



FACULTY OF LAW
Lund University

Elisa Salmela

Commercial Use of Data and the Implications to Merger Control in Data Related Markets

JAEM03 Master Thesis

European Business Law
30 higher education credits

Supervisor: Julian Nowag

Term: Spring 2016

Table of contents

ABBREVIATIONS	
ABSTRACT	
1. INTRODUCTION	1
1.1 BACKGROUND	1
1.2 RESEARCH QUESTIONS AND PREVIOUS RESEARCH ON THE TOPIC	2
1.3 METHODOLOGY AND LITERATURE	3
1.4 STRUCTURE OF THE THESIS	4
1.5 DELIMITATIONS	4
2 CONNECTION BETWEEN DATA PROTECTION AND COMPETITION LAW	5
2.4 COMMON FEATURES	5
2.1.1 <i>Data protection</i>	5
2.1.1.1 Protection of individuals and consumers	5
2.1.2 <i>Competition law</i>	6
2.1.2.1 Consumer welfare in competition analysis	6
3 DOES PERSONAL DATA HAVE A ROLE IN COMPETITION ANALYSIS?	9
3.1 WHAT IS PERSONAL DATA?	9
3.2 PERSONAL DATA AS A COMMODITY?	11
3.3 COMPETITIVE ADVANTAGE	13
3.3.1 <i>Availability of data</i>	14
3.3.2 <i>Indirect network effects</i>	16
3.3.3 <i>Economies of scale</i>	19
4 CONCENTRATION OF USER DATA	19
4.1 THE SPECIFIC CHARACTERISTICS RELATED TO MULTI-SIDED MARKETS	19
4.2 PREVIOUS DECISIONS RELATED TO USER DATA	21
4.2.1 <i>Google/DoubleClick acquisition</i>	22
4.2.2 <i>Facebook/WhatsApp acquisition</i>	23
4.2.3 <i>Remarks of the previous decisions</i>	24
4.2.4 <i>Case law development and possible ways forward</i>	26
4.3 RELEVANT MARKET OF DATA?	28
4.3.1 <i>Introduction</i>	28
4.3.2 <i>Relevant market in a multi-sided market</i>	30
4.3.3 <i>Demand and supply substitutability of data</i>	31
4.3.3.1 Is the substitutability requirement relevant?	32
4.3.3.2 Differentiation of data	33
4.2.3.2 An urge for a change from traditional tests?	35
4.3.4 <i>Conclusion of the relevant market of data</i>	37
4.4 SIGNIFICANT IMPEDIMENT TO EFFECTIVE COMPETITION	37
4.4.1 <i>Horizontal concentration on data related markets</i>	39
4.4.1.1 Non-coordinated effects	40
4.4.1.1.1 Market shares creating market power	40
4.4.1.1.2 Other indications of market power	41
4.4.1.1.3 Entry barriers	43
4.4.1.2 Coordinated effects	45
4.4.2 <i>Vertical and conglomerate concentrations on data related markets</i>	45

4.4.3	<i>Theories of harm</i>	48
4.4.3.1	Consumer welfare	48
4.4.3	<i>Remarks of the SIEC test in relation to data related markets</i>	51
5	CONCLUSION	52
	BIBLIOGRAPHY	55

Abbreviations

CJEU	Court of Justice of the European Union
DPD	Data Protection Directive
EDPS	European Data Protection Supervisory
EU	European Union
EUMR	EU Merger Regulation
FTC	Federal Trade Commission (United States)
GC	The General Court of the European Union
GDPR	General Data Protection Regulation
ICT	Information and communications technology
OJ	Official Journal
SIEC	Significant impediment to effective competition
SSNIP	Small but Significant Non-Transitory Increase in Prices
TFEU	Treaty of the Functioning of the European Union

Abstract

This thesis analyses the commercial use of data and whether personal data collected by undertakings should play a role in a merger or acquisition case. The more specific research question is whether data protection principles should be taken into account in merger control and if so, under what kind of circumstances commercial use of data might significantly impede effective competition in the multi-sided data related markets. The research is focusing on answering whether data can be defined as its own relevant market and conducting hypothetical analysis of possible data concentration implications that could be found to have as its effect to significantly impede effective competition.

It was found that under the current merger control principles personal data in the online platform markets cannot be defined as a relevant market, since data is not directly traded, hence there is no substitutability. The SIEC analysis needs to be conducted case by case and therefore the implications are difficult to predict. Nevertheless, it was discovered in this thesis that the Commission needs to start evaluating the implications carefully with certain things kept in mind such as the indirect network effects, foreclosure effects including the pay per click payment method, data as an input, market power and consumer welfare considerations. The consumer welfare consideration is still a question mark, since previously Commission has not relied on data protection principles when it comes to consumer welfare in a concentration decision.

1. Introduction

1.1 Background

The relevance of personal data is increasing significantly in the digital era. Data has been famously referred as the new oil of the digital markets. Data is being collected by for example public authorities and different type of undertakings in the course of their businesses for revenue creating purposes. This can be called data monetization. The value of data is high even if it is hard to evaluate the exact value, since often it is received by providing free services to users such as online platforms. In addition, in certain cases data is not directly sold forward, hence with the help of data, platform providers create targeted advertisements and the exact figure is again hard to define. The main aim of this thesis is to concentrate on commercial use of data in relation to a merger or acquisition and whether it should matter if undertaking/undertakings hold significant amount of data.

This topic is relatively hot at the moment and the more extensive discussion started after March 2014, when the European Data Protection Supervisory published its preliminary opinion “*Privacy and the Competitiveness in the age of big data: The interplay between data protection, competition law and consumer protection in the Digital Economy*”.¹ The issue has not been dealt extensively in Commission decisions. Until now the European Commission and the FTC have not been evaluating the value of data and its role in mergers or acquisitions properly. The European Commission has previously taken into account the competitive effects of two-sided markets; however, these effects have not been taken into account in ICT related mergers extensively. The Commission has moreover claimed in *Facebook/WhatsApp* acquisition decision that it is not relevant to review the data protection threats in a competition analysis.

At the moment a lot of researchers are presenting their opinion if commercial use of personal data in the multi-sided markets is a competition law matter to begin with. Relatively many

¹ European Data Protection Supervisory, *Privacy and Competitiveness in the Age of Big Data: The Interplay Between Data Protection, Competition Law and Consumer Protection in the Digital Economy* (2014).

competition law experts have the opinion that the issue should not be dealt by competition law but instead the proper tool is better data protection legislation. However, that argument is not supported in this thesis. One possible option would involve collaboration between different authorities to implement a new tool or combination of tools. Another option would require competition law and more specifically merger control to adapt to the changes occurring in the digital markets. It is important that the law and policies evolve at the same time as the market and technology changes. The purpose is to demonstrate how competition law should develop to answering the problems, which new developing industries are creating for both the structure of the market and consumers.

The focus on this thesis is on the search-engine and social media markets, which function in a similar manner in regards of user data. Although other industries are taken into account to give some comparative view point to see if the approach is somewhat different in other industries. Companies in search engine and social media industries offer services and databases free of charge but at the same time collect data from its users. By collecting data, these service providers offer targeted advertising options to advertisers, which pay a fee to the service provider. Some might consider that this as a quite successful business idea. However, this business model creates several concerns. Often the companies conducting this business in the online platform industry have almost a monopoly power or at least very high market shares.

In a merger or acquisition, undertakings conducting business in the same or similar markets increases the amount of collected data. This might make it more difficult for other companies to continue or enter the market. Hence, advertisers want to continue with undertakings, which have higher possibilities to make targeted advertisements and a larger user base, which may lead to competition problems. Furthermore, since it is uncertain if companies change their privacy policies it might create harmful effects for consumers as well.

1.2 Research questions and previous research on the topic

The specific research question is whether data protection principles should be taken into account in merger control and if so under what kind of circumstances commercial use of data might significantly impede effective competition in the multi-sided data related markets.

The further intention is not only review the situation but to present a model on the factors, which the relevant authorities including Courts and competition authorities should take into account in their assessments in the future, when a data concentration is evaluated. At this point there have been articles written on the topic presenting both views on whether data protection is a competition law issue.

However, fairly little has presented any practical means of how the topic should be regarded and what is the way forward. That is the core topic this thesis is aiming for, although only to an extent that a master level thesis can reach. Data protection legislation cannot be properly used to approach the problem, since it is not the best tool to consider the issue as such. The purpose of data protection is not only to protect the individuals but to enable the free flow of data. Data protection legislation does not take into account how personal data can be concentrated to certain undertakings and the possible threats that this might impose both to user's privacy and to effective competition. The aim is to consider the issue from merger control perspectives and principles and review if that could be a better tool. This includes a discussion on whether the present merger control principles reflect the genuine condition of data related markets and is able to prevent the possible harmful effects.

1.3 Methodology and literature

The methodology used in this thesis is twofold including traditional legal dogmatic method and law and politics method. The traditional legal dogmatic method is used throughout the research as a tool to answer the research question by reviewing the applicable laws. However, since the topic is complicated and includes several policies it is not enough to answer the question of how this issue is pivotal and how it should be solved. The law and politics method is used as to come up with a solution for the problem and creating a proposal in the application of the law applicable nowadays. The sources of this thesis are based on legislation, decisions both from European Commission and US FTC, books, articles and other primary materials.

1.4 Structure of the thesis

The thesis will begin by giving a general overview of the underlining principles of competition law and more narrowly merger control and data protection so that a reader can understand the topic better. It will continue by analysing the connecting factors between competition law and data protection. Meaning is to show how consumer protection is an important issue in both fields although, distinguish the different approaches the policies might have on the same topic. The next sub-chapter will define personal data and discuss its role in competition analysis. The purpose is to define it as a commodity for the zero-price services and review its competitive advantage. Later on also, the possible effects will be evaluated meaning the indirect network effects and economies of scale. However, a more in-depth analysis of effects is going to be presented in the concentration of user data chapter.

The fourth chapter will go in-depth to analyse the EU merger control and the multi-sided data market. The three main areas of this chapter are to define the relevant market, market power in data and the effects to the market and consumers. The relevant market definition includes an analysis of the product market, which requires supply and demand for data, and substitutability in regards of different types of data. This chapter will also present two relevant decisions, which have at least briefly discussed the connection of data protection in merger control. These are *Facebook/WhatsApp* and *Google/DoubleClick* decisions. Since the focus of this thesis is in EU law, the US equivalent decisions will not be thoroughly discussed. However, a dissenting opinion of the former US FTC Commissioner Pamela Jones Harbour will be presented, to bring forward the complexities of this matter and a different approach.

1.5 Delimitations

The purpose of this thesis is to look if commercial use of data is a merger control problem. Therefore, it is not possible to review deeply data protection topic as such and the legislative requirements imposed by it at the moment. In addition the recent and future changes in the data protection field including the Data Protection Regulation (GDPR) and the C-362/14 *Schrems* case² are definitely interesting but it is not necessary nor possible to evaluate the effects of

² Judgment in *Schrems*, C-362/14, EU:C:2015:650

those in this thesis, since of the limited length of this thesis. The connection between data protection and other areas of competition law is neither going to be reviewed, since of the page limitation. Moreover, even if this thesis will present decisions from EU and US, it is not a comparative analysis, instead both jurisdictions are present to give a broader view of the topic. In addition, it is not possible to deep dive into the question of data as intellectual property even if it might be a relevant issue for the future.

2 Connection between data protection and competition law

2.4 Common features

The next sub-chapters are going to focus on the common features between data protection and competition law and the common aims between the two policies to give an understanding why this topic is relevant. Furthermore, it will discuss the different approaches the policies have on the same topic.

2.1.1 Data protection

2.1.1.1 Protection of individuals and consumers

The main legal documents in the EU for protecting personal data are at the moment Directive 95/46/EC³ and Charter of Fundamental Rights of the European Union.⁴ The Data Protection Directive will be replaced by the General Data Protection Regulation in May 2018. The objective of the Data Protection Directive is to “...protect the fundamental rights and freedoms of natural persons, and in particular their right to privacy with respect to the processing of personal data”⁵. Article 8(1) of the Charter states that “everyone has a right to the protection of personal data concerning him or her”. Further in Article 8(2) the requirements for personal data

³ Directive 95/46/EC of the European Parliament and of the Council on the protection of individuals with regard to the processing of personal data and on the free movement of such data [1995] OJ L 281/31 (Data Protection Directive).

⁴ Charter of Fundamental Rights of the European Union [2000/C 364/01] (Charter).

⁵ *ibid* 2 Article 1.

processing are laid out including that it needs to be fairly processed and a consent is needed unless the law permits the use for other reasons.

The role of data protection in EU is to be a fundamental right for individuals even though it is not an absolute right. Limitations to this right are possible if the requirements under Article 52(1) of the Charter are fulfilled.⁶ The main focus of data protection is quite evidently protecting a consumer and individuals as such. Although, the legislation sets out the requirements that companies and other actors need to follow if they collect, control or process personal data. Therefore, the whole purpose of data protection is not only about protecting the individual, instead it has also an element of protecting the free flow of data within the European Union. The aim is to balance with these two objectives. In case data collection and processing is done in a safe manner by protecting the consumers' rights, there should be no reason to limit the free flow of data, since it enhances business within the EU. Similar kind of ideology balancing can be found as well in EU competition law, which is explained in the next sub-chapter.

2.1.2 Competition law

2.1.2.1 Consumer welfare in competition analysis

Consumer welfare is one of the key issues and aims, which is taken into account in competition law assessment. However, often this is discussed in terms of economic efficiency. Economic efficiency can be divided into three categories, including production efficiency, dynamic or innovation efficiency and allocative efficiency. Production efficiency relates to lowest costs with the least amount of resources in producing goods or services. Innovation efficiency is gained by making investments in research and development, innovation and new production models, which have the aim to enhance social wealth. Allocative efficiency is attained by dispensing the resources so that the goods or services are of the greatest worth to the consumers.⁷ The welfare standard depends on, which standard or standards are chosen as the most important efficiency trade-offs. Most often all the standards cannot exist at the same time.⁸

⁶ European Data Protection Supervisory, *Privacy and Competitiveness in the Age Of Big Data: The Interplay Between Data Protection, Competition Law and Consumer Protection in the Digital Economy* (2014). 12-13.

⁷ Katalin Cseres, *Competition Law and Consumer Protection* (Kluwer Law 2005) 16.

⁸ *ibid* 18.

The discussion of, which are the main objectives of EU competition law vary. However, in several cases, including the C-209/10 *Post Danmark*⁹, C-52/09 *TeliaSonera Sverige*¹⁰ and C-280/08 *Deutsche Telekom v Commission*¹¹, which are all abuse of dominant position cases, the CJEU emphasised the effect of practises creating harm to consumers and the effects, which cause detriment to consumers through the impact on competition. In regards of merger decisions, in *Ryanair/Aer Lingus*¹² decision, the Competition Commissioner Neelie Kroes stated that the purpose for prohibiting the merger was to protect the Irish consumers and other EU consumers, since of the threat of monopoly power and the effects it has, such as possible price increases, quality decreases and limiting options.¹³

The consumer welfare standard is stating that the main aim of competition law is to preclude dominant companies from increasing consumer prices.¹⁴ Most often the consumer welfare standard used in merger control is focusing more on the level of price affecting the consumers. Moreover, the approach is often to look at the possible benefits, which the consumer might receive after the merger. Although, price is not the only thing that is evaluated by the consumer welfare standard. Other things include inter alia increase of product quality, while the price stays the same, large product selection and innovativeness. Compared to the price dimension welfare standard, other consumer welfare dimensions are more difficult to assess.¹⁵

The position of consumer welfare differs between EU and US. Consumer welfare has a meaning in EU, however it does not have as strong position as in the US.¹⁶ In the United States, some experts have even argued that consumer welfare should be the only goal of competition law.¹⁷

⁹ Judgment in *Post Danmark A/S v Konkurrencerådet*, C-209/10, EU:C:2012:172, para 20.

¹⁰ Judgment in *Konkurrensverket v TeliaSonera Sverige AB*, C-52/09, EU:C:2011:83, para 24.

¹¹ Judgment in *Deutsche Telekom v Commission*, C-280/08, EU:C:2010:603, para 176.

¹² COMP/M.4439 *Ryanair/Aer Lingus* [2007]

¹³ Ioannis Kokkoris and Howard Shelanski, *EU Merger Control, A Legal and Economic Analysis*, (Oxford University Press 2014) 39.

¹⁴ Katalin Cseres, *Competition Law and Consumer Protection* (Kluwer Law 2005) 20.

¹⁵ Andrej Fatur, *EU Competition Law and the Information and Communication Technology Network Industries, Economic versus Legal Concepts in Pursuit of (Consumer) Welfare*, (Hart Publishing 2012) 48,49.

¹⁶ Stefan Schmitz, 'The European Commission's Decision in GE/Honeywell and the Question of the Goals of Antitrust Law' [2002] *Journal of International Economic Law*. 550.

¹⁷ Kokkoris I and Shelanski H, *EU Merger Control, A Legal and Economic Analysis* (Oxford University Press 2014) 33.

The EU Merger Regulation states in recital 29 that *“In order to determine the impact of a concentration on competition in the common market, it is appropriate to take account of any substantiated and likely efficiencies put forward by the undertakings concerned. It is possible that the efficiencies brought about by the concentration counteract the effects on competition, and in particular the potential harm to consumers, that it might otherwise have and that, as a consequence, the concentration would not significantly impede effective competition”*. Later in Article 2 of the EUMR further states that the Commission shall take into account inter alia *“...the interests of the intermediate and ultimate consumers, and the development of technical and economic progress provided that it is to consumer’s advantage and does not form and obstacle to competition”*.¹⁸

These articles and recitals do not directly state that the consumer welfare means only economic efficiency in regards of consumer prices, however often it has been focused only on prices. In case the law does not specify it depends on the aspect that the Commission takes. As the markets develop, the Commission should start taking into account issues, that have not been reviewed previously such as the implications of commercial use of data to consumer welfare in merger control. Later in the chapter covering merger control, the consumer welfare aspects and the possibility of the notion of consumer welfare to be further developed are considered more extensively.

Both competition law and data protection aim for consumer welfare and securing the position of internal market within these fields.¹⁹ Even if the underlining aim of consumer welfare might be focusing on a different thing it still means that data protection and competition law have connecting factors. The next chapter will define personal data and consider its role in competition analysis.

¹⁸ Council Regulation (EC) No 139/2004 on the control of concentrations between undertakings [2004] (The EC Merger Regulation)

¹⁹ European Data Protection Supervisory, 'Privacy and Competitiveness in the Age of Big Data: The Interplay Between Data Protection, Competition Law and Consumer Protection in the Digital Economy' [2014] 11.

3 Does personal data have a role in competition analysis?

3.1 What is personal data?

Personal data has not been defined by competition law. It is notwithstanding relevant to consider the scope, to better understand the topic and issues related. Data protection legislation has given a definition for it, although quite a broad one. Personal data is defined in the Data Protection Directive as “*‘personal data’ shall mean any information relating to an identified or identifiable natural person (‘data subject’); an identifiable person is one who can be identified, directly or indirectly, in particular by reference to an identification number or to one or more factors specific to his physical, physiological, mental economic, cultural or social identity*”.²⁰ Same definition is given in the General Data Protection Regulation, which will enter into force in 24 May 2106 but apply from May 2018. The EU data protection does not cover legal persons but only natural persons. The law does not clarify the notion of identified or identifiable person, however it palpably means that the person is being able to be differentiated from all other people and identified as an individual.²¹

Opinion 4/2007 of the Article 29 Working Party defines that subjective and objective information concerning a person in any kind of competence can be regarded as personal data. The subjective data can also include assessments and opinions.²² The data can be of any type in case it concerns a person. The type of data that is of concern in this research is collected by online platforms. Often under these cases the online platform provider acts as both data controller and data processor.

Another reason for defining personal data relevant to this thesis is, since of the online platform industry. Several other industries collect data in multitude ways as well. The difference is that in certain other industries the data might be pseudonymous and cannot be connected to the individuals after the data has been anonymized. The pseudonymous data is no longer personal data after the anonymizing process. Although from a technical perspective it is relevant to

²⁰ Directive 95/46/EC of the European Parliament and of the Council on the protection of individuals with regard to the processing of personal data and on the free movement of such data [1995] OJ L 281/31 (Data Protection Directive).

²¹ *Handbook On European Data Protection Law* (Publications Office of the European Union 2014) 37-39.

²² Opinion 4/2007 on the concept of personal data, Article 29 Data Protection Working Party, 01248/07, WP 136, 6.

question whether there is any pseudonymous data. It has been proven that in certain cases the already pseudonymous hashed data have been able to de-anonymize and fulfil the requirement of the “identifiable person”.

The “pseudonymous” data can still be used for commercial purposes, however it is not relevant for direct advertising purposes meant for consumers any longer, since of the lack of connectivity. However, the pseudonymous data might be used for online advertising purposes, when the advertisements are not directed to the specific users. Data protection principles do not apply to data, which is not of identified or identifiable natural person. Meaning, that if the person cannot be identified by using additional information to a reasonable amount by different means, the data is not personal data any longer but anonymized data.²³ Although in practise according to the wording of the GDPR, in the future pseudonymous data can be considered as personal data. The Data protection directive does not include this type of definition. This thesis will be only covering the commercial use of personal data, where personal data is not pseudonymous (meaning non traceable any longer) but it is still monetised for advertising purposes and creating revenues. In this thesis the notion of “data” means personal data. The same applies for “user data”.

The data collected can be divided into three groups. The first group of data consists of something that the users provide themselves, which can be called ‘volunteered data’. It can include for example photos, list of contacts, personal profile information and topics that the user types on search engines. The second group of data is collected and reviewed by the platform providers as to create evaluation of the practises and behaviour of the users. This can be called as ‘observed data’. Often this data is collected by cookies. The cookies collect and save information of the web pages the user visits, including the specifics of time, date and location (by IP address). This is done every time the user visits the web page while using the same web browser. The last group includes so-called ‘inferred data’, which can be received by analysis of volunteered and observed data. It can also mean metadata, which is data about data.²⁴ The following chapter will review the nature of data and regard its value. It is

²³ Regulation (EU) 2016/679 of the European Parliament and of the Council 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 [2016], recital 26.

²⁴ Inge Graef, ‘Market Definition and Market Power in Data: The Case of Online Platforms’ [2015] 38, No 4, World Competition Journal, 475.

meaningful for the purpose of competition law, since as an asset the competitive nature needs to be evaluated.

3.2 Personal data as a commodity?

Often intellectual property is said to be the most valuable asset of a company. Although the value of collected user data has increased and it has become an intangible asset. Data has even been claimed to be *the new oil of the digital economy*.²⁵ In addition, together with intellectual property, data is said to be comprising of intellectual capital. Still the value of data, is not shown at a company's details since it is collected for free.²⁶ Intellectual Property is no longer the only thing enhancing innovation. A good question is whether companies start valuing data over IP, at least in some industries, since data requires less effort in means of protection. There is no need to go deeper into this, it is just to indicate the shift of change happening in different industries.

In the United States, Courts and academics have argued that in zero-price markets there can be no competition law issues and no welfare harm, since consumers receive the services and products for free.²⁷ To the contrary some privacy professionals have claimed that this type of deal is actually a bad deal to the consumer, since the actual value of their data is much more than the service offered to them for free. Even if money is not exchanged it does not mean that there are no transactions made. In the multi-sided²⁸ online platform market there are exchange of nonmonetary costs including data information and attention costs.²⁹

The personal data industry produces billions of dollars of yearly revenues to the companies. The aspect of excessive market value is speaking for the transformation of personal data into a

²⁵ Joris Toonders, *Data Is the New Oil of the Digital Economy*, <http://www.wired.com/insights/2014/07/data-new-oil-digital-economy/> accessed 12 May 2016

²⁶ European Data Protection Supervisory, 'Privacy and Competitiveness in the Age of Big Data: The Interplay Between Data Protection, Competition Law and Consumer Protection in the Digital Economy' [2014] 9-10.

²⁷ John Newman, 'Antitrust in Zero-Price Markets: Foundations' [2014] Research paper No. 151, University of Memphis- School of Law, 11.

²⁸ Multi-sided market means that a company is offering products or services for different customer groups, including undertakings and private persons, which are indirectly linked to each other. The specific characteristics of multi-sided markets will be analysed later in chapter 4 in regards of a relevant market definition. (David Evans and Michael Noel, 'The Analysis of Mergers That Involve Multisided Platform Businesses' [2008] Vol 4, Journal of Competition Law & Economics, 664)

²⁹ *ibid*, 15.

commodity.³⁰ Companies use the collected data to develop their services as for example in search engines to know the user better and give more targeted search results to the them. In addition, the data is used also to create targeted advertisements, in which the advertisers pay to the platform providers often as by pay per click terms.³¹ Therefore the value of data is not often what the users provide themselves or even the data itself but the information that can be created from the data.

Secondly it is not only the industry, which uses it as a commodity but the consumers as well. The general public can as well consider it as their property and exchange it for receiving services for free or receiving discounts for it.³² Although often people do not consider it as directly trading. In certain cases, users do not even have a choice, since certain online platform providers do not even offer services, in which data is not collected and the users could pay a monetary price for the service. Examples of these kind of platforms are Google Search and Facebook. Therefore, sometimes people do not have other options than exchange their privacy for the online platform services if they want to receive those services.

Nonetheless, many companies in this industry state that they do not sell the data they have collected to a third party. The advertisers will not receive the data directly but only in means of targeted advertisements, which the platform providers sell them. Although exceptions exist, since Twitter licenses its data to undertakings to create products and for other commercial exploitations.³³

It is pretty clear that personal data is used for creating revenues for an online platform. Otherwise if the online platforms would not be collecting user data it could not be offering its platform services for free. Users allow companies to use cookies and in other means collect data if they consider that the advantage they receive from the platform provider surpasses the total costs incurred to the consumer, which includes the user data.³⁴

³⁰ Nadezhda Purtova, *Property Rights in Personal Data* (Kluwer Law 2012) 34.

³¹ Inge Graef, 'Market Definition and Market Power in Data: The Case of Online Platforms' [2015] 38, No 4, *World Competition Journal*, 478.

³² Nadezhda Purtova, *Property Rights in Personal Data* (Kluwer Law 2012) 34.

³³ Inge Graef, 'Market Definition and Market Power in Data: The Case of Online Platforms' [2015] 38, No 4, *World Competition Journal*, 478.

³⁴ John Newman, 'Antitrust in Zero-Price Markets: Foundations' [2014] Research paper No. 151, University of Memphis- School of Law, 17.

The Commission has established in its earlier decisions³⁵ that web browsers, social networks and communications services create user markets albeit the services are offered without monetary compensation and there is no legal duty to offer the services.³⁶ Therefore, this indicates that the exchange of data can be compared to exchange of money.

The markets are changing and modernizing, in which normal payment methods are not always used, instead other things are becoming valuable to undertakings. Undertakings provide ‘free’ services, however it is not really free, since the data collection is used as a payment for the services. Since of the peculiar nature of ‘free’ services provided in exchange of user data, there is a need for a revision of anticompetitive framework. However, this will be discussed later in the chapter of concentration of user data. The next chapter will review the possible competitive advantage undertakings are able to acquire by collecting personal data.

3.3 Competitive advantage

This chapter will evaluate the possible competitive advantages and effects of certain undertakings’ possibility of collecting large amounts of user data. The key issues of a successful online platform include engineering skills, technology including good algorithms, innovation and new and useful user data.³⁷ The question is whether certain undertakings can take advantage of the user data more extensively than other undertakings. The question of competitive advantage is divided into sub-chapters consisting of availability of data, indirect network effects and economies of scale.

³⁵ European Commission, COMP/39.530-*Microsoft (Tying)*, 6 March 2013, para 17, European Commission, COMP/M.6281-*Microsoft/Skype*, 7 October 2011, para 10, European Commission COMP.M7217-*Facebook/WhatsApp*, 3 October 2014, para 45.

³⁶ Thomas Hoppner, ‘Defining Markets for Multi-Sided Platforms. The Case of Search Engines’ [2015] No. 3 World Competition 38, 355.

³⁷ Inge Graef, ‘Market Definition and Market Power in Data: The Case of Online Platforms’ [2015] 38, No 4, World Competition Journal, 488 and Andres Lerner, ‘The Role of “Big Data” in Online Platform Competition’ [2014] SSRN Electronic Journal, 30 http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2482780 accessed 22 February 2016.

3.3.1 Availability of data

One competitive factor of data is that, is it available for all undertakings. In the online platform market certain type of data might be more easily accessible. However, in the social media and search engine industries, certain data is not as available to all undertakings.³⁸ Certain commentators claim that since of user data's non-rivalrous nature, the same data is available for all undertakings and it can be accessed over and over again even if another undertaking has already collected the same data.

Furthermore, platform providers do not have exclusivity agreements with users, which would limit their rights to assign their data to other platform providers.³⁹ These type of agreements might be made in other industries than online platform markets. Especially, concerning markets which directly licenses anonymized data to another undertaking, an exclusivity agreement is a possible option, since otherwise an undertaking might not be interested in purchasing that data if it possibly would be sold to a competitor as well.

Further comments regarding that data is available for all undertakings mention that consumers often use several online platforms for the same purposes, which can be also called as "multi-homing".⁴⁰ In regards of search engine business, it might be true in the United States however, in Europe where Google's market share is even higher, the truth is that less people actually use other search engines and therefore "multi-home" less at this business sector. Moreover, Google has a better opportunity to collect data more extensively, since it is not only active in search-engine market but it acquires data also by inter alia Gmail, YouTube, Google Drive, Google Maps and Google+.

Although if there would be limitless amount of user data available, platform providers would less likely offer the online platforms for free. Undertakings are in need of collecting data as much as possible and develop the results derived from data as fast as possible so that advertisers are interested in the targeted advertisements. It is possible that certain mergers have been

³⁸ Inge Graef, 'Market Definition and Market Power in Data: The Case of Online Platforms' [2015] 38, No 4, World Competition Journal, 483.

³⁹ Andres Lerner, 'The Role of "Big Data" in Online Platform Competition' [2014] SSRN Electronic Journal, 21 http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2482780 accessed 22 February 2016.

⁴⁰ *ibid*, 22.

created for the purpose that competitors will not receive the acquired undertaking's collected data.⁴¹

The most popular payment type in this industry is the pay per click method, in which advertisers are only paying when the user has actually clicked the add and entered the site. Since of this payment method, advertisers are more likely to choose to pay for an online platform provider, which has more users and is therefore able to collect more user data and hence, able to create better targeted advertisements.⁴²

This is again creating a barrier to entry, since smaller undertakings are less likely to survive in this environment. If there are less competitors in the market, the ones left have even a better opportunity to collect more user data. Therefore, the user data is even more centralized to certain undertakings and the possibilities of creating more complete pictures of people's behaviour increases and the possibilities of exploitation increases as well. Therefore, the likelihood that consumer welfare is decreasing in multi-sided online platforms is probable and it should be taken into account when evaluating a merger concerning online platforms. However, the effects to consumer welfare are considered in larger extent later in chapter 4 concerning concentration of user data.

Another factor is that the costs relating to setting up the systems of collection, storage and analysing of data are often fixed, but the marginal costs related to the increased business are little. This creates economies of scale, which might cause barriers to entry for smaller and new undertakings.⁴³ Data is not the same as intellectual property however, the user data is processed and developed into something new, for example targeted advertisements. It is hard to argue that data should be compared to IP cases, since some of the underlining differences. However, in some of these IP cases super dominant undertakings have been forced to share their solutions to competitors, since otherwise the competitors' barriers to entry would be too high.

⁴¹ Maurice Stucke and Allen Grunes, 'No Mistake About It: The Important Role of Antitrust in the Era of Big Data' [2015] The University of Tennessee College of Law, Research paper 269, SSRN Electronic Journal, 7 http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2600051 accessed 22 February 2016.

⁴² Inge Graef, 'Market Definition and Market Power in Data: The Case of Online Platforms' [2015] 38, No 4, World Competition Journal, 485.

⁴³ *ibid*, 483.

Although questions about data ownership have been raised already. Is personal data indefinitely the user's property? Undertaking's often claim at least after different hashing or other processing made to data that they have acquired the ownership. Or at least parties to a contract treat data in this way between a data controller and a data processor. It is not clear yet if the ownership concerns only of their confidentiality obligations or have they actually gained the ownership to that personal data.

Data is by its nature non-rivalrous and non-exclusive and it is impossible for an undertaking to hold all available data.⁴⁴ Still it creates obstacles for smaller undertakings to be able to compete accessing or acquiring the same data or at least the same amount, since it is less available for less dominant undertakings. Therefore, the already dominant undertakings in the online platforms are able to take a competitive advantage of the user data, even if smaller undertakings are able to collect data as well to some extent. The quality and quantity is just more extensive when it comes to dominant undertakings.

Now that it has been established that data protection considerations are related to competition law, the purpose is to look at the possible negative competitive effects that might arise in the multi-sided data related markets. The following sub-chapters are evaluating the indirect network effects and economies of scale, which are related to the multi-sided markets.

3.3.2 Indirect network effects

A relevant feature of multi-sided markets is the creation of indirect network effects. A network effect is a value towards a user, when another user buys a product or a service. The indirect network effects diverge from "normal" network effects by the fact that the customers are not directly linked to each other.⁴⁵ The effects arise for the purpose that the markets concerning users and advertisers are connected to each other. Although these two user groups on each side might not be connected to each other or at least not that easily without the platform between them.⁴⁶ The advantage that the customer group on one side gains, is connected to the amount

⁴⁴ Daniel Sokol and Roisin Comerford, 'Does Antitrust Have a Role to Play in Regulating Big Data' [2016] SSRN Electronic Journal, Cambridge Handbook of Antitrust, Intellectual Property and High Tech, Cambridge University Press, 6 http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2723693 accessed 22 February 2016.

⁴⁵ Andrej Fatur, *EU Competition Law and the Information and Communication Technology Network Industries, Economic versus Legal Concepts in Pursuit of (Consumer) Welfare* (Hart Publishing 2012) 82-83.

⁴⁶ Inge Graef, Sih Yuliana Wahyuningtyas and Peggy Valcke, 'Assessing Data Access Issues in Online Platforms' [2015] Telecommunications Policy 39, 376.

of customer on the other side. An online platform is more useful for an advertiser in case there are more persons using the online platform, since it is likelier that it will receive more purchases that way.⁴⁷

The same benefit applies to the platform users, since if the platform provider receives more revenues from its happy advertisers it has in theory more money to invest in improving its services for example a search engine platform. Moreover, the users receive better targeted advertisements, which might be useful for them. Although the downside of this is if the platform providers do not offer the best search results first, since it is trying to offer only paid advertisements so that it would gain more revenues. Having said this, it is hard to evaluate if and how much the quality of a platform decreases in the hope of better revenues from advertisers.

Returning back to the topic of indirect network effects, network effects might be positive or negative. Positive network effects support for concentration and negative effects obstruct growth. Both types of network effect are dependent on the other side of the market. Therefore, it is necessary to evaluate the competitive effects on both sides of the market, when it concerns multi-sided markets.

This was also found by the Court of Justice in the case C-67/13 *CB v. Commission*. In this case the CJEU stated after the observations of the General Court that card payment systems are by their nature two-sided and therefore it is important to take into account both the issuing and acquisition of cards, since these are necessary to be able to conduct the activities in regards of both user markets. The connection between the two markets were creating indirect network effects, because the amount approved by merchants and the quantity of cards in distribution effect the other side of the market.⁴⁸

In the Commission's preceding decision, the Commission additionally found that MasterCard did not show efficiencies, which would be to consumer's benefit. Moreover, the Commission reviewed the two-sided nature of the market and indirect network effects. In comparison to the

⁴⁷ David Evans, 'Antitrust Issues Raised by the Emerging Global Internet Economy' [2008] 285 Northwestern University Law Review Colloquy, 9.

⁴⁸ Judgment in *Groupment des cartes bancaires (CB) v. European Commission*, C-67/13, EU:C:2014:2204, para 73-74 and Judgment in *Groupment des cartes bancaires (CB) v. European Commission*, T-491/07, EU:T:2012:633, para 83, 104.

ICT sector and online platforms, similar type of reasoning has not been found in all cases, which is relatively peculiar.⁴⁹

This case concerned Article 101 and the question whether the pricing mechanism could be a restriction of competition by object or effect. The Court of Justice overruled General Court's decision of declaring the behaviour being restricting competition by object. CJEU found that GC had erred in law and sent the case back to GC so that the effects could be reviewed. The Court of Justice did not find that it might not be harmful to competition instead stated that a proper effects analysis should be conducted to be able to see the harmfulness.⁵⁰ Certainly, the analysis in regards of a concentration is different, since it needs to test whether the impediment to competitive effects are likely and not already occurred.

In regards of disproportionate multi-sided markets, the network effects are accumulated on one side compared to the other. The side, which has greater network effects is often open for users for a lower price, for free or with other additional benefits.⁵¹

This multi-sided online platform model has as its effect to monopolise the market. In case of search engines, users rarely use multiple search engines, since as they found a good one they tend to stick with it. While a search engine is popular it allures more advertisers to make a deal with that platform, since of the likelihood that more platform users see its advertisements and therefore there are more purchases. When a search engine is able to gather more users on both sides of the market and create more revenue, it is difficult for competitors to enter the market or stay competing on the market, since it is not easy to get users and advertisers after that. Therefore, the indirect network effects are closely related to market power. This will be discussed later in more detail in the chapter 4 concerning concentration of user data. The following chapter will briefly explain the economies of scale in relation to data related markets.

⁴⁹ Andrej Fatur, *EU Competition Law and the Information and Communication Technology Network Industries, Economic versus Legal Concepts in Pursuit of (Consumer) Welfare* (Hart Publishing 2012) 241 and COMP/34/578 MasterCard.

⁵⁰ Judgment in *Groupment des cartes bancaires (CB) v. European Commission*, C-67/13, EU:C:2014:2204, para 73-74 and Judgment in *Groupment des cartes bancaires (CB) v. European Commission*, T-491/07, EU:T:2012:633, para 88-92.

⁵¹ Thomas Hoppner, 'Defining Markets for Multi-Sided Platforms: The Case of Search Engines' [2015] No. 3 World Competition 38, 351.

3.3.3 Economies of scale

Economies of scale occur to multi-sided online platform markets, when the costs related to average costs decrease and the production rises. Just as indirect network effects, supply and demand side economies of scale have a tendency to create concentration on the market, which might lead to monopolies. The economies of scale have the effect of creating more dominant undertakings offering their products or services for a lower price.⁵²

Both economies of scale and indirect network effects might create barriers to entry meaning that the effects are of nature to safeguard the undertakings already on the market and hamper the position of new undertakings trying to enter the market.⁵³

In the following concentration of user data chapter, the meaning is to look at merger control more specifically and consider in what kind of circumstances might a merger be prohibited by the Commission and how should the relevant market be defined. Before that the specific characteristics related to multi-sided markets and more specifically social media and search engine markets are explained in the subsequent sub-chapter.

4 Concentration of user data

4.1 The specific characteristics related to multi-sided markets

Multi-sided platform is not a new way to conduct business. Many old industries have relied on it before. However, the changes in technology has made it even more useful to connect different customer groups.⁵⁴ This thesis will focus mainly on online platforms. Although cases and

⁵² David Evans, 'Antitrust Issues Raised by the Emerging Global Internet Economy' [2008] 285 Northwestern University Law Review Colloquy, 8.

⁵³ Inge Graef, 'Market Definition and Market Power in Data: The Case of Online Platforms' [2015] 38, No 4, World Competition Journal, 484.

⁵⁴ David Evans and Michael Noel, 'The Analysis of Mergers That Involve Multisided Platform Businesses' [2008] Vol 4, Journal of Competition Law & Economics, 664.

decisions are presented from other industries to give a perspective and comparison, since so many other industries collect user data in addition to online platforms. In online platform market's, providers are offering their services both to users and advertisers and possibly to other parties as well. The platform providers are not making money by offering their services to consumers, since the services are often offered for free. Instead they are paid by the advertisers in exchange for the data that the platform providers collect from their users. In addition to collecting the data, the platform providers are creating targeted advertisements from the data that they have collected from users and selling it to advertisers.⁵⁵

Another characteristic of multi-sided markets is that externalities often occur after the two customer groups are connected to each other. In regards of online platforms, it could be for example that users benefit from receiving advertisements from their range of interest or that advertisers are able to sell their products or services better when the advertisements are targeted to the right user group. Without the online platforms being between the advertisers and users, these externalities might not arise.⁵⁶

Nevertheless, it is uncertain do the users really need the advertisers. Some might consider it useful to receive targeted advertisements but some might consider it more irritating and feeling like someone is following you and your interests, as it is. Moreover, it is not a vital requirement for the users to receive targeted advertisements.⁵⁷ Therefore, in online platforms it might be that the advertisers are the ones receiving advantages to being connected to the users by a third party, and the users are just enjoying the free platforms.

Although, for this business model to be able to function successfully, the online platform offered for users, need to be popular, otherwise the advertisers will not be interested in paying for the data, targeted advertisements and advertisement space.⁵⁸ The more popular it is amongst users and the more advertisers and revenues it will create the harder it will be to compete

⁵⁵ Inge Graef, Sih Yuliana Wahyuningtyas and Peggy Valcke, 'Assessing Data Access Issues in Online Platforms' [2015] Telecommunications Policy, 375-376.

⁵⁶ David Evans, 'Antitrust Economics of Multi-Sided Platform Markets' [2003] Vol 20, Yale Journal on Regulation. 332.

⁵⁷ Nathan Newman, 'Search, Antitrust and The Economics of the Control of User Data' [2014] NYU Law School Information Law Institute, 8.

⁵⁸ Aleksandra Gebicka and Andreas Heinemann, 'Social Media & Competition Law' [2014] Vol 37. No. 2, World Competition, 156.

against these successful online platforms. These indirect network effects and economies of scale were already mentioned in the previous chapter.

As previously stated, the more specific focus in this thesis are search-engine and social media markets. The typical characteristics of both these markets are that there are not that many actors in the market and those, which are active are super dominant. In regards of social media, some of the actors in the market are inter alia Facebook, Myspace, Google+, XING and studiVZ. Some of these offer more limited features and some might be limited only to certain territories.⁵⁹ Facebook offers a lot of different features from sharing pictures to FaceTime calls. Moreover, it is used all around the world to a high extent.

In the search-engine market, biggest actors are Google, Bing, Yahoo! Search and Ask. However, in this market as well there is one, which has large market share all around the world and that is Google. Google has 65% of US search queries and it receives 78% of advertising revenues in US and 85% internationally.⁶⁰ Google's business model is pretty extensive. In addition to Google Search, Google offer other platforms inter alia Gmail, YouTube, Google+, Google maps, Google translator and Google Drive. All these are connected to each other and all of those collect user data, which it sells forward to advertisers as targeted advertisements.⁶¹

4.2 Previous decisions related to user data

In the following sub-chapter, the purpose is to look at previous decisions related to multi-sided data related markets. Moreover, focusing on how the Commission has regarded the relevance of commercial use of data in their market analyses. Later these decisions' views will be analysed. Under the relevant market chapter those will be viewed again in contrast to the elements that should be present in data concentration analysis.

⁵⁹ *ibid*, 152.

⁶⁰ Nathan Newman, 'Search, Antitrust and the Economics of the Control of User Data' [2014] NYU Law School Information Law Institute, 5.

⁶¹ *ibid*, 10.

4.2.1 *Google/DoubleClick* acquisition

In 2008 the European Commission gave its decision COMP/M.4731 on the acquisition of DoubleClick by Google. The Commission found that the concentration was not likely to significantly impede effective competition and it was compatible with the common market. The concentration raised concerns, since both undertakings are active in the online advertising industry. In this decision data was not defined as a relevant market. The relevant market's identified were provision of online advertising space, intermediation in online advertising and provision of online display ad serving technology.⁶² All the identified relevant markets, were services, in which monetary payment is exchanged. The Commission argued that the amalgamation of information that the merged entity would gain from Google's search behaviour and DoubleClick's web-browsing information would not create a competitive advantage, which competitors could not compete against. It was argued that multi-homing is common, concerning these markets and foreclosure rather unlikely since the network effects were not strong enough.⁶³

The same acquisition was investigated also in the United States by the Federal Trade Commission. The FTC came to the same conclusion; hence it is not necessary to look into that in more detail. However, one FTC Commissioner Pamela Jones Harbour gave a dissenting statement, where she reasoned that the acquisition could significantly impede effective competition.⁶⁴ She is basing her arguments on the estimates, where she considers that the market is developing into.

The negative points that Harbour raised include inter alia that the parties are potential competitors in third party ad serving tools, the concentration creates network effects in online advertising market and in addition the acquisition raises user privacy concerns. She further states that the traditional competition analysis does not take into account the views of all the relevant parties. In addition, she argues that a relevant market consisting of data could have been possibly defined. Harbour was hoping that the Commission would have continued its investigation and used compulsory process and made a more extensive analysis on the parties'

⁶² COMP/M.4731-*Google/DoubleClick*, 11.03/2008.

⁶³ Inge Graef, 'Market Definition and Market Power in Data: The Case of Online Platforms' [2015] 38, No 4, *World Competition Journal*, (COMP/M.4731-*Google/DoubleClick*, 11.03/2008, paras 269-272 and 365-366)

⁶⁴ *Google/DoubleClick*, No. 071-0170, Dissenting statement of Commissioner Pamela Jones Harbour, 1.

post-transaction data intensions. Another option she presented was that Commission should have requested commitments from the parties concerning the use of collected data.⁶⁵

4.2.2 *Facebook/WhatsApp* acquisition

In the more recent COMP/M.7217 decision, which concerned Facebook's acquisition of WhatsApp the European Commission reviewed the potential data concentration. However only to regard whether it is probable that the concentration reinforces Facebook's position in the online advertising market or in any other sub-segments. Moreover, it further states that any privacy related issues rising from this concentration is not a competition law issue but instead should be dealt by EU data protection legislation.⁶⁶

It is mentioned that only Facebook is active in the online advertising business and not WhatsApp.⁶⁷ In addition, WhatsApp is not at the moment collecting data from its users and neither storing its user's messages after delivery.⁶⁸ Commission concludes in its investigations that even if the merged undertaking started collecting data also from WhatsApp users for online advertising purposes, there nonetheless would be an adequate amount of actual and potential competitors, who are able to compete with Facebook in targeted advertising business.⁶⁹

Later the Commission weighs the possibility that the merged undertaking would start collecting user data from WhatsApp with the aim of using it to develop the targeted advertisements offered at the Facebook platform to WhatsApp users.⁷⁰ Several market commentators argued that they presume the acquisition to improve Facebook's position in the online advertising business, since of the increased amount of data they are able to collect post-transaction.⁷¹

However, the Commission stated that to be able to start collecting data from WhatsApp users it would require a change in privacy policy. Moreover, it came up in Commission's investigations that users would likely switch to another consumer communication app in case

⁶⁵ *ibid*, 9.

⁶⁶ COMP/M.7217 *Facebook/WhatsApp*, 3 October 2014, para 164.

⁶⁷ *ibid*, para 165.

⁶⁸ *ibid*, para 166.

⁶⁹ *ibid*, para 179.

⁷⁰ *ibid*, para 180.

⁷¹ *ibid*, para 184.

WhatsApp would change its policy in regards of data collection.⁷² Although for example the German privacy authorities warned that people should start using another messaging application instead of WhatsApp after the acquisition.⁷³ This most likely occurred at least to some extent already amongst the more privacy conscious users. Therefore, the acquisition created already an effect before even changing their privacy policy.

In this decision the Commission found the relevant markets to include consumer communications services, social networking services and online advertising services. Consideration of personal data was only mentioned in the competitive assessment and not as one relevant market. Although, the both undertakings were not collecting personal data and the markets were partially vertically connected. The Commission did not take personal data as one separate product, since the undertakings' were not active in a data trading market.⁷⁴

4.2.3 Remarks of the previous decisions

The reason why Commission was not considering the impact of data collection more extensively in these decisions is that in neither of the cases personal data was defined as its own relevant market. In regards of the *Facebook/WhatsApp* acquisition, WhatsApp is not collecting user data, which hence should not increase data protection concerns if the undertakings continue to follow their previous privacy policies. Moreover, the amount of data is not increasing post-merger. Facebook is neither selling the data that it has collected to a third party. It only sells the targeted advertisements, which it has created from the data. Basically data is used only indirectly.

The Commission identifies that there is competition in data protection qualities, however the parties are not active in that market, since of their different privacy policies. The concerns were

⁷² *ibid*, para 186.

⁷³ Loek Essers, 'German privacy regulator: WhatsApp users should switch to a more secure service' (Amsterdam 20 February 2014) <http://www.pcworld.com/article/2099700/whatsapp-users-should-switch-to-a-more-secure-service-german-privacy-regulator-urges.html> accessed 20 May 2016

⁷⁴ COMP/M.7217 *Facebook/WhatsApp*, 3 October 2014 para 72 and Francisco Costa-Cabral and Orla Lynskey, 'The Internal and External Constraints of Data Protection on Competition Law in the EU' LSE Law, Society and Economy Working Papers 25/2015, SSRN Electronic Journal, 25 <http://ssrn.com/abstract=2703655> accessed 12 February 2016.

only about the increasing market position that the entity would get and not about the competition on the quality of data policies.⁷⁵

Although it should be taken into account that WhatsApp changed recently its subscription fee policy for free in all countries as in the past it was charging its customers in certain areas. It is not easy to predict to which direction its policy will evolve. WhatsApp needs to create its revenues somewhere, which indicates that it has to start creating something, which would interest businesses.⁷⁶

In the *Google/DoubleClick* acquisition then again the parties were originally competitors in some of their businesses and in theory imposing more impediment to effective competition. The likelihood of creating a concentration that is harmful for consumers and competition is more relevant, however neither the EU Commission nor the FTC did consider the effects to be major. In addition, they concluded that there are several competitors on the market. The possibilities on which way the market might develop into are not taken into consideration. The traditional market analyses might not be enough to catch the problems related to mergers, which are active in the multi-sided markets.

Furthermore, the Commission is not interested in taking into account any other factors than purely competition concerns. These decisions show that in theory there could be competition concerns about concentrations, which collect data. These decisions just did not have the necessary elements to raise enough concerns about the user data collection in the multi-sided markets.

It is rather difficult to evaluate something that is not existing in these concentrations or at least not existing yet. It is not clear if the Commission will change its view about the matter and start considering that there could be a relevant market consisting of user data. The following chapter will view the case law development in relations to data related markets and multi-sided markets and the possible ways forward on how the Commission will consider these markets in the future.

⁷⁵ *ibid*, 26.

⁷⁶ Aaron Brown, 'WhatsApp is now completely free, but there's a worrying catch for users' *Sunday Express* (London 19 January 2016) <http://www.express.co.uk/life-style/science-technology/635678/WhatsApp-Completely-Free-69p-Year-UK-Advertising> accessed 13 April 2016.

4.2.4 Case law development and possible ways forward

The *Google/DoubleClick* decision was given in 2008 and *Facebook/WhatsApp* decision in 2014. The development of Commission's approach in regards of data related markets has not gone forward drastically. The Commission has not been investigating the issue of data in merger control that extensively, since in the previous decisions it has considered that it is not necessary to do a full analysis. Since, of the similar competition law investigations between EU and US, it is assumed that the dissenting statement of the FTC Commissioner Pamela Jones Harbour was noticed by the European Commission as well.

The Statement in the *Facebook/WhatsApp* decision that data protection considerations are not taken into account in competition analysis shows as well that Commission is well aware of the discussion surrounding data related markets and the connection between data protection and competition law. It is just not yet ready to approach the topic in a manner that would give a guideline to undertakings active in the data related markets. Presently it has only shown what kind of issues are not within the scope of competition law. The possibility of harmful effects to effective competition have not been discussed.

Therefore, the impact of these decisions has been relatively little. Naturally the issue is very complicated and it requires time to be able to foresee the development in the markets. Although as a point relative to mention, until now the Commission has often treated the ICT sector differently when it comes to multi-sided markets. In comparison to other industries, which have multi-side characteristics, the Commission has taken those into account in its analysis. These industries include for example retail banking, newspaper industries and global distribution systems'.⁷⁷

For example, the Commission considered the two-sided nature of the market in *Travelport/Worldspan*⁷⁸ decision. The merger concerned technical platforms, which connect different type of service providers including hotels, airlines and car rentals, which created unbalanced indirect network effects to different sides of the market. In the end, Commission

⁷⁷ Andrej Fatur, *EU Competition Law and the Information and Communication Technology Network Industries, Economic versus Legal Concepts in Pursuit of (Consumer) Welfare*, (Hart Publishing, 2012) 240-242.

⁷⁸ European Commission, COMP/M.4523 *Travelport/Worldspan*, 21 August 2007

approved the merger after finding that it is not significantly impeding effective competition even though of the indirect network effects.⁷⁹ It is not necessary to dive deep into that decision, hence the relevant issue is to consider why the Commission's evaluation depends on the industry whether it takes appropriately into account the two-sided nature of the market. This indicates that it is not only the implications of commercial use of data issue that has been somewhat ignored.

Moreover, the other relative question is why have not the indirect network effects, economies of scale and other effects arisen from multi-sided platforms taken into consideration in ICT industry decisions. In the *Google/DoubleClick* decision, the Commission recognised that both undertakings were active in some of the same multi-sided markets, there were indirect network effects present and the undertakings had capacity to acquire more user data post-merger. Furthermore, that these effects create the possibility to foreclose competitors from the market. However, the Commission stated that regardless of these factors, the investigations indicated that it is unlikely that foreclosure will occur. The multi-sided market analysis compared to the traditional market's is explained more in detail under chapter 4.1.

It is difficult to evaluate, which way will Commission take its approach in regards of data related markets and ICT multi-sided markets in the future. Most likely the analysis will be more extended in the future than it has been so far. Data analytics and data collection is an enhancing and increasing business and necessary attention should be given to it. Having said this, it doesn't mean that online platforms would be the only industry active in those businesses and that those ones should be only regarded as possibly harmful. Data collection has been increasing in several industries and the attention should be put on all of those industries.

Therefore, as the commercial use of data is increasing in several industries and many undertakings are active in that, the foreclosure effect should not be that much of a concern to large and medium sized undertakings. Those undertakings are able to invest money on data analytics and other processing mechanisms, in case consumer welfare is maintained by following data protection legislation. For smaller undertakings the possible foreclosure effect might be a threat and competing against larger undertakings taking advantage of the data might

⁷⁹ Andrej Fatur, *EU Competition Law and the Information and Communication Technology Network Industries, Economic versus Legal Concepts in Pursuit of (Consumer) Welfare*, (Hart Publishing 2012) 240-242.

be rather difficult. Hence, it is always essential to consider in each specific case the market structure separately, without it the effects analysis is not useful. Even if the purpose of competition law is not to be protecting the competitors as such it might be a consumer welfare issue in case the concentration creates an effect so that competitors cannot stay on the market and there is less options for a consumer.

In case the Commission decides to follow the line that it has taken up to this point and not investigate the data implications in a merger analysis to the necessary extent, there should be found another guiding tool. This tool could help to review the threat of large undertakings collecting data merging with another similar undertaking. The European Data Protection Supervisory has suggested for cooperation between Commission and data protection authorities.⁸⁰ This would indicate a new kind of tool to be implemented. A new tool might be good idea, however it needs a lot of research and consideration, which authority would be conducting the investigations and what would be the sanctions.

The purpose of the following chapters is to take a stance on how Commission should start investigating the future data related concentrations. Initially, to question whether data can be found to be a relevant market and if so how. Secondly, if the ownership of large amount of user data can be found to create significant impediment to effective competition.

4.3 Relevant market of data?

4.3.1 Introduction

The following relevant issue is to consider if and how can data be defined as a relevant product market. Pamela Jones Harbour has stated in a separate issue that it is essential to define a separate product market for data and not only to have product market's from the end products created from the data.⁸¹

⁸⁰ European Data Protection Supervisory, 'Privacy and Competitiveness in the Age of Big Data: The Interplay Between Data Protection, Competition Law and Consumer Protection in the Digital Economy' [2014]

⁸¹ (Fabrizio Cugia, Rehman Noormohamed and Denis Alves Guimarães), Pamela Jones Harbour *Communications and Competition Law, Key Issues in the Telecoms, Media and Technology Sectors*, Kluwer Law, 2015, 254.

In its previous decisions the European Commission or the FTC have not defined data as its own product market, when it considers online platforms. The distinct nature of multi-sided markets need to be taken into account in the relevant market analysis as well. Defining a relevant market is crucial in a merger or acquisition analysis. It is the first step in a substantive analysis.⁸² ‘The Commission Notice on the definition of the relevant market for the purposes of Community competition law’ mentions that market definition is an instrument to review if undertakings are competing against each other.⁸³

The aim is to recognise the competitive restraints that the undertakings would encounter. Moreover, its objective is to recognise the effective complementary supply options for the customers in regards of products or services and a geographic place.⁸⁴ One of the key factors of merger control is to detect and prohibit transactions, which would increase or produce market power by creating hindrance of competition.⁸⁵

The CJEU defines the relevant market by substitutability. The substitutability indicates, which products are interchangeable with one another but not with others. This is taken into consideration from consumer aspects by product characteristics, intended use and prices. The Commission defines the relevant product market substitutability from demand substitutability and supply substitutability.⁸⁶

Other factors that the Commission is taking into account in its market analysis include access to the market and potential competitors. These investigations are conducted with the help of inter alia specific studies, views of consumers, competitors, and barriers.⁸⁷ Often the Commission has used tests such as SSNIP or critical loss analysis test to view substitutability. However, since of the complicated nature of multi-sided online markets’ it is not enough to view the relevant market by traditional tests. The purpose in the following sub-chapter is to

⁸² Michael Rosenthal and Stefan Thomas, *European Merger Control*, (Verlag C. H. Beck oHG and Hart Publishing 2010) 88.

⁸³ Commission Notice on the definition of relevant market for the purposes of Community competition law [1997] OJ C 372/05

⁸⁴ *ibid*, para 13.

⁸⁵ Ioannis Kokkoris and Howard Shelanski, *EU Merger Control, A Legal and Economic Analysis* (Oxford University Press 2014) 199, 200.

⁸⁶ Alison Jones and Brenda Sufrin, *EU Competition Law, Text, Cases and Materials* (Fifth edition, Oxford University Press 2014) 63.

⁸⁷ Commission Notice on the definition of relevant market for the purposes of Community competition law [1997] OJ C 372/05.

review the relevant market in a multi-sided market and consider how should a market be defined compared to traditional relevant market definition. Furthermore, what kind of mistakes have been made earlier concerning multi-sided market analyses.

4.3.2 Relevant market in a multi-sided market

The traditional and regular market definitions do not often apply to two or multi-sided markets. The outcomes that these definitions bring, might not indicate a genuine image of the actual situation on the market. Especially quantitative tests applied by the Commission such as the SSNIP test is not the preeminent test to define a market concerning an online platform, which offers its services to users without monetary payments.⁸⁸ Some even argue that there is no market in case the services are offered for “free”. However, that statement is not supported in this thesis, since as it has been established before that, users receive the services for “free” in exchange for their data and therefore the data is used as a substitute for money. That does not fulfil the definition of free, since the users give something in return.

In regards of multi-sided markets, it has been established that it is necessary to distinguish and define separate relevant markets for each customer group, since the groups have individual demands. Although it has been additionally indicated that one of the special characteristics of a multi-sided market is that it might create indirect network effects, and hence the different user markets are connected to each other.

If a platform is dominant in one side of the multi-sided market that cannot be disregarded from the other side, since it has an actual effect on the other side as well. The actual dominance is not the only factor that can be viewed by this. Hence, the proper functioning of the market can be identified only by examining the different customer group market’s interconnection. Therefore, the competitive effects need to be assessed from all sides of the multi-sided market.⁸⁹

⁸⁸ Thomas Hoppner, *Defining Markets for Multi-Sided Platforms. The Case of Search Engines*, [2015] No. 3, World Competition 38, 350.

⁸⁹ *ibid*, 352, 353 and Evans D, 'The Antitrust Economics of Multi-sided Platform Markets' [2003] 20 Yale J. Regulation, 360.

According to an academic this type of an analysis can only be made if the market definition is not made in too stringent terms. Moreover, the payment methods should not be regarded while evaluating substitutability.⁹⁰ While taking a less strict view on the market definition it could be considered if this could apply also to defining a relevant market for data. Commission has the possibility of developing its guidelines and notices and it should be relevant to keep those up to date so that the actual effects can be taken into account as the market's change and develop. This will be viewed more further in the following chapter when it comes to demand and supply substitutability of data.

4.3.3 Demand and supply substitutability of data

As mentioned in one of the previous chapters, substitutability is an important part of the present relevant market analysis. Demand substitutability tool is applied to evaluate if a customer is willing to change to another supplier's product if there is a change for example in price. Supply substitutability is used to review if a supplier, who is not supplying presently a specific product or service but if the supplier would be willing to start supplying that product or service without experiencing supplementary costs.⁹¹ The existing competition law principles demand the presence of supply and demand substitutability in the relevant market analysis.

In the multi-sided online markets, undertakings often use user data only as an indirect product. Data is not traded directly in the online platform market's, since money is exchanged for the targeted advertisements, which are made with the help of collected user data.⁹² Therefore, the supply substitutability is hard to distinguish. Exception for this is Twitter, which licenses its collected data.⁹³ Some even argue that, since the users are not paying for the online platform there is no trade even in that side of the market. However, as it was established in chapter 3.2 that data is a commodity and users exchange their data for the services. The following sub-chapter will present some criticism against the relevant market analysis concerning commercial use of data.

⁹⁰ Thomas Hoppner, 'Defining Markets for Multi-Sided Platforms. The Case of Search Engines' [2015] No 3, World Competition 38, 354.

⁹¹ Nikos Nikolopoulos, *EU Competition Law and Regulation in the Converging Telecommunications, Media and IT Sectors* (Vol 20, Kluwer Law 2006), 495, 496.

⁹² Inge Graef, 'Market Definition and Market Power in Data: The Case of Online Platforms' [2015] 38, No 4, World Competition Journal, 489, 490.

⁹³ *ibid.*

4.3.3.1 *Is the substitutability requirement relevant?*

Notwithstanding, under the present competition law principles, in regards of online platforms such as social networks and search engines Commission cannot consider data as a supply object if data is not directly traded between the platform provider and an advertiser.⁹⁴ Therefore the problem in defining relevant market for data is precisely this. In case the Commission cannot define the commercial use of data as a relevant market there should be another way to investigate the harmful effects of combining data sets. Another option is to reconsider whether the present competition law principles answer to the present and future issues followed by digitalisation.

Pamela Jones Harbour suggested already in her dissenting statement regarding the *Google/DoubleClick* decision that this type of traditional competition analysis does not any longer affect to the more complex markets and mergers, which have an impact on the consumers.⁹⁵ It can be presumed that this is only the beginning and unless changes are made to competition analysis and principles, a lot of mergers and acquisitions, which have a negative impact on competition and consumers are not captured. Even if data does not presently fulfil the requirements set out for a relevant market however, it still might be that it actually affects the markets in a way, which should be taken into account in a competition analysis. The traditional tests might not be the answer when the technology changes and different things become valuable.⁹⁶

If the requirement of actual trading of data between the parties stands, there can be defined only a hypothetical market for data. In this type of definition, the market is regarded on the basis of expectations and not actual market knowledge. Moreover, perspectives of data substitutability can be taken from Commissions earlier decisions, where data was actually traded or data analytics services conducted.⁹⁷ The following chapter will review how data can be sub-categorized.

⁹⁴ *ibid.*

⁹⁵ *Google/DoubleClick*, No. 071-0170, Dissenting statement of Commissioner Pamela Jones Harbour, 10.

⁹⁶ (Fabrizio Cugia di Sant' Orsola, Rehman Noormohamed and Denis Alves Guimaraes), Pamela Jones Harbour) *Communications and Competition Law, Key Issues in the Telecoms, Media and Technology Sectors*, (Kluwer Law 2015) 254.

⁹⁷ Inge Graef, 'Market Definition and Market Power in Data: The Case of Online Platforms' [2015] 38, No 4, *World Competition Journal*, 495, 496.

4.3.3.2 Differentiation of data

In the decision *Telefónica/Vodafone/Everything Everywhere*, the Commission reviewed data analytics services as a relevant market for static online advertising and mobile advertising businesses and whether these two belong to the same product market. Just as a commentary note data analytics are treated as a service. There is no indication of data as a product as such. While data has not been defined as a relevant market as a product, it indicates that data is not really treated as an input. It is the service, data analytics or data processing, which is making it valuable. Although without the personal information, monetization could not be possible.

Returning back to the decision, the Commission left the exact definition of relevant market open, while stating that conceivably these services should be divided into two different product markets. According to a market actor mobile data is geo-located, more private and possible to be cross-referenced with call behaviour and therefore not substitutable with online data analytics. Although mobile data analytics and online data analytics are regarded as complementary products and those are used in parallel.⁹⁸ In that case it was still found that there are a lot of competitors who have a possibility to access data and therefore it was not likely to significantly impede effective competition.⁹⁹

Moreover, data collected by an online platform cannot inevitably be regarded as substitutable to data, which is collected by for example banks, insurance companies, tele operators and retailers. Data collected from these service providers give different type of information of its customers than online platform providers are able to collect, hence the data collected from these are rather complementary than substitutable. Even if certain amount of data might be similar it is still not relevant enough so that online platform providers could offer its services well to the different user groups. Online platform providers are capable to collect more complex information with the help of cookies; which other service providers are not able to use.¹⁰⁰ Although this does not mean that another type of data could not be useful for business

⁹⁸ European Commission COMP/M.6314-*Telefónica UK/Vodafone UK/ Everything Everywhere/JV*, 4 September 2012, paras 199-203.

⁹⁹ *ibid*, para 434.

¹⁰⁰ Inge Graef, 'Market Definition and Market Power in Data: The Case of Online Platforms' [2015] 38, No 4, *World Competition Journal*, 497.

purposes, since it gives a broader view of the users. Other type of data might be very useful nonetheless in a relevant market analysis it just is not substitutable.

Another relevant thing that should be taken into account in regards of data substitutability is that online platform providers are often or at least the biggest players are, quite broadly spread around into different types of online platforms. Therefore, certain undertakings are able to collect data from consumers from several spectrums, being able to create a more complete picture of its users and hence offer better targeted advertisements. This of course interests the advertisers more than other undertakings, which have a lesser opportunity to collect data. The question is then, whether the type of data collected from online platforms should be divided into different product markets, on the basis of what kind of online platform it was collected from.

Data collected by a search engine provider is different from data collected from a social media network provider. Social media data includes more personal information than search engine data, which is related to the interests of a user. Although a combination of these data sets is an advantage. Therefore, perhaps the most appropriate way to view these markets is to separate them but nonetheless consider the connection between those.

In decisions mentioned already before in this thesis, such as *Google/DoubleClick*¹⁰¹, *Facebook/WhatsApp*¹⁰² and *Microsoft/Yahoo!*¹⁰³, the Commission has defined separate markets in regards of search and non-search advertising markets. In case there are separate markets for different online platforms and the advertisement types they provide, it is likely that even the data that is collected should be further divided into separate relevant markets. The data collected from different type of platforms might not therefore be substitutable for another type of platform or if it is, it might be only partially substitutable. There might also be a difference in the data collected from some social media platforms such as Facebook and Twitter¹⁰⁴

The possible market definition of data could be regarded as comprising of data collected for the purpose of creating services to advertisers and users. It is important to view both sides of

¹⁰¹ COMP/M.4731-*Google/DoubleClick*, 11 March 2008, paras 48-56.

¹⁰² COMP/M.7217 *Facebook/WhatsApp*, 3 October 2013, para 76.

¹⁰³ COMP/M.5727-*Microsoft/Yahoo! Search Business*, 18 February 2010, paras 62-75

¹⁰⁴ *ibid*, 498, 499.

user markets in this case, since there is a link between different user markets. Until now, the Commission has not given a market analysis, however it is likely that some day it has to, in a situation where data is directly traded.

It is still likely that even if data is not directly traded there is a risk and competitive harm arising from these already previously decided similar type of acquisitions and mergers. Another option if data cannot be defined as a relevant market is to review commercial use data and the concentration of it as significantly impeding effective competition from a consumer welfare aspect. This will be assessed in a later in this thesis.

4.2.3.2 An urge for a change from traditional tests?

There are several ways to review demand substitutability. One of the tests even mentioned in the Commission notice on the relevant market is the ‘Small but Significant Non-Transitory Increase in Price’ test (SSNIP). In this test a hypothetical analysis is made considering that a supplier increases a product’s or service’s price by 5-10%. According to this test, if a customer changes after the price increase to another supplier it means that the product or service from both suppliers is part of the same market. SSNIP test is used by the Commission frequently however, not always.¹⁰⁵

The SSNIP test might not be the most appropriate test to review demand substitutability any longer, since markets are evolving and price is not the only parameter currently. In regards of online platforms, where the services are offered without a price for users, the SSNIP test is certainly not the most useful test. Some academics and commentators have suggested for an alteration of the SSNIP, which would take into account also the markets, where there is no price but the product or service is exchanged for something else.¹⁰⁶ This change would be appropriate especially concerning market’s which are quickly technologically evolving.¹⁰⁷ The appropriate tests should be evolving as well together with the markets.

¹⁰⁵ Aleksandra Gebicka and Andreas Heinemann, ‘Social Media & Competition Law’ [2014] No. 2, World Competition 37, 158.

¹⁰⁶ *ibid.*

¹⁰⁷ Organisation for Economic Co-operation and Development (OECD), Directorate for Financial and Enterprise Affairs Competition Committee, ‘The Role and Measurement of Quality in Competition Analysis’ DAF/COMP (2013)17, 14.

A test, which would be more suitable to assess the online platform markets and especially in relation to data would test quality rather than price. Innovation and quality are important features in technology.¹⁰⁸ Quality of a database and quality of privacy policies are issues that consumers appreciate to an extent even if they are not paying for the services except by their data. If the quality of the online platform would frequently decrease or the privacy policy would be set to a standard not high enough for the users, it is likely that the users would change to another database. This could be reviewed by a small but not significant non-transitory decrease in quality (SSNDQ) test.¹⁰⁹

Although, several other factors need to be taken into account in regards of the online platforms such as the original quality, other users (contacts concerning social media) and the features that it has. However, testing the decrease of quality of the service or privacy policy is not an easy task at least compared to testing the different prices. The problem therefore is and probably will be that these kind of tests are not happily welcomed, since the tests might not be completely reliable.¹¹⁰ Nevertheless, it should be bared in mind that operating the SSNIP test is not perfect either and it is not used by the Commission in every case.¹¹¹

Although the relevance of reviewing the change of demand substitutability tests is rather little if it is found that there is no relevant market of data. The purpose of this is just to show that this is as well a slightly outdated test that should be brought to the present date. This might not be an easy task, since reviewing customers' willingness to change to a different platform since of quality issues is a lot harder to evaluate. Notwithstanding, at least some consideration should be put to this subject.

Normally in a competition analysis, the relevant geographic market would be defined in relation to each set product market. However, in this thesis that analysis will not be conducted since it will not play a significant role in relation to the topic. The following chapter will present some concluding remarks on the relevant market of data.

¹⁰⁸ *ibid.*

¹⁰⁹ Aleksandra Gebicka and Andreas Heinemann, 'Social Media & Competition Law' [2014] No. 2, World Competition 37, 158.

¹¹⁰ Nils-Peter Schepp and Achim Wambach, 'On Big Data and Its Relevance for Market Power Assessment' [2016] Vol. 7, No. 2, Journal of European Competition Law & Practice, 124.

¹¹¹ Organisation for Economic Co-operation and Development (OECD), Directorate for Financial and Enterprise Affairs Competition Committee, 'The Role and Measurement of Quality in Competition Analysis' DAF/COMP (2013)17, 7.

4.3.4 Conclusion of the relevant market of data

To respond to the question whether data can comprise of its own relevant market is both negative and a question mark for the future. According to the present competition law rules, the relevant product or service requires substitutability. In the online platform markets, data is not directly traded, hence it does not fulfil the requirement of substitutability. The same does not apply to other industries such as telecommunications sector, in which data is traded directly but often the data is pseudonymous and not personal data as such or at least the requirement of identifiable nature is not certain. In case the Commission does not consider that the relevant market definition should be adjusted to the complexities of the present digital era, data traded indirectly in the online platforms cannot be defined as its own relevant market.

All the examples above related to relevant market of data are hypothetical examples and therefore not based on law or case law. In the *Telefónica/Vodafone/Everything Everywhere* decision, the Commission found data analytics as its own relevant market, however since it considered that it was not necessary to define the market precisely and left it open, since it would not materially affect the competitive assessment, there is still no proper definition of data related relevant market. Therefore, the following chapter will review whether a data related merger or acquisition does create significant impediment to effective competition by non-coordinated or coordinated effects. Both horizontal and vertical concentrations and the possible effects of those are considered separately.

4.4 Significant impediment to effective competition

This chapter will look into what kind of effects would a merger or an acquisition impose to markets where the undertakings hold significant amounts of data. First it is necessary to consider the requirements when the Commission evaluates a concentration to have negative impact to effective competition. Article 2(3) of the EUMR mentions that “*A concentration which would significantly impede effective competition in the common market or in a substantial part of it, in particular as a result of the creation or strengthening of a dominant*

*position, shall be declared incompatible with the common market.*¹¹² There is a test applied to review this, which is called SIEC test.

Article 2 (1) EUMR states the factors, which need to be taken into account in the review whether the concentration is compatible with the common market. These factors include *(a) the need to maintain and develop effective competition within the common market in view of, among other things, the structure of all the markets concerned and the actual or potential competition from undertakings located either within or outwith the Community and (b) the market position of the undertakings concerned and their economic and financial power, the alternatives available to suppliers and users, their access to supplies or markets, any legal or other barriers to entry, supply and demand trends for the relevant goods and services, the interests of the intermediate and ultimate consumers, and the development of technical and economic progress provided that it is to consumers' advantage and does not form an obstacle to competition.*¹¹³

In a merger analysis the Commission needs to find burden of proof that a merger or acquisition is either compatible or incompatible with the common market.¹¹⁴ This is basically a hypothetical analysis, since as compared to Article 101 and 102 cases, the undertakings have not yet abused their dominant position or made any other wrongdoings. The analysis is based on likelihood what would happen if the concentration was approved and finalized. Nevertheless, the Commission needs to show when applying the SIEC test that there is a causal link between the merger or acquisition and competitive harm.¹¹⁵

The reason for negative effects arising from concentrations, which increase their market power is since when a concentration is more dominant it also has higher power to influence the market by inter alia increasing prices, decreasing innovation or decreasing the quality of its services or prices.¹¹⁶ Subsequently, consumers have a decreased possibility to choose another service or product supplier than pre-concentration. A merger or an acquisition is more often found to be harmful when the undertakings are horizontally connected than vertically. Although vertical

¹¹² Council Regulation (EC) No 139/2004 on the control of concentrations between undertakings [2004] (The EC Merger Regulation)

¹¹³ Ibid.

¹¹⁴ Alison Jones and Brenda Sufrin, *EU Competition Law, Text, Cases and Materials*, (Fifth edition, Oxford University Press 2014) 1184.

¹¹⁵ *ibid.*

¹¹⁶ *ibid* 1189.

mergers can be found to be significantly impeding effective competition as well, just more rarely. In this thesis the effects in horizontal concentrations will be reviewed first and vertical concentrations separately later under sub-chapter 4.4.2.

4.4.1 Horizontal concentration on data related markets

The establishment or reinforcement of a dominant position is one of the key issues of competitive harm, which is applied to review the SIEC.¹¹⁷ The dominant position can be viewed using different types of measures such as market shares, concentration thresholds and barriers to entry. The establishment or reinforcement of a dominant position plays a significant role in horizontal concentrations.

In a horizontal concentration, the undertakings are competitors or at least potential competitors on the same market, which therefore decreases competition on the market and has a stronger impact.¹¹⁸ Furthermore, the undertakings closeness as competitors is taken into account, since it is important to review whether an undertaking acquires a close competitor just for the sake that it does not need to compete with that undertaking anymore. In data related market this requires two online platform providers or other undertakings, which collect data to merge. As it has been indicated in the earlier chapter 4.3.3.2 concerning differentiation of data, the market could be narrowed down in several ways. This would have an impact on how close companies are considered to be and how actually harmful would it be.

A horizontal concentration may create non-coordinated or coordinated effects. Non-coordinated effects might occur, since actual or potential competition on the market is non-existent after the concentration is created. Non-coordinated effects might arise even if there is no single firm dominance. This might be a sign of an oligopolistic market according to the Commission.¹¹⁹

¹¹⁷ *ibid* 1187.

¹¹⁸ *ibid* 1189.

¹¹⁹ Michael Rosenthal and Stefan Thomas, *European Merger Control* (Verlag C. H. Beck oHG and Hart Publishing 2010) 116-117.

4.4.1.1 Non-coordinated effects

4.4.1.1.1 Market shares creating market power

In relation to online platforms it is not easy to evaluate their dominance, since of the complicated nature of multi-sided markets and the products or services are offered without money exchanged between the user and the platform provider. Each relevant user market's dominance needs to be considered separately. The Horizontal Merger Guideline mentions that a high market share is a primary indication of market power, although it should not be considered as the only factor.¹²⁰ However, considering for example Facebook or Google Search, which hold high market shares in relation to social media and search engine businesses, the market shares should be taken into account but not as the only indication of market power. Although these market shares are not directly related to data.

If a separate market for data cannot be defined in relation to online platform providers, since of the lack of direct data trading, a possibility is to review data in connection to a relevant market as an asset or an advancement to the creation of a higher market power. Therefore, the pertinent question is in, which markets is the use of personal data relevant. The answer is the online advertising markets and the user side of online platforms. However, as mentioned earlier these markets need to be viewed closely together since of their linked nature.

Market shares are less significant in innovative or dynamic markets; which online markets are an example of. Although market shares should be reviewed in correlation of barriers to entry. In case there are high market shares but the barriers to entry are low, competitors are able to enter and compete in the market at least to the extent necessary for effective competition. Then again, if the barriers to entry are high as well, the high market shares should be taken into account in the assessment.¹²¹

The European Data Protection Supervisory (EDPS) suggested in its preliminary opinion that, since of the powerful intangible asset of data, that these undertakings are collecting, should be taken into account in the market power analysis. The market share is not easily evaluated, in

¹²⁰ Guidelines on the assessment of horizontal mergers under the council Regulation on the control of concentrations between undertakings (2004/C 31/03) para 14.

¹²¹ Spencer Weber Waller, 'Antitrust and Social Networking' [2012] North Carolina Law Review, 1771, 1786.

relation to data. The EDPS proposed that data protection, competition and consumer protection authorities should create a system of assessing market power in these type of cases.¹²²

This is an interesting idea, that data should be evaluated already as an asset in the market power analysis. Although taking it into account in practical means is very difficult. What is the precise value of collected personal data? Can it even be calculated? Moreover, it is doubtful whether all the three relevant authorities would be able to create a tool for evaluation and moreover, which all the authorities could agree on taking into account the underlining aims of these authorities. There is no disagreement that the commercial use of data brings value to an undertaking. The difference is can the value be counted as to use in a market power analysis. The evaluation for this is that, it is rather unlikely that this could be added to the market power assessment at least in a precise manner. However, the cooperation between different authorities would be a necessary and positive progress and hopefully that would apply in several areas concerning data markets.

Another tool used as an indication of market power is the market concentration and more precisely the often used calculation of Herfindahl-Hirschman Index (HHI). This is used to review how concentrated a market is. The HHI threshold is calculated on the basis of how many actors are there in the particular market and what are their market shares. The less active undertakings are in the market, the higher market shares they have and the more highly concentrated the market is. The calculation is made on the basis of post-merger figures. This test is applied by the Commission just to give an overview of the market and it does not impose that there are competitive harms.¹²³ Often it is used in a similar manner as the market share figures to give a first insight and if the figures are high then the Commission will review other issues more carefully.

4.4.1.1.2 Other indications of market power

Other factors that the Commission might take into consideration in relation to data concentration include if the concentrated undertakings are able to decrease growth of its

¹²² European Data Protection Supervisory, 'Privacy and Competitiveness in the Age of Big Data: The Interplay Between Data Protection, Competition Law and Consumer Protection in the Digital Economy' [2014] 28.

¹²³ Michael Rosenthal and Stefan Thomas, *European Merger Control*, (Verlag C. H. Beck oHG and Hart Publishing 2010) 124-125.

competitors.¹²⁴ In the *Sun Chemicals v Commission* case, the General Court found that the merged undertaking might have been able to decrease the growth of its competitors, since it holds valuable intellectual property.¹²⁵

Some researchers have argued, that since of the non-rivalrous nature of data, it is impossible for an undertaking to gain market power in regards of data.¹²⁶ As it has been counter argued previously in this thesis, data can be differentiated and categorized and certain type of data can be more valuable than other. Hence, the type of reasoning related to intellectual property could possibly be used in relation to data as well.

Even if data is non-rivalrous by nature it still gives a competitive advantage that might create the effect that competitors cannot grow, since it is harder for them to collect the same amount of data if the merged entity is already large by size and is able to collect significantly more data from several platforms than its competitors. Moreover, undertakings might rely on trade secrecy or confidentiality of the information collected from users in a similar manner as compared to intellectual property.¹²⁷ In the case *Magill* the CJEU, however established that only the ownership of intellectual property does not automatically mean a dominant position on the market.¹²⁸

As previously mentioned Commission takes into account potential competition as well in its dominance evaluation. In relation to data, in which a relevant market has not been defined yet concerning the online platforms, the more suitable way to evaluate dominance might be to estimate the probability if other competing undertakings have comparable data. Furthermore, another aspect is to evaluate if new undertakings are capable to collect data to a necessary extent.¹²⁹ In regards of *Microsoft/Skype*¹³⁰ merger in the *Cisco* case, the General Court found that high market shares in consumer communications sector, which is relatively new with short

¹²⁴ *ibid* 130.

¹²⁵ Judgment in *Sun Chemical v. Commission*, T-282/06, EU:C:2007:203, para 106.

¹²⁶ Inge Graef, 'Market Definition and Market Power in Data: The Case of Online Platforms' [2015] 38, No 4, World Competition Journal, 501. (Darren Tucker and Hill Wellford 'Big Mistakes Regarding Big Data' [2014] Antitrust Source, 12.)

¹²⁷ *ibid*.

¹²⁸ Judgment in *Telfit Eireann and Independent Television Publications Ltd v. Commission of the European Communities (Magill)*, C-241/91 and C-242/91 EU:C:1994:210, para 46.

¹²⁹ Inge Graef, 'Market Definition and Market Power in Data: The Case of Online Platforms' [2015] 38, No 4, World Competition Journal, 503.

¹³⁰ COMP/M.6281- *Microsoft/Skype*, 7 October 2011, para 78.

innovation circles, might not be a sign of market power.¹³¹ Moreover it was stated that it was not likely that competition would be harmed, since of the dynamic nature of the market and consumers had adequate alternatives, which consumers could access effortlessly.¹³²

However, in regards of potential competition it should be taken into account how important are the two undertakings for each other. In case it seems that the acquired undertaking or merged firms are close competitors and the transaction is just a matter of liquidating competition that should be taken into account, since it is most likely not in the interests of consumers. This might concern also undertakings, which are not super dominant or even market leaders after the concentration.¹³³

In regards of markets, in which data is not directly traded and there have not been defined a relevant market for data, the potential competition is a relatively important factor. There are certain issues, which make it more likely that there is competitive harm and market power in relation to markets, which data is closely related. These factors include firstly that data is an important asset to the services or end products in relation to online platforms. Secondly the undertaking protects its data from competitors by intellectual property law, in which case competitors cannot access the same data. Thirdly, there is very little relevant data available for competitors, and it is not possible for a competitor to collect data for itself to be able to create a similar platform.¹³⁴ These type of factors, the Commission needs to investigate in its effects analysis. The entry barriers that a concentration might bring fourth will be further considered in the next sub-chapter.

4.4.1.1.3 Entry barriers

Several competition law experts have argued that there are low barriers to entry in regards of online platforms. Costs of setting up an online platform are usually not that high and each platform can conduct its own data collecting. Tinder, which is a mobile dating platform, is

¹³¹ Judgment in *Cisco Systems Inc. and Messagenet SpA v. Commission*, T-79/12, EU:T:2013:635, para 69.

¹³² COMP/M.6281- *Microsoft/Skype*, 7 October 2011, paras 120-132.

¹³³ Michael Rosenthal and Stefan Thomas, *European Merger Control* (Verlag C. H. Beck oHG and Hart Publishing 2010) 131-132.

¹³⁴ Inge Graef, 'Market Definition and Market Power in Data: The Case of Online Platforms' [2015] 38, No 4, *World Competition Journal*, 504.

often mentioned as an example of how a new platform can become successful rapidly without having enormous amount of data or any other market power asset than a new and innovative solution.¹³⁵ This is definitely a possibility however; it is not true in every case. A dating platform does not require as much aggregated data, since the platform provider is not selecting directly the possible candidates for its users, instead each user continues using the platform until found what the person is searching for according to the criteria it has set in its user details. Compared to other platforms, where the data is something else than the users provide themselves, the data collection might become an entry barrier. To be able to monetize the data for advertising purposes, the data often needs to be more highly developed and acquired and often by other means than what users submit themselves.

Super dominant undertakings should not be punished just for being successful. However, these undertakings hold responsibility as well. Taking search engine and social media markets as an example, the most successful undertakings in those businesses are able to hold their position and improve it with the help of data, since they have and will have most users, in which collect the data and advertisers, which will pay for the targeted advertisements.

The pay-per-click pricing model should be taken into account as a factor in the foreclosure effect analysis. In Commissions previous decisions this payment method has not been taken into account even it has definitely an effect concerning the possibility to collect data. Even if the effects would not be as bad as to foreclose competitors completely, it still decreases the chances for entering the market and continuing competing in a certain type of market. A competitor, might be able to collect data, however as the data is not formed from as many users compared to a dominant undertaking has the chance, it is harder for that competitor to be able to sell its targeted advertisements, which data is a by product.

It is controversial whether this type of model would be creating efficiencies or consumer welfare. It is true that by creating more revenues, platform providers might be able to invest more on the platform service, however it is questionable if that happens. Moreover, often almost monopoly power is considered to be less consumer welfare enhancing. This is one of the most crucial issues that the Commission should start considering in its merger control

¹³⁵ Daniel Sokol and Roisin Comerford, 'Does Antitrust Have a Role to Play in Regulating Big Data' [2016] SSRN Electronic Journal, Cambridge Handbook of Antitrust, Intellectual Property and High Tech, Cambridge University Press, 7 http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2723693 accessed 22 February 2016.

analyses. The pay per click payment method is connected to the indirect network effects, which arise in the multi-sided markets and the effects should not be reviewed lightly.

4.4.1.2 Coordinated effects

Coordinated effects might occur as when a concentration changes the structure of the market, in a way that decreases competition between the undertakings active on the market.¹³⁶ Often coordinated effects are present in highly concentrated markets, where there are only few actors in the market. These markets can also be called oligopolistic markets. In these market's it is common that, since of the small amount of undertakings in the market, those are able to coordinate more easily and take advantage without any explicit agreements or concerted practise.¹³⁷

The question whether online platforms, which are taking advantage of monetizing data could be considered to be part of oligopolistic markets depends on how narrowly the market definition would be made. Although often in online platforms and especially in regards of social media and search engines, there is one or two dominant actors and several smaller actors. Therefore, considering coordinated effects in data related markets is less relevant. Furthermore, there are no indication that the undertakings active in these markets would act in a coordinated manner. Instead it is more obvious that this type of coordination in these markets would possibly require sharing data to competitors, which would not be consistent with their privacy policies. Other type of coordination is less likely, since of the special nature of multi-sided markets and “free” services offered for users. The following chapter will look into vertical concentrations and the possible problems that access to data might implicate.

4.4.2 Vertical and conglomerate concentrations on data related markets

As mentioned earlier, vertical concentrations are considered less harmful than horizontal concentrations. It is nonetheless relevant to review whether there is a possibility that a

¹³⁶ Michael Rosenthal and Stefan Thomas, *European Merger Control* (Verlag C. H. Beck oHG and Hart Publishing 2010) 116.

¹³⁷ Ioannis Kokkoris and Howard Shelanski, *EU Merger Control, A Legal and Economic Analysis* (Oxford University Press 2014) 261-262.

vertically integrated concentration could be significantly impeding effective competition in data related markets. The reason why these types of concentrations are considered to be less harmful is that these have less of a direct influence on a market and the competitive effects should be assessed by each case separately. Vertical concentrations are concentrations between undertakings operating in different relevant markets.¹³⁸ These might include mergers or acquisitions between undertakings functioning in different level of supply chain.

The Non-Horizontal Merger Guidelines state that vertical and conglomerate mergers might bring different kind of efficiencies. It might be that the products or services offered by these undertakings are complementary and hence the concentration might produce pro competitive effects¹³⁹. Although vertical concentrations are not always purely improving competition in the market. According to the Non-Horizontal Merger Guidelines, similar type of analysis is made as in horizontal mergers including assessing non-coordinated effects and coordinated effects.¹⁴⁰

In regards of data related markets, it is necessary to bear in mind that even if data might bring fourth innovation and possible efficiencies, increasing data by a vertical merger might be harmful, since the effects of data can increase. Hence, this could indicate that if the data could be used as increasing market power post-merger it might foreclose competitors and the concentration of data might be additionally harmful for the consumers. The latter meaning that the consumer had not originally agreed to give its data to another undertaking, being part of the merger or acquisition. Even if the post-merger undertaking has the same obligations to protect the personal data according to the obligations set out by law, the consumer had not given his/her consent explicitly to other companies to be able to improve their data sets.

The main issues that the Commission investigates according to the Non-Horizontal Merger Guidelines is whether the concentration post-merger would be capable to foreclose its competitors, would it have a reason to do that and whether the foreclosure would create detriment to consumers on the downstream market. According to the Non-Horizontal Guidelines, the likelihood for this would be greater in case the other party in the concentration would have market power in one of the relevant markets in issue. This concern arises, when a

¹³⁸ *ibid* 337-338.

¹³⁹ Guidelines on the assessment of non-horizontal mergers under the Council Regulation on the control of concentrations between undertakings, [2008] OJ C265/07, para 12-13.

¹⁴⁰ *ibid* para 17.

dominant undertaking can influence the upstream market or neighbouring market, which the other undertaking is active. The effect analysis is taken from the aspect of how it affects on the consumers.¹⁴¹

In regards of vertical and conglomerate concentrations the inducement to foreclose competitors alters on whether it would be beneficial considering both the upstream and downstream markets, in which the undertakings are active in. According to the Non-Horizontal Merger Guidelines in practise, a vertical or conglomerate concentration can be harmful for effective competition, only in case it has substantial market power in at least in one of the relevant markets.¹⁴² There are exceptions for this, which include inter alia plans of significant expansions in the near future etc. The same things are evaluated in regards of market power as previously mentioned concerning horizontal mergers.¹⁴³

A data related vertical concentration creating significant impediment to effective competition is possible. This type of harmful merger could possibly consist of a concentration between a platform provider and an advertiser or something similar, which would broaden the scope of commercial use of personal data. Another example could be a concentration between a platform provider and an operating system. Although in the *Google/DoubleClick* decision, the Commission did not consider there to be that much harm in an acquisition even if both undertakings were active in the advertising industry but from different parts of the industry and actively using personal data.

Mobile data traffic and data analytics in this field is a significantly expanding industry and the undertakings related to mobile devices, networks or telecommunication have an increasing opportunity to collect and process data from locations to interests etc. In this field the data would be often pseudonymous, however the data is actually traded, which would fulfil the requirement of relevant market under the present competition law. The data after hashing and processing is being sold to for example to retailers or other service provider which can take advantage of the pseudonymous data indicating consumer habits, interests and locations. In

¹⁴¹ Ioannis Kokkoris and Howard Shelanski, *EU Merger Control, A Legal and Economic Analysis* (Oxford University Press 2014) 350.

¹⁴² Guidelines on the assessment of non-horizontal mergers under the Council Regulation on the control of concentrations between undertakings, [2008] OJ C265/07, para 26.

¹⁴³ *ibid* para 52.

this type of concentration, the advantage is even greater for an undertaking, which has dominance already in an online platform market.

The Commission is already investigating Google for breach of Article 101 TFEU and 102 TFEU in relation to Android mobile operating system.¹⁴⁴ The likelihood of these types of industries merging might not be high, even if data is valuable. Moreover, these type of concentrations might bring competition concerns from other aspects as well and not only related to data market power. The following sub-chapter will review if consumer welfare harm that could be taken into account in a data related concentration or whether that is outside the scope of competition law.

4.4.3 Theories of harm

4.4.3.1 Consumer welfare

The consumer welfare theory of harm is discussed separately after both horizontal and vertical mergers since it would be applying to both types of mergers. The consumer welfare card has been raised several times in this thesis. The purpose of discussing consumer welfare again in this sub-chapter is to review whether the connection between competition law and data protection mentioned as consumer welfare could be applied as a theory of harm, by creating significant impediment to effective competition.

The Commission has claimed in its previous decisions such as the *Facebook/WhatsApp*¹⁴⁵ acquisition that data protection considerations cannot be taken into account in a competition analysis, since it is not in the scope of competition law. However, the more proper question would be if data protection could be considered in competition analysis as being part of the consumer welfare standard.

As mentioned already in the first part of the thesis, consumer welfare is often considered from pricing perspectives. However, it is not excluded that decrease of innovation or quality could

¹⁴⁴ European Commission, Press release, *Antitrust: Commission opens formal investigations against in relation to Android mobile operating system*, Brussels 15 April 2015, http://europa.eu/rapid/press-release_MEMO-15-4782_en.htm

¹⁴⁵ COMP/M.7217 *Facebook/WhatsApp*, 3 October 2014, para 164.

not be taken into consideration in the evaluation of whether consumer welfare is harmed. There is no previous case where data protection considerations would have been discussed as a consumer welfare problem in a competition analysis. Therefore, this is only hypothetical analysis whether protecting personal data from large merging undertakings to be controlling or processing even more user personal data and as combined data set to be a consumer harm problem in a competition analysis.

Two scholars Ohlhausen and Okuliar discussed about the topic of privacy considerations in competition law analysis and how does consumer harm fit into this. The topic of whether the combination of two or more undertakings' data sets create consumer harm, since of the ability to generate and create something new from the combination of data, is considered by these two. Ohlhausen and Okuliar argue that the collection and combination of data through a merger should be treated in the same manner as the normal collection of data. According to them it should not matter if one undertaking or several undertakings have collected the data and later merged, since the privacy harm is the same.¹⁴⁶

The point raised by Ohlhausen and Okuliar is certainly a relevant one. There is no clear indication that combining different undertaking's data is more harmful than a data set held just by one undertaking. An undertaking, which already has market power and have possibly different types of platforms or other means of how to collect different kind of data, might be a data protection threat by itself. The difference is that data it is often not the only one part of the merger analysis. All the other factors are still relevant to take into account, including the relevant markets and situation in these markets in general.

Commercial use of data is only one element and it should be reviewed in line with all the other factors, however the message of this thesis is that it is an important part and it shouldn't be forgotten as well as the effects of the multi-sided markets in general. As it was discussed in a previous sub-chapter, vertical mergers or acquisitions might raise different kind of implications and harms, which might have an impact on consumers. In those concentrations, undertakings active on different industries are able to access personal data from different industries, which might be something that possibly could be harmful for consumers.

¹⁴⁶ Maureen K Ohlhausen and Alexander Okuliar, 'Competition, Consumer Protection, and the Right (Approach) to Privacy' [2015] *Antitrust Law Journal*, 38.

The consumer harm might be already present before a merger but those kind of issues are not solved by the Merger Regulation. Those issues should be considered by data protection regulation, or in case there was a breach of Article 101 or 102 TFEU those could be applied. Although, presently there is no legislation, which would prohibit the acquisition of collecting large amounts of data, when a concentration occurs. The new General Data Protection Regulation requires transparency from the data controller and data processors, which are obligated to inform the natural persons of how their data is being processed and used and inform about the risks and rights concerning their data.¹⁴⁷ This includes that a data subject should be given the information in case profiling is made and of the consequences of the profiling.¹⁴⁸

In case consumer welfare can only be reviewed from price or innovative perspectives, the likelihood that data collection and the amount of data would bring fourth negative effects to competition is little. Certain services are offered for “free”, since consumers allow data collection. Data collection might establish new innovations, since under certain circumstances data teaches the undertakings new things about their users and undertakings are able to act accordingly, which might beneficial to users.

In case consumer welfare under merger control analysis could take into account data protection principles, certain mergers or acquisitions would most likely be denied. Although the consumer welfare analysis under the merger control would require more consideration. The specific characteristics of harmfulness would need to be outlined as to indicate, which mergers are the most harmful for the users. Nonetheless, this is not the case presently and it would require that Commission took a stance on the subject and in case they would consider that the implications should be taken into account under competition principles, changes would be needed to be made in the guidelines and notices.

¹⁴⁷ Regulation (EU) 2016/679 of the European Parliament and of the Council 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) OJ L 119, para 39, Article 12.

¹⁴⁸ *ibid* para 60.

4.4.3 Remarks of the SIEC test in relation to data related markets

The purpose of the above SIEC analysis was to review the effects of data and if and how it should be taken into account in a merger analysis especially if there is no relevant market comprising of data. These were all presented in a hypothetical manner, since there are not that many previous examples, in which data would have been taken into account as an asset and which might be significantly impeding effective competition. In the *Google/DoubleClick* acquisition the effects of data were briefly reviewed as well as the effects of the two-sided market. In a data related concentration SIEC analysis needs to be conducted in the same way as any other merger or acquisition. However, the certain particularities arising from the multi-sided nature of the platforms needs to be counted in the assessment, since of the indirect network effects, that might arise and be harmful for the competition.

Commission should start investigating concentrations more carefully, which hold high market shares, has combined significant amount of data, which has the effect to foreclose competitors, since competitors are not able to collect nearly as much relevant data and considering the market situation in general. The issue whether data protection could be considered as being part of consumer welfare in competition analysis is relatively slight unless the competition principles were changed.

One important factor that has not been discussed before in this thesis is the technically complicated nature of data. Data protection differs from several other areas of law, since the compliance is not set by defining rules instead by engineering. Data protection requires complicated processes or impact assessments and large amounts of data need to be handled with care. The GDPR is setting even more compliance requirements such as by accountability privacy by design and default and setting the standard of privacy impact assessments higher.¹⁴⁹

Often the incompliance with privacy policies derives from the lack of awareness of the dysfunctional processes. Hence, it does not mean automatically that every in compliant undertaking is trying to use the data in improper way, it is just that their compliance processes are not effective enough. It still does not mean that even if processes are complicated that

¹⁴⁹ Regulation (EU) 2016/679 of the European Parliament and of the Council 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 [2016] Articles 25, 35.

mergers should be automatically prohibited, since there are risks. The purpose of law is not to prohibit everything that is risky. Protecting consumer and user data is essential but protecting that beyond innovation just because in theory there might be a risk in some mergers does not objectify that all concentrations should be prohibited. The actual effects analysis is crucial.

It is important to identify the risks and properly take those into account. Although the purpose of merger control is to identify possible problems to effective competition already in advance. However, it is important that Commission identifies the risks based on facts and not only presumptions.

As data being the new oil of digital markets, the risks are going to increase as exploitation by many sides is most likely going to happen. The purpose of the whole chapter 4 of concentration of user data was to take into account all the possible risks and try to presume the way forward and even suggest a possible solution. One thing is definite. This topic needs more investigation both by the Commission and data protection authorities. In certain industries the risks are higher than in other at least presently and Commission should start by taking a stance in recognising the possible problems. Since, the importance of data is arising and value increasing it is necessary to start evaluating the implications carefully.

The SIEC test analysis is indicating the possible problems that might arise in a data related concentration. Although, data is collected nowadays by a significant proportion of undertakings. Not all undertakings and all mergers should be counted as harmful as such only since the undertakings are collecting data. It is important to distinguish those undertakings, which hold large amount of data from those, which have less significant quantity of data. The amount and type plays a role in whether the effects of the merger are significantly impeding effective competition. Until now the Commission has not found that data has such a significant role that the effects should be carefully reviewed or at least the previous decisions have not implied a need for that. Hopefully in the future a change will occur.

5 Conclusion

The importance of data in the present economic environment cannot be underestimated any longer and not even under merger control. Whether it is a commodity or the new oil of the

digital market does not really matter as such. The truth is that data is being traded indirectly and directly between for example users, platform providers and advertisers in certain industries. In some industries personal data is being collected and monetized even without anything explicit given in return to the users. However, in the data analytics cases the by products are not being directly advertised to consumer, since the monetization happens by other means. The consequences of data collection are that certain undertakings hold massive amounts of personal data from its users. A lot more than its competitors are ever able to collect, since of the pricing models of for example the online advertising businesses ran by online platforms. This said, data is not a meaningless subject to merger control.

Commission has not considered data implications narrowly in a merger decision as it has found that it was not necessary under the circumstances of those cases. The development between *Google/DoubleClick* and *Facebook/Whatsapp* acquisitions has not been drastic, even if some considerations were conducted in the latter case. In the future, these implications cannot be overlooked to this extent any longer. It has been argued that by the present principles of merger control, data cannot be found to create a relevant product market, when it comes to online platforms, since data is not directly traded, which is one of the requirements of substitutability. Requiring for a change in defining the relevant market might seem like an overstatement. However, it is important that the merger control and competition law reflect the present market and follow development. Data is becoming one of the most important assets in the digital economy, hence it must be taken into account, where the effects arise. In case Commission considers that there is no need for a change when it comes to merger control principles of relevant market, it would be still necessary to consider the significance of data in the SIEC test analysis.

Horizontal and vertical concentrations have mutual factors that need to be reviewed, however certain aspects differ and when it comes to data related markets also vertical concentrations can be harmful, since of the possibility to combine data from different industries. The question of whether combinations of data sets by concentrations are more harmful than what an undertaking is able to collect by itself is a relevant question. The truth is there is no definitive answer to that. This would require some investigation as well. In principle it might be, but in practise it is hard to prove that.

Data is a valuable source and under certain circumstances it has the power to possibly foreclose competitors. There is no need to start prohibiting all mergers, which conduct business in data related industries. That would mean that a significant amount of mergers from ICT industry would have to be prohibited, which would be ridiculous. However, there is a necessity to begin reviewing mergers with certain things kept in mind inter alia the effects arising from multi-sided markets, foreclosure effects by for example certain payment methods used, the amount and type of data being collected by an undertaking, which has high market power, consumer welfare aspects.

Several issues discussed in this thesis are not solved yet and the arguments are partially based on speculation, although it is certain that this topic requires a lot of investigation to be able to make more definitive conclusions. The question of the connection between data protection and competition law is still uncertain at least in regards of, which law applies to which issue and should the application of certain law and principles related to it be extended to cover some part of it. Problems arising from data are difficult to be solved only by one tool. Hence, the suggestion from the European Data Protection Supervisory, that the public authorities working with data protection, competition law and consumer welfare should start cooperating to be able to find functioning tools in this area seems very accurate. A more substantial solution could be found by cooperation between these authorities.

Some commentators have argued that the issues related to data should be solved by data protection legislation. The new regulation is an extended version of the previous directive, however it is nonetheless not solving everything, since for example the issues discussed in this thesis are not dealing only with data as such but with concentrations of data, which is by no means a data protection issue, since one of the aims of data protection legislation is as well on the free flow of data within the European Union.

Bibliography

Legislation

Directive 95/46/EC of the European Parliament and of the Council on the protection of individuals with regard to the processing of personal data and on the free movement of such data [1995] OJ L 281/31 (Data Protection Directive)

Charter of Fundamental Rights of the European Union [2000/C 364/01] (Charter)

Council Regulation (EC) No 139/2004 on the control of concentrations between undertakings [2004] (The EC Merger Regulation)

Regulation (EU) 2016/679 of the European Parliament and of the Council 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 [2016] (Will enter into force in 24 May 2016 but shall apply from 25 May 2018)

Cases: EU

Judgment in *Schrems*, C-362/14, EU:C:2015:650

Judgment in *Post Danmark A/S v Konkurrencerådet*, C-209/10, EU:C:2012:172

Judgment in *Konkurrensverket v TeliaSonera Sverige AB*, C-52/09, EU:C:2011:83

Judgment in *Deutsche Telekom v Commission*, C-280/08, EU:C:2010:603

Judgment in *Groupment des cartes bancaires (CB) v. Commission*, C-67/13, EU:C:2014:2204

Judgment in *Groupment des cartes bancaires (CB) v. Commission*, T-491/07, EU:T:2012:633

Judgment in *Sun Chemical v. Commission*, T-282/06, EU:C:2007:203

Judgment in *Telfit Eireann and Independent Television Publications Ltd v. Commission of the European Communities (Magill)*, C-241/91 and C-242/91 EU:C:1994:210

Judgment in *Cisco Systems Inc. and Messagenet SpA v. Commission*, T-79/12, EU:T:2013:635

Decisions: EU

COMP/M.4439 [2007]

European Commission, COMP/39.530-*Microsoft (Tying)*, 6 March 2013

European Commission, COMP/M.6281-*Microsoft/Skype*, 7 October 2011

European Commission, COMP.M7217-*Facebook/WhatsApp*, 3 October 2014

European Commission, COMP/M.4731-*Google/DoubleClick*, 11.03/2008

European Commission, COMP/M.6314-*Telefónica UK/Vodafone UK/ Everything Everywhere/JV*, 4 September 2012

European Commission, COMP/M.5727-*Microsoft/Yahoo! Search Business*, 18 February 2010

European Commission, COMP/M.4523 *Travelport/Worldspan*, 21 August 2007

Decisions: US

Google/DoubleClick, No. 071-0170, Dissenting statement of Commissioner Pamela Jones Harbour

Google/DoubleClick, No 071-0170, Statement of Federal Trade Commission

Other primary materials

European Data Protection Supervisory, *Privacy and Competitiveness in the Age of Big Data: The Interplay Between Data Protection, Competition Law and Consumer Protection in the Digital Economy* (2014)

Commission Notice on the definition of relevant market for the purposes of Community competition law [1997] OJ C 372/05

Guidelines on the assessment of horizontal mergers under the council Regulation on the control of concentrations between undertakings (2004/C 31/03)

Guidelines on the assessment of non-horizontal mergers under the Council Regulation on the control of concentrations between undertakings, (2008/C 265/07) 18.10.2008

Opinion 4/2007 on the concept of personal data, Article 29 Data Protection Working Party, 01248/07, WP 136

Organisation for Economic Co-operation and Development (OECD), Directorate for Financial and Enterprise Affairs Competition Committee, *The Role and Measurement of Quality in Competition Analysis*, DAF/COMP (2013)17

Books

Cseres K, *Competition Law and Consumer Protection* (Kluwer Law 2005)

Jones A and Sufrin B, *EU Competition Law, Text, Cases and Materials* (Fifth edition, Oxford University Press 2014)

Cugia di Sant' Orsola F, Noormohamed R and Guimaraes D, *Communications and Competition Law, Key Issues in the Telecoms, Media and Technology Sectors*, (Kluwer Law 2015)

Fatur A, *EU Competition Law and the Information and Communication Technology Network Industries, Economic versus Legal Concepts in Pursuit of (Consumer) Welfare* (Hart Publishing 2012)

Jones A and Sufrin B, *EU Competition Law, Text, Cases and Materials* (Fifth edition Oxford University Press 2014)

Kokkoris I and Shelanski H, *EU Merger Control, A Legal and Economic Analysis* (Oxford University Press 2014)

Nikolinakos N, *EU Competition Law and Regulation in the Converging Telecommunications, Media and IT Sectors* (Kluwer Law 2006)

Purtova N, *Property Rights in Personal Data* (Kluwer Law 2012)

Rosenthal M and Thomas S, *European Merger Control* (Verlag C. H. Beck oHG and Hart Publishing 2010)

Handbook On European Data Protection Law (Publications Office of the European Union 2014)

Articles

Costa-Cabral F and Lynskey O, 'The Internal and External Constraints of Data Protection on Competition Law in the EU' [2015] LSE Law, Society and Economy Working Papers 25/2015, SSRN Electronic Journal <http://ssrn.com/abstract=2703655> accessed 12 February 2016

Evans D, 'Antitrust Issues Raised by the Emerging Global Internet Economy' [2008] 285, Northwestern University Law Review Colloquy

Evans D and Noel M, 'The Analysis of Mergers That Involve Multisided Platform Businesses' [2008] Vol 4, Journal of Competition Law & Economics

Gebicka A and Heinemann A, 'Social Media & Competition Law' [2014] Vol 37. No. 2, World Competition

Graef I, 'Market Definition and Market Power in Data: The Case of Online Platforms' [2015] No.4 38 World Competition Journal

Graef I, Wahyuningtyas S and Valcke P, 'Assessing Data Access Issues in Online Platforms' [2015] 39 Telecommunications Policy

Hoppner T, 'Defining Markets for Multi-Sided Platforms. The Case of Search Engines' [2015] No. 3 38 World Competition

Lerner A, 'The Role of "Big Data" in Online Platform Competition' [2014] SSRN Electronic Journal http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2482780 accessed 22 February 2016

Newman N, 'Search, Antitrust and the Economics of the Control of User Data' [2014] NYU Law School Information Law Institute

Newman J, 'Antitrust in Zero-Price Markets: Foundations' [2014] Research Paper No. 151 University of Memphis-School of Law

Nikolinakos N, 'EU Competition Law and Regulation in the Converging Telecommunications, Media and IT Sectors' [2006] Vol 20 Kluwer Law International

Ohlhausen M and Okuliar A, 'Competition, Consumer Protection, and the Right (Approach) to Privacy' [2015] Antitrust Law Journal

Schepp N-P and Wambach, 'On Big Data and Its Relevance for Market Power Assessment' [2016] Vol 7 No. 2 Journal of European Competition Law & Practice

Schmitz S, 'The European Commission's Decision in GE/Honeywell and the Question of the Goals of Antitrust Law' [2002] Journal of International Economic Law

Sokol D and Comerford R, 'Does Antitrust Have a Role to Play in Regulating Big Data' [2016] SSRN Electronic Journal, Cambridge Handbook of Antitrust, Intellectual Property and High Tech, Cambridge University Press, 6

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2723693 accessed 22 February 2016

Stucke M and Grunes A, 'No Mistake About It: The Important Role of Antitrust in the Era of Big Data' [2015] The University of Tennessee College of Law, Research paper 269, SSRN

Electronic Journal, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2600051 accessed 22 February 2016

Weber Waller S, 'Antitrust and Social Networking' [2012] North Carolina Law Review

Webpages

European Commission, Press release, *Antitrust: Commission opens formal investigations against in relation to Android mobile operating system*, Brussels 15 April 2015, http://europa.eu/rapid/press-release_MEMO-15-4782_en.htm,

[Accessed 15 April 2016](#)

Toonders J, *Data Is the New Oil of the Digital Economy*, <http://www.wired.com/insights/2014/07/data-new-oil-digital-economy/>,

[Accessed 12 May 2016](#)

Brown A, 'WhatsApp is now completely free, but there's a worrying catch for users' Sunday Express (London 19 January 2016) <http://www.express.co.uk/life-style/science-technology/635678/WhatsApp-Completely-Free-69p-Year-UK-Advertising>

[Accessed 13 April 2016](#)

Essers L, 'German privacy regulator: WhatsApp users should switch to a more secure service' (Amsterdam 20 February 2014) <http://www.pcworld.com/article/2099700/whatsapp-users-should-switch-to-a-more-secure-service-german-privacy-regulator-urges.html> Accessed 20

May 2016