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Conference Paper

A study on the ex-post regulation within the content ecosystem in Korea

19th Biennial Conference of the International Telecommunications Society (ITS): "Moving Forward with Future Technologies: Opening a Platform for All", Bangkok, Thailand, 18th-21th November 2012

Provided in Cooperation with:

International Telecommunications Society (ITS)

Suggested Citation: Hyenyong, Yoon (2012) : A study on the ex-post regulation within the content ecosystem in Korea, 19th Biennial Conference of the International Telecommunications Society (ITS): "Moving Forward with Future Technologies: Opening a Platform for All", Bangkok, Thailand, 18th-21th November 2012, International Telecommunications Society (ITS), Calgary

This Version is available at:

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The 19th ITS Biennial Conference 2012

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A STUDY ON THE EX-POST REGULATION WITHIN THE CONTENT ECOSYSTEM IN KOREA

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ABSTRACT

The fixed and mobile contents ecosystem has been recently facing a major change because the importance of contents business is emphasized by the rapid spread of smart media equipments and the accompanying deregulation of related industries leads to more intense competition. With the appearance of gigantic platform operators or network operators, market concentration takes place. Competitions between platform operators and network operators result in unfair trades, which harm both fair competition and user's benefit. Therefore, this paper examines the change of distribution structure within evolved contents ecosystem, understands the causes that harms fair competition, and offers the ex-post regulation policy that will mitigate detected problems. This paper thoroughly analyzes the cases where contents providers experienced unfair trading practices in Korea. However, we propose implications that would establish an effective set of regulations with minimum government control because a unilateral government regulation would harm the development and natural revolution. This research focuses on 1) actual conditions and categories of unfair trade practice in content ecosystem, 2) current polices and the problems of unfair trade practice, and 3) solutions of adopting possible polices that promote fair competition practice in content ecosystem. For this purpose, this study carries out panel studies of related researchers, policy makers, and industry practitioners in Korea.

1. INTRODUCTION

In smart media environment, users could select digital content based on their preferences. Once the content has been selected, users could easily use this content through their different types of media. This means that users could seamlessly use their selected content through multi-screens. For this reason, securing rich content is a core strategy for winning and succeeding in the competitive landscape. Particularly, due to the evolutionary integration of individual networks such as telecommunication, broadcasting, and internet, operators can provide more versatile and multimedia contents as well as applications so that the content industry has the bright prospect.

Since the domestic digital content market has been forced to change due to the mobile open market and rapidly growing smart media industry, recently the open application market has made a huge difference in domestic digital content distribution and profit structure. As a result, the relationship between content developers and platform providers has been changed rapidly. Due to the fact that, at least content distribution in mobile ecosystem becomes quite clearer than before. However, things are different in internet portals in Korea since market is concentrated on the one or two companies. Although Korea government makes a political effort to vitalize contents industry since the importance of the industry has been stood out, it is indicated that domestic contents industry has some problem in its ecosystem.

For this reason, it is time for analyzing how this change has influenced on the relationship between content developers and platform providers and whether this change has brought to enhance users' choice within digital content market. Many researchers focused on the mobile business model in the ecology since a smartphone is appeared and vitalized. Hazlett(2009) and Lin and Ye(2009) analyzed a food web in the smartphone industry but they only focused on the business aspect. Furthermore, a study on regulation scheme for unfair practices in the contents distribution has not been activated. Clemons and Madhani(2010) suggested that new digital business models, such as Google, would require new regulatory regimes. However the research dealt with sponsored search case but contents distribution. Mehra(2011) investigated the differences between the concept of walled garden and open platforms, and the paper analyzed Government 's roll for the recent internet ecology. The author argued that some framework for guidance is still needed to yield significant social returns. A wide range of studies has covered antitrust law and regulation, however, those papers touched on mainly platform providers' market power in the internet industry. This paper focuses on the content distribution structure in the internet and content ecosystem, and attempts to find possible policies that may prevent adverse effects of unfair trade practice and foster fair competition practice in content ecosystem. Unless the proper profit sharing of contents production takes place, it can be an obstacle to progress contents industry. It is because the unfair environment may demotivate active contents production or disable developers to raise production funds. Likewise, it is also advised to establish ex-post regulation regimes by examining unfair practices between providers and contents developers under the current content ecosystem.

Therefore, this study analyzes content ecosystem in Korea under fixed and mobile contents market environment and comprehends the types of unfair practices through case studies. It enables us to forecast possible unfair practices as well as to provide policy proposals, which can be adopted as holistic ex-post regulations. To find out possible policies that may prevent adverse effects of unfair trade practice and foster fair competition practice in content ecosystem, this research focuses on 1) actual conditions and categories of unfair trade practice in content ecosystem, 2) current polices and the problems of unfair trade practice, and 3) solutions of adopting possible polices that promote fair competition practice in content ecosystem. For this purpose, this study carries out panel studies of related researchers, policy makers, and industry practitioners in Korea.

2. CONTENTS ECOSYSTEM IN KOREA

(1) APP-MARKET ECOSYSTEM IN KOREA

The number of Smartphone and wireless Internet users worldwide substantially increased. Moreover, the use of mobile contents is also growing as Smart-pad/table PC such as iPad is expected to continue to rapidly propagate. The content environment has been transformed from closed market to open market by the development and distribution of various contents and the appearance of App markets. The App store of Apple and the Android market of Google take the lead in this market. The sales of these global application markets have doubled since 2011. Their sales show an upward trend as the sales of Apple's App store grow. The key players in the mobile contents ecosystem prior to a Smartphone are contents provider (CP), contents aggregator (CA), mobile portal operator, and network operator. Contents providers that are linked to distribution industry and mobile portal operators are compulsory to trade mobile contents. A contents aggregator collects contents from multiple providers and plays a role to distribute a mobile portal operator. A mobile

portal operator provides subscribers with a variety of information-entertainment service as well as contents via wireless communication.

Table 1. Changes of Mobile contents distribution environment

| Key point | | Before smart phone era | After smart phone era |
|---------------------|-----------|--|--|
| | | Wireless internet open issue | |
| Environment changes | Players | Developers, Contents Aggregaters, Mobile portal providers, Network operators | App content developers, Platform providers, Users, Network operators |
| | Structure | Vertical Relationship centralized network operators | Horizontal Relationship among developers, platform providers and network operators |

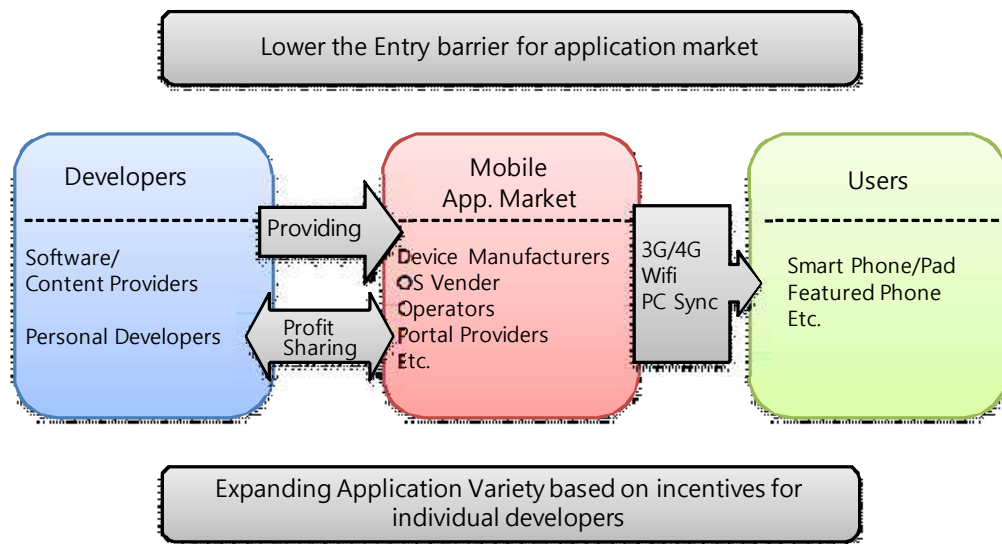


Figure 1 A structure of mobile open market

In the case of Korea, beside from Apple and Google’s global markets, application markets are centered around mobile carriers. These application markets are being part of Google’s Android market as a form of shop-in-shop. Although, each market is indirectly affected by the Google Android OS policy, it is actually run by its mobile carrier under their own separate policy. On the other hand, Samsung Electronics and LG Electronics, the companies that make Smartphones, also run their own market places. In the case of domestic open market, although it has been rapidly growing, the size of market is relatively small comparing to the global open market. Therefore, it is difficult for contents business to make profits. Especially, customer pays an insignificant amount of money on mobile contents, as there is a great deal of free contents. Therefore, it is demanding for them to reach break-even unless they have highly competitive contents. Recently, global mobile carriers including SK Telecom and KT offer their customers WAC(Wholesale Applications Community), the open platform in which applications are provided to customers who have subscribed their tele-communication service. Moreover, K-APPS, the WAC2.0 standard Korean Intregrated App Store, began to service as of November 1, 2011. NHN, the major domestic internet portal firm, also recently opened N store, the NHN’s open market. Naver open market is operated as a part of Google Play for a while and considered to be loaded in a cell phone like T-store and Olleh market.

Meanwhile, the market has been changing in ways that customers can be provided with contents or applications from any web site, regardless of OS and cell phone, as the mobile Internet standard has changed to web standard. Nowadays, full browsing became possible and the use of mobile Internet increased with the appearance of HTML 5, the new web document standard, and Mobile OK, the mobile web standard. According to the Korea Communications Commission (KCC)'s research on Smartphone usage pattern in the first half of 2012, most of users use mobile web (48.6%) when they access to Internet through the Smartphone. Therefore, KCC expects that the use and role of mobile web will be increased (KCC, 2012) With the spread of the mobile web standard, major domestic and global portals offer mobile-only web site through which the user can access to full browsing, thus expanding the use of fixed-mobile interlocking contents. In the case of global platform providers, Google (Search, Gmail, Calendar, and so forth) and Yahoo (Mail, Messenger, Flickr, News, Weather, Finance, Sports, Entertainment, and so forth) run their mobile portal. In Korea, Daum (Mail, Search, News, Stock, T-story, and so forth), SK Communications (Mini-cyworld, Music, Vedio, and so forth), and Naver (Mail, Café, Blog, News, and so forth) run their mobile portal. Internet portal providers offer contents reprocessed for being suitable to mobile portal and make an effort on finding a new revenue model such as mobile advertising. In other words, the C(Contents)-P(Platform)-N(Network)-T(Terminal) type of the traditional value chain collapsed while a new ecosystem in which various contents or applications are retained and distributed has been established based on open platform with the cooperation of developer, cellphone manufacturer, and mobile carrier.

Cell phone manufacturers and mobile carriers without mobile platform either construct their exclusive application market place or make an alliance with an existing application market place to enter an ecosystem since it is particularly difficult for them to enter the ecosystem. As a result of this phenomenon, App-Economy was coined. (KT Economy and Management Research Lab, 2011) The platform-centered ecosystem is recently expanding to areas apart from mobile phones, such as TV (e.g., Samsung's Smart TV app store), and PC (e.g., Apple's Mac app store), thereby strengthening the importance and role of platform operator.

Table2. Current state of mobile App-market

| | Platform | Company | Market | Number of Apps ('12.4) | Time to commercialization | Profit sharing |
|------------------|---------------------------|---------|---------------------|------------------------|---------------------------|----------------|
| Global | iOS | Apple | App Store | 600,000 | 2008.7 | 3:7 |
| | Android | Google | Google Play | 500,000 | 2008.10 | 3:7 |
| | Third party Android | Amazon | Amazon AppStore | 34,000 | 2011.3 | |
| | | GetJar | GetJar | 35,000 | 2004 | |
| | Window7 | MS | Windows Marketplace | 83,000 | 2009.10 | 3:7 |
| | Symbian | Nokia | Ovi Store | 70,000 | 2009.5 | |
| | Blackberry | RIM | App Worle | 70,000 | 2009.4 | 2:8 |
| Etc. | AT&T, NTTDOCOMO, Verizone | WAC | - | | | |
| Domestic (Korea) | Window7, Android | SKT | T Store | 190,000 | 2009.9 | 3:7 |
| | Window7, Android | KT | Olleh Market | 550,000 | 2009.10 | 3:7 |
| | Android | LG U+ | Oz store | 7,000 | 2010.8 | 3:7 |

| | | | | | | |
|--|-----------------|--------------|--------------|---|---------|-----|
| | Bada | Samsung | Samsung Apps | - | 2009.2 | 3:7 |
| | United Platform | SKT,KT,LG U+ | KWAC | - | 2011.11 | |
| | iOS, Android | NHN | N Store | | 2012. 6 | |

(2) PROFIT SHARING BETWEEN MOBILE CARRIER AND CONTENT PROVIDER

In 2000, at the early stage of Internet introduction, profit sharing ratio between a mobile carrier and a CP on content usage fee was basically 1:9. However, profit sharing ratio has been affected by the joint investment and increased investment on systems resulted from various factors including the improvement on cell phones, the development of related technologies, and the diversification of offered contents. At this point in time, profit sharing ratio between an app market operator and a CP is almost fixed as 3:7. It is partially affected by the policies of Apple, as their app store is globally popular. In the case of app market environment, profit sharing calculation and standard practices of transaction become transparent. As a result, one-man developer or small CPs can take a benefit from the transparent calculation, thus significantly reducing unfair trading practices.

However, in the case of Korea, besides the fixed profit sharing ratio between a CP and an app market operator through the app market, there are other cases where a mobile carrier and a CP trade contents. In these cases, based on contents genres or contract methods, trades are executed at various profit sharing ratios under the name of content usage fee. According to KCC, the profit of CPs was decreased from 509.283 billion won in 2006 to 432.973 billion won in 2008. It is due to the fact that not only did the market for content usage fee decrease, but also the weight of CP's profit decreased. (Kweon, Sul. and Lee, 2011)

Basically, profit sharing ratio between a mobile carrier and a CP is decided based on overall assessment of mobile carrier's facility type and range, marketing support range, third party intervention on calculation, and so forth. At the early stage of mobile contents business, each mobile carrier used contents distribution as a new profit model, and minimized CP's profit to maximize theirs. Therefore, mobile carriers engaged in unfair practices against medium-sized CPs to make more profits, thus causing a vicious circle where a CP cannot make a profit in a mobile carrier-centered contents ecosystem. In terms of digital music, a reasonable standard of profit is not shared with a copyright holder. These kinds of unfair practices are known as a harming factor to the advance of music contents industry.

KCC introduced profit sharing guideline as of June 2009, and defined unfair practices of profit sharing between a mobile carrier and a CP as a prohibited act under Telecommunication Business Act. As a result, profit sharing between a mobile carrier and a CP has improved to some extent. However, due to the appearance of the open ecosystem and various environmental changes in the contents market, unfair practices in the mobile contents or application ecosystem began to appear in various forms. In other words, when platform operators who run app markets discriminate registration of application developers by abusing their market dominance, if customers wish to cancel a purchase of any application, application developers have to compensate for the entire commission, as platform operators claim that they are not responsible for any cancelation fees. Additionally, it is claimed that the current profit sharing ratio of

3:7 is unfair as the importance of developers stands out, thereby increasing their bargaining power. In this regard, besides from the monolithic ratio of 3:7, there are some cases where developers are guaranteed with additional profits. For example, in the case of Google's Chrome Web Store, 95 percent of application sales margin is distributed to developers. It is also known that BuleVia of Telefonica proposes 50 percent of profits from advertising and 10 percent of profits from SMS in addition to sales margin.

(3) CONTENT MARKET OF INTERNET PORTAL IN KOREA

The digital and communications convergence era is where a platform shares contents and users. Various Internet portals perform the role of platform in the Internet environment. The word Portal conceptually originated from Latin word porta, which means a gate, signifies a first gateway to the Internet in the Internet environment. Internet portal is defined as a system with a search engine that efficiently connects users to any useful site from a starting point on the web. (Clarke III and Flaherty, 2003; Ledbetter, 1999)

On the other hand, the concept of portal has gradually broadened as the importance of Internet stands out. Users access useful information, form community, use e-commerce, and are provided with efficient contents or services through the Internet portal. (Trombly, 2001) However, portal operators who run Internet portals tend not to "share" contents and users, but to "rule" them. Some portal operations in Korea gain a powerful social influence as well as a dominant trading position as economic power is centered and monopolized in the hands of them. A big portal sometimes signs an unfair contract with a CP by abusing their dominance position, as it can be a great channel in which contents produced by the CP are distributed,

When we closely examine the entire contents market in Korea, even though the recent use of mobile Internet contents has radically increased, the fixed Internet contents market is still relatively larger than wireless Internet contents market; the annual value of the domestic sales of Internet contents is 3.2185 trillion won, made up of 0.3792 trillion won (11.8%) in wireless contents sales and 2.9393 trillion won (88.2%) in fixed Internet contents sales. It is because multiple contents such as E-learning, game, and music are still serviced through the fixed Internet. Contents developers provide users with contents via various general or professional portal sites. However, in terms of the number of contents developers, the total number of CP in Korea is estimated as 5,724, made up of 4,804 (83.9%) and 920 (16.1%) of mobile and fixed business unit, respectively. The number of CP in the mobile business unit is much greater mainly because of the tendency of CP in the fixed business unit being gigantism.

Table3. Internet Content Revenue in Korea ('11.12), (Unit : 100M Won)

| | Mobile Internet Contents | | | Fixed Internet Contents | Total |
|---------|--------------------------|----------------------|------------------|-------------------------|--------|
| | Mobile open market | Mobile closed market | Sum | Fixed Internet Portal | |
| Revenue | 1,062 | 2,730 | 3,792 (11.8%) | 28,393 (88.2%) | 32,185 |

※ Source: KCC statistics (2012.8)

Table4. Number of Internet Content Providers ('11.12), (Unit : 100M Won)

| | Mobile Internet Contents | | | Fixed Internet Contents | Total |
|---------------|--------------------------|----------------------|------------------|-------------------------|-------|
| | Mobile open market | Mobile closed market | Sum | Fixed Internet Portal | |
| Number of CPs | 3,373 | 1,431 | 4,804 (83.9%) | 920 (16.1%) | 5,724 |

※ Because most CPs develop both fixed contents and mobile contents, the numbers are duplicated

※ Source: KCC statistics (2012.8)

In case of wireless Internet contents, one-man developers or small-sized CPs can enter the market as long as they have competitive elements. However, in case of fixed Internet contents, each CP has to enter the market by directly trading with a portal or with a master-CP who is a middle distributor. In this process, unfair practices of a master-CP or portal prohibit a CP from entering the market or running a business. As a result, small-sized CPs hardly survive in the fixed contents market and the market is being centered around large CPs with bargaining power.

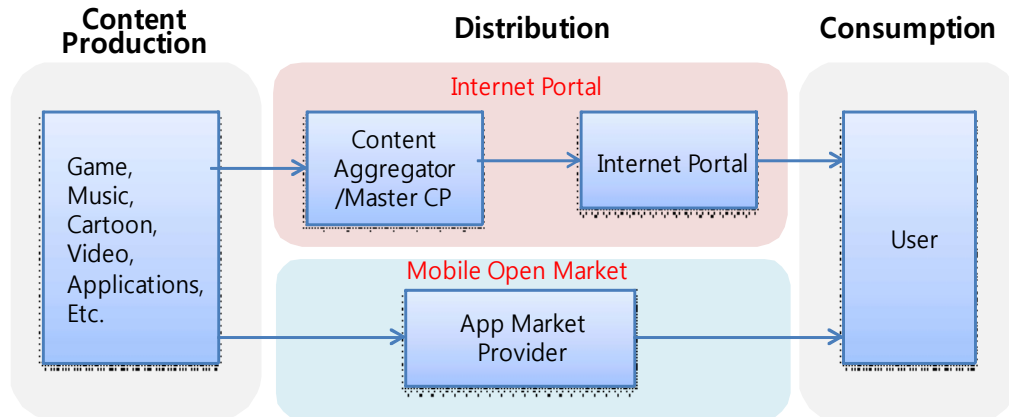


Figure 2. Contents distribution system

(4) THE PROFIT SHARING OF THE INTERNET CONTENT MARKET IN KOREA

The problems of Korea Internet contents market can be summarized as follows. First, as numerous medium- or small-sized CPs deal with a small number of large platform operators, those large platform operators are likely to abuse their dominance position in the monopolistic trading structure. The abuse of large platform operators appears in unfair practices such as unfairly low profit sharing to medium- or small sized CPs, unilateral ownership of contents copyright, and contents registration refusal without well-grounded reasons. Second, the terms and conditions for use applied to contents trading between platform operators and CPs are not appropriate for characteristics of each content genre and the terms and conditions for use that does not include necessary contents, such as matters of notification, defect indemnification, and payment, damages CPs as well as users.

Furthermore, besides from making a direct contract with CPs, Internet portal operators in Korea contents market contract with middle distributors by bundling contents based on genre. Therefore, it is important to note the trading state of a MCP

and an individual CP. An individual CP or a developer makes a direct contract not only with a portal, but also with a MCP to supply contents to a portal. In case of digital sound, contents are distributed in a form of Application Service Provider(ASP) service. In this case, it can be problematic that, except for a few portal operators, most of MCP provides CPs related to their company with favorable contract conditions to discriminate other CPs during contents distribution.

Internet portal has a different profit sharing method by genre, which is different from that of mobile app-market. The profit of a portal, which provides online service, is composed by 50%~60% of net gain from online game, 30%~35% of net gain from online music, 50% of net gain from online movie, and 10%~50% of net gain from online soap opera. However, the profit ratio of an online game developer, an online music contents supplier, an online music supplier, a copyright owner and supplier of online soap opera are 40%~50%, 10%~15% or 20~30%, around 20%, 45%~80%, respectably. It is possible that unfair practices regarding content supply rules, commission, or profit sharing can take place in trading between a large portal and a medium- or small-sized CP.

There are various forms of contractual relationship between a portal operator and a CP on the use of contents. For example, a portal directly sells supplied contents and shares profits proportional to the number of uses with a CP. Or, a CP directly supplies contents to the users by directly using a portal's platform, and pays network fees to the portal. Or, a portal outsources contents with their own budget, and supplies them to users. A portal also tends to put a lower price on the contents supplied by a CP than on the contents supplied by themselves or a subsidiary company. In some cases, large Internet portals beforehand deduct 5~10% of contents payment from the CP's profits at the distribution of content usage profit. This kind of prior deduction is obviously the abuse of a portal's dominance position against CPs who are under the inferior position. Therefore, it is required to impose an appropriate sanction to control unfair practices.

3. THE ANALYSIS OF UNFAIR PRACTICES IN THE FIXED AND MOBILE CONTENTS ECOSYSTEM

Operators, who produce and run fixed and mobile platforms, attempt to build their own ecosystem as well as to expand vertically and horizontally in the same or different line of business. Mobile carriers or platform operators who gain competitiveness in this process intentionally or accidentally commit unfair practices. It is known that mobile carriers, large manufacturers, and platform operators with market dominance conduct these unfair practices in the structure of the fixed and mobile ecosystem. This study analyzes the types of unfair practices in the fixed and mobile contents ecosystem and we interview professional panels to provide the most appropriate methods. Professional interviewees include related business operators, scholars, and regulators.

THE CASES AND TYPES OF UNFAIR PRACTICES

A. The discrimination of platform operators against contents providers.

Platform operators discriminate contents providers by asking either considerably favorable or unfavorable contract conditions at the platform service trade. For example, when a portal operator makes an alliance contract with their subsidiaries or

non-subsidiaries to obtain contents, the operator discriminates non-subsidiaries by favorably assigning free inventory advertisement only to its subsidiaries.

B. The abuse of market dominant position.

Platform operators force CPs to provide unfair profits and to do compulsory buying by abusing their dominant position at the Internet contents trading. The majority cases of unfair practices are as a result of this market dominant position abuse and the cases are as follows.

- A mobile carrier imposes excessive payment commission to a CP in the contents contract, thus giving a disadvantage to them.
- A platform operator bans UCC suppliers from playing prior advertisements, which is suppliers' main profit source, thus putting them in a financially hazardous condition.
- A platform operator asks a CP to freely share a source code and operation manual of an application belonged to the CP, thereby taking improper profits.
- A platform operator forces a CP or related companies to buy Internet advertisement, or forcibly sets a sales goal.

C. The limited or refusal of profit sharing.

Platform operators limit or refuse profit sharing with a CP as follows; A platform operator unfairly imposes a sales commission to a CP; A platform operator unilaterally decides the contents price; A portal gets sales commission out of Internet shopping malls by using their monopolistic strength at online distribution; A platform operator makes a contact of contents distribution at an extremely low price, or does not share proper profits to a CP.

- A portal asks Internet shopping mall to pay 30% of commission as a brokerage charge when the mall sells cell phones via a portal's shopping mall.
- A portal buys contents, such as news, at a giveaway price under the name of contents distribution
- A portal does not disclose the complete contents sales information to CPs. Therefore, CPs cannot confirm whether they got paid an appropriate amount of contents sales profit.

Last but not least, professional panels also pointed out that platform operators could refuse to provide service to CPs. Thus, we categorize a portal operator' unfair practices against CPs into four types in the table below.

Table5. The Type of Unfair Practices between a Platform Operator and CP

| The type of unfair practices | Contents |
|------------------------------|---|
| Discrimination | The discrimination against a competitor CP by making a favorable contract with subsidiaries or specific contents suppliers. |
| Abuse its monopoly position | The coercion to sign an unfair contract or to disturb a contractor's normal business activities. |
| Unfair profit sharing | The refusal or restrictions fair profit sharing. |
| Unfair refusal | The refusal or restrictions providing platform service. |

4. EX-POST REGULATION OF THE UNFAIR CONTENTS DISTRIBUTION IN KOREA

If each element of ecosystem voluntarily maintains the fair competition order, government regulation will be unnecessary. If not, however, the regulatory agency must suppress monopolization in the market economy, and regulate restriction on competition or unfair practices to establish the fair competition order. Fair competition is the competition where every business operator within workable competition seeks to create a win-win outcome by competition. There is a list of requirements that need to be met in order to properly implement the fair competition. The first, Free competition. In order to ensure free competition, the entry to and exit from the market should be easy and competition between operators within the market should not be disturbed. The second, The fairness of Competition Methods. Namely, free competition has to be orderly implemented by such competition methods as price, quality, service, and so forth. The third, Transaction with free will. The parties to a transaction should be given the freedom of participation in a transaction, of choice in accounts, and of terms of business set-up. Any transaction cannot take place without the free will of both parties.

That is to say, in order to ensure the fair competition in the contents ecosystem, regulators must establish a minimum but effective set of regulations to promote an environment where fair competition can flourish in the fixed and mobile contents ecosystem. As a result, the competitiveness of firms will be improved and customer protection and welfare as well as industry and national development will be enabled. If the government too much intervenes the market, it will put the market into confusion, and likely shrink the industry. Therefore, a minimum set of regulations is necessary. Ex-post regulations will be more appropriate than ex-ante regulations, and be offered as a form of a business guideline for business operators to voluntarily follow the regulations.

The first, it is advised to impose a duty of prior information disclosure on the basis of open consultation between a platform operator and a CP. That is, (1) profit sharing is decided by the agreement of two parties and both parties should obligatorily share the rational argument on the demand level such as profit sharing ratio. (2) In profit calculation, a portal should obligatorily provide a CP with necessary information such as a gross profit and a statement of accounts.

The second, Internet content-related parties should concretely propose the detailed types of unfair practices regarding prohibited acts so that a fair trade environment in the market or the distribution order can be established. We can segment the most problematic unfair practices in Korea into six cases based on the four types above. ① Unfairly low profit sharing of contents sales to a CP. (Type3), ② The unfair ownership of contents copyright. (Type2), ③ The disturbance on a CP's business. (Type2), ④ The pressure on unfair profit offering such as advertisement purchase. (Type2), ⑤ The discrimination on subsidiaries by offering a relatively favorable contract. (Type1), ⑥ The refusal of contents registration without just reasons. (Type4) Some cases are already legally included in the prohibited acts in the content trading via mobile platform. However fixed platform operators, Internet portal providers, are not included in the prohibited acts in Korea. Therefore, it is advised that law revision is immediately required to expand the prohibited acts in the fixed Internet as well.

The third, in order to improve the effectiveness of guideline, it is recommended to form a private organization which coordinate and consult self-imposed control on the guideline. Regulators should only be involved to advice recommendation of correction on the unsettled issues. The consultative group should be composed of fixed and mobile platform operators, the representative of a CP, scholars, and government regulators. Moreover, they should monitor whether guidelines are well followed, and carry out self-regulating mediation or adjustment. This is to build a healthy content ecosystem by market autonomy while minimizing government regulation.

5. CONCLUSIONS

This paper examines the change in the distribution structure in a contents ecosystem during the rapid growth of the fixed and mobile contents industry. The rapid growth of market was driven by the deregulation in related industries. Moreover, the market was highly concentrated by a few platform operators with market dominance in an ecosystem. As a result of this phenomenon, unfair practices that harm fair competition and user profits in fixed and mobile contents market were reported, thereby also negatively affecting on the healthy contents ecosystem. Therefore, this paper focuses on the contents ecosystem in Korea, and examines the types of unfair practices that CPs experienced by analyzing actual cases. On the other hand, we propose the minimum government regulation because a unilateral regulation can hamper the development and natural evolution of a contents ecosystem. We also discuss how members in the ecosystem can voluntarily settle conflicts to reach a win-win solution.

However, the ex-post regulations we propose in this paper still have practical limitations. Domestic platform operators are competing against global platform operators, such as Apple and Google. Therefore, it can be proposed that domestic ex-post regulation is reverse discrimination against domestic platform operators, if it is applied only to them, because those global platform operators have stronger market dominance. Therefore, policy makers and regulators should consider the needs as well as the practicality of extraterritorial application of domestic regulation. It is recommended to discuss remedies across country because the problems that those global platform operators cause can happen to any country.

REFERENCES

- [1] Clarke III, I. and T. B. Flaherty, "Web-Based B2B Portals," *Industrial Marketing Management*, 32:1, pp. 25-23. 2003.
- [2] Clemons, E. K. and N. Madhani, "Regulation of digital businesses with natural monopolies or third party payment business models: Antitrust lessons from the analysis of Google. Mimeo", *Wharton*, 2010.
- [3] Hazlett.T.W., "Modular Confines of Mobile Networks: Are iPhones iPhony?", *3rd Annual Conference on the law and Economics of Innovation*, 2009.
- [4] KCC, "Research on Smrtphone usage pattern in the first half of 2012", *KCC Research*, 2012.
- [5] KCC Statistics(2012), www.kcc.go.kr
- [6] Kweon, S.C., Sul.S.H. and Lee, H.J., "A Study on the Effective Allocation of Cost and Revenue under the Changing Internet Environment", *KCC Research Report*, 2011.

- [7] Lee, J.S. and Choi, M.K, "The strategies of key players in App-economy era", *KT Economy and Management Research Lab.*, 2011.
- [8] Lin.F. and Ye.W., "Operating System Battle in the Ecosystem of Smartphone Industry", *2009 International Symposium on information Engineering and Electronic Commerce*, 2009.
- [9] Mehra, "Paradise is a Walled Garden? Trust, Antitrust, and user dynamism", *George Mason Law Review*, Forthcoming, 2011.
- [10] Trombly, M., "Banks Pushing into B2B Portal Market," *Computerworld*, January, pp. 52., 2001.