

A Study of Market Definition and Market Power Assessment in the Digital Economy Era

1. Background of study

The characteristics of market competition in the digital economy era are continuous investment and innovation and rapid technological advances. Under dynamic market competition, digital service providers develop various channels to offer services to end users and competition grows fierce. This means, compared to traditional businesses, enterprises in the digital economy market are more likely to encounter challenges from new competitors. At the same time, as digital technology continues to improve, under economies of scales, economies of scope and powerful network effects, new products and services are popping up like mushrooms and consumers are able to enjoy products of better quality and cheaper prices. These are positive economic effects. However, in the digital economy era, because of the interactive effects between the markets in two-sided or multi-sided markets, the characteristic of the prices in one of the markets being equal to zero or close to zero, as well as the influence of economies of scales, economies of scopes and powerful network effects, lock-in effects can be created. In subsequence, entry barriers take form and bring disadvantageous impacts on competition as switching costs grow higher. Such negative economic effects also lead to discrepancies in the field of competition law over market definition and market power assessment, and scholars and specialists try to come up with solutions to deal with such discrepancies.

Today, the two-sided market theory has become a topic extensively discussed in research on contemporary industrial organizations. The two-sided market theory put forth by Professor Jean Tirole, winner of the 2014 Nobel Prize in Economics, drew attention in the academic sector. Hundreds of papers talking about the topic have been published in the past ten years. This year (2018), the decision of the US Supreme Court on the first two-sided market competition case—Ohio v. American Express Co.—came out. The viewpoint of the US Supreme Court toward two-sided platforms is bound to influence the attitude in the US and even other countries in review of two-sided platforms in the future.

One of the focuses of the Fair Trade Commission in its administration in recent years is to work out appropriate competition policies and law enforcement principles in response to the era of digital economy. To understand this new topic, especially the restrictions and challenges resulted from the emergence of digital economy in market definition and market power assessment, it is necessary to gather related theories and research results to conduct preliminary studies on market definition and market power assessment disputes likely to surface in order to help the FTC understand the challenges it might encounter under digital economy in the future.

2. Methods and process of study

To begin, this report first talks about digital economy. Then it discusses the definition, types, characteristics and pricing models of two-sided markets. Subsequent contents include theories and challenges associated with market definition and market power assessment under digital economy. In the end, actual cases involving digital economy in and outside the country are reviewed.

Literature analysis and empirical analysis, two study methods normally applied in social sciences, are adopted. The literature analysis method is used to sort out related papers, books and information from international competition law organizations and prestigious journals in and outside the country. The empirical analysis method is applied to study renowned cases around the world as well as the cases processed by the FTC and the corresponding experiences and practices in order to establish a comprehensive understanding of domestic and foreign theories and practical experiences associated with the topic.

This paper is divided into six chapters. The introduction in Chapter 1 gives a brief description of the motive behind this study. Chapter 2 discusses the meaning and characteristics of digital economy, and the connotation of competition. Chapters 3 and 4 respectively examine and analyze factors to be considered and expected challenges in accordance with the influence of the characteristics of digital economy on market definition and market power assessment while related theories and models are sorted out. In Chapter 5, important cases associated with two-sided markets are classified and presented. In the end, after related theories and experiences and actual contributions of the two-sided market theory to digital economy are scrutinized, and conclusions and suggestions are presented in Chapter 6 to, hopefully, help the FTC cope with issues concerning market definition and market power assessment in the country.

3. Major suggestions

The emergence of digital economy has made transactions no longer limited to unilateral payment between businesses and consumers. It allows businesses to set up platforms to offer services to different consumer groups. Market definition and market power assessment under digital economy requires an understanding of the characteristics of platform economy first. At the same time, how such definition and assessment can be applied under existing competition law is an extremely important issue. In response to the challenges brought by digital economy, the suggestions of this paper are as follows:

A. Market definition

When defining the market of two-sided platforms, scholars normally divide the platforms into “two-sided non-transaction platforms” and “two-sided transaction platforms” in accordance with transaction types. At the same time, most of them also believe two-sided platforms involving direct transactions should be defined as one relevant market. If there are no direct transactions, the definition should be a number of relevant markets exist at the same time. In addition, competition authorities can adopt the business models of different enterprises as the starting point of competition analysis to perform a general assessment based on the earning model, possible encroachment of profit, cross-platform inter-dependence and the intensity of indirect network effects.

B. Market power assessment

To assess market power in the digital economy era, most scholars and competition authorities of different countries think the approaches to observe the

short-term static values of conventional evaluation indices (such as market share, profit margin, etc.) should be adjusted and related principles, methods and considerations should be put forward according to theories and practices. The details are as follows:

1. The focus should be set on observing the tendency of long-term dynamic changes of conventional evaluation indices.
2. The indirect network effect of the market of each side should be analyzed.
3. The demand flexibility of the market of each side should be understood.
4. The level of reaction of each side of a platform to the change of participation rate of any one side of the platform should be assessed.
5. Whether the platform in question is a multi-homing or single-homing one should be defined.
6. The capacity of an enterprise to adopt a certain market practice (such as selling price or service quality adjustment) should be analyzed.
7. The level of cost for consumers to switch between platforms should be examined.
8. The entry barriers (including mobility in the transaction environment and the key majority in platform economy) should be evaluated.
9. The alternative channels (including the means to target end users) to access end users should be assessed.
10. The level of innovativeness in unknown technological or service fields should be analyzed.

C. Competition authorities to focus on preventing market entry barriers from occurring and promoting market innovation and development

When enterprises compete by developing new business models, application of the existing competition law has to be reexamined. This is not limited to digital markets only; other conventional markets undergoing rapid digitization must also be included. However, competition policies can not solve all problems resulted from economic digitization. Hence, it is necessary to rely on methods applicable through other policies. Competition authorities need to assess carefully to avoid increasing the risk of misjudging some activities as anti-competition practices and ending up suppressing market competition and the innovative efforts of businesses.

The quick progress of digital economy challenges not only existing markets but also the fundamental structure of existing policies, including competition policies and policies associated with consumer protection, privacy, taxation and intellectual property rights. Competition authorities and policy makers ought to focus on preventing market entry barriers from occurring and encouraging more businesses to enter the market to stimulate innovation and development. As long as taxation, privacy, safety and other public values can be protected by other appropriate policies, competition authorities should deal with competition issues with caution and believe market mechanisms are capable of automatic adjustment. Nevertheless, when other policies do not work smoothly or even create competition problems, competition policy tools can be applied to fix the problems for the time being.

D. Established based on a research report from the policy department of the European Parliament, the following suggestions may be approaches that competition authorities can adopt:

- (1). Use business models as the starting point of analysis to focus on examining the profit model of enterprises and analyze at the same time the approaches of other enterprises or business models likely to result in encroachment of profit. In subsequence, consolidate market definition and market power assessment according to the outcome. Study carefully the inter-dependence between platforms and the interaction between business practices and the market range.
- (2) Minimize the dependence on conventional indices, such as market share and profit margin. Focus on other competition-related indicators, such as entry barriers, alternative channels to access end users (including the means to target end users) and the level of innovativeness in unknown technological or service fields.
- (3) Adopt a more forward-looking attitude by taking potential competition into account. This means the practices adopted must be more prudent. At the same time, rely on the capability of the market to correct itself without causing too much permanent damages.
- (4) Seek help from external specialists to gain a more comprehensive understanding of business models and future tendencies.
- (5) Strengthen cooperation with the competition authorities of other countries as it is a characteristic in globalization of digital economy,.