

2012 White Paper on Korean Games

Despite various unfavorable factors such as many regulations on the gaming of youths and hacking accidents, the Korean game market recorded 18.5% growth in 2011, proving the potentiality of the game industry as the core driving force for the cultural content industry of Korea. The portion of online games within the platform is almost 90% which causes a concern about unbalanced development of the market. Meanwhile, mobile games recorded 33.8% remarkable growth opening a possibility to be a new platform.

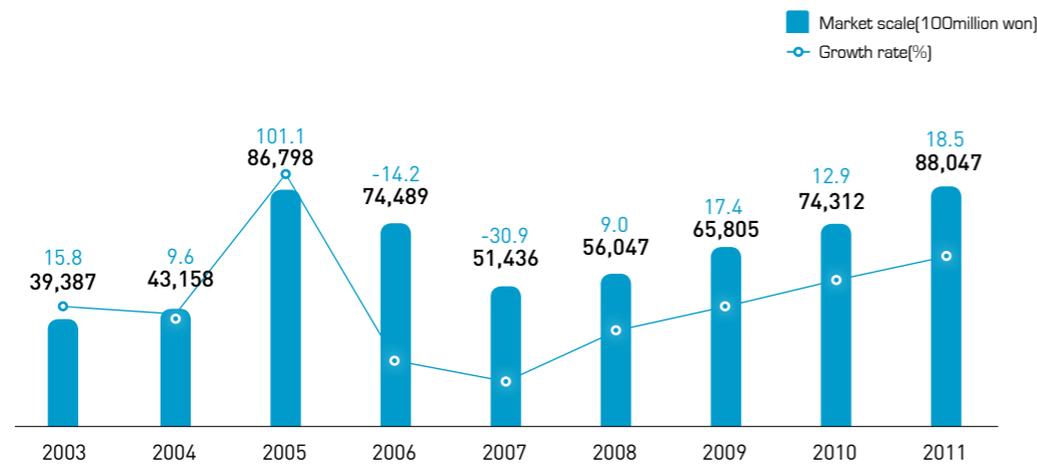
Exports in 2011 were more than 2.3 billion dollars, 48% increase from the previous year, while imports decrease by 15% to be less than one tenth of exports volume proving the international competitiveness of Korean games. Though Korean domestic market is saturated and the global market is becoming increasingly competitive, the prospect of Korean game industry is positive and it is expected to grow continuously for the coming 3 years.

01 Industry Trends

1.1 Market Scale

The scale of the Korean domestic game market in 2011 was estimated to be around 8.8047 trillion won, which is 18.5% increase compared to that of the previous year, 7.4312 trillion won. The game market which had shrunk due to the incident of 'Ocean Story' recovered a positive growth rate in 2008 (9.0%) and has recorded two-digit growth rates since 2009 (17.4%). Having entered the 7 trillion won level in 2010, the Korean game market has rapidly grown to reach almost 9 trillion won level in one year.

Figure 1 Trends of the Korean Game Market (2003 - 2011)



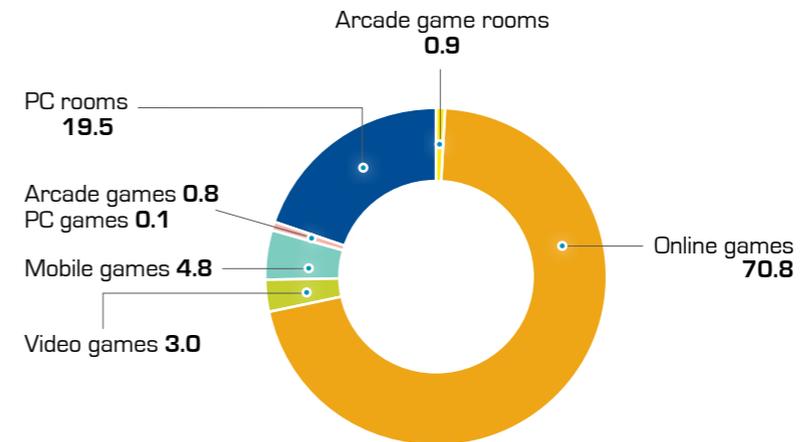
The size of online games is 6.2369 trillion won, occupying 70.8% of the Korean game market. The portion of online games in the total game market keeps growing every year. If the distribution sector is excluded, the portion of online games is as much as 88.9% of the total production.

In the domestic market, online games continue to grow on the basis of a stable infrastructure, and in overseas markets they are laying a solid groundwork with masterpiece games equipped with global competitiveness. So the growth of online games is expected to continue for a while.

What is next to online games in sales is the PC rooms market which recorded 1.7163 trillion won with 19.5% of market share. The total sales of the PC rooms market have kept decreasing for the past several years, and in 2011, too, it decreased by 2.5%. However, it is expected to get better in 2012 with the introduction of online masterpiece games both home and abroad.

Figure 2 Korean Game Market by Component (2011)

(Unit : %)



The mobile games recorded a high growth rate of 33.8% achieving 4.8% of market share with sales of 423.6 billion won. Mobile games are expected to grow continuously with the spread of smart devices and the development of their performance.

Video games recorded sales of 268.4 billion won, 37.1% decrease from the previous year. Its share in the game market was 3.0%. The decrease was caused by the reduction in sales of video game devices (hardware), and the size of decrease was more than in 2010.

Sales of arcade games were 73.6 billion won with 0.8% of market share, and sales of arcade game rooms (including video game rooms) were 76.3 billion won with 0.9% of market share. The situation of the market of arcade games and arcade game rooms which became stagnant with the incident of 'Ocean Story' in 2006 does not get better much. Since 2009, arcade games have

sought advancement into overseas markets beyond the Korean market to explore new markets.

PC games, which has been on a continuous downturn, had sales of 9.6 billion won in 2011 taking 0.1% of the market. It is highly possible that the depressed PC game market will be absorbed by online game market according to the change of media environment.

1.2 Prospects

The Korean game market is expected to record a market size of 10.5333 trillion won in 2012, which is 19.6% increase from 2011. While online games are showing 26.3% increase from 2011, mobile games will achieve 632.8 billion won, 49.4% increase from 2011, and arcade games will achieve 76.5 billion won, 4.0% increase, in sales. Video games will record 208.4 billion won, 22.4% decrease from 2011, and PC games will have 7.6 billion won, 21.3% decrease. In the game distribution industry, PC rooms will have sales of 1.6562 trillion won, 3.5% decrease from the previous year, and arcade game rooms will have 75.7 billion won, 0.8% decrease.

The overall game market in 2013 and 2014 will keep growing continuously, like in 2012, mainly with online games and mobile games. Sales will record 12.5472 trillion won in 2013, 19.1% increase from the previous year, and 14.8558 trillion won in 2014, 18.4% increase from the previous year. The market scale of online games, which occupy the most portion in Korean game market, is expected to be almost 10 trillion won in 2013. If the demand for mobile games is maintained as the current trend, sales of mobile games are expected to exceed 1 trillion won in 2014.

Table 1 Scale and Prospects of the Korean Game Market

(Unit : 100 million won)

Category	2010		2011		2012(E)		2013(E)		2014(E)	
	Sales	Growth	Sales	Growth	Sales	Growth	Sales	Growth	Sales	Growth
Online games	47,673	30.8%	62,369	30.8%	78,762	26.3%	97,076	23.3%	117,986	21.5%
Mobile games	3,167	33.8%	4,236	33.8%	6,328	49.4%	9,180	45.1%	12,580	37.0%
Video games	4,268	-37.1%	2,684	-37.1%	2,084	-22.4%	2,019	-3.1%	1,974	-2.2%
PC games	120	-20.0%	96	-20.0%	76	-21.3%	61	-19.6%	53	-13.2%
Arcade games	715	2.9%	736	2.9%	765	4.0%	791	3.3%	810	2.4%
PC rooms	17,601	-2.5%	17,163	-2.5%	16,562	-3.5%	15,590	-5.9%	14,395	-7.7%
Arcade game rooms	768	-0.7%	763	-0.7%	757	-0.8%	756	-0.1%	760	0.6%
Total	74,312	18.5%	88,047	18.5%	105,333	19.6%	125,472	19.1%	148,558	18.4%

1.3 Export-Import Situation

In 2011, Korean game industry exported 2,378,070,000 dollars (2.6352 trillion won: converted by annual average basic exchange rate of the Bank of Korea) which is 48.1% increase compared to the previous year. Since 2006, the amount of exports has continued to grow more than the average growth rate of the game industry. Imports in 2011 recorded 204.98 million dollars (227.1 billion won), 15.5% decrease from the previous year. The reason for the drastic decrease in imports in 2011 following 2010 is that the sales of the existing and new models of major foreign companies in the video games market, which occupies most portions in the imports of game devices into Korea, have decreased. Due to the increase of exports and decrease in imports, the gap in the balance of trade reached almost 2.2 billion dollars, much greater than 1.4 billion dollars in the previous year.

The main characteristics of the sector of exports and imports are; online games took most of the exports following 2010, and the exports of mobile games increased greatly. As a single platform, online games exported more than 2 billion dollars owing to the significant increase in the exports of large game companies such as Nexon and NEOWIZ Games.

The scale of the exports of Korean game industry is expected to keep expanding in 2012. The full-scale exports of new masterpiece online games and the overseas advancement of mobile games will be accelerated and the overseas markets will be expanded. In result, the export amount in 2012 is expected to reach 2.9 billion dollars, 19.9% increase from the previous year.

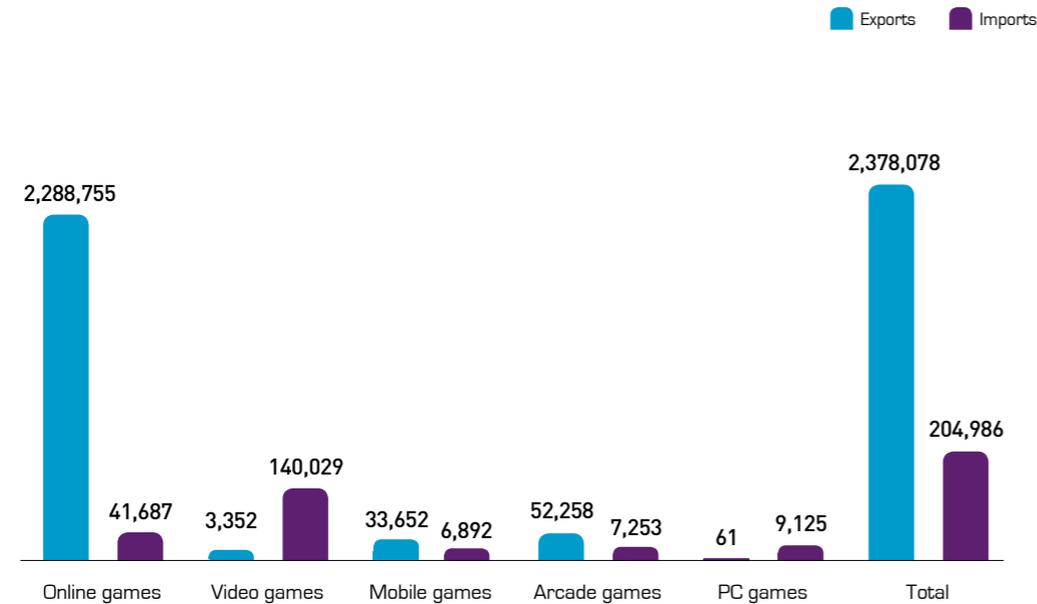
Table 2 Status and Prospect of Exports of the Korean Game Industry

(Unit : 1,000 dollars)

Category		2006	2007	2008	2009	2010	2011	2012(E)
Export	Export Amount	671,994	781,004	1,093,865	1,240,856	1,606,102	2,378,078	2,851,315
	Growth Rate	19.0%	16.2%	40.1%	13.4%	29.4%	48.1%	19.9%
Import	Import Amount	207,556	389,549	386,920	332,250	242,532	204,986	-
	Growth Rate	-10.9%	87.7%	-0.67%	-14.1%	-27.0%	-15.5%	-

Figure 3 Export-Import Scale of the Korean Games by Component (2011)

(Unit : 1,000 dollars)



To look at the scale and portion of exports and imports of each platform, online games exported 2,288,755,000 dollars, 96.2% of the total export amount of all games, leading the overseas exports of Korean games. Imports of online games recorded 41.68 million dollars, which was 9.8% increase from 37.97 million dollars of the previous year, taking 20.3% of the total amount of imports. The amount of imports of video games was 140.02 million dollars, 68.3% of the total amount of the imports of all games, taking the most of the amount of imports of games. But as the amount of imports of video games decreased by 23.5% from the previous year, its portion in the total amount of imports decreased a little, too. The amount of exports of video games was 3.35 million dollars, which was a little more than 0.1% of the total export amount. The amount of exports of mobile games was 33.65 million dollars, a remarkable growth of 296.7% from the previous year. Imports of mobile games increased, too, 6.89 million dollars, 171.7% increase from the previous year.

Besides, exports of arcade games recorded 52.25 million dollars, 7.2% increase from the previous year, and imports of arcade games were 7.25 million dollars, 1.0% decrease from the previous year. In the case of PC games, exports were 61,000 dollars, 6.2% decrease from the previous year, and imports were 9.12 million dollars, 22.0% decrease from the previous year.

Table 3 Market Share in the World Game Market (2011)

(Unit : 1 million dollars)

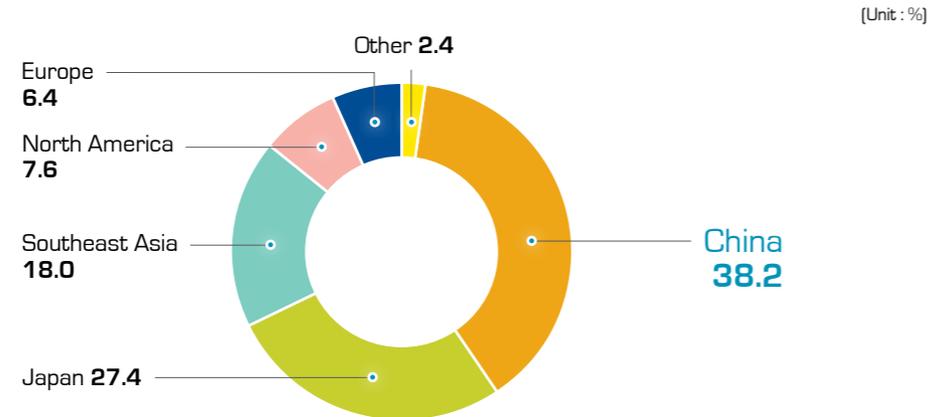
Category	Online games	Video games	Mobile games	PC games	Arcade games	Total
World Game Market	20,826	48,381	9,806	3,135	25,966	108,113
Domestic Game Market	5,628	242	382	9	135	6,397
Market Share	27.0%	0.5%	3.9%	0.3%	0.5%	5.9%

In regard to total sales, the Korean game market (6.397 billion dollars) had a market share of 5.9% in the world game market (108.113 billion dollars) in 2011. It is only 0.1% point increase from 5.8% in 2010. However, considering the adjustment in the scope of the video game market for the calculation of the statistics of the world market in 2011, the Korean market is maintaining a strong trend of growth if calculation is made in the method of the previous year.

To look at the weight of each platform in the world game market, Korean online games occupied 27% of the world market, once again proving its status of the world's No. 2 online game power nation following China (32.2%). However, in regard to growth rate, Korea recorded only 1.1% point growth from the previous year while China grew by 1.8% point, causing concern that the gap with China will be expanded. Once the scale of Korean online games ruled over the whole world, but since 2008 China has been No. 1 with explosive growth in online game market and Korea has maintained the position of No. 2.

It was more noticeable in 2011 that platforms other than online games had little market share in the world game market. The weights of Korean arcade games and PC games in the world game market maintained 0.5% and 0.3% respectively. However, the market share of video games in the world market was no more than 0.5%, which was lower than 1.1% of the previous year. Even considering the changes in the methods of compiling statistics, the Korean video games market is so weak compared to the world market. On the other hand, mobile games continue to expand its weight in the world market. The market share was 3.2% in 2010, a little increase from 2.8% in 2009, and it was expanded in 2011 to 3.9%. It is analyzed that the reason for the increase in market share was the results of the spread of smart phones and the active usage of the distribution routes.

Figure 4 Exports of Korean Games by Region (2011)



In 2011, Korean games were exported the most to China, which took 38.2% of the total export amount, followed by Japan (27.4%), Southeast Asia (18.0%), North America (7.6%), Europe (6.4%) and other regions (2.4%). China has been the biggest market for exports of Korean games since 2008. China accounted for 37.1% of the total exports in 2010 and increased the percentage by 1.1% point in 2011, maintaining the status of the country of the largest exports of Korean games. Japan, too, is being positioned as a major market for the exports of Korean games together with China with 0.3% point increase from the previous year of 27.1%. In 2011, approximately 65.6% of the total amount of export of Korean games was exported to China and Japan with 1.4% point increase from the previous year, while exports to North America, which has been on the decrease since 2008, decreased by about 1.6% point from the previous year (9.2%).

To look at the weight of major platforms for export to each country, exports to China and Japan occupied most, similarly to the overall weight of export markets. Unlike online games, 57.6% of mobile games were exported to the U.S., followed by 26.2% to Japan. Exports of mobile games to Europe occupied 9.7% in 2010 and 9.9% in 2011 showing an increasing trend.

1.4 Situation of the Game Industry Workers

In 2011, the number of the companies normally producing or distributing games was 1,017 in total. The number of PC rooms was 15,817, more than 3,200 less than 19,014 in 2010. Mean-

Table 4 Number of Korean Game Industry Workers

(Unit: 1 person)

Category	2009	2010	2011	2010 - 2011 Growth Compared to the Previous Year	2009 - 2011 Average Annual Growth	Proportion
Game Production and Distribution	43,365	48,585	51,859	6.7%	9.4%	54.6%
PC rooms/ Arcade game rooms/ Video game rooms	49,168	46,388	43,156	-7.0%	-6.3%	45.4%
Total	92,533	94,973	95,015	0.0%	1.3%	100.0%

while, there were 510 arcade game rooms operating normally. The total number of workers in the game industry in 2011 was 95,015. The number of employees working in the production and distribution of games was 51,859, 6.7% increase from the previous year, comprising 54.6% of the total employees. The number of employees working in game circulation and consumption was 43,156, 45.4% of the total employees in the game industry, which was 7.0% decrease from the previous year probably due to the decrease in the number of PC rooms.

The average number of employees working for a company in game production and distribution in 2011 increased by 6.6 compared to that of 44.4 in 2010. To look at the types of working, graphic design occupied the most proportion with 19.9%, followed by game programming development (17.8%), business management (11.2%), game planning (9.8%), game operator and QA (8.7%), and customer service (5.2%).

For genders, 73.6% were men workers and 26.4% were women workers.

02

The 10 Issues in the Korean Game Industry

during 2011 and the First Half of 2012

Korea Creative Content Agency has announced the 10 issues in the Korean game industry during 2011 and the first half of 2012 by collecting opinions of the major concerned people in the game industry including the industry, government and academies as well as a survey.

Unsurprisingly, the greatest issue during 2011 and the first half of 2012 was the implementation of regulations related to gaming. The measures to regulate gaming of youths had continued to be discussed in order to prevent excessive immersion and addiction of youths in gaming, and they were institutionalized with the framework of compulsive shutdown system and selective shutdown system (gaming time selection system). Besides, numerous regulatory issues including the prohibition of the collection of resident's registration numbers and trading of items in cash reconfirmed that so many regulations are being imposed to the game industry. Meanwhile, alleviation of regulations has been realized through the gradual introduction of the autonomous deliberation by the private sector, causing expectation and also concerns about side effects in the market.

In relation to the game market, the rapid growth of smart phone game market emerged as a major issue forecasting the changes in the market structure. The daily activities of game companies' growth with M&A were epitomized in the merge of NCSOFT by Nexon. As the two companies represented the Korean game industry, the M&A caused much controversy about its aftermath. Besides, disputes about the contracts on game service and the introduction of 'Diablo3' became issues in the game market.

In the aspect of game culture, there were debates on the introduction of another type of regulation on gaming with the mentioning of the correlation between games and school violence. The enactment of the Law on the Promotion of e-Sports Industry was also selected as an issue with an expectation for the creation of a sound game culture.

2.1 Implementation of the Regulations on Gaming of Youths

In 2011, causing controversy about double regulation, the two kinds of laws regulating gaming of youths - the 'Youth Protection Law' by the Ministry of Gender Equality & Family and the 'Law on

the Promotion of the Game Industry' by the Ministry of Culture, Sports & Tourism - were revised in May and July in 2011 respectively and the compulsory shutdown system and selective shutdown system (whose name was changed later to gaming time selection system) were implemented based on respective laws.

The bill on the regulation of the gaming time of youths had already been proposed in the congress in 2005, but it did not draw attention due to its unconstitutional elements and the blame that it was an excessive regulation. However, it began to draw public attention with the outbreak of various incidents related to excessive immersion in gaming in 2009. Especially, in 2010, excessive immersion in gaming was pointed as the cause of the homicide committed by an adolescent in Busan. As a result, the Ministry of Gender Equality & Family, which had insisted the necessity for regulations on games, made excessive immersion and addiction in games a public issue and enacted the compulsory shutdown system, and the Ministry of Culture, Sports & Tourism introduced the relatively softer selective shutdown system.

The compulsory shutdown system based on the Youth Protection Law prohibits offering Internet games to youths younger than 16 between 00:00 and 06:00. Providers of the games applicable by the compulsory shutdown system (games offered in real time through information communication networks) such as online games should take measures that can block the access of youths younger than 16 between 00:00 and 06:00. The selective shutdown system, which changed its name into gaming time selection system prior to full-fledged implementation from July 1, is applied to the youths younger than 18 of age. It is a system which restricts the gaming methods, time, etc. for youths' gaming if the youths themselves or their legal representatives ask to do so.

With the application of the two kinds of regulations on youths' gaming, provision of games for youths during daytime can also be prohibited on the basis of the gaming time selection system in addition to late night time which is regulated by the compulsory shutdown system.

2.2 Rapid Growth of Smart Phone Game Market

The craze of smart phone games which started with the introduction of I-phones in the latter half of 2009 came to a climax in 2011 with the distribution of more than 20 million smart phones. Especially, the system of autonomous deliberation by the private sector on open market games which took effect on July 6, 2011 decisively paved the way for the activation of smart phone games. Apple's App Store and Google's Android Market, which had closed down blaming the

prior screening of games demanded by Korean laws, registered their game category on Nov. 2 and Nov. 9, 2011, respectively and resumed distribution of their games. The charm of the smart phone game market was proved by the drastic growth of the mobile game market, which achieved a remarkable growth of 33.8% in 2011 compared to the previous year.

The craze of smart phones is predicting even a change in the market structure by inducing on-line game companies to advance into the mobile game market. Another attraction of smart phone games is that unlike online games which need a local publisher, smart phone games can easily advance into the global market through an open market.

The popularity of SNG (Social Network Game) also has an influence on the smart phone game market. SNG can be easily used by all ages and genders of people with easy access and simple process for gaming. Moreover, games combined with Facebook, Kakao Talk and others continue to be introduced to accelerate the expansion of smart phone game market by attracting women customers who did not enjoy games much in the past.

2.3 Implementation of Autonomous Deliberation by Private Sector

In 2011, through gradual amendment of laws, it became possible for the private sector to deliberate games autonomously. On April 5, 2011, the bill for the revision of the 'Law on the Promotion of the Game Industry' for the autonomous deliberation of open market games was proclaimed and the law went into effect in earnest on July 6 as the first stage of the autonomous grade classification system. Soon after that, another bill for the entrustment of some of the grade deliberation works was revised on Dec. 31, 2011. The law on the system of autonomous deliberation by the open market was enacted to reflect the demand for the improvement in game grade classification system with the increasing distribution of games through the open market according to the spread of smart phones and tablet PCs. In their characteristics, open market games are produced by game companies or individuals frequently in small quantities and are provided or used through the open market, and thus it had not been realistic to have them go through prior grade classification system implemented for all games. For such reasons, Apple and Google which are operating global open markets, have not provided game categories for their services in Korea, uniquely in the world, and it brought up questions continuously in the industry. The games offered in the open market are excluded from the objects to be classified of their grades in advance by the Committee for the Grading of Games, and the open market business providers such as Apple,

Google, SKT and KT may grant their own grades.

It can be said that with the consignment of grade deliberation works to the private sector Korea is now on the way for an autonomous grading system like in advanced nations. Now the works for the classification of the grades of some games have been consigned to the private sector by designating separate grade classification organization, and though it is not a full-fledged autonomous deliberation system, the autonomous deliberation system first mentioned as a policy direction in the 2003 Mid- and Long-Term Plan for Game Industry has been institutionalized in almost 10 years.

2.4 Merger of NCSoft by Nexon

In June, 2012, Nexon, the No. 1 game company in Korea, merged NCSoft, which was No. 2 in the industry, to be reborn as a large company with sales worth 1.8 trillion won. The new company was ranked within 10 largest companies in the world (in sales) for the first time as a Korean company.

The business community understood the merger as a strategic alliance aimed to secure international competitiveness in the rapidly changing global environment and predicted that it will make synergy effect in global businesses. It is also predicted that if the two companies, specializing in casual games and MMORPG respectively, make synergy through the merger, it will be possible for them to become the world's top 5 game company with more than 3 trillion won in sales. Nexon has enlarged its size continuously since 2004 by acquiring domestic game development companies such as Widget, Neople, N-doors, Game High and JC Entertainment. Two of them were listed companies (Game High and JC Entertainment). Through the acquisitions, Nexon's sales exceeded 1 trillion won to be the largest game company in Korea overtaking NCSoft which was a competitor of the company at that time.

In late 2011, Nexon Japan was listed on the Japan Stock Exchange, which was interpreted by the business community as an intention to do business in the world market escaping from the regulations on the game industry in Korea. Actually, more than 65% of Nexon's sales are made in overseas markets such as Japan, China and Europe.

Regarding such growth of Nexon, some express concern about business concentration, as the restructuring of the market mainly by large companies will bring crisis for small and medium game enterprises.

2.5 Disputes over Contracts on Game Service

Disputes over renewal of contracts between game development companies and publishers regarding game service are increasing. Regarding the renewal of the contract for 'Sudden Attack' which is recording the most simultaneous connectors among all Korean FPS games, conflicts occurred in May, 2011 between Net Marble of CJ E&M and Nexon. The reason was that with the merger of Game High, the developer of 'Sudden Attack', by Nexon, the publishing right for 'Sudden Attack' was about to be transferred to Nexon from Net Marble. Finally, the conflicts led to Nexon's application to the court for the injunction for the usage of the information of the users of 'Sudden Attack' against Net Marble. After more than one month of battle, Net Marble and Nexon concluded their negotiation by agreeing to joint publishing of the game for the coming 2 years.

Conflicts are also under way between Smile Gate and NEOWIZ Games regarding the service of 'Crossfire' in China. 'Crossfire' used to be operated by the cooperation of the 3 companies of Tencent, the local Chinese company, Smile Gate, the developer, and NEOWIZ Games. But Smile Gate caused conflicts with NEOWIZ Games when it pushed ahead with a direct contract with Tencent, and Smile Gate made its position not to continue cooperation with NEOWIZ Games in 2013 when the existing contract expires. The service of 'Crossfire' in Korea has expired in July, 2012, and Smile Gate filed a lawsuit against NEOWIZ Games to transfer and register the trademark rights.

2.6 Hacking of Nexon and Prohibition of Collection of Resident's Registration Numbers

In Oct., 2011, the personal information of 13 million users of 'Maple Story', a global hit product of Nexon, was hacked into, and in the second hacking which occurred in March, 2012, users' cyber money and items were stolen.

It occurred after the leakage of the information of 34 million users of SK Communications and it was desperately needed to protect personal information. Thus Korea Communications Commission proclaimed a bill for the revision of the 'Law on the Facilitation of the Usage of Information & Communication Network and Protection of Information' to protect personal information on Feb. 17, 2012.

According to the measures to be taken by Korea Communications Commission for protection

of personal information, the websites with more than 10,000 daily visitors will be restricted to collect resident's registration numbers from 2012, and the measure will be expanded to all Korean websites from 2013. From 2014, administrative measures will be taken if resident's registration numbers are collected or used, except for the purpose of law enforcement.

According to the revised 'Law on Information & Communication Network', companies may not collect the resident's registration numbers of subscribers or users in online space including the Internet from Aug. 18, 2012, and should erase the space for the entering of resident's registration numbers currently marked as a must when a person wants to become a member of the service. The resident's registration numbers already in possession should be discarded within 1 year after the date of enforcement of the revised law, and be completely scrapped within 2 years in the case of small and medium enterprises.

2.7 Introduction of 'Diablo3' to the Market

On May 15, 2012, the best masterpiece of 'Diablo3' was officially published for service by Blizzard Entertainment. More than 3.5 million sets of 'Diablo3' were sold around the world in 24 hours after its introduction to the market, renewing the record for the fastest sale. In a week after its publishing, 6.3 million sets were sold in the world.

In Korea, 'Diablo3' occupied 27.2% of market share (Game Report) in PC rooms in 2 days after beginning service, gaining explosive popularity. The introduction of 'Diablo3' influenced the increase in the gaming time in PC rooms. According to 'Game Tricks', a site for the analysis of game traffic in PC rooms, from May 15, the day when 'Diablo3' was introduced, to July 30, the total hours of gaming in PC rooms were 7,347,486, a 41.55% increase from the previous year which recorded 5,190,570 hours. During the same period of time, the average hours spent in a PC room increased by 52.66% from 450 minutes to 687 minutes, and the average stay of a user increased by 21.49% from 70 minutes to 85 minutes. The number of usage also increased by 15.56% from 4,470,796 times to 5,166,630 times.

2.8 Prohibition of Trading of Items in Cash

On June 12, 2012, the Ministry of Culture, Sports & Tourism announced a revised enforcement ordinance for the 'Law on the Promotion of the Game Industry' to prohibit the 'trading of game items acquired for business purpose as well as game money'. Also, from now on, trading of all the game items or game money of the games usable by any range of age is prohibited. The related enforcement ordinance is effective from July 20.

The background for the revised enforcement ordinance is that an inclination to gambling is caused by trading game items and game money acquired through a long time of gaming and especially, it can lead to the youths' excessive immersion in games. Initially, the Ministry of Culture, Sports & Tourism spoke its mind for an intensive regulation on the trading of the whole items, but decided to begin regulating companies first in fear of side effects such as underground trading. According to the trend of market after enforcement of revised law, the ministry will also regulate probability-type items.

However, there are opinions that it is an excessive regulating considering that the trading of online game items in cash already has a market of 1 trillion won, and most of the users are adults. In addition, a rash regulation can foster underground economy because there are much trading of game items done between individuals through the Internet, etc. besides legalized markets through agencies.

2.9 Controversy over the Correlation between Games and School Violence

With the opinion that the excessive gaming of the youths may have a negative influence on not only study but also their health and daily life, the Ministry of Education, Science & Technology said in Feb. 2012 it will prevent the excessive gaming of the youths by introducing a cooling-off system, pointing that game is one of the main reasons for school violence. The ministry also said that it will raise fund from the game industry to prevent school violence.

The cooling-off system will make the game end automatically in 2 hours after a youth began the game. Re-connection is allowed for once after 10 minutes, but it is impossible to get reconnected after 2 hours. So a youth cannot do the gaming for more than 4 hours a day.

The cooling-off system confronted criticism by the game industry and some lawmakers and civil organizations who thought that the system is too excessive. The cooling-off system will be a tertiary regulation on Korean online games in addition to the 'compulsory shutdown system' by the Ministry of Gender Equality & Family and the 'selective shutdown system (gaming time selection system)' by the Ministry of Culture, Sports & Tourism that are already in force. The game industry is concerned that excessive government regulations will have a negative influence on the market while claiming that it will not help prevent addiction in games to forcibly block games unconditionally without clear results of studies proving that gaming is the cause of school violence.

Finally, the partial revision bill ('The Law on the Prevention of School Violence') of the 'Law on the Measures to Prevent School Violence' was passed in the general meeting of the congress, but the institutionalization of the cooling-off system was excluded.

2.10 Enactment of the 'Law on the Promotion of e-Sports Industry'

At the end of 2011, the 'Law on the Promotion of e-Sports Industry' was enacted to create a basis for and strengthen competitiveness of e-sports culture and industry reflecting the necessity for an independent law for the promotion of e-sports which had been raised since 2009. Together with the 'Mid- and Long-Term (2010~2014) Plan for e-Sports' set up in July, 2010, the law raised the expectation for political fostering of e-sports.

As the e-sports industry faced the most critical crisis in the latter half of 2011, the expectation for a political support was very high. The e-sports in Korea had gained popularity and enhanced its international status with more than 10 years of history, but it was about to lose the driving force for growth as the government budget was cut down and problems like the lawsuits on intellectual property rights and fixed matches occurred. Moreover, among the 10 teams, the 3 teams of MBC, Hwaseung OZ and Wemade FOX were disbanded in 2011, and the closure of a professional game channel of MBC Game made the situation more difficult. MBC Game opened in 2001 in the name of Gembc, and led the revival of e-sports content together with Ongamenet. However, due to the aggravation of the profitability of the game channel, the management decided to change it into a music channel.

With the passage of the Law on the Promotion of e-Sports in 2011, the 'Association for the Win-Win Prosperity of e-Sports Game Industry' was launched in Dec. 2011 laying the institutional basis for the development of e-sports.

03 User Trends

3.1 Research Summary

Korea Creative Content Agency conducted a survey of those who play games among the people between 9 and 49 of age in the 5 cities of Seoul, Busan, Daegu, Gwangju and Daejeon from Jan. 27 to Feb. 7, 2012.

The target of the survey was 1,700 game users selected by proportional quota sampling in consideration of region, gender and the size of population of each age. The survey was conducted online, and the contents of the survey were composed of the lifestyle related to the users' gaming, gaming pattern and consumption pattern, users' recognition of gaming and the trend of each gamer.

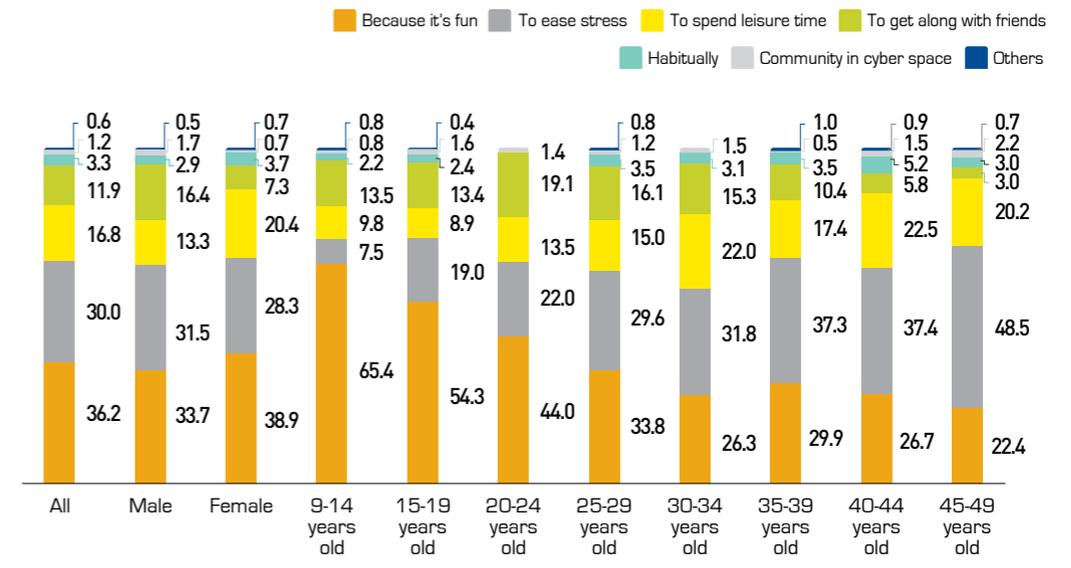
3.2 Major Analysis Results

(1) The Reason for Gaming

To the question why they play games, 36.2% of the respondents answered that they play a game 'because it is fun', followed by 'to ease stress' (30.0%), and 'to spend leisure time' (16.8%). Between genders, there were more men (16.4%) who answered 'to get along with friends' than women (7.3%). Among the age groups, 65.4% of those who are '9-14 of age' answered 'because it is fun' showing the highest percentage in all age groups. It is also shown that the answer 'to ease stress' was selected more as one gets older.

Figure 5 The Reasons for Gaming

(Multiple Choices, Unit : %, n=1,700)

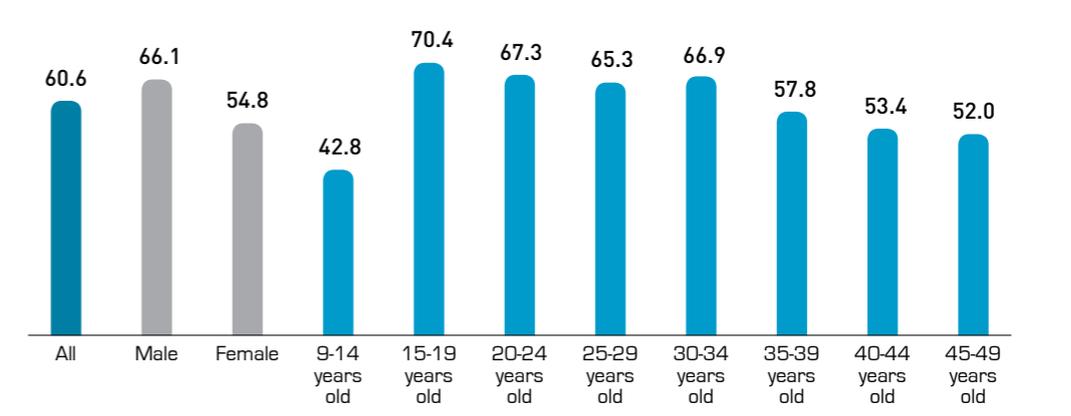


(2) Average Gaming Hours per Day

It turned out that the respondents spend 60.6 minutes in average in gaming. Men spent 66.1 minutes and women spent 54.8 minutes in gaming. Those between 15 - 19 of age spent the longest time, 70.4 minutes, in gaming. The gaming hours tended to decrease after reaching the peak in 30 - 34 age group.

Figure 6 Average Gaming Hours per Day

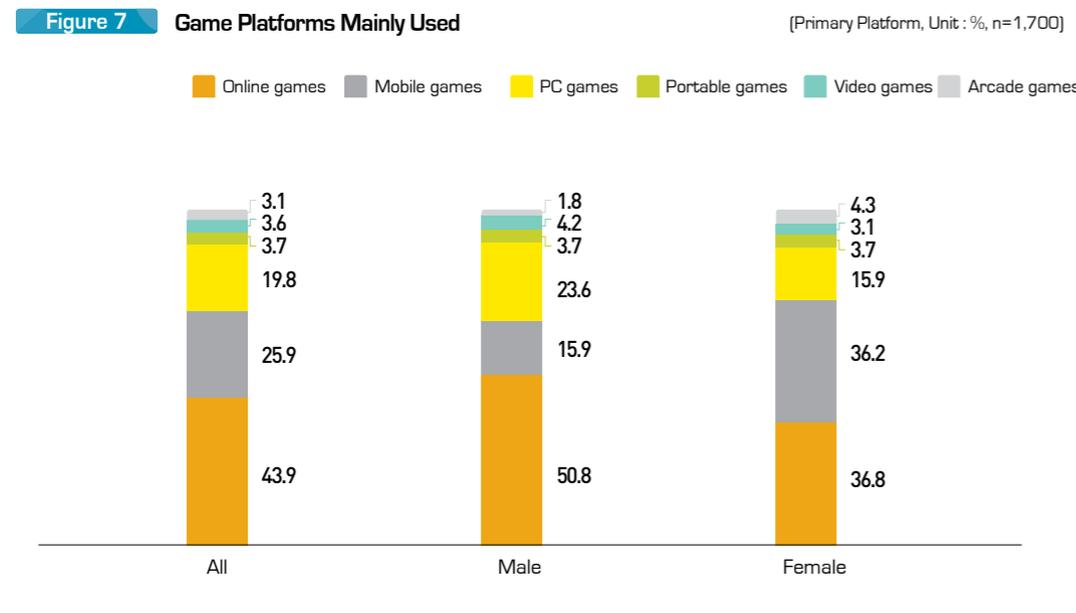
(Unit : minute, n=1,700)



(3) Game Platforms Mainly Used

To the question asking about the game platform mainly used, 43.9% of the gamers said it's 'online game', followed by 'mobile game' (25.9%) and 'PC game' (19.8%). While 'online game' took the most for both men and women, the proportion of 'mobile game' was higher in women (36.2%) than in men (15.9%).

Online game was played the most by all age groups: 82.7% in '9-14 age group', 51.0% in '15-19 age group' and 48.9% in '20-24 age group'.



(4) Main Gaming Time Range

To the question asking the main gaming time range, '6-10 o'clock p.m.' took the most portion of 38.2%, followed by '12-6 p.m.' (29.5%) and '10 p.m.-2 a.m.' (28.8%). For ages, while people of '9-19 years of age' are gaming mainly during daytime and evening time, people of '25-29 years of age' are gaming mainly in the evening and at night, showing the different pattern of gaming time between different age groups.

Figure 8 Main Gaming Time Range (according to Gender) (Unit: %, n=1,700)

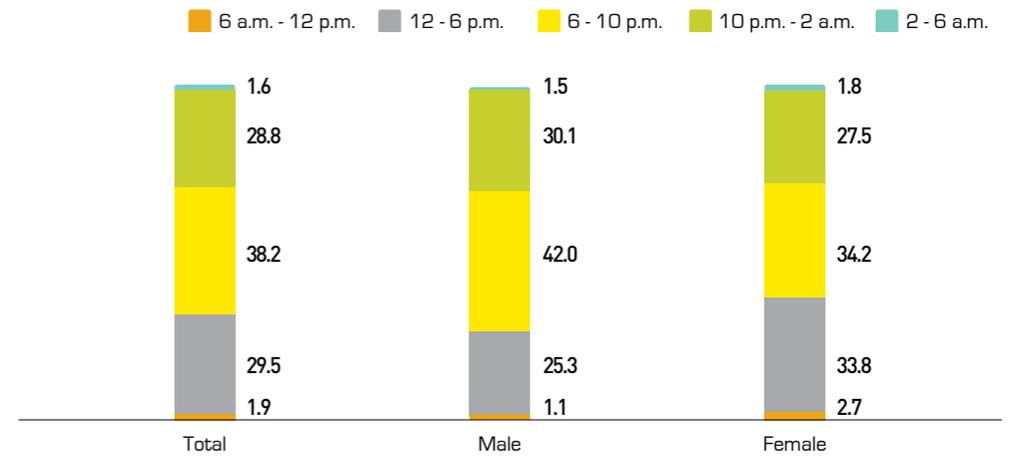
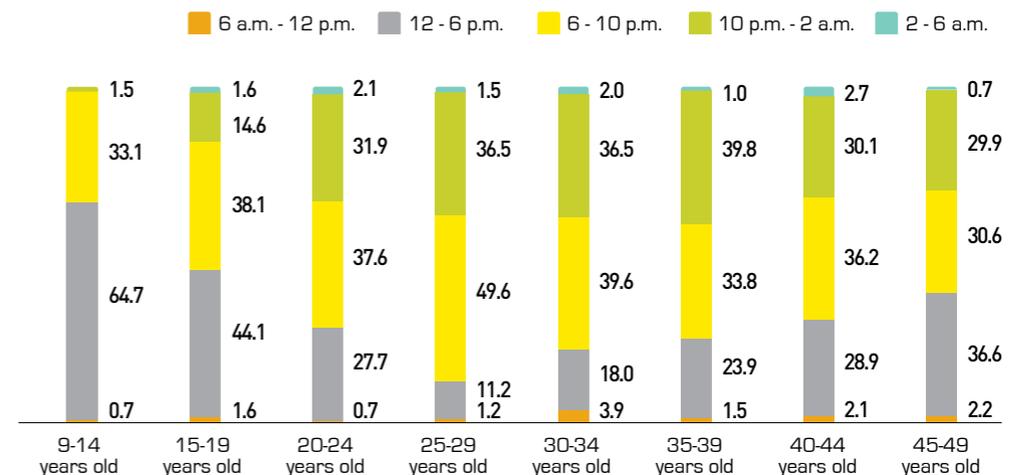


Figure 9 Main Gaming Time Range (according to Age) (Unit: %, n=1,700)



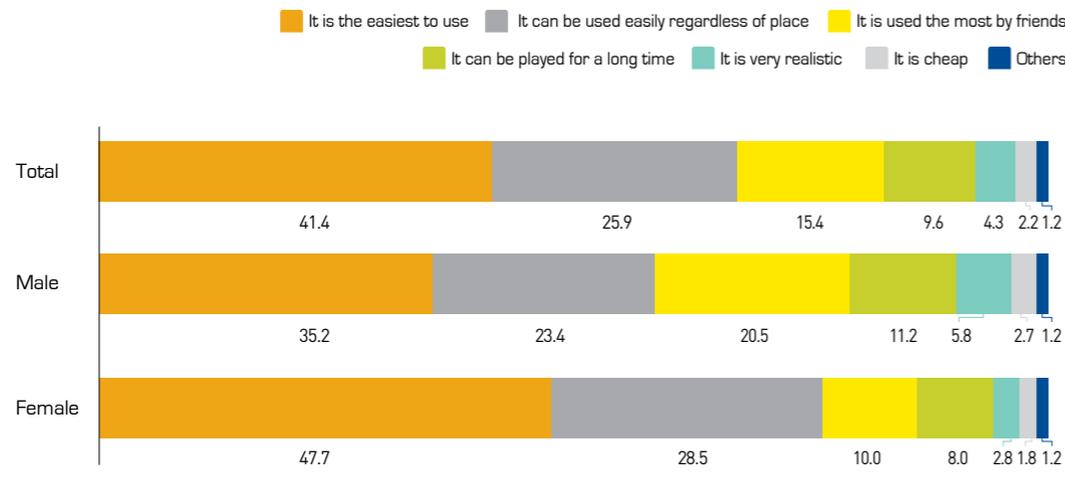
(5) Preferred Game Platforms and Genres

For the reasons why they prefer a specific game platform, 41.4% of the respondents answered that it is 'because the game is the easiest to use', followed by 'because the game can be used easily regardless of place' (25.9%) and 'because the game is used the most by friends' (15.4%).

Between genders, the answer of 'because the game is used the most by friends' was chosen by more men [20.5%] than women [10.0%], which makes it possible to presume that men make relationship with their friends through gaming more than women. In addition, more women [28.5%] answered 'because the game can be used easily regardless of place' than men [23.4%], which shows that what is valued by women in the choice of game platforms is different from the one valued by men.

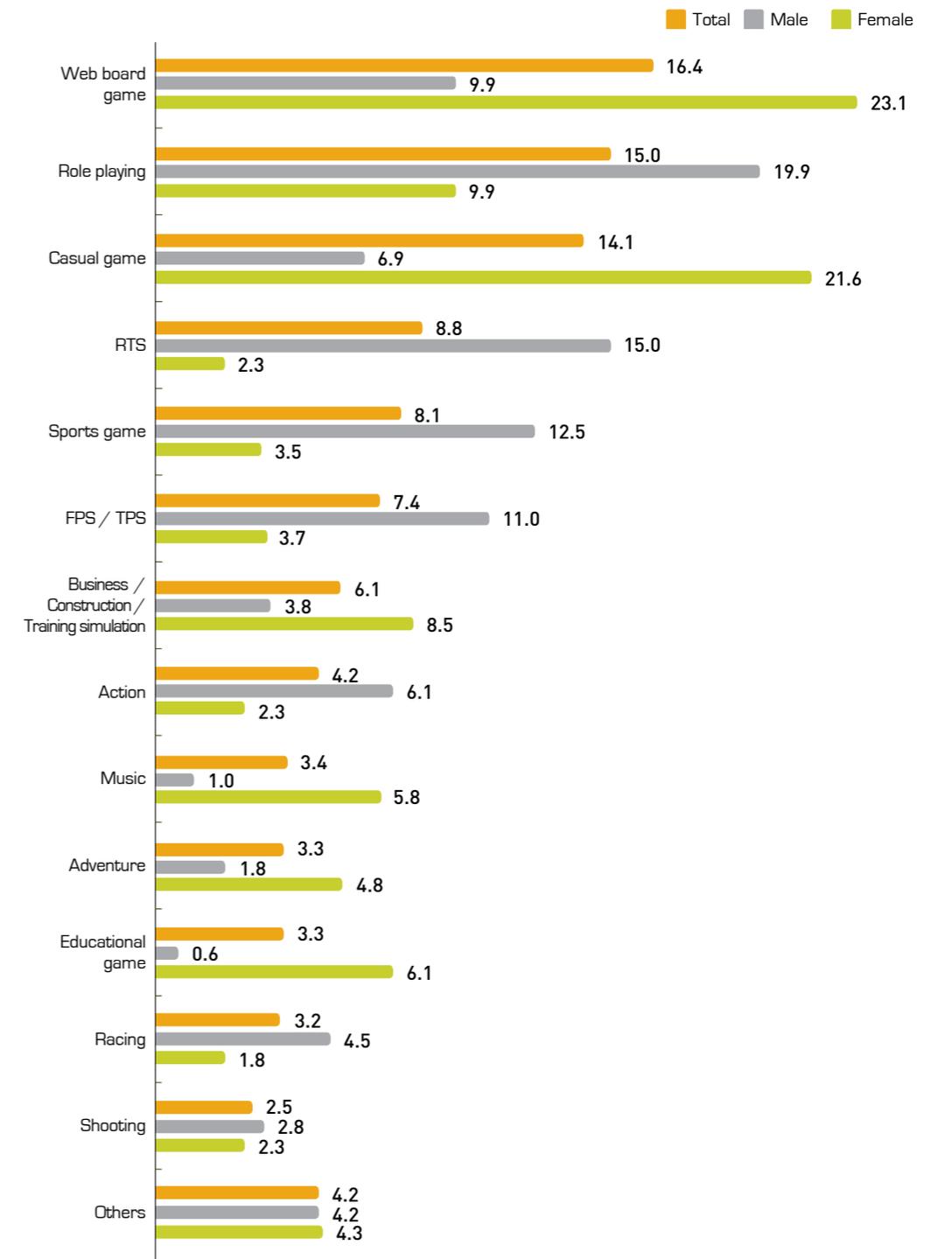
Between ages, the answer of 'because the game is used the most by friends' was chosen by people in their teens and 20s, but chosen less by people in their 30s and older. As people get older, they chose 'because the game is the easiest to use' more. In addition, the answer of 'because the game can be used easily regardless of place' was chosen more by people who are in their 30s and older as their social activities are very active.

Figure 10 Reasons for the Choice of Preferred Game Platforms (Unit : %, n=1,700)



The most preferred game genre was 'web board game' with 16.4%, followed by 'role playing' (15.0%), 'casual game' (14.1%) and 'RTS' (8.8%). but different pattern was shown between genders. While men preferred in the order of 'role playing' (19.9%), 'RTS' (15.0%) and 'sports' (12.5%), women preferred in the order of 'web board game' (23.1%), 'casual game' (21.6%) and 'role playing' (9.9%).

Figure 11 Preferred Game Genres (Primary Genre, Unit : %, n=1,700)

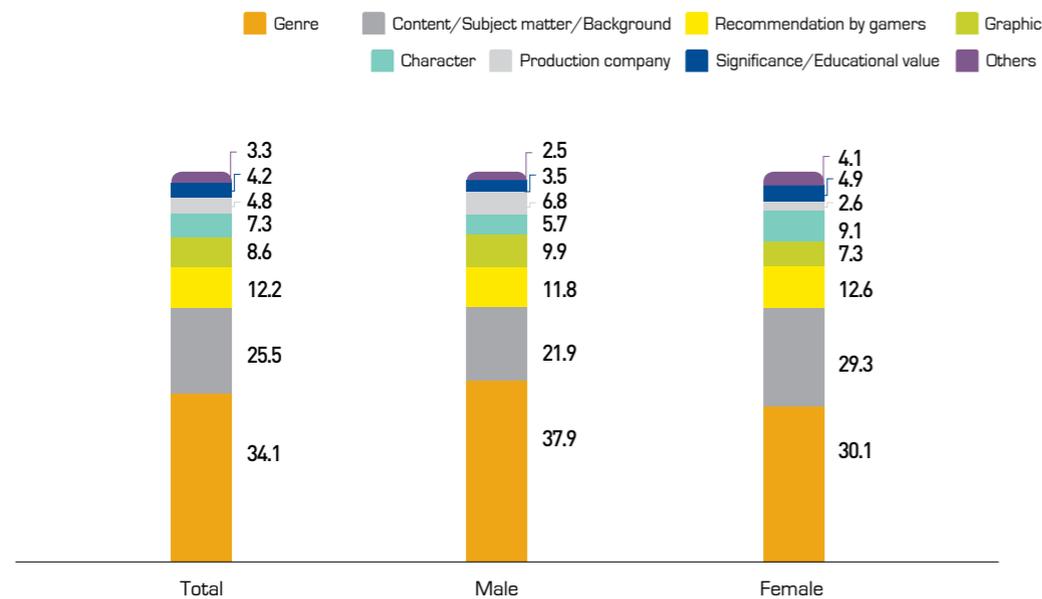


(6) The Reason for the Choice of Games

For the factor which is considered the most important for the choice of games, 34.1% of the respondents answered it is 'genre', followed by 'content·subject matter·background' (25.5%) and 'recommendation by those who already played the game' (12.2%). More men than women choose a game considering the 'preferred genre', while women think 'content·subject matter·background' more important.

Figure 12 The Reason for the Choice of Games

(Primary Reason, Unit : %, n=1,700)



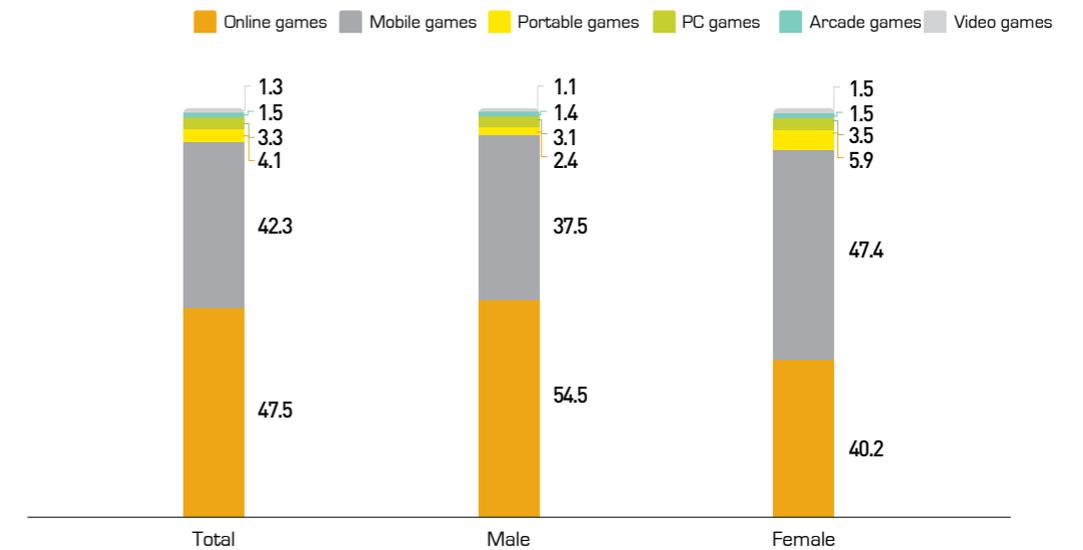
(7) The Game Platforms Which will Lead the Korean Market in the Future

For the most promising platform which is thought to lead the Korean game market in the future, 'online game' was chosen the most (47.5%), followed by 'mobile game' [42.3%] and 'portable console game' (4.1%). While 'online game' continued to be overwhelming, the percentage decreased compared to the survey results in 2010 (72.3%) and 2011 (65.9%). Rather, the percentage of

'mobile game' increased to 42.3% from 23.0% in 2011. In different age groups, 'mobile game' was chosen by more than 40% of all the age groups over 25 years of age.

Figure 13 The Game Platforms Which will Lead the Korean Market in the Future

(Unit : %, n=1,700)



(8) The Game Genres Which will Lead the Market in the Future

About the genre which will lead the game market in the future, 'role playing' was chosen the most by gamers both in the primary answer and the general ranking calculated by the results of multiple choices (18.2% and 26.9% respectively). There was no significant difference among other genres. In the choice of a primary genre, the answers were in the order of 'experiencing game' (11.6%), 'Business·Construction·Training simulation' (7.5%) and 'FPS·TPS' (7.4%). In the general ranking calculated by the results of multiple choices, the answers were in the order of 'experiencing game' (20.2%), 'FPS·TPS'(15.8%) and 'Business·Construction·Training simulation' (14.5%).

Between genders, while more men chose 'role playing' [23.1%] as the game genre which will lead the game market in the future, more women answered it will be 'experiencing game'(14.1%).

Figure 14 The Game Genres Which will Lead the Market in the Future (Multiple Choices, Unit : %, n=1,700)

