2013 Guide to Korean Games Industry and Culture

WHITE PAPER ON KOREAN GAMES

MCST
Ministry of Culture, Sports and Tourism

kocca
KOREA CREATIVE CONTENT AGENCY

Korea Creative Content Agency

stands beside those aiming for the promotion of the content industry of Korea

Korea Creative Content Agency(hereafter kocca) was established on May 7, 2009 to efficiently support the growth of the cultural industry by combining Korea Broadcasting Institute, Korea Culture and Content Agency, Korea Game Industry Agency, Cultural Contents Center, and Digital Contents Business Group of Korea IT Industry Promotion Agency according to Article 31 of the Framework Act on Cultural Industry Promotion.

kocca is an agency dedicated to promoting all areas for content. We establish a comprehensive support system to nurture the content industry, and aim to develop Korea as one of the world's top 5 contents powerhouses.

kocca conducts various support businesses to help Korea's content industry grow into a global leader in the creative economy.

First, we promote human resource development projects to acquire valuable human resource that form the basis of creativity and develop policies for the promotion of the content industry. We also support the development of specialized culture technologies from design to production, the commercialization of contents, and the promotion of various overseas expansion projects to develop the content industry into an export industry. Furthermore, we encourage digital broadcasting projects, promote game distribution, and carry out digitalization projects aimed at strengthening cultural content which can be used as a subject matter.

kocca will proactively respond to the content convergence environment, and focus on developing carefully selected killer contents to lead the global content market.

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1. Industry Trends

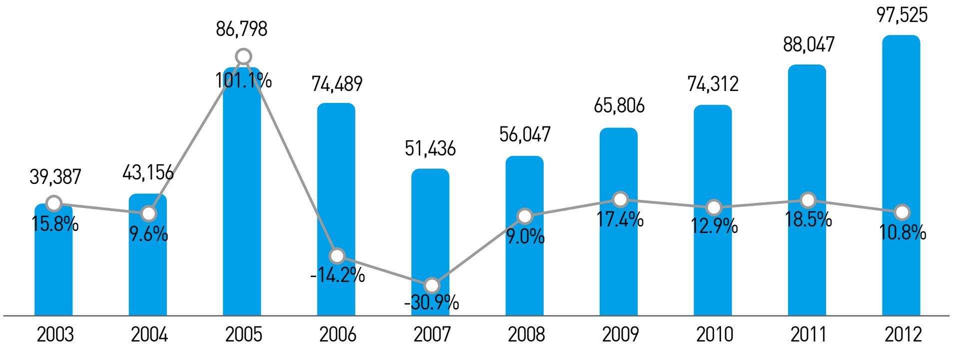
1.1 Industry Trends

The scale of the domestic game market in 2012 was estimated at 9.752 trillion won, up 10.8% from the previous year (8.804 trillion won). This shows that the domestic game market, which switched to growth in 2008 and has maintained a growth rate of at least 12% annually, has slowed. It is forecasted, however, that the scale of the domestic game market will be able to exceed 10 trillion won in 2013, and that its growth will be stably sustained.

The scale of the online game market was calculated to be 6.736 trillion won, accounting for 69.6% of the domestic game market. While the proportion of the total game market taken up by online games has increased each year, the share decreased slightly relative to the previous year (2012). The share of online games in 2011 was 70.8%. Excluding the retail sector and calculating only the game production, the proportion of online games in 2011 was 88.9%, but this decreased slightly to 86% in 2012. Only the online game market's share of the total game market decreased, however, and the online game market revenue itself increased. In the domestic market, online games still have many users based on its stable infrastructure, and has also managed to stay in the second place in the overseas markets. Therefore, it is expected that the growth of online games will be sustained for the time being.

|Figure 1| **Total Scale of the Domestic Game Market and Growth Rate Trends(2003-2012)**

(Unit: 100 million won)



The sector with the largest revenues after online games is the PC room market. The revenues in 2012 recorded 1.793 trillion won, accounting for 18.4% of the total game market. While the total revenues of the PC room market have steadily decreased over the past few years, there was 4.5% growth in 2012 relative to 2011. This phenomenon is considered to be due to the influence of the increases in the number of users due to the launch of blockbuster games such as 〈Diablo 3〉 and to games such as 〈League of Legends〉, which are maintaining solid popularity.

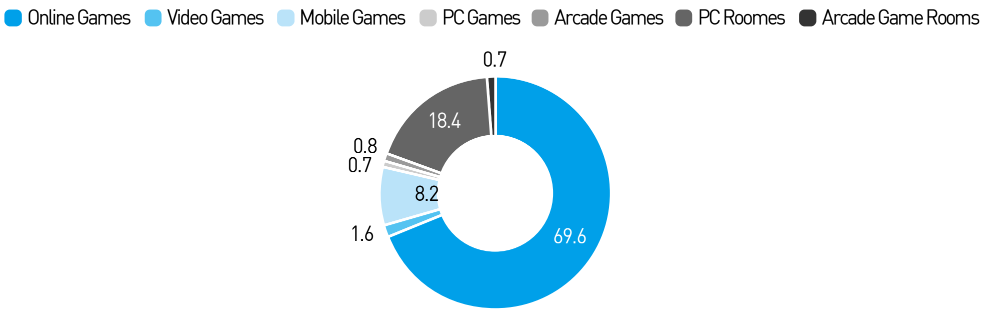
The mobile game market in 2012 grew by about 89.1% relative to 2011, recording 800.9 billion won in revenues, and the market share recorded 8.2%, up 3.4% from 4.8% in 2011. For now, with the expanded supply and improved performance of smart devices, and with the growth of the mobile advertising industry, the infrastructure and business models that form the foundation of mobile game development are forecasted to continue their progress. Accordingly, mobile games are forecasted to sustain growth.

The video game revenues recorded 161.9 billion won, down about 40.1% from 2011. The market share in the game market recorded 1.6%. As for standing video game consoles, follow-up models were not launched, and as for portable video game devices, the sales were low as they lost out in the competition with smartphones. Therefore, no factors that can drive the growth of the video game market were found, and as a result, the recession in the video game market worsened.

Arcade game revenues recorded 79.1 billion won, with a market share of 0.8%. Also, the arcade game room (including video game room) revenues were calculated at 66.5 billion won, and were found to have a market share of 0.7%. While the arcade game revenues are slowly increasing, they are lagging behind the growth of the total game market and are unable to increase their market share. As for arcade game rooms, the closing down of road shops, etc. is leading to the continued shrinkage of their market size.

The PC game market, which recorded 9.6 billion won in revenues in 2011, showed great growth in 2012, reaching 68 billion won, and was shown to account for 0.7% of the total game market. This is attributed to the influence of the temporary increases in game purchases due to the popular games that became a worldwide sensation, but it is seen that this will not be able to continually drive PC game market expansion. It is expected that the PC game market will again decrease in size in the future.

|Figure 2| **Market Share by Sector in the 2012 Domestic Game Market** (Unit: %)



1.2 Prospects

In 2013, the domestic game market is forecasted to record a market size of 10.718 trillion won, up 9.9% from 2012. For online games, 8.1% growth relative to 2012 is expected, and mobile games are forecasted to reach 1.212 trillion won, up 51.4% from 2012. Also, the arcade game market is forecasted to record 80 billion won, up 1.2% from 2012. Video games are forecasted to record 151.8 billion won, down 5.6% from 2012; and PC games, 19.8 billion won, down 70.9%. As for game retail, PC rooms are expected to record 1.861 trillion won, representing 3.8% growth; and arcade game rooms, 59.6 billion won, down 10.3%.

As for the total game market in 2014 and 2015, it is forecasted that the online and mobile game growth will continue, and that video games will begin new growth. Here, the growth of online and mobile games is expected to somewhat stabilize from 2014 onwards, with the size of the video game market beginning to grow but with limited impact on the growth of the total game market due to the large previous decreases in market size. Therefore, it is expected that the margin of growth for the game market will decrease relative to the previous years. 2014 is expected to record 11.334 trillion won, up 5.7% from the previous year; and 2015, 11.913 trillion won, up 5.1%. As for online games, which account for a large part of the domestic game market, the market size is expected to surpass 7 trillion won in 2013. Also, the 2013 market size for mobile games is forecasted to surpass 1 trillion won.

|Table 1| **Size of and Forecasts for the Domestic Game Market (2011-2015)** (Unit: 100 million won)

Year	2011		2012		2013 (E)		2014 (E)		2015 (E)	
	Revenue	Growth Rate	Revenue	Growth Rate	Revenue	Growth Rate	Revenue	Growth Rate	Revenue	Growth Rate
Online Games	62,369	30.8%	67,839	8.8%	73,333	8.1%	78,759	7.4%	83,642	6.2%
Video Games	2,684	−37.1%	1,609	−40.1%	1,518	−5.6%	2,055	35.4%	2,903	41.3%
Mobile Games	4,236	33.8%	8,009	89.1%	12,125	51.4%	13,119	8.2%	14,050	7.1%
PC Games	96	−19.7%	680	608.3%	198	−70.9%	402	103.0%	144	−64.2%
Arcade Games	736	3.0%	791	7.5%	800	1.2%	811	1.4%	821	1.3%
PC Rooms	17,163	−2.5%	17,932	4.5%	18,613	3.8%	17,663	−5.1%	17,097	−3.2%
Arcade Game Rooms	763	−0.7%	665	−12.8%	596	−10.3%	535	−10.1%	481	−10.0%
Total	88,047	18.5%	97,525	10.8%	107,183	9.9%	113,344	5.7%	119,138	5.1%

1.3 Import-export situation

The overseas exports of the domestic game industry in 2012 were calculated at USD 2.6 billion in 2012, up 11% from the previous year. The game imports have grown steadily from 2006 onwards. While the margin of increase for exports varied slightly each year, the exports of the domestic game market finally surpassed USD 2.5 billion in 2012. The imports of the game industry in 2012 recorded USD 179.13 million in 2012, down 12.6% from the previous year. Continuing from 2011, the imports dropped greatly in 2012 as well, the main cause being the decreased revenues for the existing and new models of the major overseas video game companies, which account for most of the domestic game industry's imports. Due to the increased exports and decreased imports, the difference between the exports and imports slightly increased to around USD 2.4 billion from approximately USD 2.2 billion in 2011.

The key characteristics of the import and export sector for 2012, as in 2011, were the intensive online game exports and the large growth in the mobile game exports. The exports for the single platform of online games surpassed USD 2.4 billion, and those for mobile games were also found to far surpass USD 100 million.

It is forecasted that the size of the exports by the domestic game industry will continue to grow in 2013 as well. The market, however, was shown to have slightly slowed down in terms of the penetration of the Chinese online game market, which can be said to be the largest export market, and with the increase in small mobile games in the South Korean game market, the exports are forecasted to maintain similar levels as in 2012. The exports in 2013 are forecasted to reach approximately USD 2.9 billion, up 11.2% from the previous year.

|Table 2| **Exports and Forecasts for the Domestic Game Market (2007-2013)** (Unit: USD 1,000)

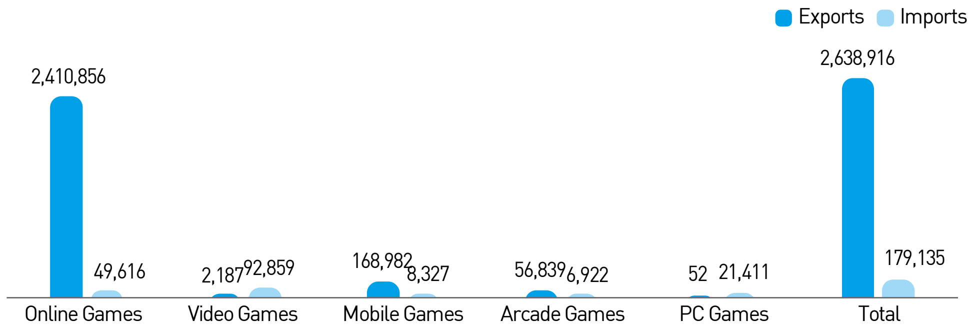
Year		2007	2008	2009	2010	2011	2012	2013 (E)
Exports	Export Amount	781,004	1,093,865	1,240,856	1,606,102	2,378,078	2,638,916	2,934,474
	Growth	16.2%	40.1%	13.4%	29.4%	48.1%	11.0%	11.2%

As for the size and share of exports by platform, first, online game exports recorded USD 2.4 billion, accounting for 91.4% of the total game exports. Online game exports still lead the overseas exports of domestic games. The online game imports, on the other hand, were found to be USD 49.61 million, accounting for 27.7% of the total imports. USD 92.85 million video games were imported, accounting for 51.8% of the total imports, making them the leading imports. With decreased video game imports, however, the overall proportion of imports in the game industry was found to have slightly fallen. The video game exports amounted to USD 2.18 million, only 0.1% of the total exports. The mobile game exports recorded USD 168.98 million, close to fivefold growth from the previous year, and the imports, at USD 8.32 million, also slightly increased relative to the previous year.

The arcade game exports slightly increased to USD 56.83 million, and the imports were shown to have slightly decreased relative to the previous year, at USD 6.92 million. As for PC games, the imports decreased from the previous year at USD

50,000, and the imports, at USD 21.41 million, a more than twofold increase.

|Figure 3| **Export/Import Size by Platform in the 2012 Domestic Game Industry** (Unit: USD 1,000)



Based on the 2012 revenues, the size of the domestic game market was calculated at USD 7.63 billion, accounting for 6.3% of the USD 111.75 billion world game market. This represents 0.4% growth relative to the 5.9% recorded in 2011. Meanwhile, the total size of the world game market decreased by 0.4% from the previous year. The South Korean game market's share of the world game market is still steadily increasing. Considering the somewhat sustained growth in online games and the rapid growth trends of the mobile game market, it looks as if South Korea's share of the world market could slightly increase.

As for the South Korean market's share of the world market by platform, the domestic online game market ranked second in the world, accounting for 28.6% of the world market. The first place in the world online game market continues to be held by China. Its market share in 2012 grew by more than 10% relative to the previous year, cementing its position as world number 1. As is evident, the gap between China and South Korea in the online game market is increasing, as ever. South Korea, however, managed to widen the gap with the U.S., which maintains the third place in the world online game market, and is forecasted to solidly hold on to the second place for the time being.

The market shares of the South Korean video and arcade games in the world game market are still very small. The proportion of the world game market accounted for by the domestic video game market was found to be 0.3%, even lower than that in 2011. As for the proportion of the world game market accounted for by the domestic arcade game market, it was maintained at 0.5% from the previous year. While the size of the video and arcade game markets are trending downward in the world game market, considering the fact that the two platforms have maintained the first and second positions in the world market, more aggressive efforts are required for the expansion of these markets.

The South Korean mobile games continue to expand their share of the world market. Slight growth from 2.8% in 2009 to 3.2% in 2010 was seen, and the increase continued to 3.9% in 2011. The rate of expansion slightly increased in 2012 relative to 2011, and as a result, the world game market share was calculated to be 5.1%. With the great market success of the games distributed through Kakaotalk gaming, countless more games were developed, and it is believed that this energized the mobile game market in general, with subsequent growth in its size as well.

The South Korean PC game market's share of the world game market was found to be 0.8% in 2012, up 0.5% from 2011. With the sales from digital downloads included in the PC game market figures from 2012, some adjustments were made to the estimation of the size of the world PC game market. In 2012, 〈Diablo 3〉 launched by Blizzard became a worldwide sensation, and it was shown that the inclusion of its sales led to a large increase in the size of the South Korean PC game market. The effects of these factors are judged to be transient, however, and it is forecasted that in the long term, the PC games' share of the world and South Korean game markets will steadily decrease.

|Table 3| **World Game Market Share of the 2012 Domestic Game Industry(Based on Revenues)**

(Unit: USD 1 million)

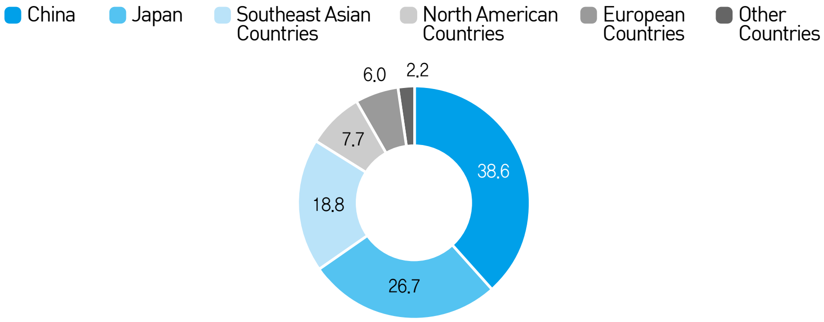
Year	Online Games	Video Games	Mobile Games	PC Games	Arcade Games	All
World Game Market	21,083	44,315	13,968	7,077	25,307	111,750
Domestic Game Market	6,020	143	711	60	129	7,063
Market Share	28.6%	0.3%	5.1%	0.8%	0.5%	6.3%

Based on revenues, the country to which domestic games were exported most in 2012 was China, accounting for 38.6% of the total exports. Recording 0.4% growth from 2011, China maintained the position of South Korea's largest export country. The country with the most domestic game exports after China was Japan, accounting for 26.7% of the total exports, although its share of the total exports decreased by 0.7% relative to the 27.4% figure in 2011. Following Japan in exports was Southeast Asia, accounting for 18.8%. Compared with the 18.0% figure in 2011, the share of the Southeast Asian region increased by 0.8%. Following Southeast Asia were North America at 7.7%, Europe at 6.0%, and other regions at 2.2%. While the exports to North America slightly increased, the share of exports to Europe and other regions were shown to have slightly decreased.

As for the proportion of exports to each country by platform, for online games, as was the case for the overall export market, the exports to China and Japan were the greatest. Unlike online games, for the mobile game exports, the U.S., with 58.0%, was the largest export country, with Japan following at 25.1%. While the mobile game exports to Europe slowly increased in 2010 and 2011, recording 9.7 and 9.9%, respectively, the 9.9% figure, identical to that in 2011, was found to have been maintained in 2012.

[Figure 4] **Proportion of 2012 Domestic Game Exports Accounted for by Country(Based on Export Amount)**

(Unit: %)



1.4 Situation of the game industry workers

The game production/distribution companies in normal operation in 2012 numbered 957. This represents a decrease of 60 from the 1,017 recorded in 2011. As for the number of PC rooms, the number was 14,782, down approximately 1,000 from 15,817 in 2011. Meanwhile, 450 arcade game rooms were found to be in normal operation. The total number of workers in the 2012 game industry was found to be 95,051. The workers at the game production and distribution companies numbered 52,466, up 1.2% from the previous year, accounting for 55.2% of the total number of game industry workers. The game retail and consumption business workers, numbering 42,585, accounted for 44.8% of the total number of game industry workers, down 4.2% from the previous year.

|Table 4| **Number of Game Industry Workers (2010-2012)** (Unit: Persons)

Year	2010	2011	2012	2011–2012 Rate of Change from Previous Year	2010–2012 Average Annual Rate of Change	Ratio
Game Production and Distribution	48,585	51,859	52,466	1.2%	3.9%	55.2%
PC/Arcade/Video Game Rooms	46,388	43,156	42,585	–1.3%	–4.2%	44.8%
Change	94,973	95,015	95,051	0.0%	0.0%	100.0%

The average number of workers per company in the game production and distribution field in 2012 was found to be 54.8 persons. This was a 3.8 person increase from 51.0 persons in 2011. As for the ratios by work type, graphic design had the highest ratio (19.9%), followed by game programming development (17.8%), management (11.1%), game planning (9.7%), game administrator and QA (8.7%), and customer centers (5.2%).

As for the overall gender composition of the workers, the males were almost triple the females (73.7% vs. 26.3%). This gender composition was similar to that in 2011.

2. The 10 Issues in the Korean Game Industry
during 2012 and the First Half of 2013

Korea Creative Content Agency collected the opinions of key game industry figures from the industry, government, and academic circles and conducted surveys to select the 10 major game industry issues from 2012 to the first half of 2013.

First, for the game-industry-related issues, most were associated with the stimulation of mobile games and the growth of their market. Mobile games were the topic of the day so much so that from 2012 to the first half of 2013, no prominent issues existed in the South Korean game industry other than mobile games. All the phenomena associated with mobile games, such as the appearance of new game platforms, the changes in the industrial structure, and the appearance of new trends in game planning and development, were important issues.

As for policy, in 2012, with the continuation of the regulations enforced from 2011, continued discussions as to the effectiveness of such regulations were held. With the announcement of guidelines for banning the speculative operation of Web board games such as whale hunting games, tensions are rising between the government and industry regarding regulation and autonomy. With anti-smoking laws set to come into full effect in the PC room industry, this is also set to remain a hot potato as the issue was one over which there was a long tug-of-war between the government and the related industries. Meanwhile, with some game-industry-related associations appointing current National Assembly members as their new chairmen, expectations that new linkages between the government and industry will be forged are on the rise.

As for the game culture, the greatest changes are appearing on the e-sports front. There has clearly been a change, in which e-sports have become the most popular games, and with the implementation of different forms of e-sports league operation, it is judged that the transition to a new generation is now in full swing.

1) Progress of platforms based on SNS, such as Kakaotalk

The platform with the greatest growth in 2012 was the mobile platform. It was shown to have grown by at least 80% relative to the previous year, and is forecasted to record at least 50% growth in 2013 as well. The most influential factor in the growth of the mobile game market was Kakaotalk, which had been considered simply a messaging application run on smartphones.

Kakaotalk gaming began being used in earnest from July 2012 onwards, but its impact on the mobile gaming industry was huge. Kakaotalk quickly reorganized the mobile game market and established itself as a sure retail platform for mobile games, making it almost impossible to remember how people accessed and enjoyed mobile games previously.

The games that were most successful and sensational among those sold through Kakaotalk were casual games that could be enjoyed with simple controls. As smartphones were used for purposes other than voice calls mostly over short periods of time, such as while on the move, these simple casual games matched such smartphone usage patterns. Another characteristic was that in these games, the users would compete with others (primarily with acquaintances) based on points. With the exception of arcade games, games had previously been for the most part played alone or against people whom one did not know. With users gaming with the personal connections they had made through Kakaotalk, however, people began inspecting and managing their personal connections through these simple games. This is why rather than games that were highly competitive and whose difference in rewards for wins and losses were large, games that were less competitive and that allowed for easy exchange of items or gifts among acquaintances gained more popularity. Based on such, the user profile of the South Korean mobile game market was diversified. The gender and age groups spanned by this platform reached beyond those of other game platforms.

Currently, mobile games based on SNS, such as Kakaotalk, have established themselves as the most typical mobile game type in South Korea. It is forecasted that SNS will also be the core factor of future mobile game market growth.

2) Changes and diversification of mobile game platforms

Before and during the initial stages of widespread smartphone use, mobile games were mostly based on WIPI (Wireless Internet Platform for Interoperability). With the widespread use of smartphones, however, the types of mobile game service changed and became diversified.

Considering the fact that most smartphone-based games are in the form of applications, Apple App Store and Google Play Store can be mobile game platforms. Kakaotalk, which opened a new chapter for South Korean mobiles games, also began as one of many simple applications. For such application-type games, Apple App Store and Google Play Store can be said to still be important retail channels.

As aforementioned, since the opening of Kakaotalk gaming, Kakotalk has become in itself a game retail channel. Most of the highest grossing games in Apple App Store and Google Play Store are based on the Kakao game platform. People currently using Kakaotalk gaming are not too enthusiastic about encountering and playing game contents through other retail channels, and the influence of Kakaotalk gaming as a mobile game retail channel can be said to be great.

Smartphone manufacturers are also moving to establish themselves as new mobile game retail platforms. All eyes are on their future moves as they are able to establish market strategies based on the advantage that they are the device manufacturers. That is, they can, in the process of manufacturing smartphones, establish a mobile game retail channel within the smartphone in the form of preloaded applications. For Samsung, for example, ChatOn, a common application of all smart devices manufactured by Samsung, can be used as a mobile game retail platform.

Large-game development and retail companies are also entering the market with proprietary mobile game retail platforms. This is for the goal of securing a stable base of at least a certain number of users, and for the use of these platforms as promotion channels. Also, these are evaluated to have high utilization value as game development or update paths, with the quick collection of feedback from the users regarding a particular game. Accordingly, it is predicted that the creation and use of proprietary game retail platforms by game development and retail companies will increase.

As demonstrated, many actors are entering the related markets in view of the success of mobile games and the expansion of the industry. The competition among various players for mobile game retail platforms is becoming fierce, and the resulting platform dynamics was a characteristic aspect of the 2012 mobile game market.

3) Rapid growth of mobile games and appearance of large corporations in related industries

With the great mobile game sensation and the realization of the potential of mobile games, many economic actors newly entered the mobile game market. Among these were individual developers and small to medium-sized development companies formed by a small number of people, and also companies that had grown into large corporations based on previous successes in online game development and operation. The means by which these large corporations participated in the mobile game market were diverse. In some cases, corporations completely switched their main area of focus to mobile games, with some newly formed teams put in charge of mobile game development and operation through the reorganization of business divisions, and others maintaining their online game development divisions while founding subsidiaries focusing completely on mobile game development.

With multiple large corporate actors joining the mobile game market, it is forecasted that the competition will become fierce and that the market will start to transition into one where the economies of scale are effective. In reality, there is a trend towards the drafting and execution of marketing strategies on a scale far larger than before to ensure survival amidst the competition in the mobile game market, which continues to grow ever more fierce, and from the standpoint of small and medium-sized companies, it is becoming more and more difficult to shoulder such large marketing investments. With the continuation of this trend, it seems likely that the cases wherein small and medium-sized businesses will be acquired by and merged with large corporations will increase. It is then possible, as observed in many other markets, that natural oligopolies or monopolies will appear in the mobile game market and the game market in general.

4) Decrease in the number of middle-standing companies in the general game industry

As for online games, the influence of the highest grossing companies was traditionally great. These top companies mostly cemented their positions by sustaining their operation of popular online games while accumulating effective management know-how through updates, etc. In addition, from 2012 to the first half of 2013, online-game-based large corporations aggressively entered the mobile game market, securing new profit sources. Accordingly, the influence of the existing large corporations in the South Korean game industry generally became even stronger. As an example, the total 2012 revenues of the 47 companies that submitted their 2012 business reports to the Electronic Disclosure System of the Financial Supervisory Commission had increased 10.58% relative to the previous year. It was shown, however, that the revenues had actually decreased in 27 companies, more than half of the 47 companies. Also, with the total revenues of the eight major companies with at least 100 billion won in revenues having increased 13.38% relative to the previous year, the concentration of the market became stronger.

The performance of companies whose traditional business area of focus had been mobile games, and of companies that had quickly switched to mobile games as their core business area, was not bad either. With the discovery, however, that the demand in the mobile game market for simple casual games like 〈Anypang〉 or 〈Dragon Flight〉 was high, the individual or small-group entrepreneurship increased. Accordingly, the situation in the mobile game market was characterized by the presence and great influence of the existing large corporations, with a sharp increase in the number of small companies.

As such, the middle-standing companies in the mobile and online game markets have seen their positions generally decline. While it is a positive fact that the size of the industry is growing, the increasing seriousness of this winner-takes-all phenomenon is highly likely to be a minus factor to the game industry in the long term. Therefore, for the time being, there is an increasing need to furnish the conditions for corporations that may be small for now to continue growth into the future and to act as the backbone of the industry.

5) Decreasing attempts to develop new products

From 2012 to the first half of 2013, several blockbuster games were launched in the PC and online game markets, giving rise to sensations. During this period, however, it also became clear that the success formula of online games required a review. Whereas in the past, a certain amount of profits could be stably created through only management and operation once a successful online game was developed, this trend is now weakening. The lifetime of online games is steadily decreasing. That is, the user loyalty to online games is no longer as steadfast as before, and the mobility is rising.

In this period, the general focus of attention was of course the mobile game market. Here, the earliest games that became successful in the mobile game market were casual games that were not too difficult and that could be started easily. The profits of these games were not created over long times and through user loyalty; rather, they would cause a sensation over a short period of time and maximize the collection of profits based on their short-lived popularity. This can be said to be similar to the situation with movies, where the securing of the largest number of screens possible and attracting public attention within the first one to two weeks after the premiere decides the overall success of the movie.

As for the previous online games, it was possible to invest much time in game development, mobilizing large volumes of manpower and development funds. The basis for this was the expectation of high loyalty from the users. With the user loyalty weakening, however, the situation has changed, making it difficult to set about developing online games. Accordingly, there has been less news of the beginning of development for new games or the beginning of beta service. It can be said that there was a period of adjustment, so to speak, wherein the previously launched blockbuster games were managed while the situation of the mobile game market was being monitored.

As for mobile games, the games themselves could not be too difficult, and the game control interface was limited compared to online games, which use computers. Therefore, instead of developing new game formats, increased numbers of simple on- and offline games were transplanted for operation on mobile devices. Accordingly, the attempts to develop new game formats reflecting the characteristics of mobile devices further decreased.

6) Changes to the Game Rating Board

The amendments to the 「Game Industry Promotion Act」 announced on May 22, 2013 include the abolishment of the Game Rating Board, the introduction of 18+ game ratings, the establishment of the Game Management Board in charge of follow-up management, etc. of games, and expanding the private sector consignment scope of the game rating function to include all-ages arcade games. According to the revised act, the dramatic expansion of the scope of the game rating function consigned to the private sector led to the abolishment of the Game Rating Board established in 2006 due to the loss of its intended functions. To take its place, and according to the need for the management and supervision of private sector rating organizations and a body for the follow-up management of games, it was decided to newly establish the Game Management Board.

Actually, the amendments to the 「Game Industry Promotion Act」, which provides for the adoption of autonomous private sector censorship and the transition to the Game Rating Board, had been pursued from 2012. The National Assembly, however, raised the issue of a transition to an actual autonomous censorship system, and after much debate, the launch of the autonomous censorship body that the game industry had sought was not realized. Accordingly, the revision of the act was delayed, with the revised act finally being passed in May 2013.

Thereafter, the Ministry of Culture, Sports, and Tourism formed a task force for the establishment of a Game Management Board, and preparations are under way. The team is composed of committee members appointed or commissioned by the Minister of Culture, Sports, and Tourism and performs the work of preparing the articles of association for the board, operation regulations, and formation of the body. The team is set to be dissolved after completing the registration of the establishment of the Game Management Board and handing over their tasks, after which the Game Management Board will begin its normal activities.

7) Web-board-game-related regulations

Regulations on Web board games have continually been a debated issue. The parts about which the most issues are raised are related to speculation, of which the core issue is currency exchange. As the exchange of gift certificates won in the games was the core issue with the speculative operation of arcade games, currency exchange in Web board games was also not an issue that could be taken lightly by the society. What was adopted to address this situation was autonomous regulation by the industry. The establishment of a 300,000 won limit per person had also been autonomously decided and proposed by the industry.

In the latter half of 2011, however, cases were discovered wherein the Web board game industry's proposed autonomous regulation of a 300,000 won spending limit was not properly kept. This was taken to signify that the autonomous regulation of the speculative operation of Web board games was not working properly, which eventually became a large policy issue. Thereafter, government offices began actively intervening to prevent the speculative operation of games.

The Ministry of Culture, Sports, and Tourism announced guidelines banning the speculative operation of go-stop- and poker-type Web board games on October 25, 2010. The key details include limiting the purchase of game money for the go-stop- and poker-type Web board games and limiting the maximum bet for one round to game money corresponding to 10,000 won in cash. Also, when a user loses game money corresponding to 100,000 won in cash within one day, access to the game is blocked for two days.

The Ministry of Culture, Sports, and Tourism was expecting to put the revised plan into effect beginning January 2013, after giving administrative advance notice, but with delays due to the opposition by the industry and the review by the Regulatory Reform Commission, such target was not met. In the meantime, the Web board game industry announced a plan for autonomous regulation, but on August 30, 2013, the government's Web board game regulation bill passed the Regulatory Reform Committee review with partial changes.

8) Enforcement of the PC room no-smoking law

The 「National Health Promotion Act」 revised in 2011 came into effect on June 8, 2013. This revision includes the designation of all PC rooms as non-smoking zones. Upon the request of the PC room industry, however, a six-month grace period was set.

Opinions regarding the banning of smoking in PC rooms diverge. Whereas for smokers, PC rooms may be a rare place where one can smoke comfortably, smelling cigarette smoke in a PC room may be an unpleasant experience for non-smokers. As business owners tend to clients who are both smokers and non-smokers, they have to operate their PC rooms in a way that will satisfy both sides, with different means of providing an environment where their smoker customers can smoke. There are some PC rooms that designated separate smoking and non-smoking zones, separating them with walls to block the cigarette smoke and smell from the non-smokers, but in other PC rooms, the base minimum, such as putting up simple signs or partitions, was done. Of course, the non-smokers using the latter PC rooms would express dissatisfaction regarding the measures taken by the business owners.

The response of the business owners to the anticipated enforcement of the 「Game Industry Promotion Act」 varies as well. Some owners have created separate smoking booths and have provided a notice regarding the non-smoking law in their PC rooms, and others prefer to wait and observe the situation. As the matter has been the subject of a long tug-of-war between the government and the industry, it is forecasted that the effectiveness of the policy, and whether the policy will actually be observed, will be debated for the time being and even after the enforcement of the non-smoking law.

9) Changes to the domestic game-related associations

While the government and the industry were engaging in a tug-of-war regarding some game regulations, some current National Assembly members were elected the new chairmen of game-related associations. The speculations as to whether the government and the game industry could forge a new type of relationship grew.

First, assembly member Byeong Heon Jeon of the Democratic United Party was inaugurated as the 5th chairman of Korea e-Sports Association (KeSPA). It was decided on January 24, 2013 that he would be the next chairman, and he took office on January 29. The slogan announced by assembly member Byeong Heong Jeon at his inauguration as chairman was "Next e-Sports," meaning the expansion of e-sports, departing from the practice of e-sports associations centering on 〈Starcraft 2〉 professional game teams. This also communicates the urge to increase the scope of e-sports to include amateurs and to increase the number of games. Since then, Korea e-Sports Association has been making efforts to win e-sports fans by hosting a national family e-sports competition and establishing the National College e-Sports League (NCEL).

Korea Association of the Game Industry appointed assembly member Gyeong Pil

Nam of the Saenuri Party as its new chairman. At his inauguration on February 22, 2013, he proposed three objectives: autonomous regulation, social responsibility, and sustained game industry growth. These reflect the will for autonomously addressing the game-related problems or issues to show the maturity of the industry, and the transformation of the negative perceptions of games through social responsibility. The goal of working towards the sustained growth of the game industry, judged to be in stagnation, was also established. Korea Association of the Game Industry is demonstrating efforts to reinvent itself, renaming itself Korea Internet & Digital Entertainment Association in July 2013.

10) A new e-sports generation

The South Korean e-sports have gone through various changes for more than 10 years. A great change took place between 2012 and the first half of 2013, and especially worth noting is the fact that the games leading e-sports changed. 〈Starcraft〉 used to be the undisputed leading game, with unrivaled popularity and fandom. This popularity cooled, however, with the transition from 〈Starcraft〉 to 〈Starcraft 2〉, and its place was taken by 〈League of Legends〉.

Another observable point was that the hosting organization of e-sports competitions changed. Whereas originally, a separate association or group would host e-sports competitions, there came about cases wherein the company that developed the e-sports game directly hosted the competition. That is, the role of competition-hosting organizations was usurped by the game development companies. This is interpreted to be a signal that the game developer companies have begun to consider e-sports an important element of marketing for their games.

The media providing e-sports broadcasts, originally only cable, now include the Internet and smart devices, and the various e-sports community activities are increasing, centering on SNS. Also, with the increasing numbers of paying spectators for e-sports events, and other never-before-seen phenomena now being seen, expectations are rising regarding the direction of change in e-sports.

3. User Trends

3.1 Research summary

From March 14 to 21, 2013, Korea Creative Contents Agency conducted a survey of game users aged 9 to 49 who purchased or used game-related products in the six months prior to the survey date among the general public. The survey was conducted in the five major South Korean cities of Seoul, Daejeon, Daegu, Gwangju, and Busan.

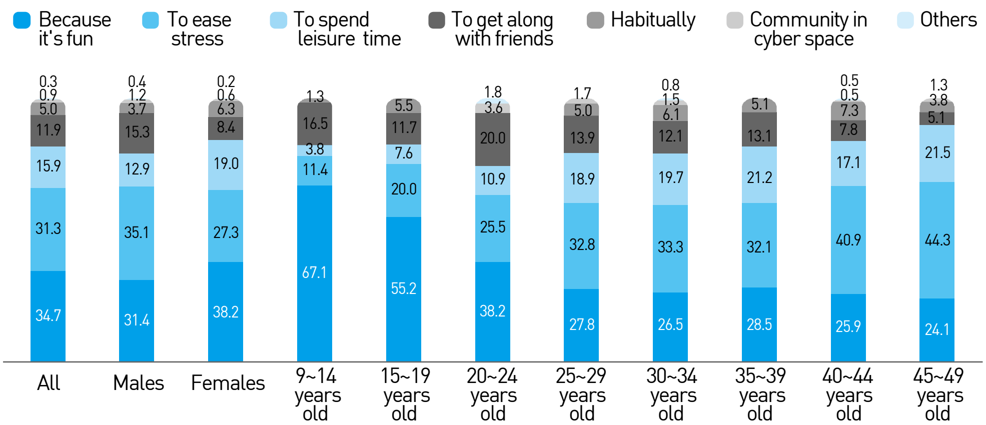
The survey was conducted on a sample of 1,000 participants chosen via proportionated quota sampling with consideration of population sizes by gender, region, and age. The survey was conducted online and included questions on the game-related standard of living, manner of game usage and consumption, and perception of games of the respondents.

3.2 Major analysis results

3.2.1 Reasons for gaming

As for the responses to the question of why they played games, the most common response was "for fun" (34.7%), followed by "stress release" (31.3%) and "using spare time" (15.9%). Most of the male respondents played games for "stress release" (35.1%) while most of the female respondents played games "for fun" (38.2%). Overall, most of the respondents aged up to 24 answered "for fun" while most of the respondents who were at least 25 years old answered "stress release."

|Figure 5| **Reasons for Gaming** (Unit: %, n=1,000)



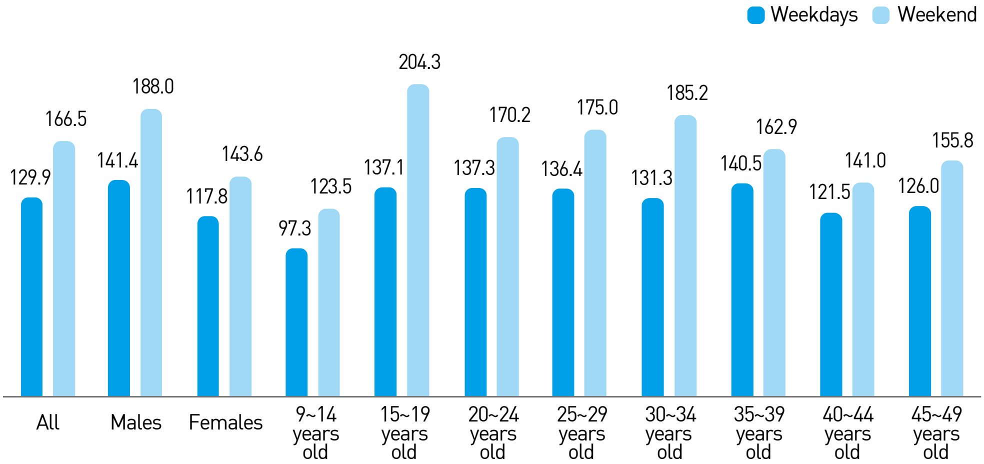
3.2.2 Average daily gaming time

For the average daily gaming time on weekdays and weekends, the respondents were found to spend 129.9 minutes per day on gaming during weekdays, and 166.5 minutes per day on weekends.

For weekday gaming, the male respondents spent 141.4 minutes per day on gaming, about 23 minutes longer than the female respondents' 117.8 minutes. This trend is the same on weekends. On weekends, the male respondents spend 188.0 minutes on games while the female respondents spend 143.6 minutes, with the former spending about 44 minutes more on gaming than the latter.

As for the weekend gaming time, the respondents aged 15-19 showed the longest time (204.3 minutes), and those aged 9-14 showed the shortest gaming time (123.5 minutes). In contrast, those aged 35-39 showed the longest gaming time on weekdays (140.5 minutes), and those aged 9-14 showed the shortest gaming time (97.3 minutes).

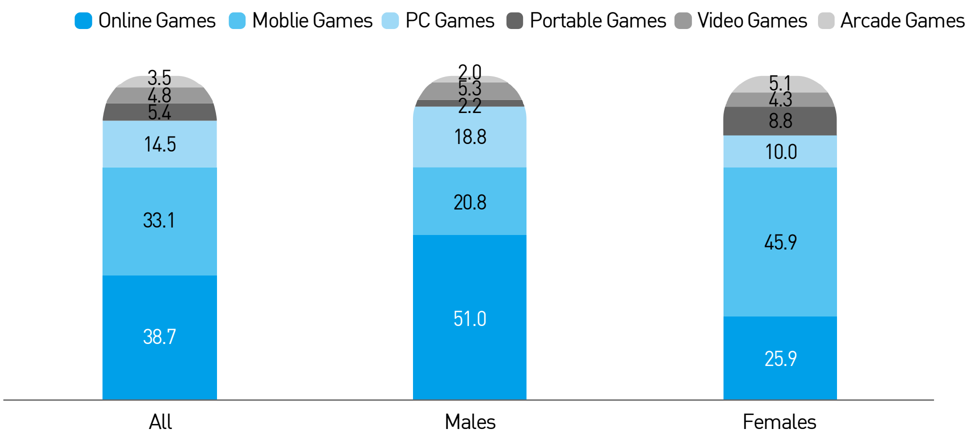
|Figure 6| Average Daily Gaming Time (Unit: Minutes, n=1,000)



3.2.3 Most commonly used game platform

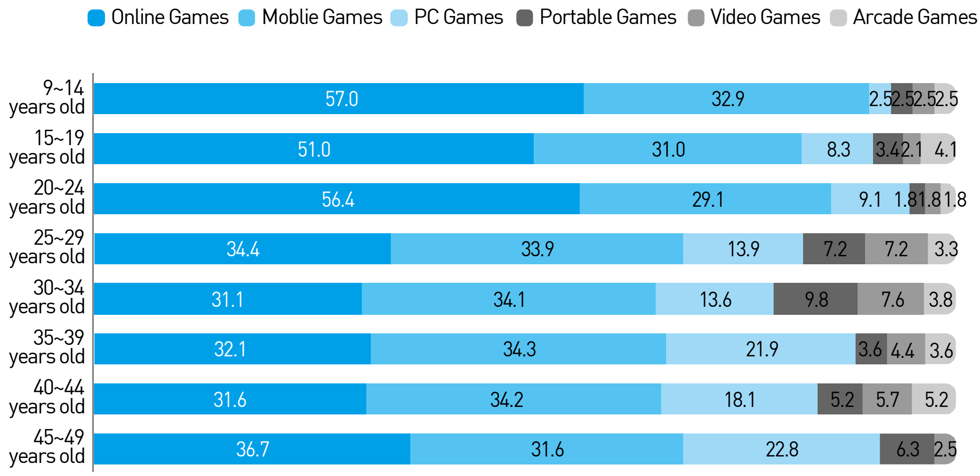
As for the most commonly used game platforms, "online games" (38.7%) had the highest frequency of first-choice responses, followed by "mobile games" (33.1%) and "PC package games" (14.5%). The male respondents were shown to use online games the most (51.0%), and the female respondents, mobile games (45.9%).

|Figure 7| Most Commonly Used Game Platform by Gender (Unit: %, n=1,000)



In the age group of 24 and below, the use of online games was most active, and in the age group of 35 and above, the ratio of PC package game use was relatively high compared to the other age groups.

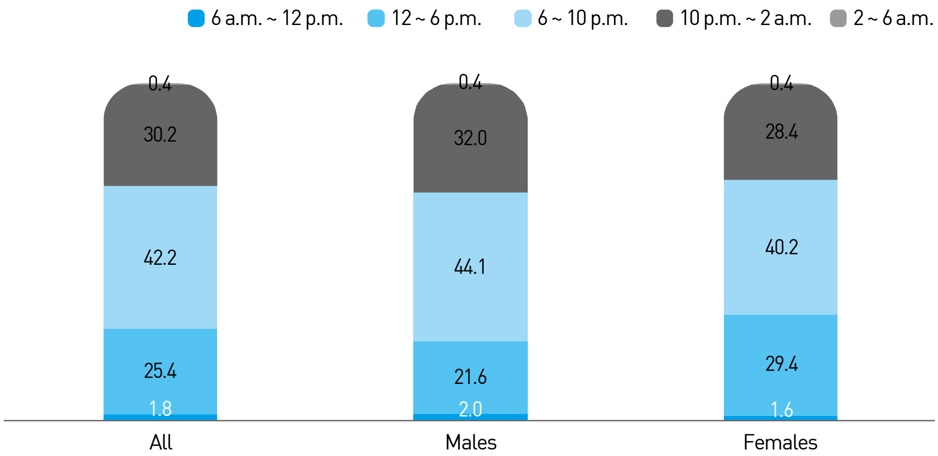
|Figure 8| **Most Commonly Used Game Platform by Age** (Unit: %, n=1,000)



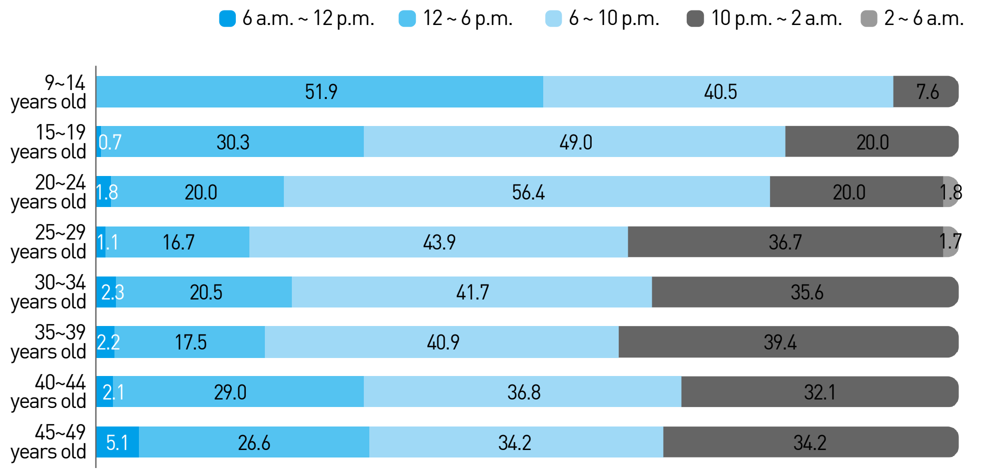
3.2.4 Most common gaming time

In the investigation of the time when games were mostly used, the proportion of "6-10PM" was found to be the highest (42.2%). This was followed by "10PM-2AM" (30.2%) and "12-6PM" (25.4%). As for the gaming time by age group, the response "12-6PM" was most common for the 9-14 age group (51.9%) while the response "6-10PM" was most common for the 20-24 age group (56.4%). Meanwhile, the response "10PM-2AM" was relatively common in the 25-39 age group.

|Figure 9| **Most Common Gaming Time by Gender** (Unit: %, n=1,000)



|Figure 10| Most Common Gaming Time by Age (Unit: %, n=1,000)

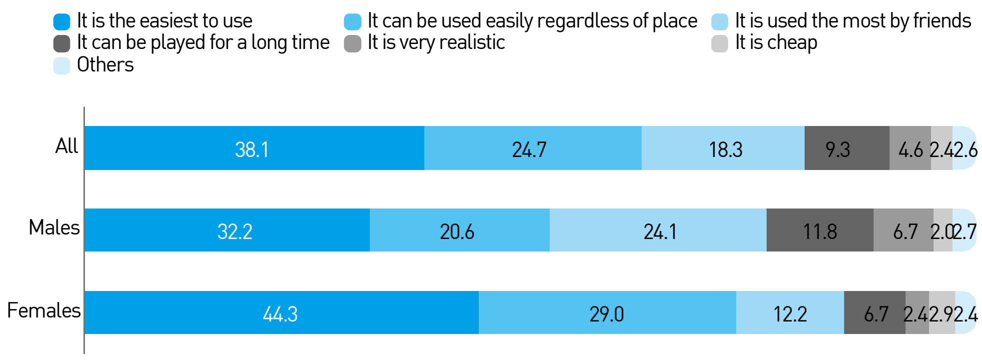


3.2.5 Preferred game platform and genre

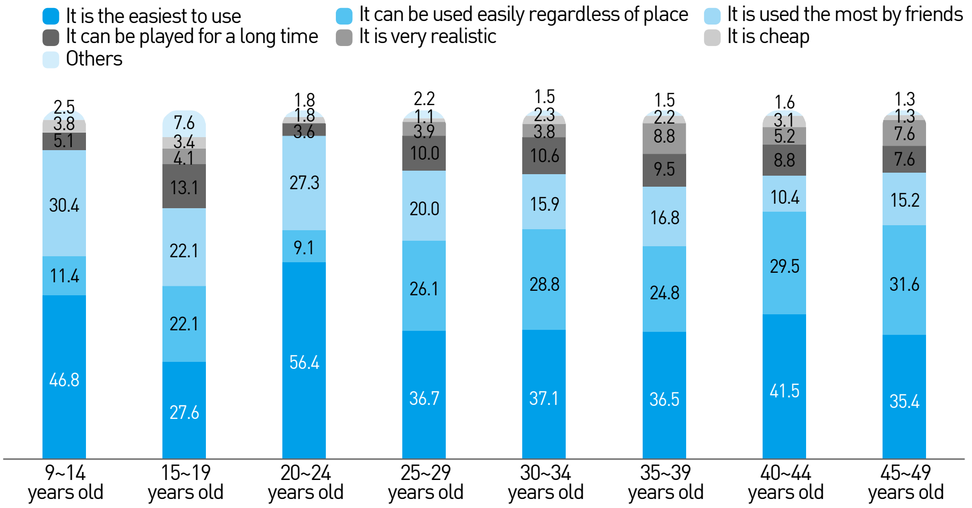
As for the reason for the preference of a specific game platform, the most common response was "most readily accessible" (38.1%), followed by "convenience of use regardless of location" (24.7%) and "most used by friends" (18.3%). More men (24.1%) than women (12.2%) answered "used by friends." That is, men were found to have a greater tendency to establish relationships with friends through the medium of games.

The 20-24 age group had the most "most readily accessible" responses (56.4%) while "convenience of use regardless of location" was most common in the 45-49 age group (31.6%), and the response "most used by friends" was most common in the 9-14 age group (30.4%).

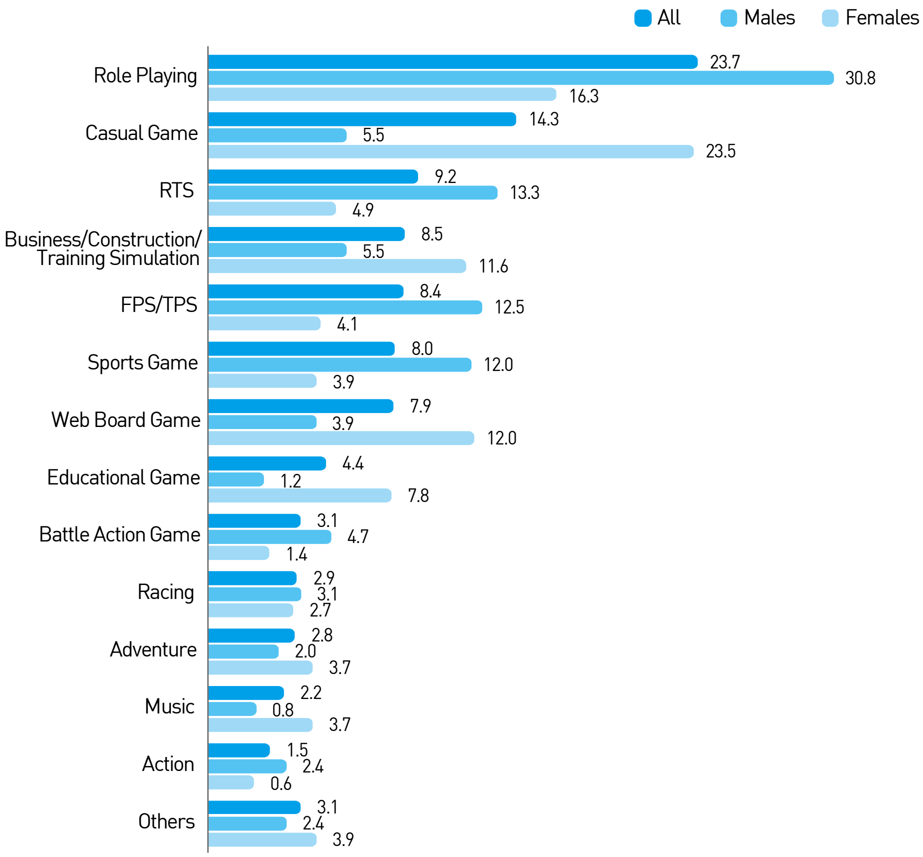
|Figure 11| Reason for Choice of Preferred Game Platform by Gender (Unit: %, n=1,000)



|Figure 12| **Reason for Choice of Preferred Game Platform by Age** (Unit: %, n=1,000)



|Figure 13| **Preferred Game Genre** (Unit: %, n=1,000)

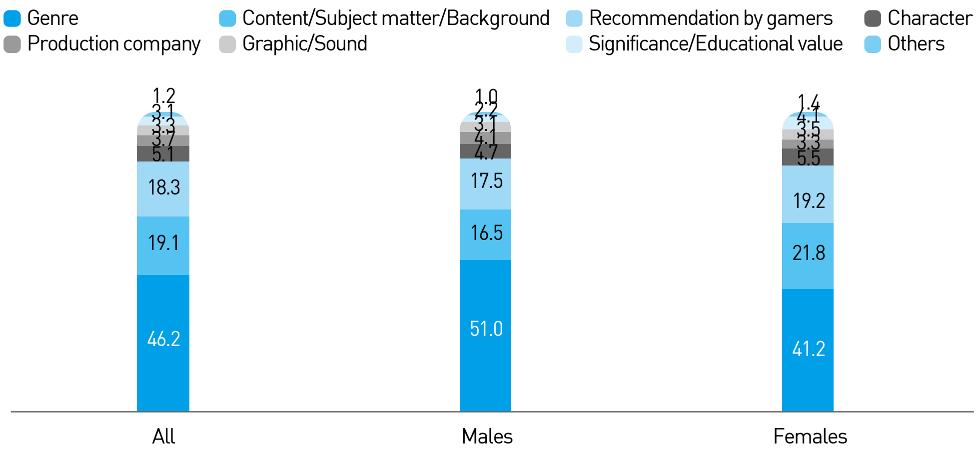


The most preferred game genre was “role playing” (23.7%), followed by “casual games” (14.3%), “RTS” (9.2%), and “management/construction/cultivation simulation” (8.5%). The male respondents preferred “role playing” (30.8%), “RTS” (13.3%), “FPS/TPS” (12.5%), and “sports” (12.0%) whereas the female respondents preferred “casual games” (23.5%), “role playing” (16.3%), and “Web/board games” (12.0%), showing that the preferred game genres differed by gender.

3.2.6 Reasons for choosing games

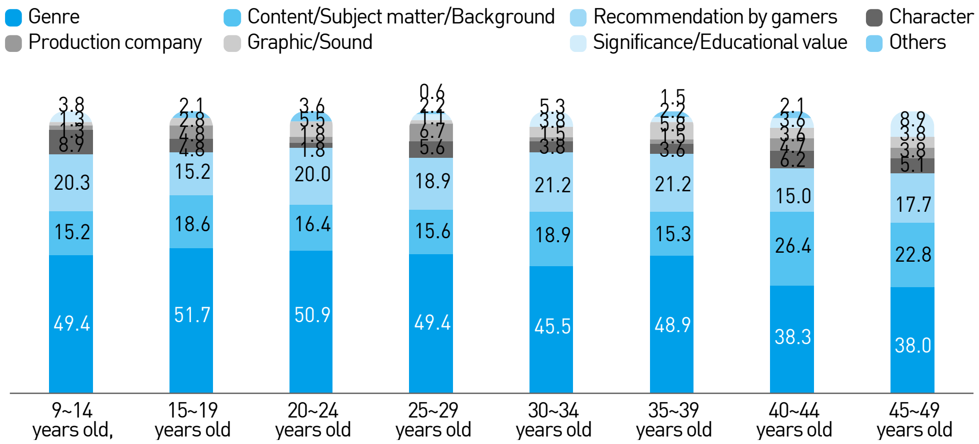
As for the important factors considered when selecting games, 46.2% of all the respondents answered “genre,” followed by “content/material/background” (19.1%) and “recommendation of game users” (18.3%). More men than women answered “genre” (51.0% vs. 41.2%), and the answer “content/material/background” was relatively more common among the female respondents than among the male respondents (21.8% vs. 16.5%).

[Figure 14] Reasons for Choosing Games by Gender (Unit: %, n=1,000)



While the response “genre” was most common across all age groups, the response “content/material/background” was relatively common only in the 40-49 age group.

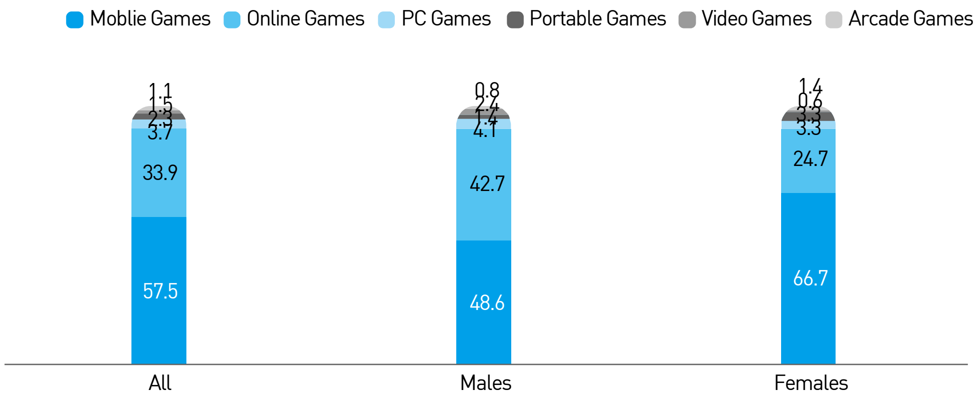
|Figure 15| Reasons for Choosing Games by Age (Unit: %, n=1,000)



3.2.7 Platform to lead the future domestic game market

As for the most likely platform to lead the future domestic game market, the first place went to mobile games (57.5%), followed by online games (33.9%) and PC package games (3.7%). More women than men (66.7% vs. 48.6%) answered "mobile games," and more men than women (42.7% vs. 24.7%) answered "online games."

|Figure 16| Platform to Lead the Future Domestic Game Market (Unit: %, n=1,000)

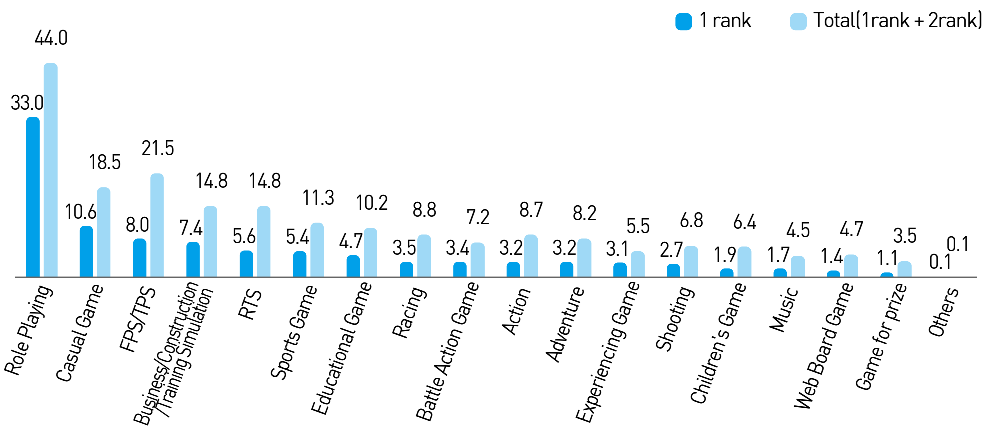


3.2 8 Genre to lead the future domestic game market

"Role playing" was the most common first choice (33.0%) for the genre that will lead the future domestic game market, also ranking first in the overall ranking (44.0%) reflecting multiple answers. For the first-choice responses, "role playing" was followed by "casual games" (10.6%) and "FPS/TPS" (8.0%). Based on overall ranking, however, "FPS/TPS" (21.5%) and "casual games" (18.5%) were ranked second and third, respectively, differing from the first-choice response ranking.

For the first-choice responses, most of both the male and female respondents answered "role playing," but more women than men (15.5% vs. 5.9%) answered "casual games." The response "role playing" was relatively more common in the 20s age group than in the other age groups. The proportion of "FPS/TPS" responses in the 15-19 age group (18.6%) was very high compared to that in the other age groups.

|Figure 17| **Genre to Lead the Future Domestic Game Market** (Unit: %, n=1,000)



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