

2014 Modularization of Korea's Development Experience: The Success Story of the Cultural Industry in Korea: The Case of the Game Industry

2014



MINISTRY OF
STRATEGY
AND FINANCE



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Preface

The study of Korea's economic and social transformation offers a unique window of opportunity to better understand the factors that drive development. Within about one generation, Korea transformed itself from an aid-recipient basket-case to a donor country with fast-paced, sustained economic growth. What makes Korea's experience even more remarkable is that the fruits of Korea's rapid growth were relatively widely shared.

In 2004, the Korean Ministry of Strategy and Finance (MOSF) and the Korea Development Institute (KDI) launched the Knowledge Sharing Program (KSP) to assist partner countries in the developing world by sharing Korea's development experience. To provide a rigorous foundation for the knowledge exchange engagements, the KDI School has accumulated case studies through the KSP Modularization Program since 2010. During the first four years, the Modularization Program has amassed 119 case studies, carefully documenting noteworthy innovations in policy and implementation in a wide range of areas including economic policy, administration-ICT, agricultural policy, health and medicine, industrial development, human resources, land development, and environment. Individually, the case studies convey practical knowhow and insights in an easily accessible format; collectively, they illustrate how Korea was able to kick-start and sustain economic growth for shared prosperity.

Building on the success during the past four years, we are pleased to present an additional installment of 19 new case studies completed through the 2014 Modularization Program. As an economy develops, new challenges arise. Technological innovations create a wealth of new opportunities and risks. Environmental degradation and climate change pose serious threats to the global economy, especially to the citizens of the countries most vulnerable to the impacts of climate change. The new case studies continue the tradition in the Modularization Program by illustrating how different agents in the Korean society including the government, the corporations, and the civil society organizations, worked together to find creative solutions to challenges to shared prosperity. The efforts delineated include overcoming barriers between government agencies; taking advantage of new opportunities opened up through ICT; government investment in infrastructure; creative collaboration between the government and civil society; and painstaking efforts to optimize

management of public programs and their operation. A notable innovation this year is the development of two “teaching cases”, optimized for interactive classroom use: Localizing E-Government in Korea and Korea’s Volume-based Waste Fee System.

I would like to express my gratitude to all those involved in the project this year. First and foremost, I would like to thank the Ministry of Strategy and Finance for the continued support for the Modularization Program. Heartfelt appreciation is due to the contributing researchers and their institutions for their dedication in research, to the former public officials and senior practitioners for their keen insight and wisdom they so graciously shared as advisors and reviewers, and also to the KSP Executive Committee for their expert oversight over the program. Last but not least, I am thankful to each and every member of the Development Research Team for the sincere efforts to bring the research to successful fruition, and to Professor Taejong Kim for his stewardship.

As always, the views and opinions expressed by the authors in the body of work presented here do not necessarily represent those of the KDI School of Public Policy and Management.

December 2014

Joon-Kyung Kim

President

KDI School of Public Policy and Management



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Summary

The growth of the Korean popular culture industry has created a sensation in the global entertainment market. Its success has attracted a lot of attention from many countries in the world. Of the diverse elements of this sector, the game industry in particular deserves special consideration. Although it has a shorter history than any other branch of the Korean popular culture industry, it appears as one of the most promising endeavors that has shown a high degree of sensitivity to technological evolution, thereby adding significant value to the Korean economy. This calls for not only a clear understanding of the government policies that have functioned as a driving force of the growth of the Korean game industry, but a modularization of that unique Korean experience of industrial growth as well. This task is here carried out in the following four directions.

First, we justify the need to modularize the game industry by highlighting its importance to the economy, which lies in the added value its growth promises. More specifically, an increase in the number of game industry employees has serious implications for the national job market, even as the growth of the game industry inevitably adds to the vitality of the software industry. Essential to the growth of the game industry have been governmental promotion policies. The analysis presented herein of the increase in the sales and exports of the game industry, the scale of the game market, and the increase in the population of game industry employees that can be attributed to the government policies, demonstrates that such policies have indeed had a strongly positive effect.

Second, we analyze the strategic goals pursued by the game industry promotion policies, strategy and system. The strategic goals of the game industry promotion policies include the strengthening of its industrial base, expanding its overseas market, and promoting

game culture. There are five types of tasks tailored to attain those goals: the construction of industrial infrastructure and nurturing game enterprises, the training of game experts, the development of game technologies, the expansion of the overseas market, and fostering the game industry. Which collaborative systems are best suited to perform such tasks? Which government agencies should be in charge of those tasks? How are necessary resources to be made available and allocated? These questions are explored in detail.

Third, we examine the way the industry actually works, along with consideration of the current state of promotional efforts. This allows us to know who is in charge of the promotion; what resources are available for promotion; how the research projects are being conducted as a pretext to government policies; how the promotion of the industry is being conducted; and what enterprises are being promoted to foster game culture. In addition, the process of promoting the game industry is explored in detail through an analysis of the case of the Global Game Exhibition (G-Star).

On the whole, the adoption of the game industry promotion policies for the continual growth of the Korean game industry was designed under the strategic framework of the so-called “governmental initiative and civil cooperation.” This strategic framework, which contains five essential elements for the success of the promotion policy, has the potential to serve as a growth model for other countries. These include short-term and long-term effects of policies; the importance of policy orientation; systematic organization of policy implementation processes; the importance of cultural differences in each country; and firm realization of the importance of the public characteristics of such policies.

The Korean popular culture industry is currently treated as a new bullish entry in the global market. The Korean experience of promoting its growth through innovative governmental policies has become a benchmark for not only developing countries but developed countries as well. A study of Korean popular culture as part of the modularization of the Korean experience of economic development, therefore, could be instrumental in enhancing the cultural policy capability of the Korean government through sharing its cultural policies with other governments. This study is based on a judgment that of the diverse branches of the Korean popular culture industry, the game industry is the best fit for the modularization of the Korean experience of economic development. The Korean game industry grew by about 1,000 percent in terms of the scale of its domestic market during the period 2001 to 2012. Although it has a shorter history than any other branches of the Korean popular culture industry, it appears to be one of the most promising industries for the future, demonstrating high sensitivity to technological evolution and the potential to create significant added value.

Lying behind the solid growth of the Korean game industry is a strategy unique to Korea, the so-called “governmental initiative and civil cooperation,” which we conclude may be an excellent growth model for many countries in the world, especially those measures that were taken in 1999 through the Game Promotion Center (which was integrated into the Korea Creative Contents Agency in 2009). This is a public agency specializing in the promotion of the game industry, known to many countries in the world for the highly successful outcome its policies; thus it has become a benchmark policy module for them. The Korean government’s policies on the promotion of the game industry have drawn the attention not only of latecomers in the game industry such as China, Taiwan, and Vietnam, but of those countries that have taken the lead, such as the U.S., Japan, the U.K., and France. The primary objective of this study is to provide a systematic overview of the process of setting in motion a series of policies on the game industry and the policy outcomes. An evaluation of the policy outcomes based on the overview will be provided and some suggestions will be made thereto. We intend this to show the latecomers how to attain success in the game industry.

2014 Modularization of Korea's Development Experience
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Chapter 1

Introduction

Introduction

This report constitutes a part of the Knowledge Sharing Program (KSP) promoted by both the Ministry of Strategy and Finance and KDI School of Public Policy and Management. Its purpose is to provide a foundation on which to build a modularization of the factors responsible for the success of Korean popular culture in the world market. An English trend magazine *Monocle*, in collaboration with the Institute for Government (IFG) in Great Britain, has tabulated the Soft Power Index of each country in the world since 2010, and had this to say in 2013 about the *Hallyu* in which the Korean popular culture industry plays a key role: “It is a most marvelous success story of soft power in which the export of the Korean popular culture including music, TV dramas, animations, and computer games, among other things, has drawn praise not only from Asians but from Europeans as well for the past ten years.” In the Soft Power Index Korea ranked nineteenth in 2010 but rose to eleventh in 2012. One may well say that the growth of the popular-culture industry in Korea was a crucial factor for such positive outcomes.

The growth of this industry, which is usually described by the term *Hallyu*, has given a significant shock to the global entertainment market that has long been dominated by the so-called advanced countries. It is little wonder, therefore, that the competitive edge of Korean popular culture in the world market has drawn keen attention from many countries. To be sure, the Korean popular culture industry ranks eighth or ninth at present in terms of the total share in the global entertainment market and as such is hardly comparable to the popular-culture industry of the United States and Japan which rank first and second, respectively, in terms of their share in the world market. Nevertheless, Korea’s total revenue has grown by double digits every year recently.

The Korean popular culture industry is currently treated as new and bullish in the global market. The Korean experience of promoting its growth through innovative governmental policies has become a benchmark for not only developing countries but developed countries as well (Park, 2013). A study of Korean popular culture as part of the modularization of the Korean experience of economic development, therefore, could be instrumental in enhancing the cultural policy capability of the Korean government through sharing those policies with other governments. This study is based upon a judgment that of the diverse branches of the Korean popular culture industry, the game industry is best fit for the modularization of the Korean experience of economic development. The Korean game industry grew by about 1,000 percent in its domestic market during the period 2001 to 2012. Although it has a shorter history than any other branches of the Korean popular culture industry, it looks to be a most promising industry that shows a high degree of sensitivity to technological evolution and has the potential for creating significant added value. The sales of the game “GTA 5” that was put on the market at the end of 2014, for instance, totaled more than one trillion Won in three days after it was made available, an all-time high.

Prior to 2000 a few advanced countries such as the United States, Japan, and the United Kingdom had dominated the global game market. With the advent of the network society, however, the global online game market came to be led by the Korean game industry, an unlikely occurrence that most Western analysts failed to predict. The Korean game industry is known to be at the cutting edge particularly of online games, with the spread of online games such as “Baram ui Nara” (produced by Nexon, 1996) and of the MMORPG genre such as “Lineage” (produced by NCSOFT, 1998) around the world, in which the Korean game industry has taken the lead.

In retrospect of the past decade, the Korean game industry has made astonishing progress based on game industry promotion policies, having grown from 835.9 billion KRW in total revenue in 2000 to 7.8 trillion KRW in 2012, a nine-times growth in twelve years. The game market itself has grown from about 3 trillion KRW in 2001 to about 10 trillion KRW in 2012, a three-times growth in eleven years. Exports have grown from about 100 million USD in 2000 to about 2.6 billion USD in 2012, a twenty-six-times growth in twelve years. Finally, game exports account for about 57.2% of the total domestic cultural contents exported, which also created new jobs in the game industry. Although only 230,000 people worked in the game industry in 2001, as of 2012, about 950,000 people work for the game industry. This figure is the second only to that of the publishing industry, indicating how fast and effectively the game industry has contributed to the expansion of the Korean job market.

Lying behind the solid growth of the Korean game industry is a strategy unique to Korea, the so-called “governmental initiative and civil cooperation.” This strategy stands as an excellent growth model for many countries in the world. In particular, the measures for the promotion of the game industry that were taken in 1999 through the Game Promotion Center (which was integrated into the Korea Creative Contents Agency in 2009), a public agency specializing in the promotion of the game industry, have been recognized by many countries as highly successful, and as such have become a benchmark policy module for them. The Korean government’s policies on the promotion of the game industry have drawn the attention not only of latecomers such as China, Taiwan, and Vietnam, but of those countries that have taken the lead, such as the U.S., Japan, the U.K., and France. The primary objective of this study is to provide a systematic overview of the process of establishing a series of policies related to the game industry and the policy outcomes. An evaluation of the policy outcomes based on the overview will be provided and some suggestions will be made thereof. Latecomers may thus attain success in the game industry.

2014 Modularization of Korea's Development Experience
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Chapter 2

The Need to Modularize the Game Industry in Korea

1. The Goal of Game Industry Policies and an Evaluation
2. The Background and Need for Game Industry Policy

The Need to Modularize the Game Industry in Korea

1. The Goal of Game Industry Policies and an Evaluation

1.1. A Brief Overview of Game Industry Policies

By the mid-1990s the game industry had caught so much attention in Korean society that to speak of it became a “cool” social trend. This unexpected outcome prompted the establishment of the Bureau of Culture Industry within the Ministry of Culture, and also the enactment of the Framework Act on the Promotion of Cultural Industries in 1999, which made the popular-culture industry a beneficiary of governmental policies. The objectives and coverage of the Framework Act on the Promotion of Cultural Industries as of 1999 are as follows:

Article 1. (objective) The objective of this act is to contribute to the enhancement of the quality of people’s cultural life and the development of the national economy. That objective is to be attained by providing a solid foundation for the cultural industry and sharpening thereby its international competitiveness, which should in turn be preceded by a specification of what is necessary for the support and nourishment of the cultural industry.

Article 2. (definition) The terms to be used in this act are defined as follows:

1. The term cultural industry (or culture industry) refers to the industry engaged in the production, distribution, and consumption of cultural commodities. It applies to each of the following commercial activities:

-
- a) Any industry related to motion pictures as stipulated in the Promotion of the Motion Pictures Industry Act.
 - b) Any industry related to phonograph records, videos and games, as stipulated in the Record, Video Contents and Games Act.
 - c) Any industry engaged in publication, printing and periodical publication, as stipulated in the act on registration of publishing houses and printing houses and also in the act on the registration of periodicals.
 - d) Any industry related to broadcast programs, as stipulated in the Broadcast Act.
 - e) Any industry related to broadcast programs, as stipulated in the Composite Cable Broadcasting Act.
 - f) Any industry related to cultural properties, as stipulated in the Cultural Properties Protection Law.
 - g) Any industry related to characters, animations, designs (excluding industrial designs), advertisements, public performance, works of art, traditional craftworks that embody artistic value, originality, entertaining value, leisure-promoting value and popularity, and as such create economic added value.
 - h) Any industry related to multimedia contents utilizing interactive multimedia technology among diverse video software (excluding technical assistance regarding info-communications).
 - i) And other industries designated by presidential decree, such as those industries related to traditional outfit, traditional food, etc.

In 1999 the Record, Video Contents and Games Act was enacted and the same year witnessed the establishment of the Game Promotion Center, a government agency devoted to the promotion of the domestic game industry. The objective of the act and the definition of games are specified as follows:

Article 1. (objective) The purpose of this act is to contribute to the cultural/emotional life of the people through the improvement of the quality of records, videos, and games and also through the promotion of the records, videos, and games industries.

Article 2. (definition) The terms to be used in this act are defined as follows:

3. “Games” refers to both videos (irrespective of whether they are fixed on external objects or not) produced to be enjoyed for one’s amusement through computer programs, and game apparatuses installed and operated commercially for amusement purposes in commercially designated places.

Prior to 1999, online games per se could not win public recognition as a legitimate industry. Video game rooms that had sprung up throughout the country were subject to strict regulations and crackdowns by the government. An incipient game market developed on the domestic scene was dominated mostly by arcade and PC games. Although a handful of video games of domestic origin were given a favorable response in the market, an official video game market had yet to appear.

It was not until 1999 that governmental policies on the promotion of the game industry, such as incubation of start-up businesses, were seriously set in motion by the Game Promotion Center among others. In 2003 the center proposed a blueprint for promoting the game industry, beginning with “the Mid- to Long-term Plan for the Development of the Game Industry.” With the publication of the “White Book on Korean Games” in 2002, the government began collecting statistical data for the game industry and market. The year 2006 witnessed the enactment of the Game Industry Promotion Act, the first law in the world exclusively concerned with the game industry. In May 2009 the government stipulated that the Game Industry Promotion Institute that had been responsible for the promotion of the game industry in general be integrated into the Korea Creative Contents Agency. Along with it the government office in charge of the policies on the game industry changed from the Department of Games and Records of the Ministry of Culture to the Department of Game Industry Contents of the Ministry of Culture. And the public agency in charge of the promotion of the game industry changed from the Game Industry Promotion Institute to the Korea Creative Contents Agency, both of which were affiliated with the Ministry of Culture, Sports and Tourism.

1.2. The Objectives and Achievements of the Game Industry Promotion Policies

A substantial market was being created for the game industry overseas. And a growing interest domestically in the creation of added value in the new game industry was thus organized into collective business actions. On top of this, of diverse industries presumably to be subsumed under the general category of the popular-culture industry, the game industry

was seen as an emerging industry with the best prospect for the creation of added value and future development. This was the backdrop against which governmental policies designed to foster the development of the game industry emerged in Korea. Thus governmental policies intended to enhance the international competitiveness of the domestic game industry, by means of intensive governmental support for the development of that incipient industry, the online game industry in particular, began to take shape. The game industry promotion policies implemented in 1999 bore remarkable fruit in ten years. In terms of total sales, for instance, the domestic game industry grew from 8,359 hundred million Won in 2000 to 7.8 trillion Won in 2012, a growth of about nine times in twelve years.

Table 2-1 | A Comparison of the Amount of Total Sales in 2000 and 2012

(Unit: hundred million Won)

	2000		2012	
	Total Sales	Weight	Total Sales	Weight
Online Games	1,915	22.9	67,839	86.0
Mobile Games	27	0.3	8,009	10.1
Arcade Games	5,127	61.4	791	1.0
Video Games	125	1.5	1,609	2.0
PC Games	1,162	13.9	680	0.9
Total	8,359	100.0%	78,928	100.0%

Source: Ministry of Culture, Sports and Tourism, *Korean Game White Paper*, 2002 and 2013.

In terms of total sales the domestic game market grew from about 3 trillion Won in 2001 to about 10 trillion Won in 2012, approximately 333 percent in eleven years. Incidentally, the excessively speculative nature of arcade games (e.g., gambling) became a serious social problem in 2006, inviting strict governmental regulatory measures against the arcades. Unfortunately, this caused the disappearance of the arcade games market, the scale of which exceeded 3.5 trillion Won in total sales. As a result, the total sales of the game market dropped from about 8.2 trillion Won in 2005 to 5.1 trillion Won in 2007. The game market began to grow again in 2008, its total sales amounting to about 10 trillion Won in 2012.

The export of Korean game software amounted to about one hundred million dollars in 2000 and about two billion six hundred million dollars in 2012, a growth by about twenty-six times in twelve years. In 2012 the export of Korean games accounted for 57.2% of the

total export of Korean cultural contents in terms of cash volume. This is testimony to the fact that the game industry grew into the leader in the export of all Korean cultural contents.

In tandem with the growth of the game industry, the number of employees also increased during the past ten years: from twenty-three thousand in 2001 to ninety-five thousand in 2012, an increase by about four times. In 2012 the game industry was next only to the publication industry in terms of the number of employees. This means of course that the game industry has made a great contribution to the creation of jobs.

Table 2-2 | A Comparison of the Scale of the Game Market in 2001 and 2012

(Unit: hundred million Won)

	2001		2012	
	Total Sales	Weight	Total Sales	Weight
Online Games	2,682	8.8	67,839	69.6
Mobile Games	358	1.2	8,009	8.2
Arcade Games	5,060	16.6	791	0.8
Video Games	162	0.5	1,609	1.6
PC Games	1,939	6.3	680	0.7
PC Rooms	12,014	39.4	17,932	18.4
Arcade Rooms	8,302	27.2	665	0.7
Total	30,516	100.0%	97,525	100.0%

Source: Ministry of Culture, Sports and Tourism, *Korean Game White Paper*, 2002 and 2013.

Table 2-3 | A Comparison of the Export of Korean Games in 2000 and in 2012

(Unit: hundred million Won)

	2000	2012
Total Export	101.5	2,638.9

Source: Ministry of Culture, Sports and Tourism, *Korean Game White Paper*, 2002 and 2013.

Table 2-4 | The Amount of Export of Each Contents Industry

(Unit: hundred million Won)

Classification	Export						
	2008	2009	2010	2011	2012	Increase/ Decrease [%] ('11~'12)	Annual Average In/De [%] ('08~'12)
Publishing	260.0	250.8	357.9	283.4	245.1	-13.5%	-1.5%
Cartoon	4.1	4.2	8.2	17.2	17.1	-0.6%	42.6%
Music	16.5	31.3	83.3	196.1	235.1	19.9%	94.4%
Game	1093.9	1240.9	1606.1	2378.1	2638.9	11.0%	24.6%
Movie	21.0	14.1	13.6	15.8	20.2	27.5%	-1.0%
Animation	80.6	89.7	96.8	115.9	112.5	-2.9%	8.7%
Broadcasting	171.3	184.6	194.7	222.4	233.8	5.1%	8.1%
Advertisement	14.2	93.2	75.6	102.2	97.5	-4.6%	61.8%
Character	228.3	236.5	276.3	392.3	416.5	6.2%	16.2%
Knowledge Information	339.9	348.9	368.2	432.3	444.8	2.9%	7.0%
Contents Solution	107.7	114.7	118.5	146.3	149.9	2.5%	8.6%
Total	2,337.6	2,608.7	3,189.1	4,302.0	4,611.5	7.2%	18.5%

Source: Ministry of Culture, Sports and Tourism, *2013 Statistical Survey of Contents Industries*.

Table 2-5 | A Comparison of the Number of Game Industry Employee

(Unit: person)

	2001	2012
Number of Employee	23,594	95,051

Source: Ministry of Culture, Sports and Tourism, *Korean Game White Paper*, 2002 and 2013.

Table 2-6 | The Employee Scale of Each Contents Industry

(Unit: person)

Classification	Number of Employees						
	2008	2009	2010	2011	2012	Inc./Dec. Rate [%] ('11~'12)	Annual Inc./Dec. Rate [%] ('08~'12)
Publishing	210,084	206,926	203,226	198,691	198,262	-0.2%	-1.4%
Cartoon	11,093	10,784	10,779	10,358	10,161	-1.9%	-2.2%
Music	66,475	76,539	76,654	78,181	78,402	0.3%	4.2%
Game	95,292	92,533	94,973	95,015	95,051	0.0%	-0.1%
Movie	19,908	28,041	30,561	29,969	30,857	4.4%	11.6%
Animation	3,924	4,170	4,349	4,646	4,503	-3.1%	3.5%
Broadcasting	34,393	34,714	34,584	38,366	40,774	6.3%	4.3%
Advertisement	30,700	33,509	34,438	34,647	36,424	5.1%	4.4%
Character	21,092	23,406	25,102	26,418	26,897	1.8%	6.3%
Knowledge Information	41,279	55,126	61,792	69,026	69,961	1.4%	14.1%
Contents Solution	14,679	17,089	19,540	19,813	20,145	1.7%	8.2%
Total	548,919	582,081	595,998	604,730	611,437	1.1%	2.7%

Source: Ministry of Culture, Sports and Tourism, *2013 Statistical Survey of Contents Industries*.

Korean IT infrastructure is ranked world-class. Even though the country was a latecomer in IT industrialization, the government soon became determined to jumpstart the industry by focusing its policies on establishing the initial IT infrastructure. To expedite the process of development, the government established the Ministry of Information and Communication, which dedicated its efforts to establishing IT infrastructure and nurturing the IT industry. Arguably, IT infrastructure is the single most important facilitating factor for the success of Korean online games. In the mid-2000s, Korean online games were already very popular at home and abroad, while expanding their market size rapidly, when the OECD just started to discuss introducing web business content to the public.

2. The Background and Need for Game Industry Policy

2.1. A Brief Overview of Game Industry Policies

Video games represent cultural content younger than any other cultural productions such as movies, music, animations, and cartoons. It is known that the electronic tennis game produced by William Higinbotham in 1958, making use of oscilloscope technology, was the first video game ever known to the world. The game enjoyed considerable popularity, although it was not commercialized because it was produced with a view to showcasing the capability of the research institute where Higinbotham worked. Later, some Stanford University students produced another computer-based video game, called Space War, in 1962. This is generally understood to represent the first serious attempt to produce a video game utilizing computer technologies. This, too, was not commercialized because it was produced mainly for the purpose of testing the capability of a supercomputer.

With the appearance in the market of a game called “Pong” produced by the video game manufacturer Atari, computer games were first seriously developed into an industry. “Pong” was created distinctly for commercial purposes and as such marked the start of the computer game industry. It was initially developed as an arcade game, but as it won great popularity in the market it was made into a video game for home use. Such a modest beginning was soon followed by the development of more arcade games and video games and eventually by the advent of the age of computer-based video games. Subsequently, PC games became available with the appearance of personal computers. More recently the development of info-communication networks enabled the computer game industry to bring forth online games and then mobile games.

The introduction of computer games to consumers in Korea began in 1975 with the appearance of “electronic game rooms.” At first it was obligatory to obtain governmental permission to open an electronic game room; ten game rooms were initially granted such permission in 1975. At the initial stage the production of computer games did not really amount to an industry, because it remained at the level of putting together games imported from abroad. At first, the Ministry of Health & Welfare was in charge of regulating the computer games. This suggests that computer games did not really constitute an industry in the eyes of government authorities at that time. Instead, their concern was focused solely upon placing electronic game rooms under governmental control.

In the 1990s some manufactures of PC games began to flourish in the domestic market. Some Korean-made PC games won substantial popularity at home, where foreign imports had been dominant for decades. Domestically, however, computer games were still regarded as a children's pastime rather than as having the potential to become a stand-alone industry. As communication between personal computers became possible, game software firms introduced game packages predicated upon the concept of the digital network. The first network game, named "MUD," was developed in the U.K.; it was designed to be played according to a text. The "MUD" game was popular among users of the Korean portal or internet board services for personal computers, such as Hightel and Cheonrian. The "Dangun-ui Tang" produced by the Mary Telecom was the first "MUD" game of domestic provenance. Thus the "Dangun-ui Tang" could be seen as the first network game to originate domestically. It also became the first Korean game that was ever exported to the U.S.

In 1996 graphic online games were developed in Korea for the first time anywhere. The representative one was the "Kingdom of the Winds," developed by the Korean online game company Nexon. Another Korean company, Ncsoft, developed "Lineage" in 1998, which became a prototypical model later for the domestic MMORPG market. The online game market experienced rapid growth thereafter. The so-called Internet Café (the Korean version of Kinko's) made an appearance on the domestic scene in 1995. It was a place where one could get access to the internet and carry out simple paperwork. The year 1996 witnessed the appearance of PC rooms all over the country. Since these provided more personal and relaxing space than the Internet Café, the PC room served as an adequate environment for internet games. PC rooms sprang up rapidly throughout the country. This can be attributed to the fact that Korean society experienced the hardship of the so-called IMF crisis in 1997, and reflecting the need to escape from harsh realities and kill time in a virtual world, a network game named StarCraft began to win much popularity in 1998.

The massive unemployment caused by the 1997 crisis above all stimulated the PC-room business; seemingly anyone could start an independent enterprise without much expert knowledge. Furthermore, the government had the Cultural Industry Fund provide the unemployed with low-interest loans so that they could go into the PC-room business. Another decisive factor in the rapid spread of the PC room was the availability of online games and the enormous popularity the network game StarCraft enjoyed. During 1998 over ten thousand PC rooms opened, which later came to serve as a core infrastructure for the rapid growth of the online game industry.

Table 2-7 | The Early Growth Rate of PC Rooms

	1998	1999	2000	2001
Number of PC Rooms	Approximately 3,000	15,150	21,460	22,548
Growth Rate	-	440%	42%	5%

Source: Ministry of Culture, Sports and Tourism, *2002 Korean Game White Paper*.

Although a nearly two trillion Won market emerged from the PC rooms, the Korean conglomerates refrained from going into the PC-room business, mainly because such an enterprise should be set aside, in the eyes of the people in general, for the livelihood of those who had lost their job in the wake of the IMF crisis. As a result, most Korean PC rooms were of small to medium scale.

The fact that PC rooms provided users with such essential amenities as independent space and comfortable chairs, and were therefore suitable to play games for long hours, was not the sole reason for the central role the PC room played in the rise and growth of the online games market. Another crucial reason was that one could not enjoy online computer speed at home as fast as in PC rooms, the governmental effort to construct efficient information-communication networks notwithstanding. The online games of domestic origin were supplied not only to the internal market but to the overseas market as well. With it the format of the PC room was also exported abroad. Since then it has been called the “PC Bang” in foreign countries and has become inseparable from the Korean online games in terms of the brand value.

2.2. The Need for Game-Industry Policy

2.2.1. The Economic Effect of the Expansion of the Game Market

The rapid expansion of the online games market engendered a swift increase in the number of games manufactures, their employees, and PC rooms in the first place. It also had the effect of promoting the growth of other related industries. The online game market presupposes the existence of a basic infrastructure, information-communication networks in particular. During the period from the late 1990s to the early 2000s the Korean government focused its policies on constructing IT infrastructure. A major objective of the Korean government at that time was well epitomized in the following motto: “Although we were a latecomer in industrialization, we will be a forerunner of the information age!”

One may well raise a question: “Since online games were first conceived overseas, how was Korea able to create and nurture the online game market earlier than any other countries in the world?.” One factor responsible for Korean success in that area was the speed with which the government completed building the nation’s IT infrastructure. Another factor could be that since the advent of PC communication a new culture was well in the making in Korean society in which people communicate and play with each other through virtual networks.

Given that online games are a unique genre that enables numerous people to get access to and enjoy it at the same time, the pleasure of online games should be preceded by the spread of personal computers and the construction of solid IT infrastructure. In addition, advanced graphic cards, highly efficient CPUs with rapid data processing speed, and large monitors with high resolution are necessary to make online games more interesting. Another important factor in the success of the online game market is the high speed of the internet network that allows gamers to get continuous and instant access to the internet. Furthermore, online game companies need to construct servers of their own to enable thousands of people to get simultaneous access to their games. Online games companies may even have to construct a score of servers of their own for highly popular games.

Thus the growth of the online game market has had an effect on graphics cards, CPUs, servers, and the speed of internet network. Since the 2000s, it has accelerated the development of all these elements, capable of meeting the needs of many people simultaneously. We assert that since the 2000s, the online game industry has triggered the progress made in the areas just mentioned.

The mobile games market engendered by the rise of the mobile phone market has also played a part in the development of the wireless internet. The traditional arcade games had an effect on other industries, too. It had to do with the manufacturing industries, just as the online game and the mobile game have come out of the IT industries. One arcade game consumes more than 100 parts such as switches, buttons, electric bulbs, electric wire, etc. One monitor is also necessary for one game machine, which is made of panels and cast-iron wares in various molds. To take a more concrete example, ten thousand arcade game machines need one million units for each of the necessary parts, ten thousand monitors, and an appropriate number of panels and cast-iron wares, thereby making a great contribution to the growth of other manufacturing industries.

The expansion of the game market has also been instrumental in creating jobs. First of all, the expansion of the game market has led to an increase in the number of game

manufacturers, which in turn has generated increased employment. And the expansion of the game market has also brought about the growth in the number of PC and arcade rooms where games are played. This would of course result in increased employment. Running a PC or arcade room would require at least two to three employees. Thus twenty thousand PC rooms and one thousand arcade rooms, for instance, would create about sixty to ninety thousand jobs.

Table 2-8 | The Number of Game Rooms and Employment Estimates (2005)

	Number	Possible Employment
PC Room	22,171 units	44,342~66,513 persons
Arcade Room	15,094 (25,414 in 2000, the peak)	30,188~45,282 persons
Total	37,265	74,530~111,795 persons

Source: Ministry of Culture, Sports and Tourism, An adaptation from *2006 Korean Game White Paper*.

A computer game is a piece of software in and of itself; in fact the production of a game normally consumes many and various pieces of software. This means that the growth of the game industry and the software industry have gone hand in hand. Graphics, programming, and game engines in particular are central to the development of game software. Following this line of reasoning, the government supported projects that instigated the domestic production of game engines simultaneously with the growth of the online game industry. Contrary to the government expectation, the projects did not have a significant triggering effect. Thus the growth of the domestic software industry could not keep pace with the domestic game industry.

Game engines are necessary to set games in motion. Korean game software mostly relies on the game engines produced by foreign manufacturers. When producing games some domestic manufacturers develop their own software necessary for their production. More generally, however, game manufacturers depend on preexisting software that is customized to cater to their needs. In a game there are the NPCs (Non-Player Characters) who are manipulated by the program itself, as well as the characters who are manipulated by the player. The operation of the NPCs relies upon artificial intelligence (AI). The growth of the game industry, therefore, stimulates the advancement of AI technology. AI technology is also utilized in movie scenes of large-scale battles or crowds in which actors do not really appear.

2.2.2. The Need to Promote Game Policies by the Government

The movie *Jurassic Park I* released in 1993 shocked Korean audiences for the astronomical amount of money the culture industry could produce for a nation. Its commercial success, based in large part on its extensive use of new techniques in computer-generated animation, had a decisive influence on the governmental decision in the mid-1990s to promote the domestic cultural industry through governmental policies. To put it bluntly, the profits from *Jurassic Park I* alone were roughly equivalent to those from the sale of one and half million automobiles by Hyundai Motor. At that time it took roughly two years for Hyundai Motor to sell such a number of automobiles.

With the government's attention increasingly drawn to the cultural industry, its potential for future growth moved into the foreground. The U.S. the game industry, itself quite dependent on ever-more vivid computer-created animation, was known not only as generating on its own a bigger market than the defense industry, but as having substantial potential for future growth.

Table 2-9 | A Comparison of World Game Market Revenue, 2000 and 2012

	Market Scale	Note
2000	Approximately 46.3 billion dollars	Approximately 2.4 times growth
2012	Approximately 111.75 billion dollars	

Source: Ministry of Culture, Sports and Tourism, An adaptation from *Korean Game White Paper 2002 and 2013*.

The game industry, therefore, began to be perceived as having a huge potential for future growth in Korea. Moreover, the growth of the game industry was expected not only to stimulate the growth of other industries such as the IT, software, and manufacturing industries, but to create numerous jobs as well. As a result, the need to have governmental policies supporting the development of the game industry came to the fore. Of many possible game platforms the online game in particular was totally new to the global game industry. In addition, it was a platform in which Korea could take the lead in the world in that it was ready to reap the profits of its prior investments in the construction of the IT infrastructure.

Having thus decided to help develop the game industry through governmental policies, the government's business affairs in this area were transferred from the Ministry of Social Welfare to the Ministry of Culture. This handover was quite natural in the sense that the ministry in charge of the cultural industry was the Ministry of Culture of which the game industry was a representative.

According to the current world classification scheme, games are separated into five distinctive platforms: online, arcade, video, PC, and mobile games. There are considerable differences between these game genres. To be sure, common to them is the fact that games themselves are cultural artifacts and constitute a product of the cultural industry. For their part, arcade and video games have much to do with the manufacturing industry, whereas online and mobile games have much to do with the IT industry. The problem is that when the game industry began to draw serious attention from the government, the manufacturing industry was under the jurisdiction of the Ministry of Trade, Industry and Energy while the IT industry fell within the jurisdiction of the Ministry of Information and Communication. This means that the game industry faced some ambiguities as to the jurisdictions of related ministries. A case in point was the conflict, which began in the early 2000s, between the Ministry of Culture and the Ministry of Information and Communication regarding the jurisdiction over the online and mobile games.

2.2.3. An Examination of Comparable Cases

When the Korean government aggressively set in motion its policies on the game industry, there were no foreign cases of such policies that could be applied to Korea. Although the U.S., Japan and Europe had established some precedents in the development of the game industry, their game industries and markets had been fueled largely by the initiative of private enterprises, without much governmental involvement. Therefore, there were no policies on the game industry in advanced countries after which the Korean policies of the game industry could be modeled. On the other hand, many of latecomer countries to the game industry did not have a game market truly worthy of the name. Besides, their game industry had enjoyed almost no support from their governments. Under these circumstances the Korean government's policies on the game industry became a global precedent and as such came to serve as a benchmark for both the forerunners and latecomers.

Since Korea was at first a latecomer to the game industry, one may well say that the Korean game-makers needed government support to help them catch up with the forerunners. By the mid-2000s the Korean game industry had already achieved remarkable growth. The fact that the Korean government's policies on the promotion of the game industry were vital to such growth drew the attention of many countries, which subsequently began to benchmark the Korean experience for their own benefit.

The Chinese government in particular has kept a close watch on the Korean government's policies, even to the small details. The Chinese game market was formerly dominated by arcade games. The arcade games' highly speculative nature came into question, however,

eventually culminating in an all-out ban on them throughout the country except for some large-scale model game rooms in a few designated provinces. In 2003 some Korean online games were exported to China with great success. This led to the rise of the Chinese online game market. Since then the Korean online game industry has become an important model for the Chinese online game industry. At last such development led the Korean Ministry of Culture and the Chinese Ministry of Culture to sign “A Memorandum of Understanding on Mutual Cooperation in the Game Industry” on December 24, 2008.

Taiwan has also benchmarked the Korean game industry and the Korean government’s efforts to promote it. The Taiwanese government went so far as to set up their own cultural industry promotion agency that was modeled after the Korean cultural industry promotion agency. In addition, Southeast Asian countries including Vietnam began to benchmark the Korean cultural industry promotion policies too.

Japan is one of the two largest game markets in the world, the other being the U.S. The Japanese government was initially reluctant to intervene in the game market. Such an attitude began to change as Korean online games made vigorous inroads into the world game market, while the Japanese games market remained stagnant. After the Korean government announced its mid- to long-term plans for the development of the game industry in 2003, The Japanese Ministry of Economy, Trade and Industry (METI) soon followed suit, making public its own plan to promote the game industry, the contents of which was quite similar to those of Korea.

In the U.S. there is no Ministry of Culture in the federal government. As such the U.S. represents a typical case in which the government does not intervene in cultural industry. However, some state governments in the U.S., such as the government of Texas, exceptionally began in the late 2000s to launch projects promoting the game industry that are highly analogous to the Korean situation.

As IT infrastructure increasingly became fundamental to the social environment, OECD and European countries gave serious attention to the growth of the Korean online game industry. They were highly intrigued by the factors, governmental policies in particular, responsible for the growth of the Korean game industry. OECD countries gave some thoughts to publishing a white paper on cultural industry modeled after the Korean game industry white paper.

2014 Modularization of Korea's Development Experience
The Success Story of the Cultural Industry in Korea:
The Case of the Game Industry

Chapter 3

Strategies and Systems for Promoting the Korean Game Industry

1. Detailed Strategies and Schemes Utilized for Execution
2. Promotion History and Contents of Game Industry-Related Policies
3. History and Contents of Game Industry-Related Policies

Strategies and Systems for Promoting the Korean Game Industry

1. Detailed Strategies and Schemes Utilized for Execution

1.1. The Circumstances at the Time of Working out the Strategies

Throughout the history of the computer game industry, the development and consumption of computer games took place mostly in the U.S. and Japan. Such an overall picture of the global game industry continues to hold true in the twenty-first century. The lion's share of the global game market is still dominated by the U.S. and Japan. In addition, the Chinese game industry has experienced rapid growth since the mid-2000s against the background of the rising gigantic domestic game market. On the other hand, the Korean game market had seemingly remained unchanged since the mid-1970s when the world game market made its appearance. Upon closer scrutiny, however, the development of the Korean game industry was quite problematic. While the new industry was built upon game software developed in the U.S. and Japan, games were rarely treated in Korea as having the potential to develop into an industry. Instead, the Korean government was primarily preoccupied with placing electronic game rooms under its control. Such an approach to games continued until the mid-1990s, falling far behind what was going on in the global game industry.

This is not to say that there were no attempts at the embryonic industrialization of games in Korea during the period from the mid-1970s, when the electronic game rooms appeared on the domestic scene, to the mid-1990s. Actually, there were some domestic manufacturers of computer games during the period. At the initial stage, the arcade games relied on game machines imported from the U.S. or Japan or on the domestic copies of U.S. and Japanese products. Before long, however, there appeared a few domestic companies that manufactured

arcade game machines on their own. With the spread of PCs there appeared on the scene some domestic manufacturers of PC games. There even was a domestically manufactured PC game that made a big hit in the market, selling 100,000 copies. During the age of PC communication, network games were domestically developed, serving as a basis of text. Such network games were to develop later into online games. This is another way of saying that the game market in Korea had started its own innovations, even before the governmental policies of developing games from an industrial perspective. This means that the Korean game market had already sprouted, which was then brought to maturity exclusively by private initiatives well before the industrial potential of games caught the government's attention. Admittedly, however, the rising game market was of modest significance at best in terms of both its domestic socioeconomic impact and its share in the global game market.

Until the mid-1990s games, music, and animations lacked a solid foundation on which to promote their industrialization in Korea, movies being the exception. Nor was their industrial potential yet understood in Korean society. To be exact, the consumer market for games had already risen in Korea by that time, but it was not until after the mid-1990s that the Korean government realized their industrial potential and came up with a strategy to boost their industrialization by means of governmental policies.

Since the mid-1990s, therefore, governmental policies on the industrialization of games were set in motion with great vigor in Korea, built on the foundation of a substantial consumer market that was already developed by private initiatives. Of special significance here is the fact that the appearance of the online games in the domestic market, which presupposes the infrastructure of well-developed information-communication networks, coincided with the initiation of the governmental policies on the promotion of the game industry.

1.2. The Objectives of the Strategy and Tasks

1.2.1. Setting Realistic Goals

Our game industry didn't aim at occupying the top spot in the global game market, where U.S. and Japan dominate. To set such a goal in a market where U.S. and Japan control more than 50% of the market share would have been unrealistic. However, aiming at the third place was realistic to the Korean government because the whole plan would have easily been realized by helping the industry grow by 7~8% annually. Initially, the Korean game industry had a global market share of 2~3%. Therefore, the Korean government adopted a more modest expansion strategy instead of rapid growth plans seeking 10~20% annual growth rates.

Table 3-1 | Comparison of Gaming Platforms Worldwide in 2001 and 2012

(Unit: 100 million USD)

	2001			2012		
	Size	Share	Growth from Last Year	Size	Share	Growth from Last Year
Arcade Games	280	51.2%	5%	253	22.7%	-8.4%
VideoGames	186	34.0%	35%	443	39.7%	-9.4%
PC Games	36	6.6%	9%	70	6.3%	4.9%
Online Games	35.5	6.5%	42%	210	17.9%	14.8%
Mobile Games	9.5	1.7%	2,869%	139	12.5%	31.3%

Source: Ministry of Culture, Sports and Tourism; *Korean Game White Paper* from 2002 and 2013.

For that purpose, the government focused on promoting online games, which had been growing steadily since the early 2000s, in the world market. However, they were still trifling compared to video and arcade games. In order to tap into the newly growing online game market, the network infrastructure had to be well established in the hope of rapidly facilitating the online game community in the global market. Network infrastructure is not sufficient alone, although necessary, for the online game market. While the network infrastructure was being established throughout the world, more time was needed to create demand for online gaming on a global scale. In other words, although the game platform was ready, the technological and social factors weren't ripe yet for takeoff.

Given that technologies were evolving quickly, and societies all over the world were also changing rapidly, we regard the choice to promote online games as a correct one. The timely emergence of a new online game-playing community was also an unintended consequence of various hardware and software combinations. After the rapid growth of the online games market, the Korean game industry, which had previously been considered backward, was reevaluated highly by the world game industry. This overnight success was not because of the expansion within the domestic market. Rather, Korean online games made their way to other Asian countries to serve crucial roles of helping similar markets emerge in China and elsewhere. For example, Shanda Games, a Chinese company that used to import Korean online games, grew so rapidly that it was listed on the NASDAQ in just one year. This one incident opened a new door of windfall opportunities for all Korean online game companies that rushed to the Chinese market.

1.2.2. Setting the Tasks: Industrial Foundation, Overseas Expansion, and Game Culture

The government classified policy tasks into three categories: (a) expansion of the industrial foundation, (b) increasing overseas exports, and (c) establishment of game culture in order to realize the strategic goal for the Korean game industry. Each category has subtasks. The expansion of the industrial foundation lists three tasks to be performed. The first is to foster the growth of game developers by helping their development processes. The second is to nurture professionals to improve industrial competitiveness as whole, and the third is to develop cutting-edge game technologies in general.

Increasing exports may seem natural with the industry-wide growth policies in place. In a country with a small domestic market, overseas expansion backed up by global competitiveness is a must for a sustainable growth. Therefore, it was crucial to make overseas expansion a focal point from the start to reach the third position in the world game market.

Establishment of game culture is a strategic task that is specific to the game industry only. There is almost no precedent for this in policy making for ordinary industries. It doesn't happen even in other cultural industries. This task of establishing a culture only appears in the game industry to reduce the perceived adverse effects of online games. Ever since the computer came into existence, teens were addicted to them to the extent that it became a societal issue.

A noteworthy case was the lawsuit, which occurred at the town of Mesquite in Texas. At the time, there was a very popular game titled Space Invader, and the town residents complained that it made their teenagers waste too much time and money. Residents tried to pass a new law in an attempt to drive Aladdin Castle, provider of the game, from the local shopping mall. Consequently, the city made a law that forbids teens below age 17 from entering gaming arcades (1) to prevent unexcused student absences and (2) to prevent children from “interacting with people who gamble or perform any other addictive illegal activities.” This lawsuit ended up at the federal court in 1981 and was ruled unconstitutional. The court held the view that the new law violated the rights of the gaming arcades to generate profits that were granted by the law of both federal and Texas state governments in 1982.

Similar outrages were reported in newspapers about teenagers playing games after arcades first opened in Korea. Examples include the following:

Nov. 9, 1979. *Dong Ah Ilbo*, Restrict teens' access to gaming arcades. Mostly destructive playing styles to corrupt young mind.

Aug. 19, 1982. *Kyung Hyang Shinmun*, Gaming arcades leading teens down wrong paths.

Jun. 18, 1983. *Kyung Hyang Shinmun*, Ministry of Culture and Education forbid all teens from entering gaming arcades.

Aug. 2, 1988. *Dong Ah Ilbo*, Teens frequenting gaming arcades are also easily seduced to gambling.

Aug. 28, 1992. *Kyung Hyang Shinmun*, Gaming arcades to operate one hour less.

As online games made their debut, the issue of teens playing games late at night was viewed by many as a problem that grew out of hand. In the 2000s some of the most visible issues were (a) spending too much money on games (especially, using parents' credit cards without permission), (b) causing domestic violence within the family (reported cases of abusive language and violence towards parents/grandparents), and (c) teens dying in PC cafes while playing online games. When these incidents were reported on the press, parents and older generations expressed unceasing shock at the harmful effects of the games.

Several reasons stand out as to why games were viewed negatively by the older generation. First, computer games, online games especially, are new and thus strange to the older generation. Computer games have a short history compared to other entertainment genres, as it is only 40 years since the first computer game surfaced. It is not uncommon to see people over their mid-50s who had not even heard of computer games in their teens. If we talk strictly about online games, which came out 10 years later than computer games, they are even stranger to the older generation.

The second reason has to do with the characteristics of the games. Games are interactive and while you are playing, you can't do anything else. In other words, games require more focus and concentration than any other forms of entertainment. Although this characteristic can be used positively (e.g., for learning purposes), this means that people must commit some hours a day solely for game-playing, substantially preventing adolescent students from having enough time to study. As a result, the older generation was confused about the concept of games themselves because they didn't know how to understand or utilize them. Consequently, parents began viewing the PC games as hindrance to their children's education.

Against this backdrop, establishing game culture emerged as an important strategic task in the growth of the game industry in Korea. The more negatively Korean society regarded PC games, the more acute the need to change such a social milieu, as long as the government policy mandated rapid growth of the new industry. It cannot be a top policy priority to establish game culture as openly as other policy mandates, although the issue with game culture certainly was a hindering factor when the game industry was in its embryonic stage.

Table 3-2 | 5 Tasks to Become One of the Top 3 Game Industry Nations

Industrial Foundation	Task 1	Establishment of industrial infrastructure and supporting developers' growth
	Task 2	Raising game industry talent/professionals
	Task 3	Developing gaming technology
Export Overseas	Task 4	Expanding on a global scale
Establishment of Culture	Task 5	Establishing gaming culture

Source: Ministry of Culture, Sports and Tourism, An adaptation from *Korean Game White Paper* from 2002 and 2013.

1.2.3. Strategy Promotion System

In the design of a new industry, relevant policies must aim to nurture an efficient industrial ecology with leaders and promoters who devise and implement effective strategies for short-, mid-, and long-term goals. In so doing it is also crucial to establish a framework of government-business cooperation with governmental and civilian agencies. Despite well-designed governmental policies, the ultimate outcomes are still dictated by the industry and the consumer market, both of which require efficient and effective government and civilian cooperation.

a. Governmental Agencies

The Cultural Contents Industry Division was set up within the Ministry of Culture, Sports, and Tourism in 1994. Its purpose was to nurture cultural enterprises through appropriate policies, with each division responsible for different genres of cultural enterprises. The actual group that was responsible for promoting strategies for each genre of the cultural enterprise was the single division itself within the department. For the game industry, the Game and Record Industry Division was established. The *Music Record Act*, enacted in the 1960s, was transformed into the *Record and Video Content Act*, and finally into the *Record, Video Content, and Game Content Act* in 1999. As gleaned from these legal changes, the

division responsible for game content was concomitantly responsible for music content. However, as the game industry grew, and the record market turned into the digital music market in the early 2000s, the Game and Record Industry Division was transformed into the Game and Comic Content Industry Division.

Despite this structural reform, all music-related tasks were still handled by the same division. Even as the name was changed and the new division focused more on the game industry-related tasks than before, the new division was still responsible for the previous tasks. In 2010s, this division was transformed again into the Game Content Industry Division to make it solely responsible for the game industry. These developments were due to the phenomenal growth of the game industry and the expansion of the game market.

The Game Content Industry Division is responsible for planning, establishing, and implementing all game industry-related policies. Its tasks include game industry promotions, enacting and implementing laws and policies, issuing administrative orders, and responding to various game-related social issues. The word “game” is normally used to refer to all game genres, although in reality they refer to different game platforms such as arcade, online, and mobile games. The Game Content Industry Division is the only division within the Ministry of Culture, Sports, and Tourism that uses the word “game” in its name to reflect its nature as a government agency that is responsible for all the game industry-related policies. However, it can’t be said that it is the only division that performs such tasks. This is because there are other divisions and teams that perform similar tasks depending on the characteristics of the game platforms.

Online and mobile games require wired and wireless telecommunication networks as the basis of communication interface. The Telecommunication Division within the Ministry of Information and Communication, responsible for the telecommunication network up until 2008, was therefore in a conflictual relationship with the Ministry of Culture over the control of the communication network for the use of online and mobile games. After 2009 the division was replaced with the Korean Communications Commission that carried out the same tasks, and since 2013, the “Ministry of Science, ICT, and Future Planning” has supervised the same tasks.

For the tasks that are related to game usage, especially among teenagers, the “National Youth Commission” was in charge of regulating the game industry in the early 2000s, whereas it was the *Juvenile Protection Act* in 2009, a law under the jurisdiction of the Ministry of Gender Equality and Family, which is responsible for the wellbeing of teenagers. All cultural content is supervised under the *Juvenile Protection Act*, which automatically means

that all games are required to comply with the policy. After 2011, the Forceful Shutdown Policy, which restricts late night use of game programs by the teens, was included in the same Act. Now the Ministry of Gender Equality and Family has a strong say in establishing and implementing game-related policies.

As stated above, there are other ministries than the Ministry of Culture, Sports, and Tourism that intervene in the policymaking process over the game industry, although most important and core game industry-related policies are implemented by the Game Content Industry Division of the Ministry. Therefore, cooperating and negotiating with other ministries in the process of establishing and promoting the game industry-related policies is also one of the main responsibilities of the Game Content Industry Division.

b. Agencies for Implementing Game Industry-Related Policies

Although governmental departments are responsible for the game industry-related policies, it is difficult for all relevant agencies to coordinate for effective policy interventions. Therefore, an agency that is solely dedicated to coordinating interdepartmental and inter-agency cooperation toward enacting and implementing policies for the game industry was necessary to reduce bureaucratic and inter-organizational chaos. Such an agency is responsible for planning, establishing, and enforcing the policies with a repository of professional knowledge about the game industry and inter-departmental coordination. The Game Industry Support Center was established in 1999 to promote the game industry-related policies, even as the *Record, Video Content, and Game Content Act* was promulgated. Afterwards, the agency's name was changed to Game Industry Development Agency and Game Industry Promotion Agency later on. In May of 2009, all game industry-related tasks were to be performed by a single entity, following the government policy of merging small agencies into the KOCCA, which supervises all cultural media content except for those from the movie industry.

KOCCA is responsible for the promotion of business interests within the game industry. Its role is to coordinate specific plans and strategies devised by business and government parties in mutually promoting the mid- and long-term interests of the game industry. Also, it serves as a facilitator between the government and the industry by communicating directly and consistently when promoting its business plans.

The second government agency that promotes the interests of the game industry is GRAC, which is responsible for rating different games based on their content. As the *Record, Video Content, and Game Content Act* was implemented in 1999, KMRB was established for a similar purpose, although the *Game Industry Promotion Act*, which was enacted in 2006,

created GRAC. GRAC is characteristically a civil commission, although it operates under government budgetary auspices, and the government appoints its members. The law states that all published game software must have its content reviewed and categorized into different age levels. The U.S., Japan, and Europe, which had their game industry developed by civilians, have all game materials rated by content by civil commissions. Therefore, it is difficult to say that rating a game prior to its release isn't just a form of censorship. Rating services mandate that all game software producers now must take into consideration the age factor in their content production. Games are now produced according to age brackets as audiences before censorship takes effect. Therefore, rating and age levels become two important interwoven factors in regulating the entire game industry.

Despite the fact that the government doesn't directly participate in rating games, the practice of using the game-related laws and regulations as rating guidelines is highly symbolic and carries important meaning for the government. As the game industry grew rapidly and society changed enormously, the government wanted to formalize the rating system and dissolved GCRB, which handed over its rating services to the newly established GRAC in 2013.

c. Cooperative Agency System

The cooperative agency system includes not only government agencies, but industrial, academic, and civil groups as well. If the government and the institutions are considered public influences, the industrial, academic and civil groups are civilian contingents, important in the system because they're the ultimate receivers of policy implications and effects. In policymaking, both governmental and civilian contingents can work together to reduce unintended consequences of such policies, while cooperating for an effective enforcement of the policies. Civilians also provide actual user data for policymaking.

Therefore, the civilian contingents are not only the intended targets but policy partners as well when the government decides to promote certain policies for a specific industry. The civilian side must possess adequate understanding and capability with which to partner with the government. Such a cooperative system wasn't in place in the beginning when the government started to enforce its policies. During the heyday, only private firms were on the civilian side, while efficient communication between both sides was severely impaired from the government's perspective. To improve communication between business and the government, KAOGI was formed in 2004, which mainly included online game companies, and in 2013 its name changed to GAMEK.

In addition, intellectuals from the civilian side also began to form research groups and associations. The academic society refers to groups of game industry researchers who play a major role in enacting and evaluating policies. They participate in the research funded by the government and help implement policies based on their findings. KCGS, one of the most recognized game industry academic associations, was established in 2001.

Furthermore, civil groups who actively use game software and/or whose children are addicted consumers of online games tend to monitor the policies implemented by the government. Civil groups can affect the outcomes of the policies significantly as they exert collective influence over public opinion. However, these groups are mostly made up of the older generation who tend to disregard the opinion of the young people who actually use the game software. As a result, most of the civic group opinions that are reflected in the new policies are negative towards the game industry, since they are mostly from parents of the teens who play the games. The government must consider this aspect when establishing new policies as they often interact and cooperate with the civil groups as they form a strong group within the cooperative system.

d. Units of Policy Implementation

The government projects are planned and executed every year, making them very ordinary governmental activities. However, each policy is made to resolve specific social and political issues, necessitating the use of policy units that are designed for such specific purposes. Also, the market is always changing. Technological advancements, changes in social perspectives, and the occurrence of societal issues all affect and change the game market. When the market changes, the objectives and strategies of policies also change. This process of project implementation determines the unit of policy making.

Most of the Korean game industry policies are implemented over the course of five years, and the mid- and long-term plans are announced every five years as well. The ultimate goal of the Korean game industry was to ascend to the number-three position in the game industry, and to achieve this goal, policy objectives and project units have changed from time to time.

Five years is the appropriate amount of time to estimate the market fluctuation and policy outcomes. The Korean government also elects officials every five years. It takes about 2~3 years to actually implement a project, and therefore, the unit of five years is appropriate for policy estimation and outcome analysis.

Games are significantly affected by technological changes, making the period of five years seem too long. However, since specific policies are implemented and enforced every year based on the objectives and plans of the next five years, there is flexibility for revising policies based on market changes. Structurally, the five-year plan is carried out annually, based on the plans and evaluations of each year's policy implementation over the course of five years.

e. Resources for Implementing Policies

There are various resources available with which to implement game-related policies, and the most fundamental of them all is money. The finances needed for implementing policies are divided into three general categories. First, the government budget is the most common one, and indeed most finance come from this budget. The game industry does not receive any additional financial support aside from the budget and therefore securing the budget is very important. At the beginning of each year, when the government agency submits next year's business plans to the department that handles government budgeting, they will be reviewed as budget allocations requiring verification by the national assembly.

Second, fund raising is possible. Funds are raised and allocated through various routes other than taxation. For example, when PC cafes were set up all over Korea in 1998, the Cultural Industry Funds subsidized this expansion. Afterwards, this entity was dissolved without any replacement until now. No fund raising is available for the game industry-related projects at present. There were attempts to create similar organizations in the early 2000s to sustain the growth of the industry when it was expanding rapidly. But people often show concerns about civilian fund raising as they suspect that it slows the growth of the market, which had already been growing well on its own. In 2006 there was an attempt to raise funds through gift certificates with help from local arcades. Although this has raised some funds, the government suspended the idea permanently due to myriad acts of speculation. As a result, a fund raising attempt for the game industry failed once more. The entire government budget is limited in its size, a common factor in all government budgets that makes each year's allocation size differ from the next. Nonetheless, funds can serve as a vital role in implementing game related policies.

Table 3-3 | Game Industry Related Policy Promotion System

Agencies	Tasks	Responsible Teams
Governmental Agency	Planning, establishing, and executing all game industry-related policies	Game Content Industry Division of Cultural Content Industry Office of Ministry of Culture, Sports, and Tourism (← Game and Comic Content Industry Division ← Game and Record Industry Division)
Promotion Agency	Promoting game industry-related businesses	KOCCA (← Game Industry Agency ← Game Industry Development Agency ← Game Industry Support Center)
Cooperative Agency	Maintaining a cooperative relationship when establishing and promoting game industry-related policies	Industrial, academic, and civil groups (Korea Internet & Digital Entertainment Association, Korea Game Society, etc.)
Unit of policy Promotion	Determining the policy objectives and the time required for promotion	Planning and promoting mid, long term plans (5 years), and short term plans (1 year)
Resources for Promoting Policies	Gather necessary resources when promoting the policies	Government budget (100%) Funds (Budget + Investments)

Source: Ministry of Culture, Sports and Tourism, An adaptation from *Korean Game White Paper* from 2002 and 2013.

Third is investment funds, which are collectively referred to as “funds.” The government does not invest in any game business per se, even though it provides firms with the seed money through the budget and fund raising. The government then entrusts a fund management company to recruit individual and institutional investors to augment the fund. A fund usually has predetermined investment targets, and for this reason firms can invest most of the funds that are designated to the media contents area into the game industry. With stiff competition in the market, the game industry is risky, although its return can be higher than any other media content industries. Therefore, even if only one game out of several in the portfolio hits the jackpot, the high yield from that successful game would be more than enough to cover the losses from other games. For example, in the early 2000s, the government made three game investment portfolios. Among these, MU, the first Korean 3D MMORPG game software created by Webzen, a company from the Investment Portfolio 2, was a huge success, as the profit from this game alone was sufficient to make up for the previous investment losses from ten unsuccessful games.

2. Promotion History and Contents of Game Industry-Related Policies

2.1. Promotion History of Game Industry-Related Policies

2.1.1. Precursors to the Game Industry-Related Policies

Even before the government implemented the game industry-related policies on a major scale in the 2000s, precedents existed. At the time, the games were viewed more as a simple form of entertainment than an industry, and the government policies intended to restrict, not to foster its growth. Initially, the government regulations sought to restrict the arcades. The *Amusement Place Business Act*, and the *Public Health Act* were introduced in 1981 and 1986, respectively, and these laws were about limiting the places where arcades could be set up.¹ The government used these regulations to crack down on the game arcades that flourished with gambling activities. Ever since the first 35 electronic arcades opened up in Korea in 1975, unlawful arcades have always been a societal issue, as they continue to be nowadays. If one looks at the newspaper articles collected from the 1970s to the 1990s, he or she can easily recognize the seriousness of the problem (Kim, 2012a), as the following list of newspaper articles suggests:

Sep. 16, 1976. *Dong Ah Ilbo*, Unlicensed arcade in an apartment.

Aug. 14, 1979. *Dong Ah Ilbo*, Unlicensed game arcades flooding the streets.

Dec. 15, 1980. *Kyung Hyang Shinmun*, 393 unlicensed game arcades shut down indefinitely for social reform.

Sep. 18, 1982. *Kyung Hyang Shinmun*, Game arcades blossoming underground.

May 19, 1983. *Dong Ah Ilbo*, Game arcades transforming into gambling places.

May 21, 1983. *Kyung Hyang Shinmun*, All unlicensed game arcades to be shutdown nationwide.

Apr. 30, 1987. *Kyung Hyang Shinmun*, Number of game arcades grew by 65 times in past 10 years.

1. Prior to computer games, or electronic games, game machines or consoles received social attention, as the Game Room Act was enacted in 1962 to control their spread. Upon the arrival of the computer games, the traditional game consoles were replaced with electronic game machines; enactment of the Amusement Place Business Act in 1981 was a result.

Jun. 04, 1988. *Hankyoreh Shinmun*, Corrupt game arcades aggravate violence and gambling.

Apr. 28, 1993. *Dong Ah Ilbo*, Are they game arcades or gambling places?

In sum, the two decades between the late 1970s and the 1990s witnessed considerable suppression of the game industry in Korea. The older generation or parents viewed negatively even the legally operating electronic arcades, where teenagers could enter freely, because their children were addicted to the games. In the early 1980s, the government even put a temporary ban on all game arcades to prevent teenagers from entering such places.

However, these tendencies didn't totally stop the growing influences of the game industry. The 1980s was the era of the worldwide arcade game boom. The number of electronic arcades increased rapidly in Korea as well. While Korea's arcade game industry started off by copying the games imported from Japan and the U.S., it soon began securing OEM deals with Japanese arcade game companies. It was a matter of time for Koreans to develop their own arcade games as well. According to arcade game manufacturers, Sewoon and Daelim Markets, which were considered the mecca of arcade games in Korea, even began exporting game software overseas.

Game entrepreneurs also began distributing video games in the market. However, since video games require game consoles that were predominantly controlled by Japanese companies, Korean consumers had hard time importing the console devices due to the strict import ban placed on Japanese pop culture, including game consoles. Only those *chaebol* companies that had licensing contracts with Japanese suppliers could import the game consoles, although the entire industry suffered from big losses, as it was viewed as nothing more than an entertainment for children.

The arrival of PCs has promoted the development of PC games. Even though Korean developers nearly stopped developing PC games due to patent-right infringements after the 2000s, the Korean game industry possessed its capability as a game developer, given some of the huge successes in the new field. Be that as it may, real government policies that intended to promote the game industry began with the onset of the online games.

2.1.2. History of Game Industry-Related Policies

Major game industry-related policies that were promoted from 1998 to 2013 are listed below as shown in <Table 3-4>. Of thirteen policies, four introduced game industry-related agencies and departments; three were law enactments; and six were policy announcements.

We will now look at each of these policies in detail, although specific details related to each policy will be introduced in sub-sections below.

a. Establishment of the Game and Record Industry Division, the Division Responsible for the Game Industry Related Tasks within the Ministry of Culture, Sports, and Tourism (1998)

As the word “game” was used for the first time within a governmental department in 1998, an official department was created that was responsible for the game industry- related tasks. From this point on, the game industry was recognized as one that the government must nurture and foster growth. The department was renamed twice thereafter, and its responsibilities were altered several times as it went through changes. However, the word “game” has always remained in its official title. As of 2012 it was renamed the Game Content Industry Division, which now deals solely with game industry-related tasks.

Table 3-4 | List of Promoted Policies

Year	Category	Title
1998	Institutions	Establishment of the Game and Record Industry Division within the Cultural Content Industry Office at the Ministry of Culture, Sports, and Tourism
1999	Institutions	Establishment of the Game Industry Support Center, a game industry promotion institution (Changed into Game Industry Development Agency, and Game Industry Promotion Agency later on)
1999	Act	Enactment of the <i>Record, Video Content, and Game Content Act</i>
2003	Policy	Announcement of “Mid- and long-term plan for game industry (2003-2007)” - Objective: Become one of the top three game industry nations
2004	Policy	Announcement of “e-Sports mid and long-term vision”
2005	Policy	Announcement of “Gaming culture promotion plan”
2006	Act	Enactment of “Game Industry Promotion Act”
2006	Institutions	GCRB established
2006	Policy	Announcement of “2010 Game Industry Promotion Strategy Execution Report Seminar (Policy report)”
2008	Policy	Announcement of “Mid- and long-term plan for game industry (2008-2012): the Second Revolution” - Objective: Global promotion by creating new markets in the future
2010	Policy	Announcement of “e-Sports mid-, long-term development plan (2010~2014): e-Sports Innovation 2.0”
2012	Act	Enactment of the <i>e-Sports (Electronic Sports) Promotion Act</i>
2013	Institutions	GRAC established

Source: Ministry of Culture, Sports and Tourism, An adaptation from *Korean Game White Paper* from 2002 and 2013.

Before the Ministry of Culture took charge of the game industry, game rooms fell under the jurisdiction of the Ministry of Health and Welfare and arcade games were under the control of the Ministry of Industry and Energy. In the mid-1990s the Bureau of Cultural Industry was set up within the Ministry of Culture and went on to make and set in motion cultural industry promotion policies. In the late 1990s the thriving PC rooms led me to be aware of the possibility that games could develop into an industry. At that time I visited game rooms and PC rooms in person and watched what was going on there.

(Interview with the official who was in charge of game industry promotion policies at the early stage)

b. Establishment of the Game Industry Support Center (1999)

Government-affiliated institutions as government agencies are very important when it comes to policy implementation. It is practically impossible for all policies to be executed and promoted by the government alone, and therefore the role of professional agencies is key for the efficiency of policy implementation. The establishment of the Game Industry Support Center within a year after the establishment of the governmental department dedicated to the game industry shows the will and drive that the government had for nurturing the game industry. The Game Industry Support Center was later renamed twice—Game Industry Development Agency and the Game Industry Promotion Agency, respectively—before it was unified with KOCCA in 2009. Given that independent promotional institutions solely dedicated to the game industry had operated from 1999 to 2009, it can be said that they together built the foundation for today’s game industry in Korea.

Arguably, the above-mentioned agencies have successfully dealt with almost all of the tasks related to promotion of game industry. Their basic responsibilities included incubating game developers to foster growth, operating joint game development centers, offering game academies to train game industry professionals, investing in game content development, raising funds to vitalize game developments in Korea, supporting global B2B by participating in international game conferences in advanced nations, providing information about games to the public by publishing a game encyclopedia and other game industry-related data and trends, supporting game industry-related policies and regulations, and promoting game culture. The agency literally conducted almost all of the tasks that were necessary for nurturing the Korean game industry.

The industrial nurturing of games started with the establishment of game industry promotion institutions. By that time the Ministry of Information and Communication had already established industry promotion institutions and proceeded to promote industrial growth through government policies. We benchmarked what they were doing. To set the policies on the promotion of game industry, we needed about 30 billion Won. At that time no government department had ever succeeded in having the Ministry of Strategy and Finance appropriate that amount of budget to it, and of course it had had no experience of spending that much budget. In order to succeed in the campaign for the budget of 30 billion Won, I spent several months on paperwork. I also had to explain to the official in charge of the appropriation of budget what I was planning to do.

(Interview with the official who was in charge of game industry promotion policies at the early stage)

c. Enactment of the Record, Video Content, and Game Content Act (1999)

The enactment of game laws was as significant as the institutionalization of a professional promotion agency for the game industry in 1999. Until 1999 no independent set of laws for media, records, videos, and games had existed, and the new enactment grouped together all these media genres into the same category under the act, which intended to regulate such traditional big players in the game market as arcade and PC game developers. As online and mobile games began to claim bigger market shares than ever, the government kept revising the *Record, Video Content, and Game Content Act* (RVGA) until 2006 when it was finally abolished.

RVGA had several important meanings as a game industry policy. First, it was the original game- and game business-related law in Korea. Second, it established a lawful foundation for launching future projects to promote the game industry. Third, it regulated game rating processes prior to a game's release. Fourth, it displayed hostility towards illegal gaming by outlining penalties for it. Fifth, it outlined the principles that all game businesses should follow. The contents mentioned above had been revised and made more sophisticated over time, although the overall framework remained the same.

Substantially significant efforts have been poured into the revision of the rating system, which initially had two ratings only (e.g., "For everyone" and "Adults only"), which is now expanded into four ratings (e.g., "For everyone," "12 and above," "15 and above," "18 and above"). The rating system not only affects distribution but it also influences game

development. Therefore, it is a huge factor in determining the environment of the overall game market. One of the revisions introduced to the online game industry was the patch rating policy. Online games are subject to routine technological upgrades even after the full release, unlike the traditional game platforms such as arcade, PC, and video games. As update packages, patches are released constantly, making it almost impossible to renew ratings concomitantly. To ameliorate this problem, a new patch rating policy was added to the RVGA later on.

RVGA had served as the principal law for all games and game-related policies until an independent set of laws for games was developed in 2006.

The year of 1999 witnessed the enactment of the Record, Video Contents and Games Act (RVGA) that significantly included games. I had quite a difficulty having the law enacted since a loanword, such as games, had never been included in Korean laws by that time. To be sure, the word of electronic game-play plate was being used at that time, but it did not seem to be an appropriate word and I could not find a proper Korean equivalent to the word “game.” I guess it was the first time that a loanword was included in a Korean law and I still feel that the use of the word game was to the point.

(Interview with the official who was in charge of game industry promotion policies at the early stage)

d. Enactment of the Game Industry Promotion Act (2006)

The first independent set of laws for games, called the *Game Industry Promotion Act* (GIPA), was enacted in 2006. Consequently, RVGA was split into several components depending on media genres and subsumed under a new set of regulations. For example, clauses on records were merged into the *Record Industry Promotion Act*, whereas clauses on the video materials were transformed into the *Movie and Video Material Promotion Act*.

The reason behind the enactment of a separate set of laws for games was the growth of online games in the market. The revision of RVGA reflected some of the online game characteristics, although it failed to adjust to the online game market. While KMRB used to rate the games according to RVGA, people came to think that an independent rating institution for games should be established, given the quirky market conditions surrounding the game market (Kim, 2007). The plan for establishing dedicated game laws and regulations was outlined as one of the tasks in the mid- and long-term plan for the game industry promotion announced in 2003, drafted in 2004, and passed in April of 2006. The market

demanded this law faster, but the reason it took nearly three years to pass the bill was because both the opposing (GNP) and the ruling party (Uri Party) members submitted very similar bills. This type of incident was the first in history, and as a result, both bills and the existing game laws were carefully combined to establish GIPA. Therefore, the 2000s can be understood as an important era of institutionalizing game laws in Korea.

In August 2006 the Ocean Story incident occurred, causing legal mayhem between government authorities and illegal game arcades that were mostly owned and controlled by mob organizations. In October of the same year GIPA was about to take effect, only to face revision again prior to its execution due to the massive legal battle with illegal arcades.

First and foremost, by reading GIPA, one can notice that it not only defines the nature of the illegal game content but permanently forbids it from the market as well. Therefore, gambling materials are excluded from the legal protection of the game industries, despite the fact that gambling software also uses the word “game.” The rating system in effect was to verify the legality of the games before they were marketed.

Second, the clause about the general distribution system of games was not new, as it came from the previously promulgated RVGA. This clause allowed game providers and users to enjoy the supply of different genres of games in one game shop. For example, a user can switch from an online game to an arcade game, a videogame, or any type of game he desires to play. Traditionally, a shop owner had to carry licenses for each genre of the game. This issue was addressed in the new law for the sake of game users’ convenience and saving time for the business owners undergoing the licensing process. To sum it up, this revision allowed businesses to offer several kinds of game platforms in one place.

Third, the law institutionalized GCRB, which rated games prior to their release. Unlike its predecessor KMRB, GCRB specialized in games to make professional judgment on whether a proposed game would promote illegal gambling. GCRP maintains four levels of game ratings, just like RVGA. The rating system allowed the incorporation of the patch rating system to reflect the characteristic of online games. The new rating system didn’t only display age levels but it also included game content descriptions as well, like in the U.S. and Europe, with intent to provide more information to the users.

Fourth, GIPA forbids all forms of cyber currency conversion. In the online board games, cyber currency replaces real currency, giving room for illegal trading of cyber currencies for real money. The law makes it clear that it doesn’t allow such loopholes in the system, as any form of cyber currency conversion is completely banned to prevent games from turning into illegal gambling tools.

Fifth, GIPA also promises to promote game culture. This was not included previously in RVGA or any other media content-related laws. As online games grew popular, the apparent adverse effects of games became a social issue calling for appropriate measures to be taken by the government. These clauses related to game culture promotion were to serve as a foundation for the future government policies regarding game culture.

Sixth, GIPA introduces new clauses about e-Sports, which were not available in RVGA. e-Sports is a digital competition format that the new law intended to promote as online games. The e-Sports clause was prepared in the hope that it could develop into a new culture by providing the government with a foundation for future e-Sports-related policies.

e. Establishment of GCRB (2006)

As we mentioned above, there was a growing need for an institution to rate game content as online games grew in popularity. As the new game laws were enacted, they served as a foundation for GCRB, a game rating institution dedicated to games. It is universal now for games to be rated and released with age level and content descriptions to the users. However, the harbingers of the game market, including the U.S., Japan, and Europe, espoused non-governmental rating systems that didn't invite government supervision. However, Korea had government policies to make such game ratings mandatory and outlined legal consequences for violations. This separates the Korean game rating system from that of other countries. GCRB was established due to online games, but it rates not just online games but also arcade games, videogames, mobile games, PC games, and all other game platforms.

f. Enactment of the e-Sports Promotion Act (2012)

The newly enacted game laws in 2006 included a clause about vitalizing e-Sports. The government wanted e-Sports to grow as a major game genre in the market, because e-Sports has cultural values similar to physical sports despite its use of games. Even though e-Sports itself is not recognized as an official sport, there have been suggestions to foster its growth like the sports industry.

An independent law on e-Sports was enacted based on the traditional sports laws and regulations in 2012. e-Sports grew rapidly in Korea with massive support from its fans in the mid 2000's, and the *e-Sports (Electronic sports) Promotion Act* (known as the *e-Sports Act*) was enacted a few years after the supposed recession of e-Sports.

The major contents of the e-Sports Act include the following. First, there was a line drawn between professional e-Sports and amateur e-Sports. e-Sports' meteoric rise in popularity and growth meant that professional gamer squads were formed and translated

into a new trend of professional e-Sports. Pro gamers obtained legitimacy among young people to the extent that professional e-Sports generated enough wealth to support pro gamers. Even though the government chose such a path to grow e-Sports, the government decided to alter its policy and let e-Sports grow as a form of leisure with the beginning of the digital era. In short, the popularity of e-Sports among young people was one of the main purposes of the new act. Professional e-Sports games were fulfilling the role of refreshing the public's interests and attracting their participation. However, for e-Sports to become a popular digital leisure activity, expansion of amateur e-Sports was a must. Therefore, this act defined the professional e-Sports and amateur e-Sports to express desire to promote amateur e-Sports specifically.

Second, local and national groups were directed to launch e-Sports projects in a responsible manner to foster the growth of e-Sports. Activities such as research on the status of e-Sports, financial support, training a professional labor force, expansion of e-Sports competitions, and e-Sports diversification were included in the meaning of launching e-Sports events in a responsible manner. The e-Sports diversification had to do with the nature of e-Sports itself. e-Sports utilizes game materials that are copyrighted, unlike normal sports that are not owned by a specific person or a company. Also games only last as long as the market allows, unlike sports games that can last generations. New games constantly enter the market, as the preferences of people change throughout time. Therefore, e-Sports must be diversified and altered constantly for continuous growth. This still remains a fundamental issue to be resolved.

g. Establishment of GRAC (2013)

As GCRB, established in 2006, was discontinued, GRAC was established in 2013, as a new direction for the game rating system, intended to convert the system into self-censorship. Self-censorship, performed by civilians, was selected as the direction of the mid- and long-term strategies for the game industry in 2003. GCRB started its functions first as an organization that provides budget for game rating processes temporarily, as the new act enacted in 2006. It was simultaneously decided that the plan would later embrace self-censorship in full scale.

However, the illegal gambling issues hindered the debate and review process for such conversion, and it was decided that the temporary structure of GCRB, which was to last only three years, was extended for three more years. During this time, the revision of game laws allowed civilians to rate the open-market game materials, and thus open-market games ended up transferring to the online game platform. Then the government realized the need

for the management of games after their release and GCRB was dissolved and GRAC was established.

In the early 2000s the game industry promotion policies bore the fruit of a rapid growth of the game industry, and this drew a lot of public attention. The mid- to long-term plan for the promotion of game industry worked out in 2003 has since set the tone of game industry promotion policies. At that time the Minister of Culture himself had a keen interest in the plan. And we were able to enlist positive cooperation from the game industry. One thing that left much to be desired was that the policy designed to solve the problem of the speculative nature of the arcade games was not vigorously set in motion. I had the intention of solving the problem by enacting a game law and the system of gift voucher designation. Yet we did not have enough time to have the system take root in Korean society. To make matters worse, a crackdown on the arcade games set in at that time. As a result, the issue of the speculative nature of the arcade games could not be properly addressed. And the arcade game industry came to an end. I still regret that about six months could have the system settled considerably. In that case the total sale of the arcade game industry could be 10 or 20 trillion Won by now. As of 2006 it was over 8 trillion Won.

(Interview with the official who was in charge of game industry promotion policies at the early stage)

3. History and Contents of Game Industry-Related Policies

3.1. Contents of the Mid- and Long-Term Plan for Game Industry (2003~2007)

3.1.1. Background and Intentions

The “Mid- and Long-Term Plan for the Game Industry,” which outlined the objectives, directions, and tasks for the next five years of industry promotion, was announced in November of 2003, the year the Korean online game industry started to expand into the Chinese market. The government established an institution in 1999 to promote game industry policies. However, it reestablished its policies in 2003 and announced a plan, outlining

specific goals and strategic tasks. The plan served as a foundation for the framework of future game industry policies and it also affected the framework of other cultural industry policies as well.

As mentioned above, this was when the online games rose meteorically in popularity, before which time Korea was an outsider in the world game market. However, it set an aggressive goal to become one of the top three game-making nations, setting a high growth rate of 20% on average per year for the next five years starting in 2003. As a result, the market size reached 8.6 trillion KRW in 2005, and this success showed that the plan was realistic and possible. As the arcade game industry nearly collapsed after the Ocean Story incident in 2006, the market size shrank to the neighborhood of 5 trillion KRW. If such disaster hadn't taken place, the goal of reaching 10 trillion KRW in market size by 2007 would have been met.

There are instances where the government set goals that were unrealistic. Such goals could be an expression of strong desire, although they were very impractical and impossible to promote through policies. Such plans would just be for the sake of announcing, and this would result in people losing faith in the government. Therefore, it is important to set truly achievable goals for the mid- and long-term.

In the mid to late 2000s the government and the game industry promotion institutions were really dedicated to the goal of nourishing game industry. Of course I cannot say that our policy projects were all satisfactory, but our policies bore fruit as planned and resulted in the growth of domestic game industry. The current big game companies had benefitted directly or indirectly from the policies and the social atmosphere favorable to the promotion of game industry.

(Interview with the official who was in charge of game industry promotion policies at the early stage)

3.1.2. Contents

The basic framework for the growth of the game industry was set by the “Mid- and Long-Term Plan for the Game Industry” in 2003. Games were categorized into five groups according to their platforms, and since PC games were no longer developed in Korea due to illegal copying issues, only the arcade games, videogames, online games, and mobile games industries would be the target industries to be promoted. Online games, which grew rapidly in the 2000s, were the main platform to be promoted at this point. For videogame

platforms, the official videogame market was formed in 2002 when Sony PlayStation 2 was first imported and sold in Korea. However, due to the fact that PlayStation 2 is a foreign platform, it was somewhat difficult to foster its growth, although the government decided that improving Korea’s videogame development technology was the more important task.

The goal of being in the top three game industry nations within five years of launching such a plan was impossible, even though the online game market grew rapidly. The reason was that the world’s online game market only formed in the early 2000s. Therefore, the government needed to also promote the older platforms even though the online game platform was the top priority (Ministry of Culture, Sports, and Tourism, 2003).

Table 3-5 | Becoming one of the Top Three Game Industry Powerhouse Nations

		2002	2007	Growth Rate (Avg. per Year)
Goals	Market Size (Total)	3.4 trillion KRW	10 trillion KRW	25%
	Production (Shipment)	1.2 trillion KRW	6 trillion KRW	40%
	Labor Force	30,000	100,000	25
	Export Overseas	\$150 million	\$1 billion	40
	World Market Share	1.7%	5%	Same as before
Tasks	Task 1	Reinforcement of Game Industry infrastructure		
	Task 2	Reinforcement of overseas export capabilities		
	Task 3	Expansion of gaming culture base and recognition		
	Task 4	Expansion of education/training for Game Industry professionals		
	Task 5	Establishment of technology for future games and game development friendly environment		
	Task 6	Revision of the laws and regulations		

Source: Ministry of Culture, Sports and Tourism, An adaptation from *Korean Game White Paper* from 2002 and 2013.

3.2. Announcement of an e-Sports Mid- and Long-term Vision (2004)

3.2.1. Background and Intentions

e-Sports took off among young people and expanded through civilian support. Combined with broadcasting and dedicated cable channels, e-Sports grew to be a national event for the people to watch rather than a simple LAN party for some game users. Such results suggested new business possibilities for e-Sports affiliates. This combination helped make Korea the leader in e-Sports worldwide as well. The government announcement of promoting e-Sports drew envy and praise from other e-Sports communities around the world.

The government has supported e-Sports as a target industry since 2004. The government and e-Sports affiliates discussed how to nurture e-Sports for the entire year of 2004 through e-Sports forums. As a result an “e-Sports Mid- and Long-Term Vision” was announced in December of 2004, and the association announced its own strategies for growth of e-Sports.

e-Sports operate like physical sports in the sense that a game is an event. Even though the public viewed the game itself negatively, e-Sports were met with optimism. So, e-Sports became a possible solution to resolve the issues of negativity and adverse effects of electronic games. Although e-Sports may have seemed to be all business and marketing from the business perspective, it was also a new culture to e-Sports fans. The government policy initially supported the growth of the game industry as a stepping-stone for e-Sports to grow as an independent culture.

3.2.2. Contents

The ultimate goal of the mid- and long-term plan was to “establish a healthy gaming culture” and “to build a reputation as a leader in e-Sports.” The strategies to realize this goal were systemization, popularization, and internationalization. Systemization refers to improving the e-Sports environment; popularization refers to spreading e-Sports to the people; and internationalization refers to being a leader in the global world of e-Sports.

The specific tasks for systemization were establishing an official e-Sports league, standardization, an e-Sports stadium, and financially aiding domestic game developers of e-Sports games. For building an e-Sports culture, specific tasks were hosting family e-Sports competitions and e-Sports experience programs. For internationalization, some specific tasks were hosting international e-Sports tournaments, standardization of e-Sports worldwide, revision of laws and regulations to establish a legal foundation for supporting

e-Sports, and supporting the vitalization of local area e-Sports (Ministry of Culture, Sports, and Tourism, 2004).

Table 3-6 | Establishing a Healthy Game Culture and Securing a Reputation as an e-Sports Mecca

Strategies	Systemization, Popularization, and Internationalization	
Tasks	Task 1	Expansion of basic infrastructure
	Task 2	Establishment of e-Sports culture
	Task 3	Reinforcement of international cooperation
	Task 4	Revision of laws/regulations and expansion of supportive systems

Source: Ministry of Culture, Sports and Tourism, An adaptation from *Korean Game White Paper* from 2002 and 2013.

3.3. Gaming Culture Promotion Plan (2005)

3.3.1. Background and Intentions

Teenagers playing games has been viewed negatively since the days computer games were first introduced in Korea, when the arcades were still a major factor in the market. In the 2000s as the online game industry grew rapidly, the adverse effects of games became a huge social issue, important to resolve from the start when the government started to implement game industry promotion policies. If games were indeed unhealthy, the government should not have promoted it, and instead should have restricted it.

Resolving this thorny issue surrounding the game culture was named one of the major tasks in the Mid- and Long-Term Plan for the Game Industry in 2003 and with game education programs as the focal point, various projects were launched to build a healthy game culture. The announcement of the Game Culture Promotion Plan in 2005 showed that establishing a healthy game culture and preventing adverse effects of games were important tasks for the government.

3.3.2. Contents

This plan covered more in terms of game culture than the Mid- and Long-Term Plan for the Game Industry, in that it addressed building a healthy game culture, protecting the rights of users, and taking measures against illegal games. Electronic games are a common form of leisure today, legitimated and made to appear healthy. To achieve this goal, the

strategic direction was to increase the positive effects of the game, while decreasing the negative effects. To that end, four types of strategic tasks were announced: establishing a healthy game culture and environment, reshaping the negative perspective of the people, game users' rights, and reinforcing regulations on unhealthy and illegal games (Ministry of Culture, Sports, and Tourism, 2005).

3.4. Announcement of the “2010 Game Industry Promotion Strategy Execution Report Seminar” (2006, Publication of policy report)

3.4.1. Background and Intentions

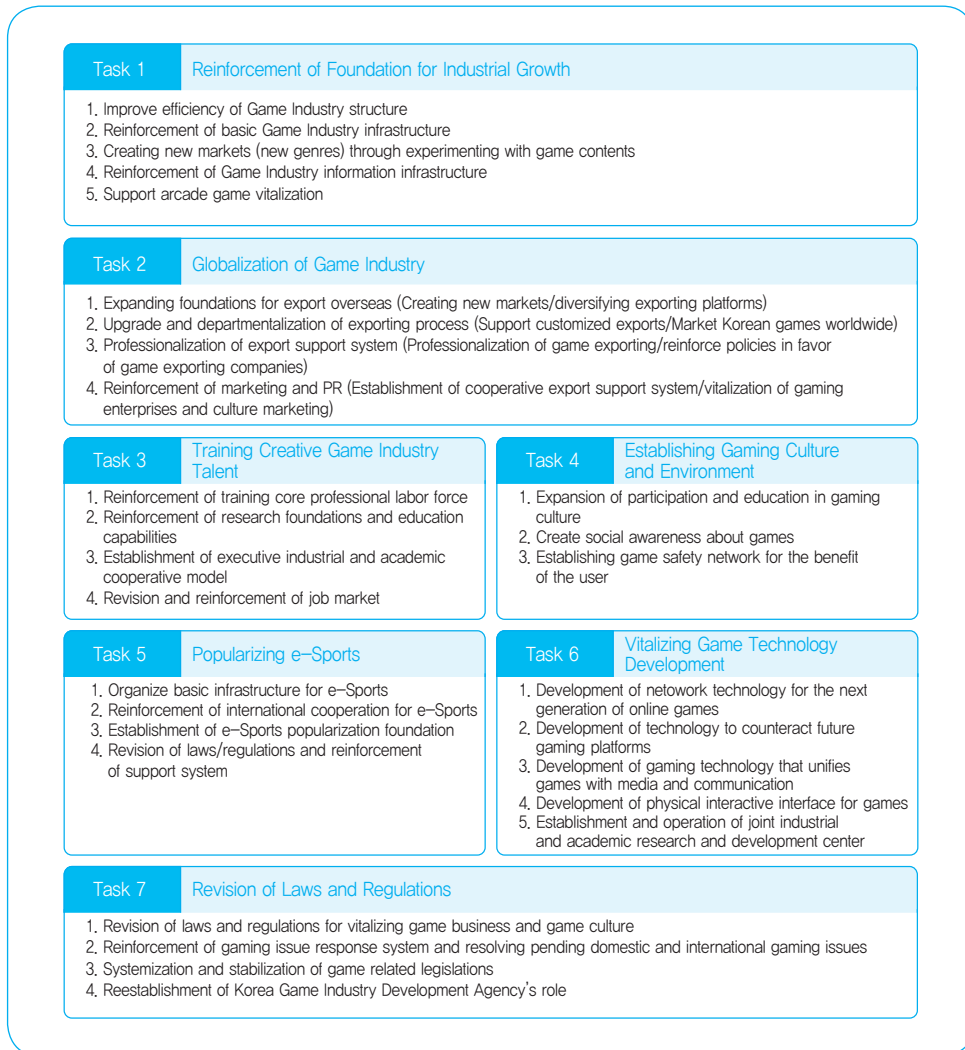
Growth of the online game industry led to rapid growth of the Korean game industry in the 2000s, and there was a need for new policies and tasks by reviewing the current policies after the new game laws were established in 2006. This led to the establishment of the 2010 Game Industry Strategy Commission. Within this organization, nearly 1,000 professionals debated about 14 different areas of the industry and suggested tasks intended to foster expansion of the game industry.

In August of 2006, their conclusions were published as a policy suggestion report, and a public announcement was made. The plan held significance in the fact that various tasks were included and some future policy items were identified.

3.4.2. Contents

The 2010 Game Industry Promotion Strategy Execution Report inherited the vision of the 2003 plan, which aimed to reach the top three in the world in terms of size of the industry. To achieve this goal, the policy aimed to strengthen global competitiveness and build a reputation as a pioneer and a leader both domestically and internationally. Strategic goals such as globalization, reinforcement of industrial infrastructure, acquisition of advanced technology, establishment of laws, and establishment of a healthy game culture were named. To achieve these goals, seven tasks were named: reinforcement of the foundation for industrial growth, globalization of the game industry, training creative game industry talent, establishing the game culture and environment, popularizing e-Sports, vitalizing game technology development, and revision of laws and regulations. There is a total of 26 minor tasks, 101 specific tasks, and 316 business items, all of which were included in the game industry promotion policies (Game Industry Strategy Committee, 2006).

Figure 3-1 | Reinforcement of Foundation for Industrial Growth



Source: Committee of Game Industry Strategy, *2010 Game Industry Strategy Execution*.

3.5. Announcement of the “Mid- and Long-term Plan for the Game Industry (2008~2012): the Second Revolution” (2008)

3.5.1. Background and Intentions

The plan announced in 2003 was promoted for five years, to end in 2007. The second mid- and long-term plan was announced in 2008. When the first plan was being established back in 2003, the online game industry was just starting to grow. Therefore, the first plan focused more on accelerating that growth. However, things were different in 2008. In 2007 the online game industry, which had grown rapidly over the years, started to slow down. For example, the arcade game industry nearly collapsed due to the overflowing illegal gambling activities in 2006, and the market share of Korean online games in the Chinese market decreased somewhat. Consequently, the overall growth rate of the Korean game industry declined sharply. Also, the mobile game industry, which seemed so prominent in the early 2000's, was unable to grow as expected. Then the rumors of the recession of the game industry started to circulate.

There was a need for a new direction in the game industry promotion policies. Such intent is expressed by the subtitle “the Second Revolution” of the plan announced in 2008. The reason that Korea was able to rise to the near top of the world game market was because Korea came to dominate a new market for online games. If this was the first revolution, the Korean game industry needed the second revolution to continue its growth. This second revolution was to find a new environment or create a new market based on advancements in ICT.

3.5.2. Contents

The second plan aimed to “lead the global game market by creating a new market in the future.” Its motto was “all games lead to Korea,” which clearly expressed a strong desire to make even a bigger leap than before. The goal was to reach 10 trillion KRW in game market size, 3.8 billion USD in exports, and 10% world game-market share. There were seven tasks to be performed to achieve these figures: (1) strategic expansion into the global market, (2) establishment of the foundation for future generation of games, (3) acquisition of creative labor force/pioneer technology, (4) creation of value in game culture, (5) improvement of distribution environment, (6) becoming a leader in the world of e-Sports communities, and (7) unification of regulations and systematization of policies (Ministry of Culture, Sports, and Tourism, 2008).

Table 3-7 | Comparison of Growth Rate in 2007 and 2012

		2007	2012	Growth Rate (Avg per year)
Goals	Market Size (Total)	5 trillion KRW	10 trillion KRW	13%
	Production (Shipment)	3 trillion KRW	6 trillion KRW	15%
	Labor Force	30,000	100,000	25%
	Export Overseas	\$800 million	\$3.6 billion	35%
	World Market Share	3.5%	10%	Same as before

Source: Ministry of Culture, Sports and Tourism, An adaptation from *Korean Game White Paper* from 2004.

Table 3-8 | 2nd Mid- and Long-term Policy Vision Tasks (2008)

<p><Task 1> Strategic Launch into the Global Market</p>	<p>1-1. Massive expansion of bases for supporting export overseas 1-2. Expansion of domestic and international game business interaction 1-3. Reinforcement of overseas network and response system for common global issues</p>
<p><Task 2> Building the Foundation for the Future Generation of Game Development</p>	<p>2-1. Solidification as a global game mecca through future oriented game development 2-2. Overall review of investment into Game Industry 2-3. Support Game Industry management efficiency improvement and reinforcement of competitiveness for each gaming platform 2-4. Establishing the environment and vitalizing creative game content development</p>
<p><Task 3> Acquisition of Creative Labor Force and Pioneer Technology for the Future</p>	<p>3-1. Advancement of Game Industry labor force education 3-2. Reinforcement of creative core talent and cooperation between industrial and academic groups 3-3. Establishment of training institution both domestically and abroad, and expanding their connections 3-4. Systemization of support for Game Industry job hunt 3-5. Reinforcement of gaming technology related policies and researches 3-6. Support the development of basic game technologies and physical interactive game technologies 3-7. Support the development of futuristic game platforms and technologies</p>

<p>〈Task 4〉 Value Creation for Gaming Culture</p>	<p>4-1. Vitalization of game literacy and expansion of education programs on games 4-2. Expansion of participative culture to familiarize games with the public 4-3. Establishment and expansion of game usage consultation service network 4-4. Vitalization of global game cultural exchange festivals 4-5. Expansion of academic game groups and reinforcement of global game system</p>
<p>〈Task 5〉 Advancement of Game Distribution Environment</p>	<p>5-1. Improvement of distribution system for reasonable distribution service for each game platform 5-2. Systemization of new distribution service structure and reinforcement of global distribution system 5-3. Systematic establishment of policies for game user rights</p>
<p>〈Task 6〉 Leader in World e-Sports</p>	<p>6-1. Establishment of e-Sports cultural complex 6-2. Global branding of e-Sports 6-3. Advancement of domestic e-Sports organizations 6-4. Reinforcement of e-Sports policies</p>
<p>〈Task 7〉 Systemization of Game Unification Environment Policies and Regulations</p>	<p>7-1. Advancement of globalization of game rating system 7-2. Revision of laws/regulations for responding to changes in future games environment 7-3. Reestablishment of Game Industry policy research organization 7-4. Reinforcement of cooperative system between games industries in different nations</p>

Source: Ministry of Culture, Sports and Tourism, An adaptation from *Korean Game White Paper* from 2008.

3.6. Announcement of 〈e-Sports Mid- Long-term Development Plan (2010~2014): e-Sports Innovation 2.0〉

3.6.1. Background and Intentions

As the “e-Sports Mid- and Long-Term Development Plan” was announced in 2014, the government increased its financial support for e-Sports. Presidential amateur tournaments were held, while numerous e-Sports associations were created under Korea’s leadership. Private firms jumped on the bandwagon, creating many other e-Sports projects. However, Korea was slow in switching over to newer games for e-Sports because most e-Sports pro gamers were still stuck on StarCraft 1. During this stall, the public’s interest in e-Sports started to decrease. Even though there were 12 pro gamer squads being sponsored by *chaebol* firms at first, other

squads lost sponsorship from the big corporations. Also, the game broadcasting station that served as the nucleus in Korean e-Sports expansion, MBC Game, was shut down. It seemed that e-Sports collapse, which rumors of which had started around the late 2000s, was imminent.

In this time of turmoil, the e-Sports Mid- and Long-Term Development Plan was announced in 2010. e-Sports needed a new direction for the next big leap, just as the game industry did. This plan intended to elevate Korean e-Sports to the top once again.

3.6.2. Contents

The e-Sports Mid- and Long-Term Development Plan envisioned e-Sports as a national leisure entertainment. It set strategic directions to blend e-Sports in daily life, connect e-Sports with industries, and globalize e-Sports. The presidential amateur tournament announced the launch of this new plan, and it intended to turn e-Sports into a national sport. To achieve this goal there were five tasks: (1) expansion of e-Sports as a national leisure activity, (2) strengthening the connection between e-Sports and the game industry, (3) strengthening the global leadership of Korea within the e-Sports world, (4) establishment of an environment to sustain e-Sports growth, and (5) branding revolutionary model e-Sports KeG as a national brand (Ministry of Culture, Sports, and Tourism, 2010).

Table 3-9 | Objectives of e-Sports Mid, Long Term Development Plan

		2010	2014
Goals	Number of e-Sports games in Korea	23	60
	Number of globalized e-Sports games	5	20
	leSF member nations	15 nations	50 nations
	Participants in amateur tournaments	300,000	1,000,000
	Number of pro gamers	400	1,000
	e-Sports market size	100 billion	500 billion

Source: Ministry of Culture, Sports and Tourism, *Korean Game White Paper* from 2008.

Table 3-10 | Tasks for Policy of Mid and Long Term Advancement of e-Sports

<p>〈Strategy 1〉 Expansion of e-Sports as a National Leisure and Entertainment</p>	<p>1-1. Establishment of daily life friendly space for e-Sports and support-related programs 1-2. Support life cultural e-Sport activities 1-3. Expanding and strengthening amateur e-Sports organizations and systems</p>
<p>〈Strategy 2〉 Strengthening the Connection between e-Sports and Game Industry</p>	<p>2-1. Support game content development for e-Sports 2-2. Vitalization of testbed for diversifying e-Sports events 2-3. Increasing the number of globalized e-Sports games</p>
<p>〈Strategy 3〉 Reinforcement of Global Leadership in e-Sports World</p>	<p>3-1. Reinforcement of the role as the world e-Sports mecca of leSF 3-2. Sponsor international e-Sports tournaments such as Korea-Japan e-Sports Universiad 3-3. Strengthening e-Sports diplomatic capabilities</p>
<p>〈Strategy 4〉 Establishing the Environment for Sustaining e-Sports Growth</p>	<p>4-1. Operation of e-Sports conflict mediation organization and establishment of laws and regulations for such conflicts 4-2. Systemization of e-Sports personnel and their career management 4-3. Establishment of policies for e-Sports 4-4. Establishment and operation of e-Sports complex</p>
<p>〈Strategy 5〉 Branding KeG, the Revolutionary e-Sport Model as a National Brand</p>	<p>5-1. Reform with KeG and make KeG as our foundation for mid/long term advancement of e-Sports 5-2. More exposure and diversity through connecting KeG with educational, local, and industrial organizations</p>

Source: Ministry of Culture, Sports and Tourism, *Korean Game White Paper* from 2010.

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The Case of the Game Industry

Chapter 4

Details and Current Situation of Game Industry Promotion Policies

1. Outlines of the Policies and Cases of Arbitration of the Conflict among Stakeholders
2. Analysis of Success and Failure Factors of Game Industry Policy

Details and Current Situation of Game Industry Promotion Policies

1. Outlines of the Policies and Cases of Arbitration of the Conflict among Stakeholders

1.1. Outline

An effective promotion of government policies hinges on a clear specification of, and an accord among, the government office in charge of them, available resources, and the method of carrying them out. In this section we will examine the promotion of the game industry promotion policies from that point of view.

1.1.1. The Authorities Concerned: Promotional Institution Dedicated to the Growth of the Game Industry

Even though the government is supposed to be in charge of the implementation of its policies, it tends to have difficulty doing so because of lack of sufficient personnel and for other reasons. This gives rise to the need for public agencies that are entrusted with implementing government policies. Each ministry of the Korean government has such agencies. Those agencies have been instrumental in promoting government policies.

An office in charge of the game industry was created within the Ministry of Culture, Sports, and Tourism, and a government agency dedicated to the game industry-related tasks was established as a result, the Game Industry Support Center. It was active for approximately ten years, from 1999 to 2009. Its name changed twice over time, to the Game Industry Development Agency and the Game Industry Promotion Agency. Its tasks related to efficient policy enforcement.

The agency was responsible to carry out the projects of the government to expand the game industry. For that purpose, it either supported overseas export of Korean games or helped increase their competitiveness in the global market. The support for overseas export involved marketing and providing information on foreign markets for domestic game manufacturers. Marketing involved financially aiding overseas game exhibitions and B2B task such as connecting Korean game developers with other foreign companies for business meetings. The service of providing information on foreign markets was to lend assistance to those Korean game developers who lack resources and time to conduct market research overseas. In addition, this agency had branch offices overseas that have proved crucial to the export of Korean games.

The primary task of the agency was to nurture the growth of domestic enterprises, which included incubating startups, fostering corporate growth, indirect assistance through investments, direct assistance through participation in game development process, selecting outstanding Korean games for further improvement, and so on. Another important task was to train a professional labor force, and thus the agency established game academies to produce the workers needed by the game industry in Korea. The game academies operated on a quarter system (eight quarters over two years), the government subsidizing a certain percentage of the tuition for all students. The employment rate of the graduates from these academies was nearly 100%. The academies clearly played a key role in generating a professional labor force during the early years of game industry promotion.

In addition to lending service to the game industry, the agency had to carry out its own policies. Games rely heavily on technology, so much so that there needs to be a research center to help make decisions about such policies that heavily involve game technology. Besides providing such a service, this research center aimed to develop game engines what would be available to all domestic game developers.

The agency was further entrusted with the responsibility to assist the government's policy-making and respond to the demand of the industrial circles for data and other services. Some of its tasks involved the publication of a game encyclopedia and game industry trend reports, publication of research on game industry issues, establishment of mid- and long-term plans, establishment of laws and regulations, and development of new policies. This responsibility required the agency to establish its own direction and policies. Also, the agency was required to monitor the market constantly so that it could meet the need for policy-wise responses to any serious change in the market.

After all, the public agency in charge of the game industry lent full support to the government and translated government policies into reality. The key to the success of such an undertaking was its professionalism. The government's principle of job rotation (normally, an official's special field changes every two years) hindered government officials from developing expertise in game industry.² This made all the more important the existence of public agencies that were equipped with proper expertise. The principle of job rotation did not apply to those agencies. On the basis of their professionalism, therefore, the public agencies (the Game Industry Support Center, the Game Industry Development Agency, and the Game Industry Promotion Agency) were able to implement diverse government policies.

From 1999 to April of 2009, when these public agencies were active, the Korean game industry grew rapidly. The online game developers who were just starting up back then have become the leaders in Korean game industry, and our game industry was able to gain recognition in the world market. Even though the arcade game industry in Korea nearly collapsed because of the Ocean Story incident in 2006, the online game industry kept on growing at a rate of double digits every year. Also, the government agency coped with the negative attitude of the people towards games and other sensitive social issues actively to defend the game industry.

Another role of public agencies is to serve as a bridge between the government and the market (civic society). In other words, it should serve as a communication channel between the government and consumers. This could go a long way toward encouraging the government's policy-making and eliciting a voluntary participation in government's efforts on the part of the private sector. Although such a role is not normally brought into view and is not specified in government policies, it is an important role that helps render the implementation of government policies more persuasive.

The public agency described above was established and operated solely for the purpose of supporting game industry. There is another public agency that has a close relationship with the game industry, the Game Rating Board (GRB) which was established in 2006 with the enactment of new game laws. It rated the contents of each game and classified them into grades prior to their release. In 2013 GBR was abolished and another public agency, the Game Rating and Administration Committee (GRAC), was established in its place, confined to the role of keeping a watch on games after their release.

2. Normally, an official's special field changes every two years.

The rating of games is common to most countries of the world. Nearly all countries give age ratings to games before they are released. A distinctive feature of the Korean rating system is that it is regulated by law, while in other countries it is carried out voluntarily by civilian organizations. Such civilian organizations differ from public agencies in that the latter execute affairs as proxies for the government while the former do not. What the latter do, therefore, actually amounts to censorship. The former are normally subsidized by the government and, as such, are public by nature; nevertheless, they are fundamentally independent of the government.

The rating agency is also in charge of overseeing whether the games it approved are being distributed and used in the ways for which they are intended. It is also in charge of determining whether a game is speculative or not. Speculative games may well be treated as gambling and this justifies their filtering through the rating system. The issue of the speculative nature of a game has close implications for the post-release watch on games. That is, many games that have already obtained the approval of the agency tend to be misused for speculative purposes. This calls for a close watch on those games properly released.

1.1.2. Resources: Laws and Regulations

Laws and regulations are central resources when it comes to policy enforcement because they can create favorable business environments without costing much budget. The power to make laws and regulations belongs to the legislature and the government. Let us take a close look at the regulations that responded effectively to market changes.

a. Game Industry Promotion Act

In April of 2006 the *Game Industry Promotion Act* was passed. This act was practically the first independent law for games in the world, although the first time that games were subject to legal regulation was when RVGA was enacted in 1999. Records and videos are very different from games, and online games in particular cannot be treated in the same way as these interactive media. The enactment of the above law was in part a response to the requests from the game industry, but it was essentially the government's own initiative. That is, the government felt the need to create a legal foundation, by having an independent law for games legislated, on which to boost the growth of game industry.

The law enacted in 2006 has a total of 48 main provisions and some supplementary provisions. This law had been revised seven times until 2013, quite frequently for a normal law, because games are very sensitive to technological advancements to which the game

market responds swiftly. Therefore, a frequent revision was unavoidable to adjust to the ever-evolving game market and have the law remain relevant. The following are major contents of the revised game law (current law) as of 2013.

- Definition of game related vocabulary: Illegal game material, Categories of the game industry, Game material provider facilities, etc.
- Establishment and mandatory execution of government's overall game industry promotion plan
- Promotion of game industry: Establishment, professional labor force, development of technology, cooperative development and research, standardization, establishment of order in distribution, international cooperation and overseas expansion, industrial status investigation
- Promotion of game culture: Establishing the foundation for game culture, prevention and resolution for overindulgence, support for education on game usage, protection of intellectual property rights, protection of user rights (There was a clause about e-Sports vitalization but it was deleted as e-Sports law was established in 2013)
- Categories of rating: The grounds for establishment and operations of GCRB, the standards and process of the game rating system and related content, entrustment of game rating tasks, guidelines issued to and withdrawal of entrustment from the entrusted institutions
- Establishment of business order: Registration of game developers, licensing of game suppliers, guidelines for game businesses, post-release management, restriction of distribution for illegal games, mandatory game rating display, restriction on advertisement, license revocation, closure and trash collection, fines and penalties, etc.
- Supplementary provisions: Authority to establish associations, prize money, entrustment, etc.
- Penalties: Legal punishments, fines, etc.

b. e-Sports Promotion Act

e-Sports has a very close relationship with the game industry because it uses games to host tournaments. e-Sports in Korea started off similar to a LAN party. However, in 1999 when the cable channel Tooniverse broadcast an e-Sports tournament for the first time, e-Sports in Korea was fused with broadcasting and started to grow at a massive rate. In 2004 e-Sports was selected as one of the areas in need of expansion by the government. By December of that year, an e-Sports Mid- and Long-Term Vision was announced to officially initiate the e-Sports promotion policies. Testament to its popularity, 100,000 people showed up to the final match of a professional league, which was held at Gwangaelli Beach, Busan in 2004.

Afterwards, the establishment of e-Sports arenas, corporate sponsorship of every pro gamer squad, establishment of an Air Force gamer squad, and establishment of IeSF took place, as e-Sports kept growing. However, e-Sports in Korea failed to switch over to the newer games at an appropriate time and so they faced a sudden collapse, as sponsor companies' economic problems culminated in the dissolution of certain pro gamer squads. Also, in 2012, the biggest e-Sports broadcasting station MBC Game was shut down, causing a major disaster to e-Sports. However, e-Sports recently switched over to LOL and StarCraft 2 and stabilized the market. Currently, e-Sports in Korea is preparing for a big leap once more.

Enacted at the juncture of looming crisis, the 2010 e-Sports Vision and the 2012 e-Sports Promotion Act were policies meant for a second leap of e-Sports in Korea after it nearly collapsed following its golden age since the 2004 e-Sports vision announcement. The game laws enacted in 2006 addressed the vitalization of e-Sports, and this established a legal ground for promoting them. Afterwards, there were requests from the game industry to make a separate set of laws for e-Sports, and in December of 2012 the e-Sports Promotion Act, the world's first such law, was enacted. The basic structure of the e-Sports Promotion Act follows the format of the traditional law on sports industry promotion. It is composed of 18 main provisions and some supplementary provisions. The following are the contents of e-Sports Promotion Act.

- Definitions of e-Sports vocabulary: Distinction between professional e-Sports and amateur e-Sports, e-Sports facility, e-Sports athlete, etc. (Professional e-Sports refers to professional e-Sports leagues and amateur e-Sports refers to amateur e-Sports leagues)

-
- Liabilities of e-Sports promoters, e-Sports: Responsibility to promote central government and local government policies, promotion of local area e-Sports, establishment of basic plans, status reports, financial aid, etc.
 - Organization: e-Sports Consulting Commission, e-Sports Industry Support Center, etc.
 - Support: Training e-Sports personnel, host/aid e-Sport tournaments, support e-Sport diversification, support international exchange and overseas marketing, etc.
 - Nurturing both professional e-Sports and amateur e-Sports

c. Major Regulatory Systems in the Game Industry

There are various legal provisions that affect the game market: regulations on the game rating system (considered the most important); revised regulations tailored to market change; responses to and preemption of social problems of adverse effects of games; and restrictions on speculative misuse of game contents. In what follows we will take a close look at each of these provisions.

a) Revision of the Regulatory System Tailored to the Change in the Game Rating System and the Market

The games rating system serves two purposes: to provide accurate information to the users about game content, and to protect teenagers from playing games with inappropriate content. This regulation is universal throughout the world. The only difference is the age level difference between nations. ESRB of the U.S., PEGI of Europe, and CERO of Japan are the most recognized rating institutions in the world. The age level classification of the Korean rating system is the same as that of Japan, while that of the U.S. has influenced the Korean description of game content. While the U.S. game content description is provided in text form, the Korean game content description uses emoticons, like Europe.

The biggest difference between the Korean games rating system and other rating systems is that most of the latter are subject to civil censorship, while the Korean system is subject to legal regulation. This means that if a game is distributed without being given a rating, the game would be considered illegal, and thus subject to legal sanctions. Even though other systems operate under civil censorship, practically all the games in the world have to receive a rating of some sort. Game rating in foreign countries, however, is a matter of civil agreement rather than a legal issue.

The Korean system of rating games according to age level has changed several times, and there are four levels now: for everyone, 12 and above, 15 and above, and 18 and above (adults only). Arcade games are not subject to this system of classification; instead, they are classified into two levels: “for everyone” and “18 and above.” There is also the category of “Rating Denied.” If a game receives this rating, it can be neither distributed nor serviced legally.

With deepening globalization, this rating system has proved far less than perfect. When games are accessed through foreign game websites, the online games that operate on servers located overseas are difficult to be rated. The 2003 game industry plan had it that the rating system would eventually come under civil censorship. As a speculative misuse of games aroused a serious concern in Korea in 2006, however, the government had to halt the plan of converting the rating system to civil censorship.

In the meantime, the need to reform the current games rating system was brought to light by changes in game market. As of the 2010s, Korea has entered the era of smartphones, and as application stores are globalized, the Korean rating system has come to conflict with the global service standards under different rating systems. Therefore, the law was revised so that the application store operators rate their own mobile games in order to resolve this conflict. To sum it up, the rating institution entrusts its task to civilians, which could serve as a foundation on which to build a rating system of civil censorship. Afterwards, online games also received the same treatment as mobile games and furthermore, GCRB was dissolved and merged into GRAC, which focuses more on post-release management of games.

The games rating system can be authoritarian or informative in nature, depending on how it is operated. The problem is that the basic nature of the games rating system has serious implications for games market. Therefore, the games rating system is the most basic factor that affects the development, usage, and business environment of games.

b) Regulatory Systems for the Preemption of Adverse Effects of Games

The adverse effects of playing electronic games have been a matter of serious concern from the start of the computer game era. Games are not available only to a specific age group, and it is mostly teenagers whose excessive games-playing habits have attracted the public’s attention because this group is supposed to focus more on their studies than games. Thus the parents of teenagers normally are not favorable to games. Also, the computer game was the first digital content entertainment medium, created in the 1970s. This means that older generations had never come into contact with it during their formative years. In other words, the parents and their kids were miles apart in terms of their understanding

of games. Parents who haven't played games at all tend to have a poor understanding of games; consequently, they are likely to be at a loss when it comes to directing their children about the usage of games.

“The Regulation on Preempting Adverse Effects of Gaming” addresses the two issues just mentioned. It was designed to deal with both the negativity and the adverse effects of games at the same time. The adverse effects emerged as a major social issue in 2002. The press published many stories related to the adverse effects in a consistent manner, and the government felt the need to nurture and guide the growth of the game industry. Therefore, the government began to deal with the adverse effects of games in 2002. The game industry promotion plan in 2003 declared combating the adverse effects of games as one of its major goals. In 2005 the government also announced a plan for building a healthy games culture, the cultivation of which would be the new direction of government policies and would be an effective way to prevent and battle the adverse effects of overindulgence in electronic games.

There was an on-going discussion about how to prevent and resolve the adverse effects of games since 2002. The new games laws enacted in 2006 included a separate section on games culture, specifying the tasks and related regulations designed to prevent the adverse effects. We will take a close look at the preventive measures against overindulgence, together with the Shutdown Policy which was enforced in 2011.

Preventive Measures against Overindulgence in Game-playings

User authentication and (in the case of minors) securing agreement of those with parental rights and responsibilities for minors are necessary not only for access to online games but for access to the internet in general. The Game Industry Promotion Act stipulates that any game-specialized content is required to put on the caution statement against excessive use of game products and show the time spent on playing games on the electronic screen.

On the basis of the above Act, details of regulatory measures are specified in the accompanying Enforcement Decree. First of all, game products are divided into those that should be made to preempt excessive immersion and those that are exempted from this requirement. And concrete ways of user authentication and parental agreement are specified. Direct preemptive measures against excessive indulgence in games specify the wording of the caution statement, how to post the statement and how to display the time spent on playing games. The caution statement and the elapsed time should be displayed over 3 seconds per hour.

There have been conflicting views on the measures to be taken to deal with adverse effects of playing games. Some have advocated direct regulations and restrictions, while others have called for sustained and concerted efforts to prevent overindulgence in playing games, such as preemptive education on the part of parents, the government and game companies. The office in charge of game industry within the Ministry of Culture, Sports and Tourism has been in favor of the latter view.

The Shutdown System

The social problem caused by games mostly drew attention to their speculative nature since 2006. Then, other adverse effects of games reemerged as a serious social problem in 2010. Although there were no data to prove whether the adverse effects at issue actually increased or not, the media shed light again on the presumed harmful effects. Under these circumstances, the shutdown system emerged as a solution to the adverse effects of games. This system keeps minors from playing online games from midnight until 6 am. The press called it a Cinderella Act. The system was originally proposed to the National Assembly in 2005. At that time the proposal appeared to contain some unconstitutional elements and to fall short of coping with the adverse effects; it thereby failed to be enacted and was thus discarded. The shutdown system was proposed again to the National Assembly in 2010. Although it had virtually the same content as the previous one, it was successfully enacted as a law.

In May 2011, the shutdown system was stipulated in the Juvenile Protection Act instead of in the Gaming Act. A new separate chapter, titled “Prevention of Juvenile Internet Game Addiction,” was included in the act. The point of the chapter is that minors under 16 are not allowed access to internet games from midnight to 6 a.m. and the game companies are required to take actions to block juvenile access to internet games during that time. This system that prevents minors’ access to internet games during a certain period of time is called the “compulsory shutdown system.”

The Ministry of Culture, Sports and Tourism at first suggested the “selective shutdown system,” which controls children’s game playing time on the basis of the consent and requests control by parents instead of the compulsory system that prevents playing games from the start. Originally, the selective shutdown system was one of the autonomous measures proposed by the game industry to preempt overindulgence. Unlike the compulsory system that limits game playing time from midnight to 6 a.m., the selective system actually limits game playing time at any time of a day on the basis of parental consent and request. By contrast, the compulsory shutdown system unconditionally restricts game playing time by law regardless of parents’ opinions.

Limitation of Juvenile Entry to Game Rooms

The above preventive measures were taken on the basis of government policies and were prompted by the growth of online games. In fact, prior to the advent of those preventive measures some measures were taken to restrict juvenile game playing. The focus of those measures was on the limitation on the time when juveniles can enter game rooms and internet cafés (PC rooms) where minors can play computer games.³ Since those measures were enforced from 1999 when the Record, Video, and Game Software Act was enacted, the measure can be regarded as the first system that limited juveniles' game playing.

Regulations Concerning the Speculative Nature of Games

Speculative misuse of games has been a pending issue from the start of the game industry. As to win or lose is what a game is all about, games are ever subject to such misuse. Once games are thus misused, they are no longer games. In addition, as the gambling industry cannot do its business without government's license and as such is under strict government regulation in Korea.

Particularly, the Ocean Story scandal that erupted in 2006 provided an opportunity to bring home to the people in general the possibility that all kinds of games could become a gambling tool. Such a perception has been a hindrance to the growth of game industry. China had once banned arcade games for a long time due to their excessive speculative misuse. And the arcade game industry itself collapsed in South Korea for the same reason. As with Ocean Story, the speculative misuse of games could lead to the demise of a game industry. Unless the government copes with the issue of the speculative misuse of games, therefore, the government policies designed to promote the development of the game industry can hardly elicit the support of the people.

Since the advent of online games, card games, which are so-called web board games including poker and flower cards (*hwatu*) games like Go-Stop, have always given rise to the issue of the speculative misuse of games. Since cyber money is used instead of currency in those games, playing such games cannot be regarded as a gambling activity. In case the cyber money can be exchanged for currency, however, it is really hard to tell the difference between the web board games and online gambling. Unless addressed properly, the speculative misuse of games could hinder the realization of the possibility that the expansion of online games could be an important occasion for capital accumulation at the early stage of the growth of game industry.

3. The curfew for juveniles can enter game rooms and PC rooms is from 9a.m. to 10p.m..

The institutional measures taken thus far by the Korean government to preempt or prevent the speculative misuse of games can be summarized as follows:

- First, the speculative nature of a game is assessed when it goes through the rating process, which could result in a denial of rating
- Second, prohibition of money exchange: prohibit exchanging the game rewards for currency
- Third, limitations on the type of game prizes: limit the types of game prizes earned from arcade games
- Fourth, web board game playing and service manual: prevent money exchange for web board games
- Fifth, guidelines for game business: prohibit the encouragement of speculative misuse of games by players

1.1.3. Policy Research Projects

Policy research is an essential requirement for successful policy-making and policy-implementation. Policies can be made and implemented solely on the basis of a sufficient preliminary research. That is why policy research is vital to policy implementation.

Policy research can be divided into three areas: First, responses to pending issues of the game industry; second, improvement in game-related systems; third, production and management of game-related data such as games white papers.

a. Response to Pending Issues of Game Industry and Policy Research

The game industry is always fraught with a host of issues, such as rapid change in the games market, the existence of various stakeholders with conflicting interests, wide gaps in the social perception of games, and illegal use of games. Such intractable issues call for either short-term or long-term responses from government. Policy research is essential to coming up with proper responses to the social problems.

Policy research entails intensive studies on pending issues with a view to making and eventually implementing optimal policies. In the case of repeated deliberation over the same game products, for instance, the issue can be successfully dealt with only when clear grounds for the direction and method of deliberation and sufficient data on the issue are provided. Without such grounds and data, the resulting policies would not be very

convincing and are likely to end in failure. In short, policy research is vital to the process of policy-making in that it provides the grounds for the process.

Research into diverse pending issues may produce mid- or long-term plans, which designate specific tasks that can be carried out over time. That is why the mid- and long-term plans become a milestone for policy implementation. Such plans suggest the short-, mid-, and long-term issues, problems and solutions. Therefore, it is necessary to conduct preliminary research to analyze the pending issues and prescribe appropriate solutions to them.

Mid- and long-term plans are meaningful only when their objectives are reasonably attainable. Otherwise, the plans are likely to fail to win the confidence of the people, which would in turn lead to the loss of popular trust in policy implementation. In other words, policy research helps establish proper policies with feasibility in terms of content, and provides available grounds and data. That is why policy research plays a pivotal role despite the fact that the research is less tangible than the projects.

In Korea policy research on the game industry has been conducted by a task force established within a research institute specializing in the game industry. The team has published over ten books including white papers, political reports, trend reports, and ten political reports on a monthly basis. The research results have been of critical importance during the process of policy-making and policy-implementation. The policy research that cannot be reflected in policies and policy projects are meaningless.

b. Improvement in Game-Related Institutions

Policy resources available to government institutions are of crucial importance in that they determine policy environment. In this regard, policy research is necessary to improve the laws and institutions. Task force teams created by market demands conduct policy research for months at a minimum to one year at the maximum. Unlike the response to the issues and problems that require short-term policy research, the research on policies related to institutional improvement need a sufficient amount of time. Institutional improvement that has not been preceded by sufficient research will give rise to serious problems after the improved institutions are set in motion. Institutional improvement, therefore, could end up in failure, and even lead to a depression of the entire industry (Kim, 2012).

Proper research on institutional improvement should be based upon a study of overseas as well as domestic institutions. The research on overseas institutions is necessary to enable Korean companies to model their efforts after foreign institutions and obtain information in

preparation for entering foreign markets. The research on foreign institutions can develop into research on overcoming institutional obstacles of foreign markets, in case the access to foreign markets by domestic producers is hindered because of institutional obstacles.

c. Production and Management of Game Industry Data

The key to the policy research on mid- and long-term plans and on institutional improvement is the availability of data on the game industry. The government cannot establish a plan for the growth of game industry without knowing about the industry, and cannot support domestic companies' penetration into foreign markets without being informed of how they are faring currently in foreign markets. Therefore, it is extremely important to secure data that can be the foundation for the establishment and implementation of policies.

Collecting policy data cannot be done within a short period of time, and a certain amount of resources is necessary for it. Many people are often hesitant to assign resources to collecting data for policy considerations because they do not properly understand the significance of data. Sustained accumulation of data can have a powerful influence on policy-making and policy-implementation.

Proper data collection should be preceded by policy research which would in turn identify the necessary data. Furthermore, some measures need to be taken to make and accumulate necessary data. Publication of white papers is a key to collecting basic data on the current situation of the game industry. The white papers on the game industry have been published since 2002, and expanded from 300 pages of the early versions to over 1,000 pages of the present versions. Included in the white paper are basic data on the game industry. Thus it contains information on the scale of the game industry, the games market, and the export of domestic games. Policy data collection starts from publication of the white paper.

1.1.4. Game Industry Promotion Project

Policy implementation is normally translated into concrete policy projects. When these bear fruit, their validity is recognized. Dozens of policy projects are annually set in motion to promote the growth of the game industry. Of course, there are some differences in the number of the projects annually promoted, depending on the availability of budget and the validity of the policy projects. However, it is meaningless to talk about the validity of a policy project that has been set in motion just once. A game exhibition participated in by foreign buyers, for instance, can hardly achieve the goal of boosting the export of domestic games merely by holding the event just one or two times. However, after such an event

has been held several times, the event may begin to bear satisfactory fruit. This speaks to the importance of being persistent in translating policy projects into reality once proper directions and methods are decided.

The policy projects of promoting the game industry can be classified largely into five parts: incubating projects, production support projects, investment support projects, export promotion projects, and professional training projects.

a. Incubation Projects

The incubation project is the most common and representative project among the projects designed to support private enterprises. It mainly consists in supporting the start-ups and small and medium-sized companies by providing free or affordable working spaces for a certain period of time until they gain competitiveness. They are essential policy projects that should be launched first in the initial stages of helping the game industry grow.

The incubation project constitutes the essence of the initial effort to nurture the growth of the game industry. The early incubation project has enabled several miniscule game companies to grow into medium-sized companies that have come to represent the Korean game industry. Companies were able to gain competitiveness under the incubation projects set in motion by the Korea Game Promotion Center. The incubation service is usually provided for three years in the initial phase and renewed for a year, if necessary. However, T3 Entertainment was nurtured under the incubation of the Korea Game Promotion Center and ultimately developed into a company with millions of revenue dollars by launching the audition game. Without such incubation projects, small companies would have faced much severe difficulties during their growth into medium-sized companies.

The incubation projects are differentiated from one another according to the service they provide. The simplest form of incubation project makes suitable, affordable work space available to startups. Some of the projects provide expensive equipment free of charge to many companies. Some of the projects are also designed to provide companies with continuous consulting services about their management and their penetration into the global game market.

Some of the incubation projects focus on the growth of specific areas of the game industry. For example, a game hub center was established under the mid- and long-term plan in 2008, where the incubation service was focused not on the released games but on the game companies creating the games that may explore new markets in the future. The mobile game hub center conducts incubation projects for mobile game companies.

The game industry promotion institution played a major role in the promotion of the game industry. An important project launched by the institution was the incubating project. The game companies that currently represent the Korean game industry were then no more than small-sized incipient companies. The incubating project provided a foundation on which to help grow industry. The institution occupied seven floors of a building in eastern Seoul and five of them were set aside for the incubating project. More than 30 small and medium-sized companies make use of the 5 floors. Among them are such successful companies as the game company that later grew into the NHN, the Dragon Fly that developed the special force that represented domestic FPS games, the Hanbit Soft that achieved growth through the distribution of the StarCraft game, and the T3 Entertainment that developed an audition which gained great popularity in the Chinese game market. It is necessary for those start-ups and small-sized companies with excellent business ideas to be supported in terms of infrastructure. The incubating project is the very project aimed at providing such support. It functioned as the foundation on which the game industry could develop a market with the total sale of more than 10 trillion Won. Given the continuous appearance of start-up companies that produce new contents, the incubating project is still relevant today when the game industry has already grown considerably.

(Interviews with a former employee in a game industry promotion institution)

b. Production Support Project

While the incubation projects focus on the growth of companies, the production support projects focus on individual game content. The game industry and game market can grow and become competitive only when they can offer game content that appeals to their consumers. However, many game companies—mostly, small and medium companies—are financially weak. What most game companies want from the government is financial support. The support projects on game content production are designed to respond to such an industrial environment.

Much like the incubation projects, the production support projects play a vital role in the early state of the growth of the game industry. They are conducted in the form of game planning contests and the selected games will be given financial support for their production. There are two types of financial support. One is to finance the production of games, and the beneficiary is required to submit the developed game content. The other is to finance the

production of games and then be reimbursed for the production cost when the developed games realize a profit in the market. The latter is generally preferred to the former in that the former could result in moral hazard.

The production support projects sometimes have side effects. The projects finance the production of games only partially: normally the financial support from the projects covers less than half of the production costs. In the case of those games whose production consumes a lot of financial resources, such as the MMORPG, the financial support covers a lesser portion of the production cost. Game companies have to cover the rest of the production costs, and investors fund most of them. The point is that the games selected by the government production support projects enjoy some advantages when it comes to financing their production. That is, those games are likely to be seen as having already had the honor of being selected by the government. Thus they have advantages over other games that have failed to be selected for funding. In short, the government's production support creates an effect of certifying the contents of the games selected. Therefore, many game companies are participating in the production support projects although the amount of the support fund is small.

While it was necessary to support the game industry through the funding of projects, particularly at the initial stages of the development of game industry, the WTO might well have taken issue with such support. This possibility led to a change in how the support was offered: the direct financing of games production has over time given way to indirect financing. In the latter method the role of the government is confined to that of seeing to it that the game production is financed by investment and loans.

On the other hand, production support can be strengthened depending on how the games at issue are faring in the market. The games whose financial support could be criticized by the WTO are the ones that are being serviced in the market. That is, the organization raises questions about the support for the games that have already established markets. In the case of those games that do not have such markets, therefore, the WTO does not raise questions about the financial support of their production. For example, the South Korean government carried out production support project for functional games (special purpose games) designed to achieve special goals, taking advantage of the fundamental attributes of games. A typical functional game is an educational game. The production support project could be a crucial factor in game companies' participation in those areas where there are no established markets but the games are worthy of being supported by the government. In such areas game companies can make a huge profit by preempting the market. In such areas, however, game companies could run a heavy risk. Therefore, companies tend to be

reluctant to plunge into such areas. The government's financial support of game production in such areas actually has the significance of the government's taking responsibility for part of the risk.

Since the production support projects have such significance, the projects are themselves an expression of the government's the policy direction and have the effect of encouraging game companies to participate in the underdeveloped areas. Therefore, the beneficiaries of the projects can be diversified by the government's decision.

Indirect production support deserves serious consideration. The direct production support projects cannot be sustained indefinitely because of the limited government budget, not to mention the WTO issue. In addition, game companies should be able to get access to various resources in the market to create conditions favorable to their products. Listing stocks by game companies can be one of the approaches to receive support. However, since the conditions for listing stocks the stock market are focused on the manufacturing sector, there are difficulties for content-based companies like game companies to go public. The Korea Game Industry Agency has thus adjusted the listing conditions and evaluation methods for the game companies through consultations and discussion with the KOSDAQ.

c. Investment Support Project

The project of raising funds for game companies is the financing project. In this case the government participates minimally but critically in the investment in game companies. Indeed, a certain amount of government budget constitutes the seed money, but on the basis of it the government encourages private investors to invest in the game companies. In the early 2000s, it was the newly created game industry investment fund that invested in the incipient online game companies. The fund invested in MU by Webzen, which was the world's first 3D MMORPG, among others. The game was a huge success in the market. The fund made a huge profit, 15 times the size of the initial investment, sufficient to cover all the previous losses in failed investments.

After the mid 2000s, funds were created for the game industry. The fund managed by the Small and Medium Business Administration set aside certain amounts of financial resources as seed money. Investment companies then recruit investors to operate the fund, and the fund management companies are selected based on evaluations. The established funds are operated with 30~40 billion Won at a minimum and over 60 billion Won at a maximum. Since game companies always have risks on production costs, they try to be funded in game production. Therefore, the government often carries out projects like an investment show where game companies and investment companies can have business meetings.

Financial resources are always of vital importance to companies. At that time I had three investment associations established in order to support the game industry. Of them the second investment association supported the Mu of the Webzen and made a high profit in comparison with the investment. It represents the highest profit ever made thus far.

(Interviews with a former employee in a game industry promotion institution)

d. Export Promotion Project

Export is vital to the survival and growth of all Korean game companies. Particularly in Korea with a relatively small domestic market, export of domestic games is virtually the only way of sustaining the growth of the game industry. This is why the government policies have focused on promoting the export of domestic games as well as on boosting the domestic games market. The role of the government in the promotion of the export of domestic games is largely confined to supporting the growth of game companies and rendering guidance to them on the foreign games market.

The key to the export promotion project is connecting domestic game companies and overseas buyers. In the case of large-scale game companies capable of managing international marketing on their own, of course, there is little need for governmental assistance. In the case of game companies that have yet to acquire such capability, however, assistance from the government could be crucial to their success in the overseas games market.

Another important service rendered by the export promotion projects is the participation in overseas games exhibitions that provides an opportunity to showcase Korean games in the global market. Normally the government helps set up a joint exhibition booth for those domestic game companies selected to participate. The highlight of international games exhibitions is B2B, the business meeting between domestic game companies and overseas buyers. The same is true of the international game exhibition, G-Star, held in Korea. Such an international games exhibition needs to be held in Korea because it provides ample opportunity for even small-scale inchoate domestic game companies to take part in international events and consequently have a feel for what is going on in the overseas games market. Such companies would of course enjoy the opportunity to have business meetings with foreign buyers there. Despite the growing importance of the B2B meeting event in G-Star, however, it may be of limited effect. The B2B does offer opportunities for domestic game companies to come into contact with foreign buyers, but no contracts are likely to be entered with foreign buyers in the first meeting. Such business meetings should be sustained over a long period of time in order to bear fruit. In this regard, the online

matching service that could link domestic game companies to foreign buyers on an ongoing basis could be valuable means of promoting the export of domestic games.

Finally, information on overseas games markets is an indispensable service that could be effectively provided by the export promotion projects. The importance of a wide range of information on the overseas games market cannot be overemphasized. Normally it is quite hard for individual games companies obtain sufficient information about the overseas market. That is why the Korean government collects and provides a wide range of information on their behalf.

And I believe the support given to the game industry in tandem with the Ministry of Foreign Affairs and the KOTRA that do various businesses overseas had a significant effect on the growth of the game industry. Even large-scale game companies had greatly benefitted from government support since they tended to face various limits.

(Interviews with a former employee in a game industry promotion institution)

e. Professional Training Project

At the heart of any industrial infrastructure are human resources. The rationale for promoting a professional training project is to meet the demand for a professionally trained workforce. In the game industry the human resources training project has been carried out by the Game Academy, a public institute that was established and run by the government. The urgent need for well-trained workforce on the part of the incipient game industry led to the establishment of the Game Academy, along with the public agency in charge of game industry. The objective of the academy is to supply the game industry with a workforce that can be readily put to use. Since the production of games consists of three areas--game planning (game design), game programming, and game graphics--the Game Academy provides professional education in those three areas (for two years divided into eight quarters). The last two quarters are devoted to a game development project. While education is entirely financed by the government in some public educational institutes, most of such institutes are only subsidized by the government. In the case of the Game Academy half of its total educational expenses are provided by the government.

The policy of producing a professional workforce through the Game Academy has received a favorable evaluation. Nearly all of its graduates have found employment in game companies. Taking those graduates who went on to start their own business, the employment rate of the graduates of the academy is close to 100%. Such positive educational effects

should be attributed primarily to the quality faculty of the academy, which has been staffed by working-level team leaders of game companies. The academy has had the best faculty in terms of academic and practical excellence of all educational institutes related to the game industry. The recruitment of such an excellent faculty has been possible mainly because the academy is a public institute. The students of the Game Academy have a wide range of backgrounds, from high school graduates through college graduates to ordinary citizens (those who want to quit their jobs and work for game companies), as there have been no limitations on the qualifications for admission to it. However, there has been a quota of students in the academy. As the number of those who aspire to be its students has normally exceeded the quota, only those who passed an entrance examination have been given admission to it.

Since it has been over ten years since the Game Academy was established, its early graduates have become at least working-level team leaders of game companies or have started their own game businesses. The Korea Game Industry Agency, a special agency dedicated to the promotion of the game industry, was integrated into the Korea Creative Contents Agency in 2009. Since then, the Game Academy no longer provides the two-year intensive program; instead it offers general education about games.

- The budget and its details (Industry growth promotion)
 - Fostering creativity: 1.5 billion KRW (Game development investment, exhibitions, etc.)
 - Fostering investment: 350 million KRW (Development of evaluation model, etc.)
 - Incubation: Lease grants/lease by 30~50 game developers
 - Developing game industry workers: 2.39 billion KRW (900 million KRW: Game Academy / 990 million KRW: Supporting related academic societies / 700 million KRW: Cyber education)
 - Facilitating exports: 1.6 billion KRW (900 million KRW: International exhibitions, etc. / 700 million KRW: B2B, generation of a new market, international exchanges, etc.)

1.1.5. Fostering Game Culture Projects

The government policies on game culture and their promotion make the game industry distinct from other cultural contents industry promotion policies. Possible adverse effects of playing games and consequent negative public perceptions about games are likely to come into conflict with the government policies designed to promote the game industry. In addition, in the digital age playing games is becoming a type of cultural activity. This social trend has significant implications for the game industry promotion policies. That is, the focus of the game industry promotion policies was on dealing with the adverse effects of playing games and consequent negative public perceptions about games at their early stages. Since the mid- and late-2000s, however, the focus has been on developing games in and of itself into a type of cultural activity.

The project of nurturing game culture was launched in 2002. The next year the project was included in the mid- and long-term plan for the game industry. In 2005, a policy on game culture was announced and a chapter entitled “game culture promotion” was included in the Gaming Act, along with another chapter devoted to the promotion of game industry, when the law was enacted in 2006. This implies that the government game policies attach as much, or even more, weight to the nourishment of game culture as to the promotion of game industry, as demonstrated by first, the education of game culture and the development of teaching materials for it; second, the development of the criteria for using games and consultation service; third, the experience of playing games and the treatment of adverse effects thereof.

a. Game Culture Education and the Teaching Materials Development Project

Creating teaching materials is central to the project of fostering game culture, and as such is at the heart of the game culture policies. The objective of game culture education is to induce game players to have a correct understanding of what games and playing games truly mean, and thereby put games to proper use. Games are a new medium of communication. Therefore, they are readily accepted by the youth, their main consumer. Nevertheless, the latter generally shows a negative attitude toward games, because they have not received proper education about the characteristics and usage of games. Their parents have rarely had the experience of playing electronic, computer or online games; consequently, they generally have a poor understanding of what such games are. Thus both the consumers of games and those who are supposed to guide them in their game playing are devoid of a proper understanding of what games really are. In this situation adverse effects of playing games that have been constantly brought to light have become a hot social issue, serving

as a catalyst for the spread of the negative public attitude toward games. Game-culture education is designed to deal with such adverse effects by promoting correct understanding of the true nature of games, which would in turn lead to their proper consumption and effective guidance of their consumers.

Those who are supposed to receive the game culture education are the youth who are the major consumer of games, and their parents and teachers who would guide them in their game playing. Included in the game culture education are the following contents: what kinds of games are available, particularly to the youth; how game players are supposed to perceive games; how to provide game players appropriate guidance. Itinerant game culture education is continuously being offered and expanded all around the country in elementary, junior high, and high schools.

A serious problem facing game culture education was a lack of teaching materials. This gave birth to the efforts to develop, publish, and distribute textbooks on the subject. At first, general textbooks supposed to be used at all levels of classes were developed and distributed. Later, textbooks tailored to the needs of elementary, junior high, and high school students were developed, and teachers' manuals were also created and distributed.

And there was a policy project and it engaged in the collection of industrial data and related research. When it comes to technological support, projects of developing and providing game technology were underway. In the area of policy research, games whitepapers began to be published since the early 2000s. The games whitepaper was of considerable importance in that it served as a foundation on which to collect industrial data. Medium- to long-term plans are also very important. It is because to establish the direction of promoting industrial growth would enable individual companies to have a vision of their future. This is I believe still relevant. Faced with rapidly changing social environment, individual companies should make a decision about on which area they need to concentrate their energy. This is particularly true of small- and medium-sized companies with limited policy-making capabilities.

(Interviews with a former employee in a game industry promotion institution)

b. Standards of Game Use and the Consultation Service Project

Included in the game culture policy is the project of setting up standards of game use and consultation service, measures to protect game players from adverse effects of playing games. Game addiction is still a controversial issue without any compelling scientific evidence for its negative consequences. A meaningful discussion about it, therefore, should be preceded by data. This led to the establishment of standards of game addiction on the basis of the existing standards of internet game addiction. The problem is that from the viewpoint of game players, positive or “neutral” uses of games actually outweigh negative ones. When addressing the issue of the adverse effects of playing games, therefore, the focus should have been on diverse use of games instead of concentrating on their negative use. This was the backdrop against which the standards of games use were developed over the period of three years. The standards of game use are designed to measure negative, positive and neutral uses of games. Nation-wide surveys of elementary, junior high and high schools students’ game use have been annually conducted on the basis of the standards.

The consultation service is to provide professional counseling to the students who play games. There had existed youth counselors, to be sure, but they could not cope with the problems related to the youth’s game use because of their poor understanding of games. In addition, there was no way to provide consulting services to students when they run into trouble while playing games at home. Thus the government has selected some competent counseling agencies and provided their counselors with proper education about the youth’s use of games and about how to give them guidance on playing games.

c. Game Playing Experience and the Healing Program Project

The purpose of the project of experiencing game playing is to help the youth and their parents deepen their understanding of games, thereby enabling parents to give their children proper guidance on playing games and eventually protect them from adverse effects. A case in point was a game camp, held in the early 2000s under the auspices of the game culture education policies, in which students and their parents spent two nights and three days playing games together. The point was that despite their serious concern about their children’s apparent indulgence in playing games, parents did not know much about the games that attracted their children’s attention so strongly. Under these circumstances the parents cannot have any meaningful conversation with their kids and tend to show their blind dislike of their indulgence in playing games, which is in turn likely to invite a negative response. The game camp could help the parents who participated in it have a proper understanding of what games are all about; in addition, it provided them with an

opportunity to learn how to give their children guidance on playing games. On the other hand, the students participating in the camp were given plenty of opportunities to reflect upon how and why they play games, whether they had observed the rules of etiquette when playing games, and how to play games in a positive manner. In the camp the students and their parents also enjoyed an opportunity to develop some simple games, thereby deepening their understanding of and experience in playing games. Most of those parents said that the camp gave them an opportunity to gain a new and better understanding of games.

What makes such experience crucial in figuring out what games really are lies in the fact that games are a medium totally new to the older generation and unlike existing cultural content, games are a type of reciprocal activity requiring players' interactivity. Such being the case, there cannot but be a considerable gap between those who have the experience of playing games and those who lack such experience in terms of their perception and appreciation of games. That is why the game culture education should be accompanied by the experience of playing games in person in order for it to be effective.

The fundamental principles of the game culture policies of the Ministry of Culture, Sports and Tourism is to enhance the level of people's understanding of games and take measures to prevent the adverse effects of playing games. The problem is that playing games could at times give rise to such grave mental disorder as needs psychiatric treatment. In the early 2000s, some game addicts did receive such treatment, but on occasion the offered treatment actually backfired because of the then poor understanding of games on the part of the psychiatrists who also did not really know how to treat the game addicts.

Only a small percentage of those who play games have actually been in need of such treatment, to be sure, but the problem of game addiction can still engender serious social repercussions. Some researches sponsored by the government suggested an art therapy program as an effective way of dealing with the problem of game addiction. A pilot project was in fact under way that was designed to translate a developed art therapy program into reality. Yet how to treat game addicts properly is still a controversial issue and there is thus far no treatment that can address the issue effectively.

An active program was set in motion by the government to address the problem of the adverse effects of playing games. Public opinion had it that game companies should be involved in the program. And game companies themselves began to realize that such involvement is necessary from a long-term perspective. Their donation led to the establishment of the Game Culture Foundation. The game industry has also selected and sponsored some hospitals in an effort to deal with the game addiction. All in all, the adverse

effects of playing games have been vigorously addressed by the government on the levels of education, consultation, and treatment.

- The budget and its details (Policy development enterprise)
 - Total budget: 1.36 billion KRW
 - 790 million KRW: Game encyclopedia, policy research report, hosting international conferences, etc.
 - 70 million KRW: Establishment of mid/long term plans and operating policy development institutions
 - 300 million KRW: Online information service
 - 200 million KRW: The game library

1.1.6. e-Sports Promotion Project

One may define e-Sports as a kind of indoor sports where players compete at games while seated at consoles rather than on a court or playing field. Therefore, e-Sports are inevitably linked to the game industry and further to the issue of how to put games to good use. It was in the mid and late 1990s that e-Sports made an appearance. And it was since 2004 that e-Sports emerged as a policy agenda. At first it was not e-Sports' industrial potential but their cultural implications that drew the attention of policy-makers of the government. It was because people generally set a positive value on e-Sports despite their negative perception of games. Above all, e-Sports ensure fair competition, as with other established sports, and it does not take long for the competition to come to an end. That was the main reason why people had a favorable perception of the e-Sports. Such a favorable public perception of games was seen by policy-makers as an occasion to magnify the beneficial social effects of playing games. Therefore, e-Sports promotion became a main agenda of the game culture promotion project. In the mid- and long-term plan for the game industry of 2003, e-Sports fall into the category of game culture. The same is true of the Game Act of 2006.

Despite their connection with the game culture policies, e-Sports have produced important industrial effects. First of all, in terms of marketing strategy e-Sports have played a major role in arousing public interest in games. More importantly, the lifespan of those games that have been subsumed under e-Sports tends to be longer than the average lifespan of games in general. For example, the representative game of the Korean e-Sports sector was StarCraft 1. It was rarely played abroad after the mid-2000s but had shown steady sales in Korea until the late 2000s. This attests to e-Sports' industrial effects.

To magnify such benefits of e-Sports is the major task facing the e-Sports promotion project. Some of the representative enterprises set in motion by the project are as follows. The first one is the project of promoting the production of e-Sports games. This project is a part of the games production promotion project but it concentrates on the production of those games. As has been suggested above, the fact that a game is selected to be played as an e-Sport has the effect of increasing its lifespan and sales. The need to have domestic games subsumed under e-Sports was further highlighted by the fact that the domestic e-Sports have been dominated of foreign games. Once a domestic game is selected to be played in the world games competition, it is likely to be exported. This makes it all the more necessary to support the production of those games.

The second one is project of supporting the international e-Sports competition hosted by Korea. Actually this is to provide support to the international competition on condition that Korean games are selected as official or demonstration games. On the face of it, the project aims to provide support to e-Sports themselves, but actually it is a project of promoting the export of domestic games.

The above two support projects focus on e-Sports' industrial effects. Still there is another support project that concentrates on e-Sports' cultural effects, promoting the vitalization of amateur e-Sports. The growth of domestic e-Sports has been fueled by professional games competitions and broadcasting companies. The professional games competition contributed to drawing public attention to games and demonstrating the growth potential of e-Sports, to be sure, but as a professional competition it has its limitations on popularizing games. Furthermore, it is not appropriate to have private e-sports subsidized by the government. In order to make e-Sports take root as a viable culture in the digital age rather than being no more than an event designed to popularize games, the promotion of amateur e-Sports has become a major task of public policy. Existing professional sports have become popular with their conversion to amateur sports. The same is true of the e-Sports. The representative policy project to promote the vitalization of amateur e-sports is the President's Cup Amateur e-Sports Competition. It is a truly national festival of e-Sports in which players selected from 16 cities and provinces across the country compete with each other. Korea is the only country in the world where amateur e-Sports competitions are held under the auspices of the government. The mid- and long-term plan for the promotion of e-Sports of 2010 intended to make the above competition serve as impetus for the growth of game culture in tandem with the game industry.

Of diverse contents industries the game industry [possesses] unique characteristics. Therefore, government policies should take such characteristics into account. The game industry promotion institution has since been abolished and the game industry has been integrated into other contents industries. This arrangement may be beneficial to the game industry. However, it seems that because of this arrangement the game industry does not benefit from a concentrated governmental support as much as before. Particularly since 2010 it seems that the social or policy discourse on the game industry tends to attach more weight to its regulation than to its promotion. As foreign cases demonstrate, we can reap considerable benefits from games depending on how we put them to use, despite many shortcomings that games entail. In many foreign countries such positive aspects of games have prompted diverse businesses and researches. We are lagging behind such countries. We need to have government policies focused on the game industry. I think the game industry is a leading future industry and as such has sufficient growth potential. Then we need to reestablish our policy goals as regards the game industry and government policies should be tailored to its unique characteristics. In the early to mid-2000s when game promotion policies were vigorously set in motion, the cooperation between the government and the private sector was well coordinated. Today we fall behind. We need to restore the previous cooperation between the two. The game industry in particular has not paid sufficient attention to innovation. Any industry needs to pay sufficient attention to innovation. And the government needs to have its industrial support meet such a need.

(Interviews with a former employee in a game industry promotion institution)

1.2. A Case of Resolving Conflict of Interests among Stakeholders: Integrated Game Exhibition (G-Star)

The process of implementing policies may involve diverse conflicts of interest among interested parties. Since either promotion policies or regulation policies inevitably involve interested parties, policy implementation constantly brings about conflicts of interest. This is another way of saying that the implementation of policies means more than setting planned enterprises in motion; at the same time, it means reconciling conflicting interests that have been aroused by the policies. Although rarely noticeable, unlike promotion projects, reconciling conflicting interests actually constitutes an important part of policy-implementation.

Normally a game involves diverse platforms and there exist distinctly contrasting perceptions of games. Moreover, the games market usually undergoes rapid change and in it many games compete with each other to catch the attention of their potential consumers. Therefore, the process of implementing policies always involves conflicts between the government and interested parties or between interested parties. Presented below is an examination of reconciliation of conflict of interests between interested parties that was driven by the process of implementing policies.

At present “G-Star” is the only international games exhibition that is annually held in Korea in November. It was launched in 2005. Prior to that time, there existed diverse games exhibitions that were allegedly international in character. These “international” games were integrated by the government into a single international games exhibition that was true to its name. The end product was G-Star.

Of the diverse games exhibitions that were held prior to G-Star the most long-standing was an arcade games exhibition. With the growth of online games other games exhibitions came into being in the 2000s in which many presses participated. Most of those games exhibitions were nominally international, but in truth they were national exhibitions. The KAMEX, the arcade game exhibition, had been held prior to the advent of online games and was the representative games exhibition in Korea before G-Star came into being. Even after the advent of online games, games exhibitions kept their central focus on arcade games. This set the KAMEX apart from other exhibitions.

The problem was the games exhibitions whose focus was on online games. They came into being since the 2000s. The fact that they were sponsored by the presses had the effect of virtually forcing game companies to participate in them. Game companies worried that in case they did not accept the invitation to the exhibitions they would be unfairly treated by the sponsoring presses. Thus they could not but participate in the exhibitions even though they could not reap any benefits from the participation.

The companies needed to conduct the marketing activities through domestic exhibitions as the online game industry was in its infancy but they do not have sufficient capabilities to attend several domestic exhibitions a year and do not have reasons to attend such events every time. It may be considerable if the companies can make good results with B2B meetings with foreign buyers for exports; otherwise, many companies did not find a need to participate. At that time the online game industry was on the verge of making rapid growth, to be sure, and in a sense it was necessary for them to participate in those exhibitions. However, they could not afford to participate in those exhibitions that were held many

times a year. On top of this, those exhibitions were similar to each other in terms of content. Unless they could reap the benefit of the B2B event with foreign buyers, they felt no need to participate in them.

Such a situation prompted online game companies to express their view that the domestic games exhibitions need to be improved. According to them, the participation in those similar exhibitions did not bring any benefits to them and they could not afford to invest in marketing because of the expenses incurred having participated in them.

An intervention in private exhibitions that are not sponsored by the government could be quite risky. However, the government could not take seriously the opinion of games companies, since it has actually set in motion the policies of promoting the growth of game industry. Therefore, the government decided to hold an integrated games exhibition at the behest of games companies.

Whether the decision would be successfully translated into reality hinged on whether the government could obtain the consent and cooperation of those who hosted the exhibitions. Otherwise, the integrated games exhibition was likely to end up a failure in integrating the existing exhibitions. Then the “integrated” exhibition would be just another exhibition that could coexist with other preexisting exhibitions. After all, the gist of the government policy on the integration of games exhibitions lies not in the attempt to integrate them into a single exhibition but in garnering the cooperation of those who had sponsored them.

Although the many games exhibitions including KAMEX faced disapproval by game companies, the exhibitions themselves were certainly lucrative business from the point of view of those who hosted them. KAMEX in particular was the best games exhibition at that time and was an excellent business in terms of the number of participants, total sales, and profit. And those games exhibitions sponsored by the presses were not successful but managed to survive. The governmental decision to integrate the diverse games exhibitions into a single one could not but have a serious impact on the business of the interested parties.

The government began to have a discussion with the interested parties about integration. The former explained the need for and significance of the integration, and the latter understood the intent of the former. Nevertheless the discussion was slow in progress, since it would have serious implication for the business of the latter. A unilateral promotion of the integration by the government would certainly backfire, causing intractable problems. In this situation the best option was to persistently persuade the vested interests to accept government policies and cooperate with the government. It took six months for the vested interests to assent to the governmental decision on the integration on no special conditions.

As a result, the first integrated international games exhibition was held under the brand name G-Star. It would be the representative international games exhibition held in Korea. The first exhibition was held in Gyeonggi province and has since been held in other cities specially selected for that occasion every three years.

As a matter of fact, there are two more games exhibitions held in Korea in addition to G-Star. One is the “e-FUN” held in Daegu, the other the “Good Game Show” held in Gyeonggi province. The e-FUN held in every October in Daegu is a game show that has its origins in the e-Sports competition and the game show DENPO that started in 2001. They were renamed as e-FUN in 2006. The Good Game Show held in Gyeonggi province has its origins in the Gyeonggi Functional Games Festival held since 2009. It was expanded to become the Good Game Show that has combined functional games and educational contents in 2013, and is held every May in Gyeonggi province. Both of these exhibitions differ from G-Star in that e-FUN emphasizes its characteristic as a game culture festival, and the Good Game Show specializes in functional games.

The process leading to integration of diverse games exhibitions demonstrates the importance of reconciling the conflict of interests among interested parties and garnering their cooperation. The discussion about the cooperation could be tedious and time-consuming, to be sure, but it is necessary to reach an agreement through persistent conversation and persuasion. Some raised doubts about the effectiveness of G-Star as the exhibition failed to achieve anticipated results immediately after it closed. However, no one wanted to return to the old days. Instead, most of the parties concerned advocated the further development of G-Star.

The U.K. presents an exactly opposite case. The greatest games exhibitions in the world were the E3 of the U.S., Tokyo Game Show of Japan and ECTS of the U.K. until the mid-2000s. ECTS has since disappeared from the scene. Due to internal conflicts of the governing body of the ECTS, two ETCS were held simultaneously in London in the late 2000s. Foreign game companies which intended to participate in the ECTS, therefore, had to choose between the two. Korean game companies were no exception. Both of the two exhibitions ended up failures. From the next year on, ECTS could not be held and the European game exhibitions came to be represented by the one held in Germany. This was mainly because the parties interested in ETCS stuck to their interests and consequently failed to cooperate with other interested parties.

There were many game exhibitions prior to the G-Star, an integrated game exhibition. At that time most game exhibitions were arcade game exhibitions.

And such exhibitions usually included the newly-appeared online games. Game exhibitions were quite popular particularly among the youth because they offered numerous spectacles and things to play with. This holds true today. The arcade game exhibitions of the KAMES and KOPA were a success in terms of business since they made a profit of at least 3 to 5 hundred million Won. At that time those game exhibitions superintended by civilians revolved around the B2C. The B2B fell well short of standard. It was clear that for those civilians without sufficient overseas network to superintend a large-scale B2B could not but face limits.

(Interview with a businessman in charge of a game exhibition)

2. Analysis of Success and Failure Factors of Game Industry Policy

2.1. Success Factors

2.1.1. Government's Political Determination and Budget Support

Since the 2000s the Korean game industry has recorded significant growth and has drawn the attention of the world game industry. As has been indicated, the major factors in the growth are the creation of a new market based on the new platform of online games, the outstanding IT infrastructure, and very proactive gamers. The key factor in the growth is nevertheless the government's game policies. Both the developed and underdeveloped countries in terms of the growth of the game industry are envious of the Korean government's support for game industry through its policies. The game industry promotion policies of the Korean government that began to be set in motion in 1999 can be assessed as a success, as attested by the fact that they have been mentioned overseas as a benchmark against which the game industry of other countries is judged.

Most crucial to the success of the implementation of governmental game policies in Korea has been the strong will of the government to foster the ongoing development of the game industry. The process of policy implementation always faces diverse difficulties, and frequently does not proceed as expected. It may be stymied by insufficient budget, a conflict between interested parties, or public opinion unfavorable to the policies. Strong political will to carry through the process enabled the Korean government to overcome such difficulties.

The Korean game industry that had recorded steady growth faced a crisis in 2006 because of the speculative nature of games. Although the issue had its origins in arcade games, it had grave repercussions for online games. It had the effect of spreading the perception that games are basically a gambling platform Korean society. Such a social atmosphere poses a serious threat to the government policies on promoting the development of the game industry. The game market whose total sales were 8 trillion Won in 2006 dwindled to 5 trillion Won. Such circumstances could function as obstacles to the implementation of the game promotion policies. Such a situation made the will of the government to help develop game industry all the more important, which in the end enabled the game industry to overcome the difficulties and continue its growth again after 2008.

It takes time for policy-implementation to bear fruit. Some policies may produce good results one to two years after their implementation, while other policies, such as training human resources, fostering game culture, and promoting the export of games, do so in three to four or even more years. What is problematic is the evaluation of those policy projects that do not come to fruition in a short period of time. Even public policies can run into difficulties being assigned sufficient budget in case they do not quickly produce satisfactory results. Such policies are likely to be discarded or altered and it is of course difficult to carry them out for a long period of time. Only strong political will can support such policies over the long haul and eventually have them produce desired results. Such a will is normally expressed in the form of realistic mid- to long-term plans, which are crucial to the implementation of policies.

Financial resources are essential to the implementation of policies. Public policies are primarily financed by government budget, which is almost always scarce. The stability and continuity of policies hinges upon whether necessary budget can be secured and even increased in case of need. The task of securing necessary budget is actually much more difficult than that of implementing policies. In the case of new policy projects, it is all the more difficult. It usually involves sustained efforts, such as repeated collection of necessary data and explanation of the new policies to the officials in charge of budget assignment. It is by no means easy to get through the arduous task of securing needed budget.

Fortunately, the game industry policies were financed in the early stages of their implementation by government budget that was not fully sufficient but still could meet the need. Particularly the establishment and operation of public agencies specializing in the promotion of the growth of game industry were possible only by the government's budgetary support. Considering the fact it takes a substantial amount of budget to establish

and operate new public agencies, the government deserves a lot of credit for the budgetary support that eventually enabled the implementation of the game industry promotion policies.

2.1.2. Operation of Public Agencies

A policy process refers to the whole process of making policies, working out necessary projects, and setting the projects in motion. Of course it is the government itself that is in charge of the whole process, but it is structurally difficult for the government to carry out the projects directly. This is why the government relies on public agencies to have the policy projects translated into reality. Public agencies are normally staffed by people equipped with necessary expertise, and as such are capable of effectively concentrating on the policy projects.

The selection of the government office that will be in charge of the game industry promotion policies was immediately followed by the establishment of a public agency that would be dedicated to the task of realizing those policies. Such a move on the part of the government was taken as an expression of the firm will of the government to promote the development of the game industry. It also led the game industry to place its hope on the competence of the government and the agency.

Normally public agencies carry out policy projects on behalf of the government and serve at the same time as an intermediary between the government and the civic sector. Such a role is highly important in the implementation of public policies. Effective communication between the government and the civic sector is vital in that the government needs to make sure their policies are appropriate and valid and it also has to respond timely to changes in the market and industry. In case the government fails to communicate effectively with the civic sector, it is inevitable that a gap develops between public policies and the reality and the gap would be an obstacle to a successful implementation of the policies. The intermediary role of public agencies, therefore, helps ensure the success of the government.

This implies that the role of public agencies goes far beyond carrying out the tasks entrusted to them. They should also play the role of policy consultant to offer necessary analyses on the basis of unremitting observance of the industry and market. Public officials in charge of public policies are in principle replaced every two years. The industry rises and declines according to the vicissitudes of the market. Under such circumstances it is only the public agency in charge of the game industry that can guarantee the stability and continuity of the game industry promotion policies.

2.1.3. Discovery of Core Policy Issues in the Face of a Changing Environment

The social and technological environment of the game industry and the games market undergo rapid change. The depth and breadth of such change in the game industry is much greater than the change in other cultural-content industries. As a result, the Game Act has been revised every year on average after it was enacted. Such environmental characteristics of the game industry should be reflected in the game industry promotion policies. Otherwise, a gap is likely to develop between the policies and the game market which would eventually give rise to conflicts between the public and private sectors.

The Korean game industry promotion policies have continuously responded to such change. The government has consistently discovered policy issues that are responsive to the rapid environmental change. The Korean government has been capable of such a feat because of the existence of a team inside the public agency that is devoted to making game policies and discovering timely issues concerning the game industry.

The frequent revision of the Gaming Act, the periodical establishment of mid- to long-term plans, the development of tasks and projects according to areas, and evaluation of market changes and the projects being promoted through constant communications with the game industry attest to the fact that the game industry promotion policies have continued to respond to environmental changes and have been improved accordingly. An important factor in the success of the Korean game industry has been the policy studies that discovered timely policy issues and translated them into policy tasks, the availability of professionally-trained human resources that carried out the studies.

2.2. Failure Factors

Games are distinct from preexisting unilateral cultural contents in that they are bilateral and highly sensitive to technological and environmental change. The advent of online games has had the effect of strengthening such attributes, thereby further setting games apart from the preexisting cultural contents. The reason why the Game Act was necessary lies in the fact that the policies and projects concerning the preexisting cultural contents could not be applied to the game industry because of the attributes unique to it.

The public agency established in 1999 that had been devoted to the issues related to the game industry came to be integrated into another public agency that had jurisdiction over all the cultural contents except for films in May 2009. With the disappearance of the former, the projects that had been promoted by it were taken over by the latter. The rationale for the

integration was that it would be beneficial to the promotion of cultural contents convergence policies. The problem was that individual industries began to raise doubts about whether the integrated public agency had the expertise in their industry. A mid- to long-term plan was announced for the revitalization of game industry in 2008. Unlike the mid- to long-term plan of 2003, the plan of 2008 had not been properly carried out.

The game industry is of the opinion that the game promotion policies and projects have lost much of their vigor since the establishment of the integrated public agency. According to industry spokespersons, the integrated agency has largely failed to produce policies through which to address the diverse issues of game industry. For instance, according to the game industry, the integrated agency played virtually no role in the implementation of the shutdown system, which it has called into question. At the root of the problem lies the failure of the integrated agency to function properly as an intermediary between the government and the game industry. The preexisting communication between the government and the public agency, on the one hand, and the game industry, on the other, failed to be maintained after the establishment of the integrated agency. And this had the consequence of developing the gap between the government and the game industry over time.

2014 Modularization of Korea's Development Experience
The Success Story of the Cultural Industry in Korea:
The Case of the Game Industry

Chapter 5

Implications for Developing Countries

1. Considerations on the Long- and Short-term Policy Effects in Policy Making
2. The Importance of Political Functions to Set Political Directions
3. Need for Systematization of Policy Implementation based on Professionalism and Concentration
4. Need for Consideration of Cultural Aspects
5. Need for Firm Awareness of Public Policies

Implications for Developing Countries

1. Considerations on the Long- and Short-term Policy Effects in Policy Making

There should be sufficient reviews on the policy effects when establishing the policy direction and plans. In fact, it is meaningless to implement policies if the government-funded policy projects cannot create desired effects. That is why it is necessary to fully consider the aspect of policy effects during the policy making process.

However, it is common to take a long time to achieve the policy objectives depending on what they are. That is why the meaning of the policy implementation is important. Even so, there are a lot of difficulties in implementing policies with long-term goals that can yield different long-term results. Therefore, it is critical to find the policy items that can show the short-term policy effectiveness in the selection of policy tasks. The short-term policy effects can create a favorable environmental condition with which to continue to implement the policy projects that can bring about long-term policy effects.

The mid and long term policies are designed to aim at long-term goals, although they must bring about short-term effects, too. The periodical strategy during the process of establishment and implementation of policy plans is effectively harmonized by the short- and long -term tasks. In this case, the policy effects will intensify. To effectively and harmoniously synergize the long-term plans with short-term effects, policies must be designed with a flow from an abstract vision to a step by step objective/strategy and into a specific project (Vision → Goal → Promotion strategy → Tasks → Projects for each task → Project launch). If you look at the 2008 mid- and long- term plan, it listed as the

following: Vision (Top 3 game industry powerhouse nation) → Goal: 10% world market share → Promotion strategy: Start up the second online game revolution (Generate a new game market) → Tasks: 7 tasks selected → Projects for each task: 30 projects total → Project launch: 60 smaller specific projects. In these 60 smaller specific projects, there were 2~3 smaller scale projects in each of them as well and this mean that there were over 100 projects when it came down to the smallest project unit.

To continuously implement policies, policymakers must gather positive policy effects that are closely related to the initial target value. When policymakers design mid- and long-term plans, they set a specific target value, such as a target market size. If policymakers set an impossible target value, unsatisfactory results may lead to suspicions about the policy effectiveness, no matter how ambitious the initial target value was. Also, it may jeopardize the synchronization of policies during implementation. Therefore, the target values must be set realistically. However, extremely low and safe target values may jeopardize the soundness of the initial policy objectives. Accordingly, policymakers must set target values that are realistic and full of good intentions. If we compare the target values of the mid- and long-term game industry growth plans and results, we can see that the results were quite close to the target values.

Table 5-1 | Comparison between Objectives and Results of Mid and Long Term Game Industry Development Plans

Category		2002	Target	Results (2006)	Growth Rate
Market Size		3.4 trillion KRW	10 trillion KRW	7.4 trillion KRW	117.6%
Initial Size		1.2 trillion KRW	6 trillion KRW	2.8 trillion KRW	133.3%
World Market Share (All of game industry)		1.7%	5%	7.8%	358.8%
Exports		140 million USD	1 billion USD	670 million USD	377.3%
Company Size	100 billion KRW in revenue annually	1	-	5	-
	10 billion KRW in revenue annually	14	-	27	

2. The Importance of Political Functions to Set Political Directions

The basic goal in policy implementation is to establish feasible political directions and plans. If the political directions and plans are not realistic but only ideal, the objectives of the policy cannot be achieved. Therefore, there should be enough research, review and discussions during the process of establishing the political directions and plans rather than the process of actual political project implementation. To that end, the political function with political capabilities is extremely important in policy implementation.

It is important to implement projects specifically as well as effectively; the methods of selection and implementation of project tasks can create the necessary and aimed political effects under the existing political directions and plans. That is why the political functions are required.

Political functions are to establish the methods to continuously establish and evaluate policies based on the necessary political capabilities for establishing and implementing policies and solutions to address the issues. The government realizes such political functions, but the department in charge may not have sufficient capacity to prepare for everything. Therefore, it is necessary to put in place the system that can support the government's policymaking and strengthen the unique government's political functions.

In addition, it is required to collect, accumulate and discover game-related data from the first stage of implementation of game policies. Policies should be conducted not by the sense but by objective and clear data. Only then, policies can be socially convincing. Therefore, it is important to manage the game-related data to strengthen the capacity of political functions.

It is advised that relevant agencies establish a designated implementation and enforcement team for a specific policy to improve policy effectiveness. Also, it is necessary to set aside a certain amount of budget for policy development research. The Game Industry Promotion Agency had a policy development division separately, and it had a budget of about 1 billion Won annually for research and development. This division produced the game encyclopedia, research reports, industrial statistics reports, industrial trend reports, gaming culture textbooks, and other books regularly every year. It also hosted forums, conferences, seminars, research group meetings, and game culture education projects.

3. Need for Systematization of Policy Implementation based on Professionalism and Concentration

It is necessary to systematize the specialized agencies and specialists who can practically promote the political projects for the efficiency of policy implementation. The special agencies with expertise can play a pivotal role in policy implementation. In this regard, it is necessary to actively consider the establishment and operation of specialized agencies. If it is difficult to establish specialized agencies, public groups such as associations can play the role.

The special agencies should be able to support the political functions of the government rather than remaining as a performer of political projects. There should be a network established based on the communication relationship between the industry and the private sector. It is necessary to systematize the relationship between the players and the stakeholders to implement policies by establishing a network among the agencies, companies and the private sector based on the direct relationship between the government and agencies. Also, it is important to create expected political effects based on efficiency and by applying various methods during the process of policymaking.

In addition, given the fact that games have differentiated attributes from the existing cultural content, it is important to concentrate on the game sector. The convergence between other cultural contents and game contents doesn't have to be included in a single agency. Rather, it may be more effective to create a cooperative relationship between contents, based on a principle that the content of each genre should be developed independently.

Korea has established a professional Game Industry Promotion Agency first, as it started to promote game industry promotion policies. Even though the government has the final say in policy enforcement, it is impossible for it to handle all policy projects. Therefore, it needs to establish professional public agencies, and this is very important when it comes to policy enforcement. The Game Industry Promotion Agency runs anywhere between tens and hundreds of policy projects every year, and it launches new projects every year.

The Game Industry Promotion Agency must serve as a communication channel between the government and companies. Regular and consistent communication with the businesses not only helps with understanding the market changes and industrial trends but it also serves as a mediator and a buffer agent between the government and companies.

One may consider establishing a group of professionals along with other elements such as policy enforcement agencies and policy communication channels. Even if the promotion agency is composed of professionals, it can't possibly include professionals from all areas of expertise. In order to resolve certain issues and conflicts, we need help from certain professionals and therefore, we need to consider the possibility of establishing groups of professionals in the future.

4. Need for Consideration of Cultural Aspects

It is necessary to have sufficient review on the cultural aspects in nurturing the game industry. The adverse effect of games is a social issue that occurs all the time everywhere during the process of development of the game industry. Nurturing the game industry by ignoring such a social issue will invite more criticism from the society and ultimately will make it difficult to achieve the goal of fostering the game industry. If there is a widespread negative perception of games, high caliber workers are often reluctant to enter the game industry. The inflow of high caliber workers is like the infrastructure for the growth of the industry. Therefore, the game industry without a proper game culture will be difficult to grow as a mainstream industry and culture.

The creation of the game culture and the invention of the preventive measures against the adverse effects of games were set as core areas of the game industry promotion policies of South Korea from the initial stage. Against this backdrop, it is important to review the cultural aspects of the game policies from the early stage to implement the game policies.

Korean society tends to criticize the adverse effects of games very harshly. Therefore, this was an important issue for policy makers to resolve when the game industry promotion policies were first being developed. Nurturing the game industry doesn't necessarily mean that the government remains silent about the adverse effects of games. Preventive measures are not just to restrict the game industry. It is important to establish a complementary, rather than a hostile, relationship between the prevention of adverse effects and the nurturing of the industry.

Also, preventive measures for adverse effects can be launched in various ways, even though they don't show results right away. The adverse effects of games have to do with the users' attitudes that are reflected on the overall game consumption culture in one nation. Such policies must be enforced consistently for a long time to have any effect. In other words, it requires time.

The game culture policies of Korea have set a new course with a focus on “game literacy” through the mid- and long-term plans announced in 2008. These policies emphasize the importance of understanding and utilizing the good aspects of particular computer games in their real life. The policies focus not only on the teens who are the majority users but also the parents, teachers, and other supervisors of teens playing games.

5. Need for Firm Awareness of Public Policies

Human beings run specialized institutions that regulate the game industry. This means that game industry regulators must realize the public aspect of game industry regulation. If we implement policies with personal greed, we cannot produce expected results no matter how good the policies are. It only leads to social problems.

In addition, regulators must be able to judge when and where they should intervene for market regulation. The wrong intervention may hurt various activities that can be conducted in the market and affect negatively on the entire industry. Therefore, regulators must understand the public aspect of their policies by balancing the private sector efficiency and public sector effectiveness.

Regulators deal with and generate various market information and data. For example, the game encyclopedia includes industrial statistics that include data on 500 game companies. The data show revenue information, employee counts, and other pieces of management information. If such secret information is leaked to the public during the publication and printing of the game encyclopedia, the government will lose credibility from the participating companies, making it impossible to collect and publish such data in the future.

The fact that the game encyclopedia was able to include the most accurate game industry statistics shows that the trust between the companies and the government was high. When you are launching public policies, you must start with the sense of responsibility and ethics rather than personal greed and self-interests.

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