticompetitive consequences. The first point is that "Google's conduct has the potential to foreclose competing comparison shopping services, which may lead to higher fees for merchants, higher prices for consumers, and less innovation. Second, Google's conduct is likely to reduce the ability of consumers to access the most relevant comparison shopping services. Third, Google's conduct would also have potential anti-competitive effects even if comparison shopping services did not constitute a distinct relevant product market, but rather a segment of a possible broader relevant product market comprising both comparison

[68] European Commission. *Antitrust: Commission probes allegations of antitrust violations by Google.* Brussels, 2010. [interactive]. [reviewed in 27 April 2020]. Available at: <https://ec.europa.eu/commission/presscorner/detail/en/IP_10_1624>

[69] European Commission. Council Regulation (EC) 1/2003. Case Google Search (Shopping), AT.39740. 2017-27-06. §265,268-270

shopping services and merchant platforms".[70] In the report German Competition Authority the Google`s activity is called as "preferential treatment of the in-house services"[71]. Often happens, when the company, which obtained market power and leading position on the market, start to promote its own services and expand it on the other markets in the way which abuse competition. In such situations, the relevant data-driven market shall be examined separately[72].

3.1. Chapter I. Exclusionary conduct on data driven markets

As it goes from the practice, exclusionary conduct is one of the most frequent abuses on the data-driven markets. European Commission in "Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings" prescribes that "in applying Article 82 to exclusionary conduct by dominant undertakings, the Commission will focus on those types of conduct that are most harmful to consumers. Consumers benefit from competition through lower prices, better quality and a wider choice of new or improved goods and services. The Commission, therefore, will direct its enforcement to ensuring that markets function properly and that consumers benefit from the efficiency and productivity which result from effective competition between undertakings"[73] In practice, digital companies often come to such an abusive conduct. As an example of anticompetitive conducts, the local competition authorities of Germany and France elaborate to the refusal of access to data, discriminatory access to data and exclusive contracts.[74]

Meanwhile, the European Commission in the recent "Guidance on private sector data sharing" elaborate to the point, that "data is a non-rivalrous resource: it is possible for the same data to support the creation of several new products, services or methods of production. This allows any company to engage with the same data in different data-sharing arrangements with other big companies, SMEs and startups, or even the public sector. This

[70]Summary of Commission decision of 27 June 2017 relating to a proceeding under Article 102 of the Treaty on the Functioning of the European Union and Article 54 of the EEA Agreement (Case AT.39740 — Google Search (Shopping)). Official Journal of the European Union, C 9/11. 2018-12-01. § 9, p. 22-25.
[71] The Monopolies Commission of Germany. *Competition Policy: The challenge of digital markets.* (no.55), § 398, p.92
[72] The Monopolies Commission of Germany. *Competition Policy: The challenge of digital markets.* (no.55), § 396, 397, p.92
[73] European Commission. Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings (Text with EEA relevance). (no.27), §2
[74] Autorite de la concurrence and Bundeskartellamt. (no.5), p.17

way, the value resulting from the data can be exploited to the maximum".[75] The EU strive to the new open data economy if fully justified, since its foster competition and public welfare.

Cases where takes place the refusal of access to data is relatively rare. There are several cases to which competition authorities often elaborate in its reports, for example Case C-418/01 "IMS Health" or Case T-201/04 "Microsoft".[76] With the purpose to explain the abuse of refusal of access to data we will address the case of "IMS Health". As it goes from the Judgment of the Court the matter of the case was that one company "IMS Health" owned the specific data and intellectual property on these data, while another company also requires such data to provide its business. "IMS Health", which hold a dominant position on the market, refuse to grant a license ("License to use a brick structure for supplying regional sales data for pharmaceutical products") for another company.[77] In the paragraph 58 the ECJ ruled that "refusal by an undertaking which holds a dominant position and owns an intellectual property right in a brick structure indispensable to the presentation of regional sales data on pharmaceutical products in a Member State to grant a licence to use that structure to another undertaking which also wishes to provide such data in the same Member State, constitutes an abuse of a dominant position within the meaning of Article 82 EC where the following conditions are fulfilled:

(1) the undertaking which requested the licence intends to offer, on the market for the supply of the data in question, new products or services not offered by the owner of the intellectual property right and for which there is a potential consumer demand;

(2) the refusal is not justified by objective considerations;

(3) the refusal is such as to reserve to the owner of the intellectual property right the market for the supply of data on sales of pharmaceutical products in the Member State concerned by eliminating all competition on that market".[78]

Thus, while analyzing of this particular situation we want to admit, that these companies also act within the data-driven market. The object of the case is the data, owned by one undertaking with market dominance, which consequently gives opportunity not to share the data and save the leading position on the market. In this relation, as the ECJ

[75] European Commission. *Guidance on private sector data sharing.* Shaping Europe's digital future. 2020. [interactive]. [reviewed in 20 April 2020]. Available at: <https://ec.europa.eu/digital-single-market/en/guidance-private-sector-data-sharing#Business-to-business>
[76] Autorite de la concurrence and Bundeskartellamt. (no.5), p.18
[77] Judgment of the Court (Fifth Chamber). 29 April 2004. Case IMS Health GmbH & Co. OHG v NDC Health GmbH & Co. KG. C-418/01. Summary of the Judgment. §2
[78] Ibid, §52

judgment shows, the primarily goals of the company which dominance position will be accessed. While resolving the, case the ECJ take into account the market definition, and the competitive behavior of the “IMS Health”.

CONCLUSION AND PROPOSALS

To conclude, firstly in this work were defined that data-driven markets is a relatively broad term which includes subjects who collect, store, operates with data and make it commercially valuable. Data becomes an asset, and companies by collection and processing of data strengthen their positions on the market. The participants on the data driven market are digital companies, multi-sided platforms, online platforms, which operates on the multi-sided business models. The data plays central role in the data driven-markets markets.

Another important point, that data is collected by digital companies in exchange of free services. The more customers get the service, the more chances to obtain market power for such company.

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SUMMARY

Master`s Thesis examined issues related to practical aspects of the application of EU competition law to data-driven markets. Despite the fact, that data-driven markets are not a completely new definition, with the development of the digital economy, technical opportunities of gathering data, anticompetitive conduct of the data-driven markets obtain a high level of importance. The Master thesis were identified the nature of data-drivenn markets, and provided a definition, an exact description of market power. The research were identified the point that obtaining a market power does not automatically means violation of the competition law. In this view market power and dominant position on a market were accessed in the paper as a category of competition law.

The main element which lays in the bottom of the data-driven market is data. The Master thesis examined the question concerning the interrelation between data protection and competition law. The outcomes of the research based on the broad examination of judicial practice, and European Commission decisions on competitive matters.

Another important aspect which was achieved during the research is a deep analysis of the judicial practice over the anticompetitive conduct. The main types of competition law infringements were described together with such significant factors which foster violations, as the network effect. The summary of the work will be useful for further assessment of the anticompetitive conduct on the data-driven market.

ANNEXES

Annex No. 1

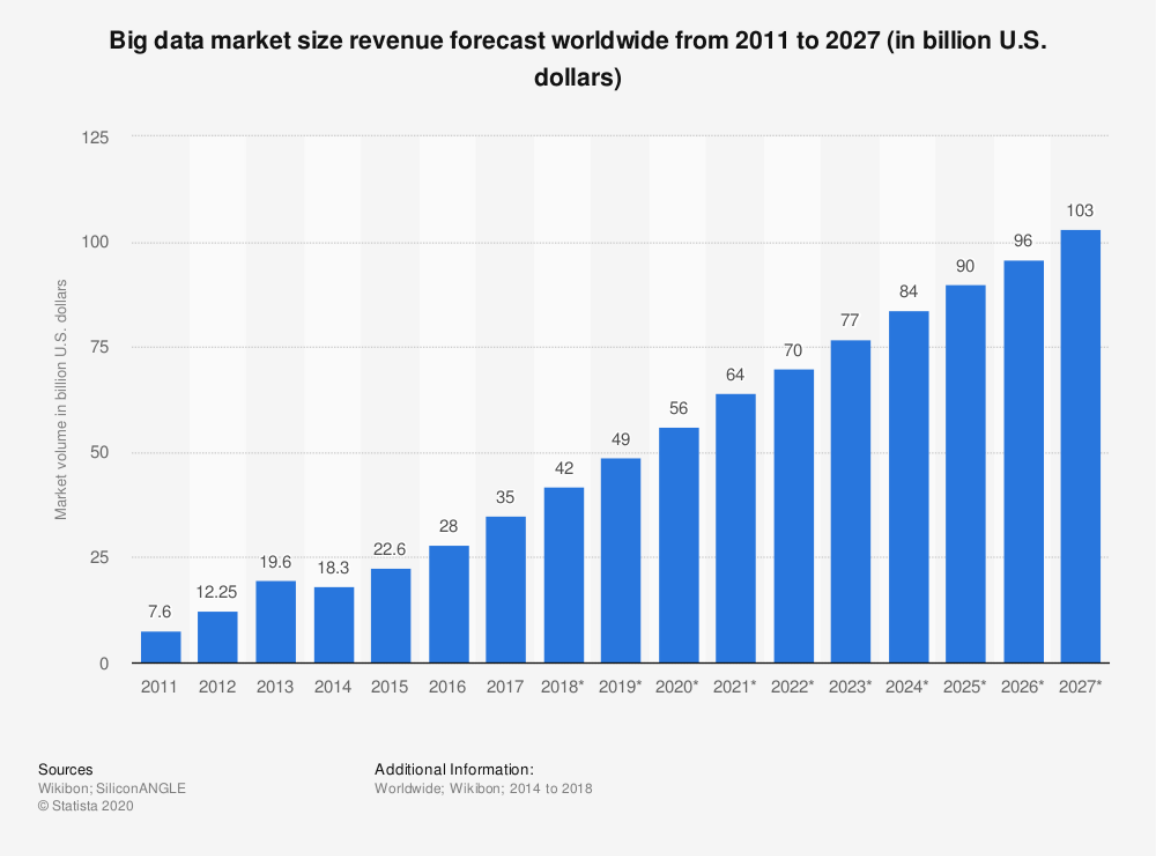

Figure 1. **Big data market size revenue forecast worldwide from 2011 to 2027 (in billion U.S. dollars)**

Source: Statista, Inc. Published by Arne Holst, 02 of March 2020. Available at: <https://www.statista.com/statistics/254266/global-big-data-market-forecast/>.