Application of Empirical Analysis in Vertical Mergers

Abstract

Keyword(s): vertical merger, Digital Economy, anti-competition effect

Vertical merging improves corporate efficiency, but it may lead to anticompetitive effects and different type of corporate merge has different market competition effects. This study applies quantitative and qualitative analyses methods to explore the relevant corporation behaviors and the impact that may occur or involve restricting competition by studying recent cases of vertical mergers. After an in-depth economic analysis method of competition law and literature review of theoretical practices, it then discusses the vertical merger guidelines of the United States, the European Union, and Japan. It reveals the competition issues of vertical mergers involved in the market development of the digital economy and the response methods of governmental authorities in various countries. After that, questionnaires and interviews were designed for the telecommunications, high-tech, and media industries to understand the differences in prices, cost structures, and profit distribution of each industry, then to put forward relevant suggestions for the reference of the governmental authorities.

The content and results of this research are summarized in chapters as follows:

Chapter 2 is the literature review and compilation of the norms of the vertical merger of various countries. It is found that the previous literature mainly uses industrial economic theory to discuss the positive and negative effects of the vertical merger, and the market competition can be judged by the HHI index. But Moresi & Salop (2013) introduce vGUPPI to measure the effect of market foreclosure with upstream and downstream relationships. The United States proposed the latest Vertical merger guidelines in 2020 to clarify potential competition issues. The EU uses the three major aspects of foreclosure capability, incentives, and anticompetitive effects as the criteria for judgment. Based on the recommendations of various countries, the pro-competitive effect can be determined from the results of considering the overall economic benefits, including the effects of reducing transaction costs, facilitating the investment of the specific assets, preventing the free rider, removing successive monopoly or eliminating double marginalization.

Chapter 3 discusses case studies of mergers in the digital economy market. With the gradual development of the digital economy, increasingly complex business models

have increased the difficulty of review and judgment. This research analyzes and discusses relevant competitive issues in the case of AT&T and Time Warner, the case of Facebook, and the case of Yahoo Japan and Line.

Chapter 4 summarizes related economic theories and practical analysis tools to illustrate that vertical merger has both positive and negative effects on competition. The positive effects, vertical merger could eliminate successive monopoly and double marginalization, resulting in positive effects such as increased output and lower prices. However, about the negative effects of vertical mergers, the market foreclosure is the main anticompetitive effect, such as input foreclosure which is the inability to obtain key input elements or the market foreclosure of the inability to obtain sales channels in the downstream market. Hence, the impact of these two effects must be considered simultaneously. Through the vertical merger, economic theory proves that if there is a technological interdependence between upstream and downstream businesses, the same factor input can achieve more output, or the same output level can be maintained with less factor input. That is effectively improving production efficiency, increasing the output, profit, and reducing the selling prices. In a practical analysis tool: dHHI can be used as a measure of the potential competitive impact of the vertical merger, which helps to form a safe harbor or anticompetitive presumption against the issue of input foreclosure.

Chapter 5 uses questionnaires, interviews, and expert seminars to understand the practical difficulties faced by the industry. To evaluate the market definition based on industry characteristics involves operating costs and profit margins. Companies are more conservative when providing such business information. Moresi & Salop (2013) proposed vGUPPI with a linear concept. It recommended PD/WR that is 2, which means that the input of parts will bring the value of sales is twice the cost, and the ratio of cost to selling price is 1:2 （W_R/P_R、W_U/P_D、 W_D/P_D）, and PTRu 50%. The qualitative results from questionnaires, interviews, and expert seminars all confirmed the cost-to-price ratio recommended by vGUPPI. There are differences in the characteristics of each industry, industrial structure, business type, and profit. When commodities have added value, their cost and selling price ratios are also different. Therefore, adjustments should be made to industrial differences.

Chapter 6 comprehensive research results, and put forward the following recommendations:

1. The digital streaming regulations must be improved as completely as possible. Otherwise, the markets provide services, the applicability of the regulations, or the lack of application of the regulations will not be conducive to the overall

development of the digital streaming industry.

2. The technology platform holds strong calculation capabilities. Thus, the rules of the technology platform algorithm should be more transparent, especially to compensate for the economic imbalance between the technology platform and the news media.
3. Moresi & Salop (2013) proposed three vGUPPI models to measure the incentives for upstream and downstream integrated manufacturers and downstream competitors to raise prices after vertical integration. Therefore, the vGUPPI can be an objective reference for reviewing the vertical merger in the future.
4. The emerging digital economy and its huge information are different from the traditional model, which deepens the difficulty of data analysis. For example, the Amazon and Whole Foods cases did not evaluate the effect of the Amazon platform, which finally caused the market impact. To face the changes brought about by the digital economy, the government can refer to the practices of various countries and begin to pay attention to and plan the digital economy white book, such as the European Union's Digital Market Act, DSA.

In last, the relevant administrative investigations need to depth the investigation to narrow the difference gaps with the digital economy, it must take into account efficiency, fairness, no concealment, no misjudgment, and to present the facts.