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**SOCIAL COMPUTER GAMES AS A MARKETING
CHANNEL FOR CREATING AND MEETING VIRTUAL
NEEDS. AN EXAMPLE OF SECOND LIFE**

**SPOŁECZNE GRY KOMPUTEROWE JAKO KANAŁ
MARKETINGOWY SŁUŻĄCY DO KREOWANIA
I ZASPOKAJANIA WIRTUALNYH POTRZEB
SECOND LIFE**

Abstract: Internet development and demographic changes among users of computer games caused that the players became an attractive target market in the sale of products and con-

sumer services. Inside the virtual worlds of games, especially in social games such as Second Life, products from various industries and brands are purchased. With the appearance of this phenomenon, scholars focused on understanding of virtual consumption and explore certain regularities and similarities in relation to purchase behavior in the real world. This article aims to present current knowledge in the field of a needs and purchase behaviors in the computer social games based on literature review. The directions of future research will be also presented.

Keywords: virtual consumption, computer games, Second Life, consumer behavior

Abstract: Rozwój Internetu oraz zmiany demograficzne wśród użytkowników gier komputerowych uczyniły z graczy atrakcyjny rynek docelowy dla sprzedaży produktów i usług konsumpcyjnych. Wewnątrz wirtualnych światów gier, a w szczególności gier takich jak Second Life, kupowane są rozmaite produkty oraz marki. Wraz z pojawieniem się zjawiska wirtualnej konsumpcji naukowcy skupili się na jego zrozumieniu oraz identyfikacji pewnych prawidłowości i podobieństw w stosunku do zakupów w prawdziwym świecie. Niniejszy artykuł ma na celu prezentację aktualnej wiedzy na temat potrzeb i zachowań konsumentów w społecznych wirtualnych światach, w oparciu o przegląd literatury. Wskazane zostają również rekomendacje naukowców dotyczące kierunków przyszłych badań.

Słowa kluczowe: wirtualna konsumpcja, gry komputerowe, Second Life, zachowania konsumenta

Introduction

Nowadays Internet is inevitable part of people's life. Users utilize Internet not only for communication and entertainment but also for business transactions. Market share of online computer games has also changed¹. At first, it can be observed some changes in audience of computer games. The average player is not yet a child or teenager addicted to games and alienated from society. Research conducted in Poland indicated that active players can be found in every age group, regardless of gender². The rapid development of games has made players an attractive target market³. Secondly, there is an increase in use of computer games for selling virtual products for real money⁴.

Amongst many kinds of game, special place took those games in which users explore virtual world⁵. Virtual world is an environment created by technology that en-

¹ C.H. Ho, T.Y. Wu, *Factors affecting intent to purchase virtual goods in online games*, "International Journal of Electronic Business Management" 2012, 10(3), p. 204.

² M. Mitreğa, *Advergaming jako rozwijająca się forma komunikacji marketingowej*, „Studia Ekonomiczne” 2013, (140), p. 134.

³ M. Mitreğa, *Reklama w grach komputerowych – wstępne badanie postaw graczy w Polsce*, „Marketing i Rynek” 2012, (6), p. 30.

⁴ C.H. Ho, T.Y. Wu, *Factors affecting intent to purchase...*, p. 204.

⁵ B. Mennecke, E.M. Roche, D.A. Bray, B. Konsynski, J. Lester, M. Rowe, A.M. Townsend, *Second Life and other virtual worlds: A roadmap for research*, "Communications of the Association for Information Systems" 2007, p. 372.

compass virtual representations of various elements which appear in the real world⁶. This type of games distinguish flexibility in creating characteristics and behavior of characters and the lack of a defined goal of the game⁷. It can be distinguished virtual worlds oriented on the game, e. g. World of Warcraft and Everquest, and virtual worlds focused on social aspect like Second Life. In the first one, the most important things are the rules of the game whereas the second one gives the users more freedom and enable users to involve in various economic activities⁸. Social game is a type of online game created to enable interaction among its users⁹.

At the same time, online virtual world such as Second Life have managed to build up a meaningful client base and virtual goods market has grown. Creators of computer games increasingly provide tangible virtual products and objects that can be exchanged amongst game users in virtual environment for real money¹⁰. Drennan and Keeffe reminded traditional approach that assumed that consumer behavior is a study of the processes involved when individuals or groups select, purchase, use or dispose of products services, ideas, or experiences to satisfy needs and desires. Although traditional approach is related to consumption situation in real life, consumer will engage in similar behaviors in virtual game environment. Thus, virtual consumption can have similar attributes like consumption in real world economies¹¹.

This paper consider consumption in social virtual worlds on the example of Second Life, one of the most popular game. At the end of 2007, Second Life already had 10 million accounts and an average 40,000 users were logged in at the same time. In 2011 Second Life gained a special popularity in America, with daily registered between 14 and 18 thousand new users¹². Yet on the beginning of October 2006, Second Life had more than 800 000 users and spending's around 383 000 real US\$ in the preceding 24 hours. In December population reached the 1.77 million users and spending's around 656 000 a day. In 17th January 2007, the number of users increased to 2.67 million and avatars spent 805,096 US\$ in the preceding 24 hours¹³.

⁶ N. Kock, *E-collaboration and e-commerce in virtual worlds: The potential of Second Life and World of Warcraft*, "International Journal of e-Collaboration" 2008, 4(3), p. 1.

⁷ J. Laskowska-Witek, M. Mitrega, *Brand Promotion Throught Computer Games on the Example of Second Life*, "Studia Ekonomiczne" 2014, 205, p. 37.

⁸ B. Koles, P. Nagy, *Virtual customers behind avatars: The relationship between virtual identity and virtual consumption in second life*, "Journal of Theoretical and Applied Electronic Commerce Research" 2012, 7(2), p. 88.

⁹ D.H. Zhu, Y.P. Chang, *Effects of interactions and product information on initial purchase intention in product placement in social games: the moderating role of product familiarity*, "Journal of Electronic Commerce Research" 2015, 16(1), p. 22.

¹⁰ B. Koles, P. Nagy, *Virtual customers behind...*, p. 88, 90.

¹¹ P. Drennan, D.A. Keeffe, *Virtual consumption: Using player types to explore virtual consumer behavior*, "Entertainment Computing-ICEC" 2007 (pp. 466-469). Springer Berlin Heidelberg 2007, p. 2.

¹² B. Koles, P. Nagy, *Virtual customers behind...*, p. 89.

¹³ S. Papagiannidis, M. Bourlakis, F. Li, *Making real money in virtual worlds: MMORPGs and emerging business opportunities, challenges and ethical implications in metaverses*, "Technological Forecasting and Social Change" 2008, 75(5), p. 612.

Present paper discusses the issue of virtual consumption and consumer behavior in virtual social game environment such as Second Life games. At first, the author represents an example of Second Life game as a new marketplace when real life companies offer products and services. Second part constitutes present knowledge about consumption in virtual social worlds based on the literature review. The final part encompasses some conclusions and directions of future research.

1. An example of Second Life

Second Life, launched by Linden Lab's, is nowadays the most popular virtual world. The game incorporate many cities, universities, corporations, artists and individuals. Second Life is classified as a particular type of MMORPG (Massively Multiplayer Online Role-Playing Game). MMORPGs are design to play from hundreds to thousands of players at the same time¹⁴. From the player's perspective, the Second Life world is a diverse space divided into regions - different geographical and administrative units. Access to some places may be limited to certain players, e.g. due to their age¹⁵. This world takes on the visual forms of the geographical world such as islands, buildings, landscapes, universities¹⁶.

To join to Second Life players need only to download and install the required software. Basic account is free. Next, they can be who they want and do whatever they want by creating their avatars. Each avatar can have customized body shape and clothing style that can be similar in users' real-life appearance or not. The game has no predetermined goal and users decide what they want to do. Users can communicate with each other by using instant messaging facility¹⁷. Communication takes place also via chat, blog, voice calls and video conferences. A specific form of establishing friendships is membership in groups that allow residents realize their personal goals and to gain access to valuable information. An Examples represent fan groups where members focus on a particular artist and disseminate information about important events and concerts¹⁸.

Users create the game, not only characters but also objects and tools. Frequently these objects are valuable and players have ownership of everything they make and the right to exploit them commercially¹⁹. Second Life has its own economic system

¹⁴ S. Kumar, J. Chhugani, C. Kim, D. Kim, A. Nguyen, P. Dubey, Ch. Bienia, Y. Kim, *Second life and the new generation of virtual worlds*, "Computer" 2008, 41(9), p. 50.

¹⁵ J. Laskowska-Witek, M. Mitreġa, *Brand Promotion...*, p. 36-37.

¹⁶ L. Dethridge, B. Quinn, *Realtime emergency communication in virtual worlds*, "International Journal of Disaster Resilience in the Built Environment" 2016, 7(1), p. 32.

¹⁷ S. Papagiannidis, M. Bourlakis, F. Li, *Making real money...*, p. 612.

¹⁸ J. Laskowska-Witek, M. Mitreġa, *Brand Promotion...*, p. 38-39.

¹⁹ S. Papagiannidis, M. Bourlakis, F. Li, *Making real money...*, p. 612.

with own virtual market, based on the law of supply and demand²⁰. Residents of Second Life use an own virtual currency (linden Dollar) for commercial transactions. This currency can be converted into real world money according to exchange rate²¹. Residents of Second Life can buy property, buildings and clothes for their avatars²².

Many users decide to start new business that combine electronic and real-world organizations. Some of the most well-known real companies are already making impressive annual income in virtual world²³. Second Life becomes an important platform for marketing and promotion of products from the real world. Many well-known brands such as IBM, Reuters, Dell and Cisco already have their stores in Second Life for promotional purposes. American Apparel, Adidas, Toyota, Coca-Cola, Nissan also decided to appear in the virtual world²⁴. Virtual products are offered in commercial establishments such as virtual shops. Avatars visit them in similar way as customers visit shops in real world.

Just like in real life, commercial space in Second Life is required. To possess own land, users need have a premium account and pay additional fees. For example, casino operator should buy a private island in order to develop a virtual property, fashion designer may decide to rent space in a mall to run a business²⁵. A paid account in 2009 cost 70 US dollars a year. However, buying an island cost 1000 \$ and additionally 295 \$ a month. The establishing a virtual store is comparable to the cost of creating a traditional company's website and dependents on the type of the store. Prices start from a few hundred dollars for a very simple store and can also exceed 200 000 \$ for a very professional and interactive island²⁶.

2. Consumption in social games

Popular computer social games like Second Life offer wide range of virtual goods and objects that players can buy for real money. According to Koles and Nagy virtual goods are characters or items that exist inside the game worlds. Virtual consumption take place when players exchange real world money to virtual goods²⁷.

Kaplan and Haenlein described two common ways of selling virtual products. The first one is when companies offer digital versions of existing real-life products

²⁰ J. Laskowska-Witek, M. Mitrega, *Brand Promotion...*, p. 39.

²¹ S. Papagiannidis, M. Bourlakis, F. Li, *Making real money...*, p. 613.

²² J.F. Bélisle, H.O. Bodur, *Avatars as information: Perception of consumers based on their avatars in virtual worlds*, "Psychology & Marketing" 2010, 27(8), p. 742.

²³ S. Papagiannidis, M. Bourlakis, F. Li, *Making real money...*, p. 613.

²⁴ G. Sharma, L. Baoku, W. Lijuan, *Online marketing in second life virtual world*, "Asian Journal of Marketing" 2012, 6(1), p. 10, 12.

²⁵ S. Papagiannidis, M. Bourlakis, F. Li, *Making real money...*, p. 616.

²⁶ M. Kaplan, M. Haenlein, *The fairyland of Second Life: Virtual social worlds and how to use them*, "Business Horizons" 2009, 52(6), p. 566-568.

²⁷ B. Koles, P. Nagy, *Virtual customers behind...*, p. 90-91.

and services. For example, Telecom Italia launched a product called 'First Life Communicator', which enables avatars to call each other and to exchange text messages. The second one connects the virtual and the real world. The example represents Deutsche Post World Net, logistics company. The company offered virtual cards to Second Life residents and then these cards were delivered as real postcards. This kind of purchase can overcome some of the disadvantages of traditional shopping via Internet, e. g. lack of appropriate product presentation (important for fashion or design items) or insufficient social interaction²⁸.

Virtual goods are also one of the source of revenue for game suppliers. It can be distinguished two types of virtual goods, functional props and decorative props. Functional props are goods that extend the competency of the player. Decorative props change appearance of players (avatars) inside the game. Virtual goods can be also divided on vanity goods, functional goods and social goods. Vanity good and decorative props mean the same as well as functional goods and functional props. Social good is every product which users can send to each other's as a gift²⁹.

Koles and Nagy noticed that residents of virtual world consume product for similar reasons like in real life, e. g. to establish social status, to confirm membership in some communities, to express one's identity or to cope with some problems. Nevertheless, there are also certain meaningful differences. Consumption in real life is rather rational and based on the consumers' needs. Some scholars suggest that in game environment consumption is influenced by emotions. Consumer behavior in game environment incorporate sociological as well as technological factors. It encompasses various aspects from psychology, marketing, economics and information system. It is also important to note that virtual consumer behavior is very dynamic. On the one hand we have limited knowledge about virtual consumption. There is a recognition of further research in area of virtual consumption to understand present trends and consumers' behavior. On the other hand, virtual consumption opens new possibilities for companies through access to massive and increasing market.

Koles and Nagy carried out a research that explored the relationship between virtual identity and virtual consumption in Second Life. Virtual identity is created to define a specific online presence. Players use their virtual avatars to present themselves to others in their communities. Avatars are constructed by physical attributes. Virtual identities are related to other elements such as a profile and textual or graphical information's associated with individuals. On the purpose of research, data was collected from October to December of 2010.

The authors examined forum of Second Life blogs³⁰.

²⁸ M. Kaplan, M. Haenlein, *The fairyland...*, p. 567.

²⁹ C.H. Ho, T.Y. Wu, *Factors affecting intent to purchase...*, p. 205.

³⁰ B. Koles, P. Nagy, *Virtual customers behind...*, p. 89-91.

According to users' statements, on the one hand certain products are popular in Second Life because they allow players to stand out from the crowd. However, on the other hand, having some goods helps to gain access to certain social communities or to confirm membership. Part of individuals declare their willingness to membership in social groups. Another group of users prefer to establish closer and long-lasting relationships with one or few individuals, often similar to themselves. The authors also suspect that a sense of pressure to adapt to society is smaller than in the real world. The risk of failure and rejection should also be smaller.

Numerous comments referred to the relationship between virtual consumption and virtual identity³¹. Some purchases are strongly associated with avatar's appearance, for example clothes and accessories. Avatar's appearance express player's virtual identity.

Consumption in Second Life is also connected with entertainment. Residents frequently engage in various activities like visiting virtual clubs or renting virtual land and property. Often, they choose the property which is unattainable for them in the real world. Moreover, residents willingly try product that can be not well-received by society in real world.

Users of Second Life do not have physical need such as thirst and hunger so restaurants and food related product have not evolved. Clubs in Second Life gain popularity only in order to conduct social activities. Besides, shops located near to the clubs are more profitable. Virtual products can be promoted inside the clubs. In clubs developed the word-of-mouth marketing, in order to create and enhance avatars' image of their products or shops³².

Drennan and Keeffe stated that virtual consumers' behavior depends on the type of player. The author also distinguished four types of players: socialisers, killers, achievers and explorers. Socialisers are players that create and maintain positive consumption relationship with the others. When this type of consumer is highly satisfied by consumption experience than is more likely to take part in positive consumer behavior such as advocating on behalf of the virtual vendor. Socialisers frequently build close relations with vendors or service provider and even when some situation disappoints them, they not engage in retaliation against vendors or service provider. One motivation to make complaints about marketers is a need of protection members of their social community. Killers are motivated to extract maximum value from their consumption experiences regardless for future interactions. When killers are disappointed they engage in negative behaviors towards marketers. Achievers and explorers do not like to engage in the extreme behavior typical for socialisers and killers. Achievers are focused on the skills which enable to complete

³¹ M. Hofman-Kohlmeyer, *Działania marketingowe w wirtualnym świecie second life – przegląd literatury*, „Zeszyty Naukowe Wyższej Szkoły Humanitas. Zarządzanie” 2017, (2), p. 135-136.

³² B. Koles, P. Nagy, *Virtual customers behind...*, p. 94-95.

difficult stage in the game. Explorers like to have knowledge of quicker and safer routes through challenging parts of the game. Achievers and explorers are more often product or service providers than consumers³³.

Hamari and Lehdonvirta considered how the rules and mechanics developers build into games influence virtual good purchases. The authors reviewed numbers of games and described the most common patterns and mechanics, also in terms of analogous techniques from marketing science. Data was collected during 2007-2008. The result shows how game suppliers can create and sustain demand for virtual goods.

Based on this consideration, the authors noticed that game designers frequently underestimate the role of creating and modifying content of the virtual worlds according to marketing rules that can increase customers' needs of some virtual products.

Hamari and Lehdonvirta listed following mechanics that drive desirability of virtual good: item degradation, inconvenient gameplay elements, mediums of exchange, inventory mechanics, special occasions, artificial scarcity and alterations to existing content.

Item degradation is related to products with some expiration date or products which can degrade gradually with time. In this group of products are also items which become useless after certain period of time. Item degradation as a factor encourage players to purchase another products or replacement items over and over again. In real life degradation of products is obvious but in game world things can last indefinitely. It is difficult for game suppliers to implement item degradation in acceptable for players way. One solution is setting a limit to the number of times an item can be used.

Inconvenient gameplay elements can be found when game providers intentionally place in game some inconvenient elements. For example, virtual landscape of game can be too large and traveling can be time-consuming. In game, means of travel can be paid in real money.

Very often, players need to use mediums of exchange like credits and currencies. Operators sell certain amount of virtual currency not matching to the prices of goods in game. This action is aimed to left users with change, which is not sufficient for future purchases and users need to buy more virtual currency.

Inventory mechanics is related to inventories in which users store their items. Limited inventory space increase sales of additional slots separately to each of various inventory types.

Special occasions such as Christmas, Halloween or Birthday are frequently used by game developers to promote virtual products sales in similar manner like in real life. For example, Valentine's Day encourage players to buy gifts for avatars.

Artificial scarcity take place when game designer creates an illusion that product is difficult to obtain, scarce or almost sold out when it is in fact not. Some users also buy scarce goods to maintain prestige.

³³ P. Drennan, D.A. Keeffe, *Virtual consumption...*, p. 3-5.

The last mechanics is alterations to existing content. To maintain game attractiveness, it is important to implement regular updates, new content and also new attractive items. New content and new available products cause that players more desire new goods. Another way to alter existing content is to promote new seasonal goods. In traditional marketing it is difficult to make some changes in sold products. In virtual environment is easier to obtain and game developers explained this action as a need of updates. It can be seen as unethical as well as illegal³⁴.

3. Future research

Despite progress made, there is a recognition of a need of further research in the field of virtual consumption in social games like Second Life. Sharma, Baoku and Lijuan suggest research to better understand consumer behavior in the virtual world using a survey among inhabitants of Second Life³⁵.

According to Kaplan and Haenlein, there is a need for a quantitative study to analyze the reasons for making impulsive and thoughtful purchases in the game environment. It is also important to answer the question of how buying behavior from Second Life games transfer into buying behavior in the real world. Whether avatars' preferences from the virtual world are congruent with the players' preferences in real life. It should be described what are the differences in the behaviors of people from virtual and real worlds and how the frequency of the game and the frequency of virtual shopping affect the purchasing process in the real world³⁶.

Yang, Roskos-Ewoldsen, Dinu and Arpan indicated that should be explored consumer behavior in real world after playing the game³⁷. There are also some rising serious issues, e. g. taxes for virtual income. Virtual economies have attracted the US government's attention and countries of low per capita income and growing IT media expertise like India and China³⁸.

Conclusion

In last years, computer games attract practitioners' as well as scholars' attention. Special place took social games based on virtual worlds. Companies feature products in game environment to make revenue in the same way like do this in real

³⁴ J. Hamari, V. Lehdonvirta, *Game design as marketing: How game mechanics create demand for virtual goods*, "Journal of Business Science and Applied Management" 2010, 5(1), p. 14, 18, 21-24, 26.

³⁵ G. Sharma, L. Baoku, W. Lijuan, *Online marketing...*, p. 15.

³⁶ A.M. Kaplan, M. Haenlein, *Consumer use and business potential of virtual worlds: the case of "Second Life"*, "The International Journal on Media Management" 2009, 11(3-4), p. 99.

³⁷ M. Yang, D.R. Roskos-Ewoldsen, L. Dinu, L.M. Arpan, *The effectiveness of "in-game" advertising: Comparing college students' explicit and implicit memory for brand names*, "Journal of Advertising" 2006, 35(4), p. 150.

³⁸ S. Papagiannidis, M. Bourlakis, F. Li, *Making real money...*, p. 616.

life market. When buying various items for real money gained popularity, scholars started to investigate consumer behavior.

Although avatars make a purchase for similar reasons like people in real world there are also some differences. Consumers in virtual world frequently buy goods that are unattainable in real life. Research carried out in the field of consumption in games showed that consumption is very often related to virtual identity. Products allow avatars stand out from the crowd, confirm membership in some social communities, are related with avatars' appearance and entertainment. Virtual consumer behavior can be also considered in terms of players type e. g. socialisers which want to establish some relationship with seller or achievers focused only on the goals set in game. In literature, can be also find some mechanics placed in game by game developers in order to exert influence on consumers, namely item degradation, inconvenient gameplay elements, mediums of exchange, inventory mechanics, special occasions, artificial scarcity and alterations to existing content.

To sum up, some research in literature consider consumption in social computer games but we have still limited knowledge about this phenomenon. There is a recognition of a need of further research in area of virtual consumption to understand present trends and consumers' behavior.

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