A Study On Cosmetic Virtual Product Purchase In Multiplayer Online Battle Area Games

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Abstract

Video games are definitely one of the fastest growing industry in all kind of digital platforms from computers to mobile phones. Cellular data and wifi connections allow players to link to their virtual life easily wherever they are. Online transactions have transformed video games into bustling online markets. Most of the games now offer variety of virtual products to their gamers within the virtual world. Multiplayer online battle arena or MOBA is one of the newest game models that use the free to play business model which allows users to purchase mostly virtual cosmetic products that have no effect on actual game play. In this study gaming time effects and virtual product involvement are researched in concept of cosmetic virtual product purchase. Players divided into five groups for gaming time from very low to very high while two group for virtual product involvement as interested and uninterested. Also players' views about purchases are discussed.

Keywords: Virtual Product, Virtual World, Online Game, MOBA, Free to play

Introduction

Introduction of three-dimensional cyberspaces named virtual worlds was one of the major development in social computing. Virtual world industry has growth with the increasing number of players, establishment of new servers and players' cash flow (Jung, Pawlowski, 2014: 520). Economic value of video games used to be a niche sector. Nowadays it has turned into a blockbuster business (Marchand, Hennig-Thurau, 2013: 141). Despite the global economic crisis in 2008, online game industry has kept growing (Chang vd, 2013: 175). The development and growth of online games at the begining of 2000s was extraordinary. After online games was recognized as mere method of entertainment, it has proved itself as applicable and profitable sector (Lee, 2010: 81). Online games are one of the best business model that works on Internet (Wu vd, 2013: 158).

The history of video games has started with Willy Hihhinbotham's Tennis for Two in 1958. The first commercial game launched in 1971 after development of computer hardwares. As computers perceived as working tool, games were rejected in minds for a long time. When Nintendo released family computer systems in Japan, families and educational organizations had concerns of its effects on children and teens. But it did not stop the rapid growth in popularity of the sector. Recently many video games can be played online (Chang vd, 2013: 176).

Video games act as bridge between different sectors and presents a hybrid experience. For example Lord of the Rings is a book series and inspired movies, games and different products. Video games can be considered as the fastest growing and the most exciting mass media tool for the next decade. The sector has also high inovation and dynamic structure (Marchand, Hennig-Thurau, 2013: 141).

Consumer and product in virtual worlds

There are many reasons that why people plays video games. While some of them play only during spare time, some others play for many hours as it is a kind of task. The most important difference between other video games and online games is many players that connects to the world and affect it individually which causes a unique game scenario and experience for each time. Even a single player can change the whole virtual world.

The interaction between gamers is very same to the real life behaviors. Consumer and consume concepts also undoubtedly exist in virtual worlds.

Online games present a virtual reality. Every player can interact with other players and has a role. Different games provide various experiences. Creating "Deep-going and satisfying experience" for players became a key to improve the marketing effect because these experience has urgent influence on consumption desire. Perceived experience will affect future consumption patterns of online game consumers (Sheu vd, 2009: 8487).

Similar to the real world, virtual world players also demand virtual products. Only difference is their digital form. These products are weapons, armors, magical items that increase character's performance as giving ability to move faster, to fight stronger etc or clothes, pets, virtual houses, furniture that customize outfit of character and personalize players' personality in virtual world (Guo, Barnes, 2011: 303; Wu vd, 2013: 158). The cash trade between user to manufacturer and user to user have a dramatic growth in virtual worlds (Jung, Pawlowski, 2014: 520). The secondary market that lets digital products to be exchanged with real money, has started in 1999 on Ebay with the auction of very rare items that exist in MMORPG (Lehdonvirta, 2009: 98).

In virtual worlds, the products may be virtual and digital, but the economic system is not. Even though it is called as "virtual economy", it is a system that has a strong link with the real economy (Jung, Pawlowski, 2014: 521). Having currencies that have exchange rates pegged to real-world currencies of games such as of Second Life and Entropia Universe prove the strong link between real life and game economy (Harwood, Ward, 2013: 251).

These products can be bought with real money, but they can only be consumed or used inside the virtual world (Mäntymäki, Salo, 2011: 2089). These products can be obtained in several ways. They can be found in monsters' remains, as reward of quests or on the ground randomly. They can also be traded with player or non-player character. Players can trade virtual product with real money, or directly buy it on official page of game.

Gamers experience competency, enjoyment, visual authority and monetary value from using and purchasing virtual products. As players perceive greater values of products, they tend to purchase more. When players identify with their game characters, they care about virtual products more (Park, Lee, 2011: 2184). Purchasing clothes or other virtual products provides differentiation among other players. Consumption concept became something about personality, experience and status as it does in real life because of a great number of players that exist in virtual world (Mäntymäki, Salo, 2011: 2089).

Moba and purchase

The game consist of two base and two teams that have five players for each. Players try to destory enemy base while defending their owns'. This type of games are called Multiplayer Online Battle Arena (MOBA). Players joins the army with their characters, try to improve their levels and gain loots by fighting enemy troops. The team who has higher level characters has an advantage over the opponent team. All characters start game equally in level and gold. Most of the MOBA games use free to play business model. In free to play games, players dont need to pay to connect to the virtual worlds, but they are able to pay for the extra stuff and services.

Multiplayer Online Battle Area genre has a balance force from its nature between players since it was based on equality in competition. Power gaining products will most likely damage the community. So most of the virtual products are cosmetic which shift the appearance of characters. According to Lehdonvirta (2009: 106) when the aesthetic aspects of virtual products are sufficiently compelling, players may derive hedonistic enjoyment. Compelling aesthetic will be differed upon target audience.

In a virtual community, there are many ways to show about your status like buying an expensive aircraft, gaining postwar medals. This may

be an important psychological motive for many players (Szell ve Thurner, 2010: 314). Virtual products also support on building and strengthening self-image in virtual worlds (Kim vd, 2011: 229).

In our study MOBA gamers has a communication link to trade and contact each other. The link consists of in-game chat channel, trade web pages and face to face interaction between players. These web pages quicken the virtual product flow while informing the player about the true market price of the product. Since every virtual product has a different value, market information has a strong value for traders to avoid scams.

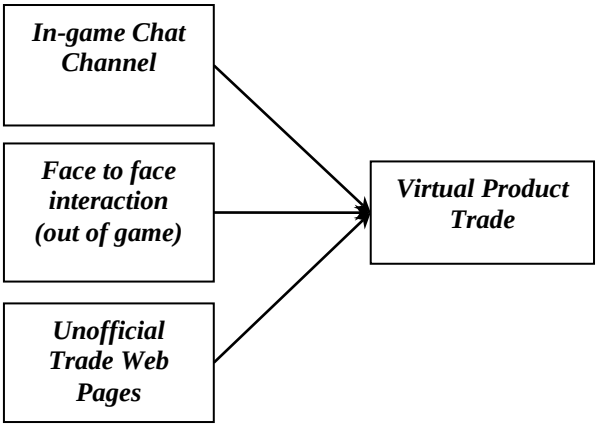


Figure 1: Virtual Product Trade Path

Method

Sampling was conducted in two chat channels to Turkish players. Convenience sampling method was used due to mass log in/log out activities which prevent researcher from tracking players without support of developers. Also response rate was very low because players tend to maximize their gaming time as much as possible. To reach different type of players, data were collected in the morning, evening and night time during three days. All players who are not away from keyboard were texted in the channels and 57 players accept to be participant for the study. Respondents were asked about demographic variables and their past virtual purchase behavior. Later participants' gaming time data and most successful characters data were collected from their profile page.

In this study, all participants are male. They are mostly college students. Some of the purchase patterns of participants are shown in the table 1. The data represents all purchases since they played first.

Table 1. Purchase Patterns of Participants

	Amount of Players	Amount of Purchase	Count of Purchase	Amount of Per Purchase	Avg Purchase
Paid Players	27	2004 $	1053	1,90$	74,2$
Non-paid Players	30	-	-	-	-
Total	57	2004$	1053	1,90$	35,1$

This study aims to reveal cosmetic virtual product purchase behavior with considering playing time and product involvement. Product involvement stands for passing time by activities about virtual products which means virtual product trade and virtual product bet. Players who do one of them considered as interested player, and who do not considered as uninterested. Virtual product trade stands for exchange of virtual items between players. Virtual product purchase split the participants into two, who purchased at least one time, and who did never.

The first hypothesis is;

H1: There is a significant relationship between product involvement and cosmetic virtual product purchase with real money.

Gaming time is a key factor of being part of the virtual world. Every player has different type of gaming. There are five different gaming time appeared between players from very low, low, medium, high, very high. These hours differ from 106 to 3700 hours for this study. Our second hypothesis is about gaming time and the virtual product purchase is;

H2: There is a significant relationship between gaming time and cosmetic virtual product purchase with real money.

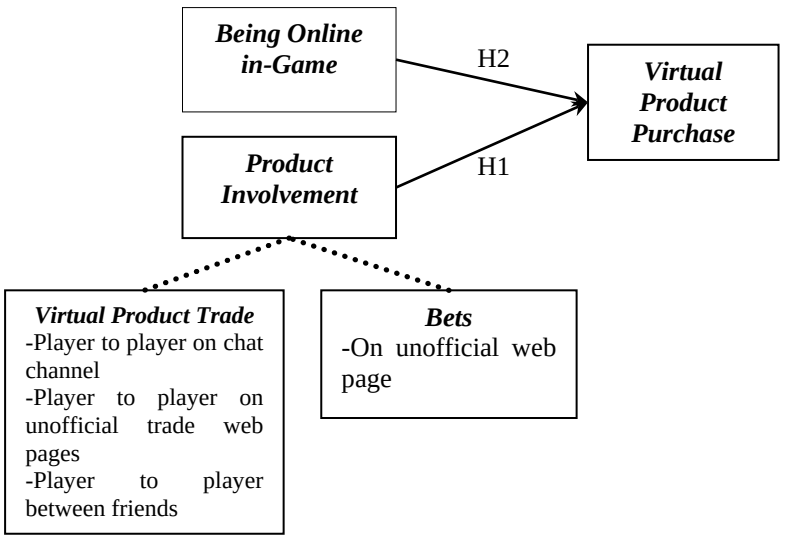
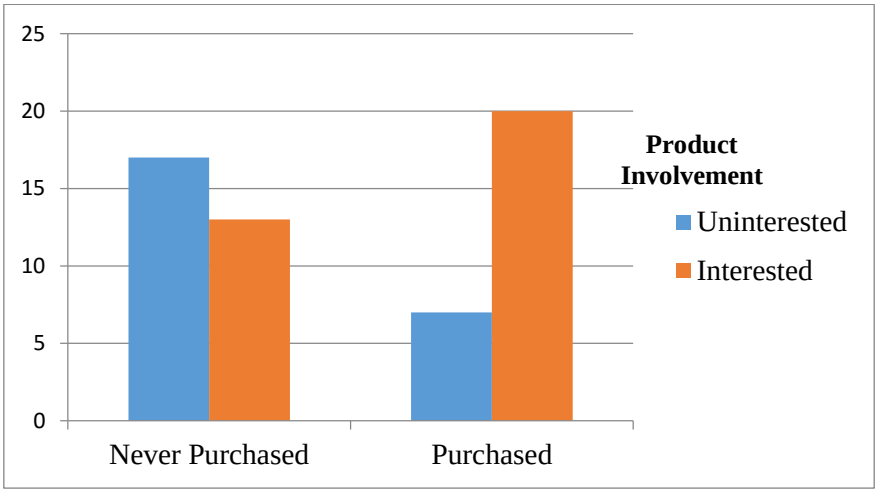


Figure 2: Research Model

The significance level was set at 0.05 for this study. Chi square independence test was used to test our hypotheses. For the first hypothesis p value is 0,019 and 0,05>p, H1 hypothesis is supported. There is a significant relationship between product involvement and cosmetic virtual product purchase with real money.

Table 2. Crosstables for Product Involvement and Cosmetic Virtual Product Purchase

χ^2: p= 0,019		Product Involvement		
		Uninterested	Interested	Total
Never Purchased	Count	17	13	30
	% of Total	29,8%	22,8%	52,6%
Purchased	Count	7	20	27
	% of Total	12,3%	35,1%	47,4%
Total Player	Count	24	33	57
	% of Total	42,1%	57,9%	100,0%



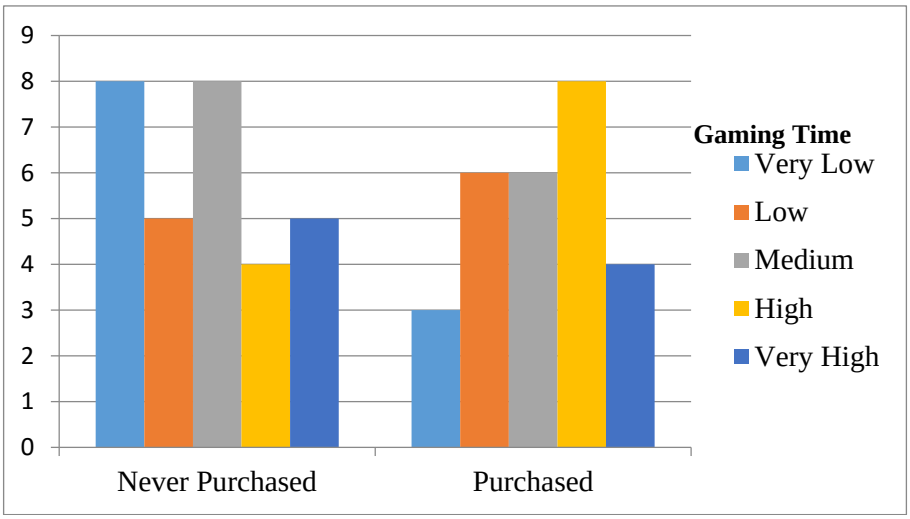
Graphic 1. Product Involvement and Purchase

There are many players who did not pay a penny for virtual products in this study but it is not possible to say they are not interested in virtual products. They may gain these products from events as a present and trade them with others. Most of the players who did virtual product purchase also interested in virtual products which means they are trading or placing bet with them. There is a small group of player who did virtual product purchase but does not trade or placing bet with them. They prefer to use their time by playing or watching games instead of trading/betting. They directly pay for the virtual products.

For the second hypothesis p value is 0,413 and 0,05<p, H2 hypothesis is not supported. There is not a significant relationship between gaming time and cosmetic virtual product purchase with the real money. It can also be seen clearly on the graphic 2.

Table 3. Crosstables for Gaming Time and Virtual Cosmetic Product Purchase

χ^2: p= 0,413		Gaming Time					
		Very Low	Low	Medium	High	Very High	Total
Never Purchased	Count	8	5	8	4	5	30
	% of Total	14,0%	8,8%	14,0%	7,0%	8,8%	52,6%
Purchased	Count	3	6	6	8	4	27
	% of Total	5,3%	10,5%	10,5%	14,0%	7,0%	47,4%
Total Player	Count	11	11	14	12	9	57
	% of Total	19,2%	19,2%	24,5%	21%	15,7%	100%



Graphic 2. Gaming Time and Purchase

There is also qualitative data obtained. From what participants told, it can be clearly said that players like customizing their characters. Even one participant told that he feels naked without virtual products. According to the data, purchases mostly happen on players' most successful characters. Achievement may motive players to differentiate themselves among others. Also most of the players who like to trade virtual products told that they were scammed by other players during their early gaming times. It is an unfortunate experience for new players which may damage the future of the community.

Conclusion and Future Work

Chi Square tests show that there is a significant relationship between product involvement and virtual product purchase with real money. 60,6% of the interested players has purchased for a virtual product with real money while 74,1% of the players who purchased also interested in virtual products. Product involvement and virtual product purchase has a positive relationship.

There is no relationship between gaming time and virtual product purchase in this study.

It is necessary to launch new cosmetic virtual products to provide hedonic and symbolic satisfaction in MOBA games. There is a need of reliable channels to make trades and bets safer and more activities to increase product involvement besides the existing ones. This research suggests that suggestions above will increase the virtual product sales in total. The average age of participants is 22. New updates should be considered within the age group for every game. Age is a strong guide for advertising and production process. For this game, all existing childish content should be changed. Also previous purchases should be used to prepare customized offers for every player. These offers can be strengthened with sales promotions. This study has also shown that players generally buy cosmetic virtual products for characters that they are most successful with.

Future studies may contain more participants. In this study, although we have tried to reach as many player as we can, only very little of the gamers answered due to lack of gaming time. The data may be collected in long-term to reach more players. Also achievement should be focused by researchers as a strong motive for future studies.

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