Possibility and Prospect of Online Game in Asia

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1. Introduction

This paper is intended to acquire a perspective of Online Game (networked commercial games), especially the situation and prospects in Asia. Combining some statistics, the number of paid users of Online Game worldwide, from 2001 to 2002 was about 10 million, and it is possible to estimate a market size of about $1 billion USD. However this is very conservative estimation. The entire game market as well, inclusive of packaged games, has been forecast to grow at a considerable pace going forward, and in particular, most research institutes are predicting that the Online Game market will expand considerably more rapidly than that of the game market as a whole.

For example, against the forecast of PricewaterhouseCoopers of the United States, that the North American video game market, which was $7.8 billion in the year 2002, will grow to $13.5 billion, about 1.7 times its size, by the year 2007, which is within 5 years, Informa Publishing Group of the United Kingdom has forecast that Online Game market, which was $568 million worldwide in the year 2001, will grow to $5.648 billion, about 10 times its size, by the year 2006, which is within 5 years.

Also, in the case of Korea, which is one of Asia's leading countries in Online Game, the total value of Online Game shipments has been growing fast: in 1998 was only $2.5 million, but in 1999 it was $16 million, in 2000 it was $100 million, and in the year 2002 it was $250 million. For Japan, packaged games are still the mainstream, but in that situation too, changes are being seen. According to the Digital Content Association of Japan, a research institute affiliated with the Japanese government, Japan's domestic market for packaged games in the year 2002 was about $4 billion, remaining at a year-on-year growth rate of 1.1 times, but on the other hand, Online Game surged to about $55 million, with a year-on-year growth rate of 4.2 times. This association has also forecast the 2003 Network Game market to be $170 million.

One assumes that there are a number of compound factors underlying such fast growth in Online Game, but excluding infrastructure aspects such as the spread of broadband, we can roughly sort them out into business model related factors and factors related to the design of the game itself. In the case of the former, Online Game are generally more profitable than packaged games, and in the case of a hit game, profits are ensured over a long period of time, there are no losses from pirated versions unlike packaged games, and it is easy to develop systems that ensure receipt of payments. According to research by Online Publishers Association of the United States,

in 2001, U.S. consumers paid a total of $675 million for online content, in 2002, the total was double that, at $1.3 billion, and a tendency has been observed for users to make the correct payments for online content.

As far as the latter is concerned, namely factors related to the design of the game, it can be pointed out that, compared with packaged games, in Online Game the percentage of traditional games such as Go and Mahjong is high, and big entertainment firms as well as Hollywood's film industry are injecting large amounts of capital into Online Game category, and Online Game incorporating already well established entertainment related content are being created. This is tied to speculation and strategy of the leading manufacturers who maintain supremacy of the next generation game consoles, and is connected with the new development of a customer segment that has a wide range, going beyond the traditional packaged game users.

Of course, the novelty of the business model and game design does not just give rise to a bright future for Online Game. Some intractable issues such as increases in development costs, the need to develop new relationships between users and manufacturers, etc, will also be taken up.
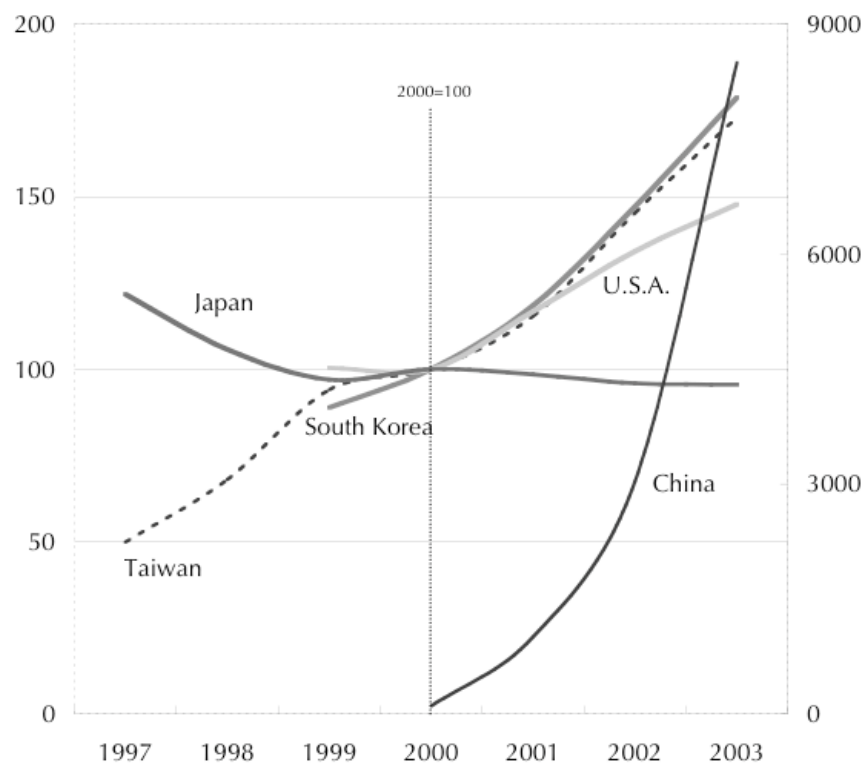
2. Status of Online Game in Asia

Figure 1. Growing game market of major countries

Source: Computer Entertainment Supplier's Association(Japan), Digital Content Associationof Japan,
          Integrated Game Support Center Inc.(South Korea), China Network Information Center,
          Market Intelligence Center(Taiwan), etc.
Notes: Refer to the left axis for all countries except china. The right for only china.

Figure 1 shows the transition in the Asian and United States game market. The content of the calculation and the basis for the statistics in each country differ too much to mutually compare statistics, but the market will admittedly expand rapidly in the main game-consuming countries, other than Japan, including the United States.

2.1. South Korea

Korea has the most developed country about Online Game in the world. The industry developed by the national policy from 1998. The broadband is spread quickly, and 30,000 network cafes made the new industry. Except general way to collect fee per month/day/hour, player can pay small (under $1) by mobile phone. This causes new style of games with a strong communication element. For example, Avatar Game. Online Game may be said only tool of the high efficient chat. In March 2002, more than half of the 27 million Internet users in South Korea - a country that promptly developed broadband due to the spread of ADSL - were experienced online gamers; the game market was estimated to be producing as much as $1.7 billion in revenue in 2003.

In addition, Online Game centered on MMORPG (Massively Multiplayer Online Role Playing Game) has already created many correlative industries in South Korea. A typical example of this is the circulation market of merchandise related to the Online Game. Furthermore, some Internet auction sites, wherein various products related to Online Game have been bought and sold, have generated a turnover of $300 million. Moreover, in some of the free Online Game, a particular service exists wherein the player is able to buy items, clothes, arms, etc., worn by the character that the player manipulates, while playing the game with real money won in the game. In this business, the game users who buy not only items needed to win the game, such as arms and powers, but also items indirectly related to the game, such as customized externals of the character and/or the client software, have increased.

2.2. China

China is leading the explosive spread of MMORPG in the Southeast Asia region. The population of online players in China, as of 2003, is estimated to be 13 to 15 million people, most of whom have only been involved in Online Game for the past two years. In China, the explosive expansion of Online Game is a phenomenon not only in major cities such as Shanghai, Beijing, Hong Kong, and Chengdu, but also in small towns of provinces as well. It is predicted that within the next three years this explosively expanding market will grow to three times its current size. In 2003, this market yielded revenues of approximately $300 million and is expected to yield revenues of $500 million in 2004. Shanda Network, the largest Online Game Publisher in China, has issued 80 million ID in China and provides service for 700,000 people online simultaneously. $4.5 USD

(35 RMB) per month, or 4 cents or less per hour with a prepaid card, is the average fee of MMORPG.

In China, pirate edition problem prevent from developing the industry for long time. But the Asian model of Network Cafe changed all. Developer can identify individual player and collect reasonable fee for players. And to success Online Game needs real offline community. Net Cafe has the environment that players can play with real friends easily. This makes many players and strong player community.

There are two factors in the rapid growth of Online Game in South Korea and China. The first is that an existing packaged game industry barely existed. While a strong video game market did exist in Japan, the U.S., and Europe, it had not yet developed in Asia. There are two reasons for this: the first being that in Korea there was an import prohibition on all video game consoles made in Japan, and the second being that there was an interdiction on video game arcades in China. Thus, Internet games emerged from computer games as a new form of entertainment that exploded onto the market without warning and became extremely popular.

The second is the infrastructural factor of Online Game. There are three constituents in the infrastructure of Online Game: namely, the broadband environment, the payment system, and the Asian Internet cafe. As for the broadband environment, speed is not indispensable, but it is important that the telecommunications cost is low when considering that there is a wide range of online gamers in China who reside even outside the large coastal cities. As for the payment system, prepaid card is the main method of payment in China, whereas in South Korea, small-scale charging - made possible through the combination of cellular phones, fixed telephones, and resident registration numbers - has become the main form of payment. The use of credit cards, which is the main form of payment in the United States and Japan, is not suited for small transactions, as all credit card transactions require a handling fee. The Asian Internet cafe is a significant factor in Online Game for the two countries. The Internet cafe is not only a terminal for Online Game but also an infrastructure in which widespread users can train their computer skills.

2.3. Japan

Japan is completely lagging behind in Online Game. The entire gaming industry, including Online Game, is at a crossroads, and the domestic gaming industry is rapidly shrinking. Although the domestic market hit its peak in 1997, it had shrunk to about half that size by 2003. In addition, Japan is facing a worrisome decrease in international competitiveness, and the shares of Japanese companies in the American marketplace are continuing to shrink. In 2002, the shares in North America, which had been at the 30-percent level, fell below 20 percent. Moreover, there is extreme domestic competition with the mobile games of cellular phones, and the enterprise supplying materials for cellular phones has greatly increased its bottom line. Those rival enterprises have increased their bottom line because of services

that they have created, rather than the games themselves, and have produced several services related to games combined with high-performance telephones.

In Japan, a major market of video game consoles has been established, so many Online Game appear as a combination of the 'Package Model' and the 'Community Model'. The former is a business model based on the packaged game business and the latter is based on Online Game business. The number of MMORPG users in Japan currently under a pay service contract is 700,000 to 800,000 people, and only about 1.5 million people in total have participated in Online Game in Japan. Naturally, popular Online Game titles that have created large earnings do exist in Japan, but the market is still undeniably smaller than that of China and South Korea. In 2002, the Online Game market yielded revenues of approximately $55 million USD (422.8-percent increase over the previous year even then), and the market of materials related to games used on cellular phones has yielded revenues of approximately $200 million. Figure3 show overview of growing rates in the various game markets in Japan.
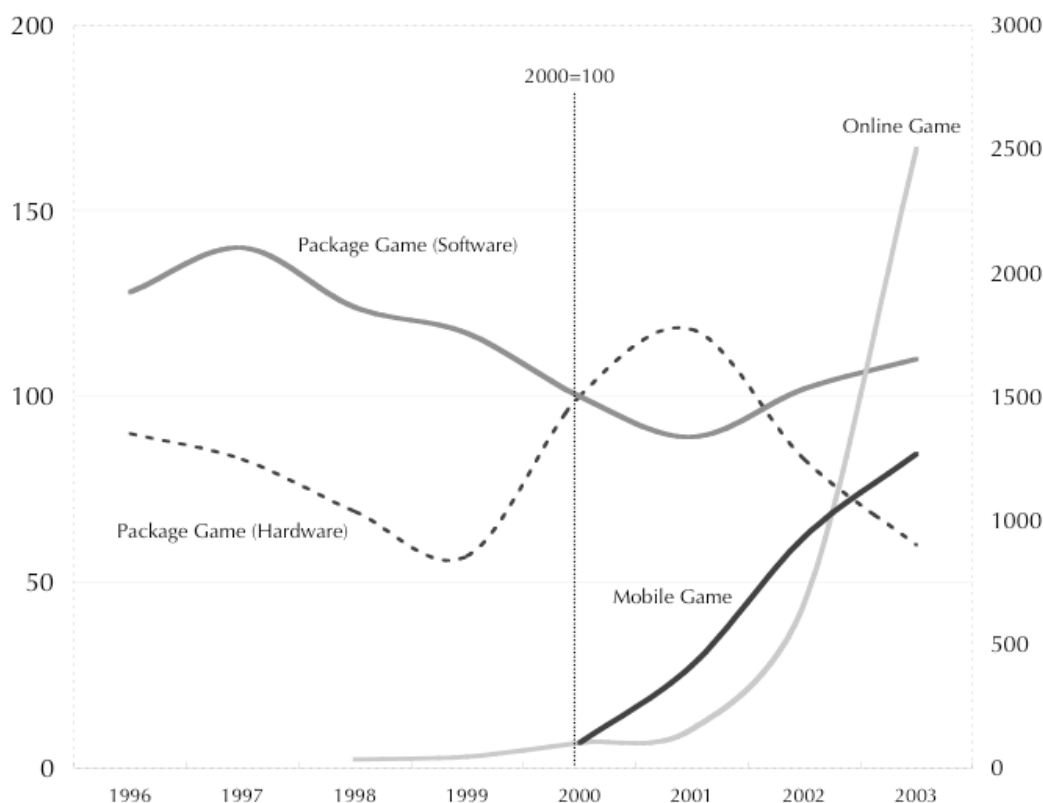

Figure 2. Growing rate of Japanese game industries

Source: Computer Entertainment Supplier's Association, Digital Content Association of Japan.
Notes: Refer to the left axis for Package Game. The right for Online Game and Mobile Game.

3. Business model of Online Game

3.1. Design feature of Online Game

What can be understood from the situation in South Korea and China, where the market of Online Game was established before the market of packaged games, is that packaged games and Online Game are significantly different businesses. The success or failure of the Online Game industry depends not on the number of CD-ROM or DVD-ROM sales but on the number of users that maintain a long-term connection. In Online Game business, the overall attractions are not only in the game's graphics, sound, and system but also in the user community (BBS, ML, SIG etc). In this sense, the Online Game industry resembles the service industry, as it obtains a profit when used for a long period, and the Online Game industry has quite a different profit profile than that of the packaged game industry, which resembles the movie industry in that it will generate considerable marketing for the product, realizing profits in the short term.

The packaged game lacks the aspect of a charging model. To put it differently, the charging model must be included in the design of online gaming. The reason why online gaming in South Korea has succeeded in various ways is because a charging system has been built into the individual game design. Whenever new charging systems such as cellular phones and Internet cafes appear, they are incorporated into the game as the charging model. One reason why the Online Game of Japan has not been successful is that the packaged game industry has switched to the Online Game industry with the packaged game business model. Therefore, it is necessary to fundamentally review the game design in consideration with the charging system of online gaming. Additionally, it is important to (1) charge users for providing them with added value generated by the community, and (2) proceed to create products that will have a long life, as well as creating horizontal industries of items and services derived from the long term products created.

Moreover, MMORPG has had a strong influence on the gaming industry, and due to this strong influence, Online Game tend to be thought of as PRG. However, the number of ID in light or casual games has greatly increased in Japan, as well as in South Korea and China. The users of MMORPG are believed to have different preferences and budgets than the users of casual games, so when considering the design of Online Game, it is important to develop MMORPG for the serious user differently from the casual games for the light user.

3.2. Business aspect of Online Game

In Table 1, the production cost and profit ratio of Online Game, what was made by major Japanese game manufacturer, are compared with the packaged game of this company. The numerical value is shown by a relative value while the packaged game assumed to be 100. According to this,

Online Game generates a larger profit, but packaged game is still leading as a business with respect to profit ratio. Furthermore, Online Game is disadvantageous in that it requires a running cost that is 120 percent of the production cost of packaged game, which does not require a running cost. The development of Online Game is very costly and requires considerable time. The running cost is also high, but Online Game generates large revenue and profits. However, Online Game has the characteristic that even if the Online Game becomes a success, the profit ratio will not be particularly high.

Table 1. Business Scheme: Package Game vs Online Game

Package=100

	Package	Online
Development Cost	100 (%)	200
Development Term	100	167
Retail Price	100	100
Sales Figures	100	100
Running Cost	—	120*
Income	100	266
Profit	100	230
Profit Rate	60% / 2year	44% / 3.5year

Source: KOEI Co,.ltd.
Notes: The value of Running Cost(*) is compared with Development Cost of Package Game.

Promotional costs, employment costs, equipment costs (office, server, network, hosting, etc.), and the initial license fee are required for an initial investment, which is necessary when considering a concrete business frame. Running costs include marketing expenses, sales commissions (i.e., payment margins and sales incentives for the Internet cafe), employment costs, equipment costs, royalty payments, and so on. The business profit is a rest that deducted running costs from sales, but capital investment is difficult to judge. When open beta testing is conducted, the number of users rapidly increases, and it is thus necessary to increase the capacity of the line and the server. However, in many cases, after the game begins to charge users, the number of users decreases. In other words, in consideration of the fluctuation of costs over time, there is a case wherein after charging users, the equipment reaches extreme excess in capacity.

Server technology and management expertise of the user community necessary for the production of Online Game and the necessary

beta-testing process differ from the production of standalone games. In consideration of the abovementioned, the production of Online Game is not mere game making, as there are aspects of it that resemble city planning and real estate development businesses.

4. Conclusions and Perspective

The game industry started about 20 years ago on the large scale. It is rare case historically that a player only plays with a Computer. Traditional game has been always with real human, so we can explain that game goes back to the old style. But Online Game go over the barrier of place difference, and keeps complexity and pliability with computer. These make the new standard of value in the industry. In Online Game, gaming design and business model are often indivisibly related, because of network characteristics. Now the game industry is shifting the Package Model to the Community Model. Online Game expands the meaning of game as not only a work of art but also a service. Video games have been sold by the package on retailer. But online makes the different possibilities of distribution, download selling, prepaid card, fee system and advertising model etc. The point that the Online Game differs from the package game deterministically is time. The role of developer and publisher are not only selling packages, but also keeping quality by being update contents. Game design has to expect many features and expanded feature for players not to get tired for long time.

It is the most important for successful Online Game to develop player community. If many players play game and join to community voluntarily, Added value would become into existence. Players make their events, meeting in the game, and develop contents, website, BBS and mailing list, concern to the game. Players find the new unexpected entertainment by themselves. Players had usually limited to use original content for making their contents on the Package game. But a developer should recommend to players on Online Game, because the number of players makes value. Once developed community, the game makes benefits for long time. Succeeded games have not finished their service and making benefit, though these are playing over 5 years and look old. These phenomena happen in the console game, not online. Developers have to plan user community. But strong players community may also become an ally to an enemy for a developer. Good reputation makes circulation between players and contents. But bad reputation may subvert the game. A small trouble tends to spread to all. For example, if a cheater or a cracker increases his money drastically, heavy inflation in the game would happen out of developer management.

In a sense, the management of Online Game is like the management of the nation. Therefore, to change rule is similar to revising law. Players will have the identity like people of the nation for the game. Developer must act to the Government. Online Game has the special feature that each country has a different type of community that is influenced on nationality. It is difficult to fix all character of Online Game, because the industry is in the wave that is changing the whole world. But we can discuss

how Online Game changes our future. This means to discuss the next life, business, culture, and politics of the future cyber-based society.

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