

Game Design on Item-selling Based Payment Model in Korean Online Games

Gyuhwan Oh

Division of Media, Ajou University
San 5, WonChunDong YoungTong-Gu
Suwon, Korea
drghoh@ajou.ac.kr
+82-31-219-1836

Taiyoung Ryu

Kama Digital Entertainment
SamChang Bldg, SamSungDong, GangNam-Gu,
Seoul, Korea
snake3899@nate.com
+82-2-544-6800

ABSTRACT

The paper covers issues of item-selling based payment model(micro-transactions) in Korean online games. Firstly, we characterize two payment models in online game: subscription based payment model and item-selling based payment model. We then investigate and characterize item-selling based payment model in online games and introduce two online games, “Kart Rider” and “Special Force” which have been successfully adapted item-selling based payment model as their business model. Finally, we discuss game design issues to efficiently accommodate item-selling based payment model in online games: how to balance between items obtained by game-money and items purchased by real money, how to abstract the function of such items, and how to strength events and communities. The survey will provide insight of designing micro-transaction policy for the next-generation console markets with “Xbox 360”, “Playstation 3”, and “Wii” as its major axis.

Author Keywords

Payment model, online game, item-selling based payment, micro-transaction, game balancing

INTRODUCTION

Collecting payment for network games can be defined as financial cost for game players requiring game play or enjoying paid contents through internet from PCs or game consoles. According to U.S. market intelligence provider IDC, Korea in 2005 occupies about 45% of the entire Asia-Pacific online game market excluding Japan [8]. Now, Korea is one of the leaders of online game development in the world. Hundreds of new online games have been launched every year, only a few dozen survives in the competition due to the limited scale of Korea game market. In order to survive in the fierce market, game service providers have been suggesting various price policies to obtain price competitiveness. New online games launched in the market are also trying diverse and sophisticated methods of payment policies to obtain price competitiveness. In majority of MMORPG in the past had been chosen subscription based payment models such as

monthly subscription fee as their primary payment policies. But, they are quickly transforming their services either by discounting service fees or providing the service for free of charge based on item-selling based payment policies.



Figure 1: Game play screen of “Quiz Quiz”

The online quiz solving game, “Quiz Quiz” developed by Nexon in 1999 is the first successful commercial game that had taken an item-selling method as its business model in Korea [16]. Figure 1 shows game play screen of the game. After that, casual and easy-to-play online games have been providing their basic games for free, and pay for in-game items and additional services. Today, some of them have been earning a few million dollars every month. Two online games, “Kart Rider” and “Special Force” which are developed by “Nexon” and “DragonFly”, respectively, are such examples [7, 19].

The paper covers issues of item-selling based payment model (micro-transactions, normally consisting selling and buying in-game assets for under 15 USD) in Korean online games. Firstly, we characterize two payment models in online game: subscription based payment model and item-selling based payment model. We then investigate and characterize item-selling based payment model in online games and introduce two online games, “Kart Rider” and “Special Force” which have been successfully adapted item-selling based payment model as their business model. Finally, we discuss game design issues to efficiently accommodate item-selling based payment model in online games: how to balance between items obtained by game-money and items purchased by real money, how to abstract the function of such items, and how to strength events and communities.

Situated Play, Proceedings of DiGRA 2007 Conference

© 2007 Authors & Digital Games Research Association (DiGRA). Personal and educational classroom use of this paper is allowed, commercial use requires specific permission from the author.

SUMMARY OF PAYMENT MODEL ON EXISTING ONLINE GAMES

The majority of fee based online game is the MMORPG based on PC platform and video game platform in North America, Europe, and East Asia serviced in 2006. Most of these games have subscription based payment models such as daily, weekly, or monthly subscription fees as their payment policies. In the U.S.A. and Europe's subscription based payment model are mostly MMORPG based on PC platform. The period limits are monthly basis and the fee is usually 12 USD ~ 15 USD per month. It usually reduces the resistance of players by servicing free of charge open beta service, providing free of charge service at the initial subscription level, or when purchasing a game package. The representative examples of this are "WOW (World of Warcraft)" by Blizzard, "City of Heroes" by Cryptic Studios, and "Eve Online" by CCP [23, 1, 2].

In Japan, subscription based online services are provided to both PC platform games and game console platforms. They also have variety of genre such as role playing games, sports games, and action games. "Final Fantasy 11" provided by Square Enix can be used by purchasing 7,800 JPY package and monthly fee of 1,280 JPY per a character unlike the MMORPG in the U.S.A. or Europe [3]. "Final Fantasy 11" does not provide free of charge period and open beta service. "Monster Hunter 2" which is released on Feb, 2006 is the third series of "Monster Hunter" by CAPCOM [14]. The game is put on sale for "Playstation 2" and provides both single player mode and networking mode [14]. In order to use the networking mode, a player needs to purchase the game package that costs 6,980 JPY and is additionally required to pay service fee of 840 JPY on monthly basis to use the multi-play server. The Winning Eleven series provided by Konami for "Playstation 2" platform is the only subscription based type of sports game [22]. "Winning Eleven 9" released on August 2005 provides both single player mode and networking play mode. The game provides service fees based on 7 day, 30 day, and, 90 day periods. Furthermore, an extra fee needs to be paid by the online game players to use a specific soccer team and specific team of a league for the networking play.

Limitations of Subscription based Payment with Term Expiration

The subscription based payment model adapted by majority of MMORPG market can pose burden the game developers as well as the online game players. The financial burden carried by the game players stemming from the subscription based payment model can prevent the game players from experiencing new online games other than the games they are paying fees for. This will work as a barrier to the entrance for arising new game companies trying to participate in the market other than the few companies that dominate the current market.

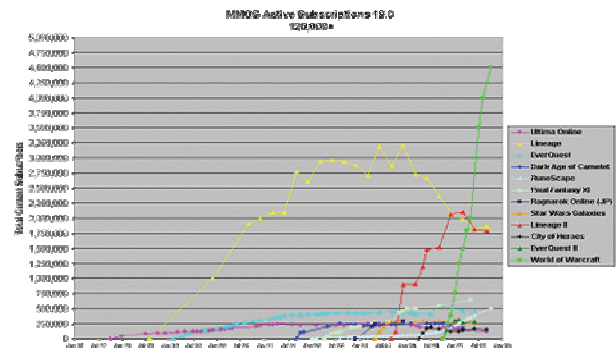


Figure 1: World wide trend of online game subscribers

Figure 1 shows the online game serviced world wide with over 120,000 subscribers and their subscription trend [13]. As seen from the data of the graph, only a few online games dominates the majority of the game market, In addition, the online games have quite a long life cycle over 5 years except for the WOW and they take subscription fee payment model as their business model. Such situation makes it difficult for the new online games to enter the market. Recently, new game companies endeavoring to participate in the game market are using the strategies such as fixing service fees at a lower price than the current online game providers or even providing free of charge services except for exclusive services to attract players subscribed to other online game providers. The online game market in Korea where the majority of the games are composed of online game can evidence this tendency. Starting from 2006, the service fee of MMORPG market in Korea has been clearly declined or has turned into free of charge services.

Most of the subscription fee charges for online games in Korea have maintained a fee of 20,000 KRW to the subscribers on a monthly basis. However, as monopolization of small number of games such as "Lineage [9]" and "WOW" grew, entrance of new MMORPG became gradually challenging, causing many of the MMORPG providers to begin their services at lower fees or provide their services free of charge. In November 2005, "Uncharted Waters Online" published by CJ Internet has fixed the service price lower at 19,800 KRW, breaking the previous game providers' monthly price of 20,000 KRW [21]. This trend was followed by NC Soft's "City of Heroes" which begun its service in the 1st quarter of 2006 at 19,800 KRW and "Rohan" of Sunny YNK have also fixed its' monthly service price at 19,800 KRW [18]. In the case of "Guild War Chapter 2: Broken Alliance" provided by NC Soft, begun its service by fixing its monthly service fee at 9,900 KRW [6]. Besides the examples given above, many of the new MMORPG such as "Gui Hon", "Lapelz" have declared to provide their services free of charge, which begun their services at the first half of year 2006 in Korea [5, 17]. In the midst of swarming discount-pricing trends, "WOW" by Blizzard had little choice but to lower their monthly service price from 24,750 KRW to 19,800 KRW from April 2006.

As the free of charge casual online games have increased their market share in Korea online game market, online game providers that have chosen the subscription based charge system have begun to lose its competitive pricing. Increase of free of charge casual online games has increased their market share not only in Korea but internationally. Another element that has increased the casual online games is the increase of women players in the market. According to the study conducted by the Consumer Electronics Association in the U.S. on April 2006, 65% of women between the age of 25 and 34 in North America are playing games and they mainly use the casual online games provided by Pogo.com, MSN.com and Yahoo.com etc.

Casual online games have chosen to provide various methods of payment system to the game players like allowing the players to play the game for free, but have the players purchase certain in-game items to proceed with the game, or have the players indirectly pay service fee by having them watch advertisements prior to commencing games [15] or lead them to subscribe to an affiliated company by paying service fees of which will provide capital necessary to proceed with the online game [19] or have the players purchase game money as a means to a settlement for buying items on specific online game websites [7].

ANALYSIS OF ITEM-SELLING BASED PAYMENT MODEL

This chapter will analyze some of the item-selling based payment model introduced in current online games and elaborate the features of the models.

Elements of Item-Selling based Payment Model

In-game items compose the biggest part of the item-selling based payment model. Game players pay per in-game item according to its price and use them in the game. The items may vary from ornaments of game characters to items that may allow increase in experience level of MMORPG.



Figure 2: Game play screen of “Maple Story”

There could be an item that can be used only once or a matter of a week or a month, and there could also be an item that can be used permanently once purchased. “Maple Story” developed by Nexon (see Figure 2) can be evaluated as having one of the successfully established item-selling payment model [11]. The items in this game usually have a decorative function but have little affect on practical game function itself. A typical example would be a “Pet” purchased by “Nexon Cash” which would only function as

a pet and having no other special functions such as participating in combat with the player.

There are cases where game applications with multiple additional functions are sold to the online game players but the application does not have an effect on balancing of the game. Specific application with additional functions or paid tools in MMORPG, and other than the basic game functions provided by the casual online games, paid premium service for casual online games are some of the examples of paid application online. These types of paid applications will have term expiration in proportion with the amount of service fee paid. “Special Force” which is a first person shooting game serviced by Neowiz is one of the most successful games in Korea from the aspect of market share in 2005. With average simultaneous connections over 100,000 and the number of daily game participants reaching 1 million, this game is adopting the item-selling based payment model. In this game, various paid items are provided and the tool saving the replay of the game screen is also provided in the form of a paid item. This replay item is the typical example of paid applications.

Method of Item-Selling based Payment Model: Prepaid Game Point System

Most of the in-game assets sold in online games are usually in a small sum ranging from a few hundred KRW to a couple thousand of KRW, and online games with item-selling based payment model have a tendency to have numerous settlements of small sum online. In order to efficiently settle these numerous small amounts online, game players are required to purchase game points through diverse routes and consume the game points in purchasing game assets online.

The game point system have special features such as allowing online game players to have access in-game assets and all the game provider’s networking games by purchasing and using the game points. Therefore, the game providers can have overall control of all the games they service and at the same possibly expect to have a synergy effect in increase of sales if game points are used all across the games they provide. Nexon requires online game players to purchase their “Nexon Cash” and consume that game money when using any of their services online. “Nexon Cash” is allowed to be used and recharged across all the portal websites that allow access to any Nexon games.

Game points purchased online allow online game players to have diverse payment routes. In general, casual online games that have chosen to levy partial charge to the game players have a different target age group compared to MMORPG games that provides subscription based service with expiration dates. The main target of MMORPG is relatively older men age group whereas casual online games target younger online game players less than 20 years of age. Therefore, payment system through credit cards can restrict younger consumers from participating in online

games. Game points can be used as one of methods to resolve such problems. Online game players may purchase game points with cash at the game shop even without credit cards. Game points may even be given to the players as a reward scheme resulting from various events online or as a bonus when products related with games are purchased.

Advantage of Item-selling based Payment Model

The most distinguishing features that item-selling based payment model as opposed to the subscription based payment model is that consumers may specifically choose what they wish to do by paying fees. Therefore, the consumers have less financial burden when playing games online. This works as a positive factor in terms of expanding players online. Many of the women players who are skeptical about paying fees to play online games or younger players having less financial capability to be aided with subscription based payments welcome the item-selling based payment model since they are required to only pay fewer fees for specific parts of the games they choose to play with. Thus, item-selling based model may work as an alternative to prevent concentration of specific game players and to prevent players from departing.

Diverse methods of payment also allow having various game designs. Subscription based payment model only has a payment structure to pay fees on a daily, a weekly, or a monthly basis, etc. Such games have tendency to emulate other games and are likely to be reluctant to rapid changes when updating their contents for fear of losing players online. On the other hand, item-selling based model selling mostly the in-game items endow possibility to be more flexible in managing games and updating contents. The important point in the managing of games adopting the item-selling based payment model is the part to be made into a paid system which is the attractive part linked to the payment system that can appeal to players. The establishment of this type of item-selling based payment model contributes to the diversity of game contents.

CASE STUDY OF ITEM-SELLING BASED PAYMENT MODEL

This chapter will introduce two games, “Kart Rider”, and “Special Force” which have been successfully adapted item-selling based payment model as their business model in Korean online game market.

Case Study 1 : “Kart Rider”

“Crazy Racing: Kart Rider (henceforth Kart Rider)” is one of the examples of having successful item-selling based payment model internationally ever since it launched item selling methods from August 2004. “Kart Rider” began its service from an open beta test on June 2004, which has similar game play of casual online racing game as that of “MarioKart” developed by Nintendo [12]. “Kart Rider” had a remarkable growth from the open beta test: it had a record of breaking 10,000,000 subscribers in Korea within 8 months since its launch. In addition to the service

provided in Korea, Nexon began its beta test in China at the first quarter of year 2006, which had a record of simultaneous connection of 500,000 players online. From January 2005 and up to the present, Nexon earns approximately 3 Billion KRW revenue on a monthly basis in Korea through selling in-game items in “Kart Rider”.



Figure 3: Game play screen of “Kart Rider”

As you can see from Figure 3, “Kart Rider” depicts cute graphic images and operates on a strictly simple game play, and the target is focused on young players online. Therefore, payment system using credit cards have restrictions on creating profits out of such young players. Using the “Nexon Cash” which needs to be paid in advance, players can purchase all the items sold in “Kart Rider”. “Nexon Cash” can be purchased through credit card as well as through internet cafe which have easy access to younger players, and it could also be purchased at convenient stores by paying real money. Since “Nexon Cash” can also be purchased in small amounts as well, it makes it easier for consumer to have purchase access to it.

“Kart Rider” has realized a good balance between in-game items that could be purchased by pre-paid “Nexon Cash” and in-game items that could be purchased by the game money earned in the game itself called “Lucci”. The items that could be purchased with “Nexon Cash” and “Lucci” are completely separated. That is, items that could be purchased with “Lucci” cannot be purchased with “Nexon Cash” and vice versa. This method prevents problems that could otherwise have occurred if same item could have been purchased with both types of cash. This makes “Kart Rider” different from existing games that allowed same items to be purchased with both real money and game money. Some of the existing games allowed players to purchase in-game items at a discounted price when it was purchased in cash, therefore, inducing the players to buy items with real money. Although it may have a short term effect on the users to save their time from long hours endeavoring to accumulate game money, it also has potential side effects such as drop in items sales and furthermore lower participation in game itself. With little amount of investment in the game, some of the players have advantages than other players who have spent more time playing games to accumulate game money and purchasing items that way, and this diluted the objective to continuously play game online.

Item-selling based payment model introduced by “Kart Rider” has effectively resolved the problem that the above example had. Furthermore, game design was such that the

separated items have synergy effect on each other resulting in increase of item sales and maintain continuity of game participants at the same time. Items purchased by pre-paid game points, “Nexon Cache” (henceforth “Cash Items”) mainly function as ornaments in the game play or enhance the game capability of the game player. Items purchased by game money earned in the game, “Lucci” (henceforth “Lucci Item”) not only enhances certain capabilities but also provides exteriors with special characteristics or special effects which does not have an effect on the game itself to allow players to boast themselves to other players. Players are inclined to show themselves off to other players online, therefore, players pursue “Lucci Items”.



	<p>“Plazma PT”</p> <p>“Plazma PT” is the vehicle that lower-level players often purchases and it increases the winning odds in the game. Expiration dates vary from 7 day, 30 day and 365 day period.</p>
	<p>“Red Missile Balloon”</p> <p>“Red Missile Balloon” is one of decorations that can be mounted on the vehicle of “Kart Rider”. Once this item is mounted on the vehicle, it will automatically obtain “Lucci” when attacked by missiles. Single purchase may be used up to 500 times.</p>

Figure 4: Examples of “Cache Items”



	<p>“Lunar Rabbit”</p> <p>“Lunar Rabbit” is a vehicle which represents a traditional figure appeared in one of fictions in Korea, and this item could only be purchased during traditional holiday called “Chusok(a form of Thanksgiving holiday in Autumn)”. “Lunar Rabbit” is an attractive vehicle which enhances the gaming capability of players and has a special function which deletes items that deter players during game. But it comes with a high price and other restrictions which make it more difficult for players to obtain it.</p>
	<p>“Replay Camera”</p> <p>“Replay Camera” allows a player to record their racing during game. Since it provides a function irrelevant to the game itself, it could be purchased at a relatively low price.</p>

Figure 5: Examples of “Lucci Items”

However most of “Lucci Items” have high prices compared to its attractiveness and there are many restrictions such as high levels (rank) required which makes

it difficult for the players to purchase one. Thus players purchase “Cash Items” to enhance their game capabilities to obtain more “Lucci” and upgrade their levels more easily. Such synergy effect induces players to buy more “Cash Items” for the existence of “Lucci Items”. Besides all of “Lucci Items” are for permanent use whereas “Cash Items” have expiration dates, hence players are inclined to consume more “Nexon Cash” to obtain more “Lucci”. Figure 4 and Figure 5 depicts “Cash Item” and “Lucci Item” provided in “Kart Rider”, respectively.

Case Study 1 : “Special Force”



Figure 6: Game play screen of “Special Force”

“Special Force” serviced by NeoWiz from July 2004 is a first-person shooting game and is the first online game that have successfully introduced item-selling based payment model. Figure 6 shows game play screen of “Special Force”. There is average of 90,000 players connected simultaneously online in Korea and it shows monthly sales of 5 Billion KRW. The game has an accumulated profit of approximately 20 Billion KRW from the time of its initial service up to January 2006.



	<p>“Double Up”</p> <p>This is a Cash Item that allows players to use with expiration dates. Once this item is purchased, SP earned will be doubled during game. Thus allowing players to earn SP more easily and buy better weapons.</p>
	<p>“Cross Hairs”</p> <p>This is also another “Cash Item” with expiration dates. Once this item is purchased it allows players to modify the form and color of aiming points. Considering the characteristics of First Person Shooting game, enabling players to modify cross hairs can have a significant effect in playing games.</p>

Figure 7: Examples of “Cache Items”


	<p>“AN94”</p> <p>One of “SP Item” that could be permanently used once purchased, and this is a main weapon during the game. The price is fixed relatively high in comparison with the time spent on playing games, and there are rank conditions as well in order to purchase this item.</p>
---	--

Figure 8: Examples of “SP Items”

There are two types of items that can be purchased at “Special Force”, which are “Cash Items” that can be purchased with pre-paid game points and “SP Items” which can be purchased with the game money earned as a result of number of winning in the game. Their two elements are provided to the players in a similar fashion that was shown in “Kart Rider”. “Cash Items” are mainly used for the purpose of allowing players to obtain “SP” more conveniently. But unlike “Kart Rider” “Cash Items” emphasizes the capability to obtain “SP” and experience levels as opposed to having decorative function. Furthermore purchasing “Cash Items” directly endows players with SP and experience levels at the same time. It will take considerable amount of time to accumulate enough SP to buy good “SP Items” and weapons through normal game play, and players will have less competitiveness unless they are equipped with good weapons, hence inducing players to actively purchase “Cash Items”. Figure 7 and Figure 8 show “Cash Items” and “SP Items” provided by “Special Force” .

GAME DESIGN TO EFFICIENTLY ACCOMMODATE ITEM-SELLING BASED PAYMENT MODEL

This chapter will cover issues that need to be considered at the game design stage to realize an efficient item-selling based payment model.

Balancing between Pre-paid Items and Game Money Items

In the early stages of item-selling based payment models, they allowed same in-game items to be purchased with both real money and game money. In this case, most of these games allowed players to purchase in-game items at a discounted price when it was purchased in real money, hence inducing the players to buy items with real money. But as time passed, it made players aware that it is more favorable to purchase items by real money as opposed to spending more time to accumulate game money to purchase items, which has high possibility of breaking the game balancing in online games.

This item-selling policy triggers less motivation to players to spend more time on games to earn more experience and gaming capability, since little money invested can make players to be in equal position if not in better position than the players that spent time to accumulate experience and game money to purchase items. It will deter players from

continuously playing game online. Besides, players who persisted in purchasing items through game money will fall behind competition and be deprived of sense of achievement resulting in discontinuity of subscription. Therefore, it will be efficient and wise to place a balance between pre-paid items and game money items at the designing stage of the online games that have intention to introduce item-selling payment model.

Separation between items will help prevent crashing of balance between game money items as a result of pre-paid items. Moreover, it is also essential to think about the synergy effect that their separated items can induce to help promote sales of both of these items. Pre-paid items and game money items should be designed to facilitate sales of pre-paid items and with an objective to increase game play. In fact, some of the known successful stories base their in-game items purchased by either real money or game money as shown above resulting in creation of safer profits.

Methods of Item-selling

Introducing variety of in-game items that could be purchased by real money will allow consumers to have wider range of selection that would efficiently increase sales. It is efficient to design continuity of such items depending on the function they bear. It is efficient to design the in-game items that exist solely for the purpose of ornamental functions to be used permanently. However, for the items having functions to assist in obtaining game experiences or use and maintain game balance, they should be designed by purchasing game money. The in-game items purchasing by real money and bearing durability should be designed to have variety of terms of use such as 1 day, 3 day, 7 day, 30 day, or 365 day period depending on the price paid. The in-game items purchasing by real money having consumable characteristics should be designed to have limits in number of use in units of single, 10 times, 30 times, or 100times depending on the price paid.

Selling items in bundle within games is also another efficient method of sales, items included in a bundle should be decided based on connectivity with each other and the sales ratio. Items with similar functions or having mutual supporting functions are grouped as a bundle. It is an efficient way to pack in one bundle with items of high volumes of sale and items of low volumes of sale.



Figure 9: Bundle items in “Mabinogi”

“Mabinogi” developed by Nexon sells items having similar functions in a bundle package and with expiration dates under subscription based payment [10]. Players can purchase in-game items at a discounted price if bought in a bundle as opposed to separately purchasing each items (refer to Figure 9). In terms of “Extra Storage Service” variety of items are sold in a package that have a function to enlarge storage space. “Support Service” package has functions to assist the character of the game players during games. “Advanced Play Service” is composed of various items that help growth of player’s game character. “Fantasy Life Club” has bundled all of the above three packages in another form of package and it allows game players to purchase the three packages at a 30% discount.

Abstracting Function of Items

If an in-game item purchased by real money can practically enhance gaming capability of a game character in a casual online game, it is efficient not to disclose the actual data of increment to the game players. If the data is disclosed to the players, other players not using such item may be deprived of their sense of achievement. In addition, if the distinct differences between such items are disclosed to the players, there may be a tendency of concentration for a specific items and this may have an effect on balance of game. In order to avoid such cases, it would be efficient to express the function of items in a descriptive text format as opposed to revealing the actual data of increased function. Some of the casual online games chosen to provide item-selling based payment service such as “Kart Rider” have applied this method of expression.

Strengthening Events and Communities

It is necessary to consider selling in-game items during specific events. In this case, it would especially be a very efficient way to sell items that do not have specific functions other than having decorative effects. For instance, items having Christmas themes for ornamental purposes can obtain a large volume of sales in a short period of time. In addition, this type of sales method can be applied to items that are seldom sold during normal days, by increasing sales volume through discount events or publicize newly

designed items through give away events and have player cognize the usefulness. Once the event is over, companies may induce to have consistent sales.

In MMORPG, It is necessary to consider selling items for in-game communities. Guilds are typical representation of communities and selling related in-game items should be designed to assist the existing guild system or help promote guild plays. When guild plays are actively conducted in the game, players are inclined to have higher loyalty towards the game and game company can expect to have increase of sales in other items irrelevant to the guild. Guild related items in MMORPG could be categorized as shown below:

- Item for guild: Item providing special effects to all the member of guild.
- Emblem of guild: Emblem of guild inscribed in garments or equipments of members of guild
- Guild PR: Advertisement to recruit members of guild all across the server or the map
- Equipment for guild: Equipment with high functions and special effects to be used in guild level quest.

CONCLUSIONS: OUTLOOK ON CHANGE IN GAMES AS A RESULT OF ITEM-SELLING BASED PAYMENT MODEL

This paper analyzed problems of subscription based payment model which many current MMORPGs are taken as their business model and analyzed item-selling based payment model by introducing case studies. It has also discussed issues to accommodate efficient item-selling based payment model from the perspective of game design.

The expansion of item-selling based payment model in online games is expected to bring about many changes in the overall development of games, for example game design, sales, distribution etc. We expect to see a rise of interest in decision making issues from the perspective of game design such as deciding which items should be sold with real money, or allow players to buy with game money or provide them free of charge and balancing issues related with these areas. We also expect to see many researches conducted in designing payment system to efficiently support settlement of small amount of sums that will occur more often than not.

In addition to selling game functions mainly by selling in-game items, we expect to see a popular growth in designing games in independent units of game contents and selling and distributing each unit through the internet. Such methods will empower players in choosing games and game developers can seek consistent revenue by continuously adding parts online.

“XBOX 360” of Microsoft, “Playstation 3” of Sony computer entertainment and “Wii” of Nintendo are all expected to use this type of methods in distributing variety of contents and software through internet. Pre-paid game point system will also be supported to promote the former.

“Chapter 2” of action game “Ghost Recon: advanced warfighter” for “XBOX 360” can be purchased at the “Marketplace” of “XBOX LIVE” [4]. “Chapter 2” includes additional maps as well as missions and updated major elements appearing in the game such as new game modes, camouflage, weapon etc. Players can purchase “Chapter 2” with certain amount of “Marketplace Point” and play them on the basic package of “Chapter 1”.

As opposed to purchasing general packages, we also expect to see a gradual expansion in distribution method of downloading games through internet at a relatively cheaper price and allowing players to play for a certain period of time. Players may play games at a cheaper price and the game developers may increase overall sales volume and obtain statutory users. “The Legend of Heroes VI: Sora no Kiseki” developed by Falcom is a single player mode RPG serviced with terms of use [20]. Players may play the game at the 1/3 of the original package price or pay fees by the hour with pre-paid game points purchased via websites. Pre-paid game points allow players to purchase special items within games such as an item that enables players to save game at anywhere in the game.

REFERENCES

1. “City of Heroes”. Available at <http://www.cityofheroes.com/>.
2. “Eve Online”. Available at <http://www.eve-online.com/>.
3. “Final Fantasy 11”. Available at <http://www.square-enix.com/jp/>
4. “Ghost Recon: advanced warfighter”. Available at <http://ghostrecon.uk.ubi.com/>
5. “Gui Hon”. Available at <http://hon.mgame.com>.
6. “Guild War”. Available at <http://www.guildwars.co.kr/>.
7. “Kart Rider”. Available at <http://www.kart.nexon.com/>.
8. Korea Times. Available at <http://times.hankooki.com/times.htm>
9. “Lineage”. Available at <http://www.lineage.co.kr/>.
10. “Mabinogi”. Available at <http://www.mabinogi.com/>.
11. “Maple Story”. Available at <http://www.maplestory.com/>.
12. “MarioKart”. Available at <http://www.mariokart.com/>.
13. MMORPG Chart. Available at <http://www.mmogchart.com/Chart1.html>.
14. “Monster Hunter 2”. Available at <http://www.capcom.co.jp/monsterhunter/>.
15. POGO.com. Available at <http://www.pogo.com/>.
16. “Quiz Quiz”. Available at <http://qplay.nexon.com/>.
17. “Rappelz”. Available at <http://www.rappelz.com/>.
18. “Rohan”. Available at <http://www.rohan.co.kr/>.
19. “Special Force”. Available at <http://specialforce.pmang.com/>.
20. “The Legend of Heroes VI: Sora no Kiseki”. Available at <http://lh6.aruon.com/>.
21. “Uncharted Waters Online”. Available at <http://dho.hangame.com/>
22. “Winning Eleven”. Available at <http://www.konami.jp/we/>.
23. “World of Warcraft”. Available at <http://www.worldofwarcraft.co.kr/>.