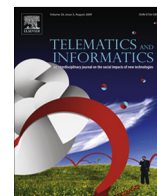




ELSEVIER

Contents lists available at ScienceDirect

Telematics and Informatics

journal homepage: www.elsevier.com/locate/tele

Ex-post evaluation of illegalizing juvenile online game after midnight: A case of shutdown policy in South Korea

Changjun Lee^a, Hongbum Kim^b, Ahreum Hong^{c,*}

^a Lee Kuan Yew School of Public Policy in National University of Singapore, Singapore

^b Korea National Industrial Convergence Center, Korea Institute of Industrial Technology, South Korea

^c Graduate School of Technology Management, Kyung Hee University, 1732 Deokyoung-ro Giheung-gu, Youngin-Si Gyunggi-Do, South Korea

ARTICLE INFO

Article history:

Received 15 June 2017

Received in revised form 10 July 2017

Accepted 11 July 2017

Available online xxx

Keywords:

Media policy

Internet hours

Sleep duration

Policy evaluation

Youth policy

ABSTRACT

In November 2011, the Korean government legalized blocking access to online games for youths younger than age 16 late at night; this is called the shutdown policy. Using multiple regressions we examined how the compulsory block affected youths' Internet hours and sleep duration. Data were drawn from the 2011, 2012 Korea Youth Behavior Risk Factor Survey, a cross-sectional online survey of middle and high school students aged 13–18 years. Legalizing a ban of online gaming late at night for youths caused an increase in the predicted probability of being in a high-ranked Internet user group by 1.6 percent points, a decrease in the predicted probability of Internet addiction by 0.7 percent points, and an increase in sleep duration of 1.5 min. All results showed a gender difference in the effect of the policy. Although the net effect of the shutdown policy was statistically significant, the small effect size, the partial effect on female youths, and the side effects related to human basic rights and inappropriate regulation of the game industry made the effectiveness of the policy arguable.

© 2017 Elsevier Ltd. All rights reserved.

1. Introduction

The Internet is now a part of most people's daily lives. In 2016, the rate of Internet accessibility in households reached a high proportion in East Asian countries (96.5% in Japan, 89.5% in Singapore, and 98.8% in South Korea; hereafter, Korea) as well as in Western countries (91.3% in England, 82.2% in the United States, and 90% in Germany) (International Telecommunication Union, 2016; Ministry of Science, ICT and Future Planning, 2017). While many people can access the Internet easily by many means, the rate of overdependence on the Internet, especially using smartphones, has been increasing. According to a national survey, the rate of people in the danger zone of overdependence on the Internet has been increased by 9.4 percent points, from 8.4% in 2011 to 17.8% in 2016 (Ministry of Science, ICT and Future Planning, 2017). Among the people in the danger zone, teenagers were at 30.6%, ranking as the highest proportion.

Usage of computers and the Internet has many benefits. It helps workers build required skill sets for jobs (Turow and Lilach, 2000), and students get higher scores in math and reading given appropriate time use (Battle, 1999). However, excessive use is negatively associated with physical and psychological well-being, especially for youths (Wight et al., 2009). The excessive online time also correlates to poor lifestyle habits in youths (Wang et al., 2012).

* Corresponding author.

E-mail addresses: changjun.chris.lee@gmail.com (C. Lee), sirkim@snu.ac.kr (H. Kim), arhong@khu.ac.kr (A. Hong).

<http://dx.doi.org/10.1016/j.tele.2017.07.006>

0736-5853/© 2017 Elsevier Ltd. All rights reserved.

Among the side effects of excessive Internet usage, the lack of sleep duration raises a serious concern for youths, and this is mostly caused by online gaming at night because late-night playing of online games inevitably crowds out youths' time for adequate sleep. Sleep duration of youths in Korea amounts to 31% of the day, which is less than the 33–37% per day in Japan and the United States (National Youth Policy Institute, 2014). Youths' lack of sleep duration causes behavioral, cognitive, and mood impairments (O'Brien, 2009) as well as depression and anxiety (Reigstad et al., 2010).

To protect youths from playing online games excessively and to increase their sleep duration, in November 2011 the Korean government legalized the blocking of access to online games for users below 16 years of age late at night, the so-called shutdown policy. Instead of the autonomous regulation applied in most countries such as the United States, European Union, and Japan, only a few countries like Korea, China, Thailand, and Vietnam chose compulsory ways such as the shutdown system (Kim et al., 2015a; Park and Ahn, 2010).

Even if the shutdown policy can encourage youth to sleep more by prohibiting online gaming at night, scholars have argued that forbidding Internet games at night is not the ultimate solution to alleviate Internet or online game addiction or lack of sleep duration (e.g., Jeong et al., 2016; Jin, 2016; Lee and Kim, 2017). The compulsory regulations like the shutdown policy have been shown not to be a solution for relieving game addiction (Jeong et al., 2016). According to Lee and Kim (2017), the policy should not be legitimized as youths also have their right to do gaming at night even if online game activity late at night is correlated with game addiction. Moreover, there are many ways for youths to avoid the regulation. For example, they can route through an overseas server or use their parents' account to game late at night (Jin, 2016). In other aspects, some scholars have argued that the policy could hinder the growth of game and software industries due to unnecessary intervention on the demand side (Kim et al., 2015b; Sang et al., 2017).

Because of such negative aspects, a shutdown policy is not widely implemented worldwide, so related studies examining the policy's effect itself are not prevalent. The Korea Institute for Industrial Economics and Trade (2013) is the only literature addressing the effect of the shutdown policy empirically, to the best of the authors' knowledge. However, it has some limitations such as small observations and unbalanced samples, less various of estimation, and limited focus on the gender effect, which is one of the primary factors affecting online gaming behavior in youth groups (Lucas and Sherry, 2004; Ogletree and Drake, 2007).

To fill this research gap, this research aims to examine whether or not the shutdown policy actually affected a reduction in juvenile Internet hours and an increase in juvenile sleep duration, and, if it did, to estimate the size of the effect. Evaluating policy is always important even if the policy is abolished because policy makers may refer to the evaluation in many aspects when they need to build a policy in similar situations (Vedung, 1997). Therefore, this study will provide empirical evidence for political debates for future practical actions.

In the rest of the paper, we firstly introduce the shutdown policy in details and review literature on the policy. Next, we define the key independent and the outcome variables, then using the difference in difference approach, examine how the shutdown policy effect on juvenile sleep duration and Internet hours. In result and analysis section, we show the significance and the size of the effect, and lastly, we discuss the results with regard to the previous discourse and gender difference to conclude a policy evaluation of legalizing a ban of online gaming late at night for youths.

2. Background

2.1. Shutdown policy

The shutdown policy aimed to protect Korean youth from playing online games excessively, which can lead to addiction to the games, violence and a lack of social activities. For the implementation of shutdown policy, Juvenile Protection Act was amended in May 2011, initiated by Ministry of Gender Equality and Family. Newly added Article – Restriction on Hours Provided for Internet Games in Late Night Time – became the legal basis of the regulation. The policy protects by blocking access to online games for those under 16 from midnight to 6 a.m.

However, due to the lack of ex-ante evaluation of the policy, it has caused many of controversies (Kim et al., 2015a; Sang et al., 2017). First, the shutdown policy is targeting only games made in Korea. Second, the system violates the constitutional principle of family autonomy and infringes upon parents' right to educate and foster their children as they see fit. Finally, government authorities do not distinguish between online games and other games with the online game shutdown policy.

In 2016, another government department, Ministry of Culture, Sports and Tourism announced a plan to abolish the shutdown policy because the firms in the gaming industry insisted that the policy was a kind of the double regulation added on to the existing policy, the Protection of Adolescents Act (Kim, 2016). In addition, the validity of the shutdown policy has yet to become clear. Youths could borrow identities of adults and play games if they were eager to do so. Also, there are other ways to reduce the time of playing online games even if there is a way to stop playing online games from midnight to 6 a.m.

2.2. Previous studies of the shutdown policy

Because online game addiction and its negative effects are frequently discussed (Allison et al., 2006; Liu and Chang, 2016; Wenzel et al., 2009), many countries are implementing appropriate regulation of online game usage. In the United States, European Union, and Japan, the game industry is restricting their services by autonomous regulation, thus promoting the

Download English Version:

<https://daneshyari.com/en/article/6889859>

Download Persian Version:

<https://daneshyari.com/article/6889859>

[Daneshyari.com](https://daneshyari.com)