Korean Online Game’s Platform Competition under Two-Sided Market Characteristic

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ABSTRACT

While the growth of total game market size slowed down and the arcade game industry started to shrink, the online game market keeps increasing, attaining 26.5% annual growth rate for the early 2010’s. Korea’s online game business is especially popular, so that the size is about US$ 4 billion, which is 64.2% of Korea’s total game industry. In 2013, Game market size and online game market size were estimated to be about US$ 9 billion and US$ 7 billion, respectively. From a standpoint of sales, the game market in Korea (US$ 4.95 billion) accounts for 5.8% of the world game market and almost one third of the world online game market. Its growth rate is higher than that of the world game market. The online game markets in Korea and China have common characteristics that can be distinguished from other countries: two-sided market with very low switching costs. This paper is to study the important factors that affect Korean online game’s platform competition. The authors empirically investigate network externalities by using various variables in online game industry in Korea. The authors found the number of games available in a platform positively affects its market share, while the diversity of games and generality of game rating had no significant impacts. The authors also found that multi-homing (or overlap of games) increases an online platform’s market share when the platform is relatively new. However, multi-homing decreases market share when it becomes mature. Having done our empirical and academic analyses, the authors draw practical implications that may help decision makers in Korea’s online game businesses.

Keywords: Competition, Korean Online Game Market, Network Externalities, Online Game Platforms, Two-Sided Market

INTRODUCTION

The global game market size is estimated at about US$ 85 billion as of 2010, which is 0.2% bigger than the previous year. Market shares of game industry are 39.8% for video game, 27.7% for arcade game, 18.8% for online game, 10.1% for mobile game, and 3.6% for PC game. While the total game market size growth is slowed down and the arcade game industry started to shrink, the online game is increasing dramatically, attaining 26.5% growth rate for 2010 (Korea Creative Contents Agency, 2011).

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In Korea, the game market size in 2010 is estimated about US$ 6.5 billion which has grown by 12.9% from 2009. Korea’s online game is very popular, so that the size is about US$ 4 billion, which is 64.2% of Korea’s total game industry. In 2013, Game market size and online game market size are anticipated to be about US$ 9 billion and US$ 7 billion, respectively. From a standpoint of sales, the game market in Korea (US$ 4.95 billion) accounts for 5.8% of the world game market and almost one third of the world online game market. Its growth rate is higher than that of the world game market (Korea Creative Contents Agency, 2011). Therefore, online game is one of the fastest growing industries in Korea.

Online game industry in Korea has the characteristics of two-sided market because online game platforms have two distinct user groups (gamers and game developers) that provide each other with network benefits. Until late 1990’s, almost all online game developing firms had their own online game access portals. However, new type of online game portals that do not necessarily belong to game developing firms such as www.netmarble.net and www.hangame.com began to change the whole system. Through these portals, end users can play online games with just one ID, which is so convenient. Some portals became famous because they provided the access to many popular games. Now, it became the norm for end users to access to the games through this kind of complex online game portals. Game developers want to provide their games to online game platforms with large number of members in order to attract more users. Also, users want to visit the online game platforms which have more popular games. Therefore, Korean online game industry now has two-sided market structure.

This two-sided market characteristic of Korean online game may be found in other games markets such as video game market, PC game market, mobile game, and so on. However, there is one big difference between Korean online game industry and other typical two-sided markets: the switching costs between platforms for end users are very low. In video console game, users incur significant cost for switching from one console system to another because of the hardware costs and other inconveniences. Similarly, in mobile game market, if a user wants to change from iOS based games to Android based games, he or she needs to pay a substantial price to buy a new smartphone. Besides, many consumers purchase smartphones with multi-year contract, so that it may not be easy for them to switch to different OS based smartphones. Contrarily, the switching cost in Korean online game is much lower, because no hardware prices are involved. Just signing up for a new portal enables a user to switch.

Since the switching costs between the platforms are low, the business strategies of platform players should be different from those in other games markets. When switching costs are high due to expensive durable products or multi-year contract, a platform player is able to exploit locked-in consumers. It may charge high prices on the usage of games, while leaving only small margins to game developers. However, in Korean online game, price of the game usage would be almost similar across the platforms. Therefore, unlike other two-sided market studies that needed to consider (or should have considered) lock-in effects, our study is looking into the pure indirect network externalities from game developers to gamers.

Although two-sided market structure with low switching costs is not really common in other countries because gamers directly go to each game site, China has very similar online game structure as Korea. Therefore, our findings in this study may also be applied to China’s online game market. Considering that China’s fast growing online game market is the number one in the world, which takes 1/3 of the world’s game market, our findings may have strong implications toward world game market.\(^1\)

One of the reasons that Korea and China have similar structure in online game market is that early stage of China’s online game market was led by Korean game developers during 1990’s and early 2000’s. The massively multiplayer online role playing games (MMORPG)
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