

Compulsive Buying Behavior in Virtual Worlds: An Exploratory Study

Vivek Katiyar^{1*} Dr. Pankaj Kant Dixit²

¹ Assistant Professor, Department of Management, Dr. A.P.J. Abdul Kalam Technical University, Lucknow, Uttar Pradesh

² Professor, Department of Management, Dr. A.P.J. Abdul Kalam Technical University, Lucknow, Uttar Pradesh

Abstract – Virtual worlds are growing in popularity and importance swiftly. It is almost like an alternative existence of human beings where they spend hours for networking and communications. With the growing importance of digital world, millions of people spending more time in the digital media than in their real-world. Though there are several studies have been done in this field, the majority of the research works are focused on the legal and economic issues related to the virtual world. There is a serious lack of literature on the negative aspects of the virtual worlds. Previous research has shown that the compulsive buying behavior of consumers has some significant impact on the social, familial, and individual well-being of people. However, the majority of these research works are concentrated on the consumer behavior in the real-world situations and very papers are available on the consumer behavior in the virtual worlds which is not sufficient to explore all important aspects of consumer behavior in the virtual worlds. The present research work is designed to be the first to focus on the compulsive buying behavior in the virtual worlds. Here, we will see the applications of the established scales of reference.

Keywords: Virtual World, Second Life, Branding, Compulsive Behavior, Compulsive Buying Scales

-----X-----

I. INTRODUCTION

Over the past few years, the virtual worlds have become the basis of business and communication processes. People are using various social media platforms to expand their networks and communicate for various purposes. People are also using the internet for online transaction processes and performing various other normal activities. Virtual environment has been going to be a novel environment to buy and sell virtual items.

A virtual world can be defined as a three-dimensional computer-aided environmental setting that provides various geographical environments just like natural geographical settings. It looks like the real world in every aspect. At present, the three-dimensional virtual world is divided into two categories: (1) Socially oriented virtual world like Cyber town and (2) Game-oriented virtual world halo, Run escape, and World of Warcraft [1].

The primary differences between these two types of 3D virtual worlds are the following ones: The Game oriented virtual world gives linear story line where the contents are more or less fixed; on the other hand, in the socially oriented virtual world, the users enjoy full-freedom to create various simulations. In the socially oriented virtual worlds the users can design

their own contents [2]. The “freedom” that the socially oriented virtual worlds offer to its users just creates a prototype of the real world where the users can create different avatars for different activities. This virtual world allows the users to form their own houses, clothing, and belongings [3]. A virtual world is not just for building social networking and online relationships. They offer a place where alternative lifestyle can be formed through collecting properties, performing different activities, and generating business opportunities [4]. Thus, experts often call it a second life. The studies related to second life have proved that they give us the opportunity to replicate the real-life economy. It provides wide many scopes for social and economic transaction across the economies which are otherwise very difficult to perform or follow. With the technological advancement, the second life has given people an opportunity to initiate and proliferate full-time businesses in different fields [5]. So, it is important to undertake intensive research work on various aspects of the virtual world to get a clear idea on its impacts on the real world.

Currently, there are abundant of research publications available on virtual world but the majority of these publications are on different legal issues related to virtual item transactions [6] or

related to different economic matters of the virtual world [7]. Some research works are also conducted on the consumer behavior in the virtual world but there is a serious lack of research on the negative consumer behavior in the virtual world such as the effect of compulsive buying addiction [8].

These sorts of studies on negative consumer behavior are important because these studies can give us a clear picture of the harmful effects of negative consumer behavior on an individual, family, or society [9]. In several cases, it is found that the compulsive buyers overspent and fall in grief situations, their families suffer, and many lives are ruined. Some effective scales for measuring compulsive buying in the real-world situations are available for assessing the compulsive buying patterns of the compulsive buyers. The most popular scale was developed by Faber and O'Guinn (1992). The scale of Edwards (1993) is also used across the world [10].

A. Introduction to Second Life (SL)

The virtual world is expanding rapidly and several versions of it are available on the internet. Among these different modes of virtual worlds, Second Life has remained one of the most popular virtual worlds. The concept was launched in 2003, since then its popularity has been growing in leaps and bounds. In 2009, SL had more than 15 million registered users [11]. SL provides an influential social platform where millions of people gather from different parts of the world at any point of time. It produces massive economies. It has produced thousands of virtual communities and these virtual communities produce complex social relations continuously [12]. SL provides an easy medium of communication through instant message (IM) systems and voice messages [13]. According to a reliable report, almost 1.3 million used the official software of SL in March 2009 alone.

With the help of their respective avatars, the users of SL can smoothly communicate with the neighbors and take part in wide range of interesting activities. An 'avatar' is a digital form of a user in a virtual world and a 'resident' is the user of the platform. There is no religious or racial bar in SL. As such, the residents can take any hair and eye color and they can use any body shape. Conventional human type of body is not mandatory in SL; hence, an avatar can take the shape of an in-automate object which is a white glow symbolizing a soul. Residents have been given some other powers to replicate the real-life human society. They can go shopping and socialize. They can also conduct business like a human being or relax at home doing nothing. In a website possessing commercial environment, an avatar can enhance the shopping experience of another avatar by serving as guides or working as a personal shopping assistant [14].

Second Life also has a popular commercial system. Residents take part in various commercial activities through SL's own currency system called Linden Dollar. In fact, Linden Dollar is the only medium of transaction in SL. It can be used to accomplish various commercial activities in that virtual world. Linden Dollar (L\$) can be used to buy land, goods, and various services. Linden Dollar can be converted to US Dollar and vice versa at any point of time. The conversion rate fluctuates according to the market demand; however, it has remained around 250 L\$ against 1 US\$ for a pretty long time. This ability to convert L\$ to US\$ and vice versa have attracted several private enterprises to venture in SL.

Various types of virtual goods are available in Second Life like garments, vehicles, jewelry, and buildings. For all these attractive features, many entrepreneurs and renowned brands have shown their interest in SL. Brands of all sorts like Nike, IBM, Toyota, Mercedes, Vodafone, Armani, etc. have been presenting themselves in the virtual world.

B. Impact of Virtual World on Real World

Second Life is a nice platform for social networking and online communication. It is also a strong medium of alternative life whereby people can open up business opportunities, accumulate properties, buy products, and pursue health and happiness [15]. The strength and prospect of SL are really enormous. It is possible for any user of SL to start a full-time business online with the help of SL. Several instances could be placed where the residents have established their business here and become very successful as in-world entrepreneurs. These kinds of businesses have been more viable with the ever-increasing involvement of people in SL [16].

Two types of businesses are found in the virtual worlds: (1) Small businesses that grow organically (2) Big business houses that try to create their own virtual presence. Various in-world businesses are done by selling user-developed contents to other residents, renting or leasing virtual lands to the residents, and selling virtual services. These businesses become successful when residents start availing these products and services on regular basis. There are both types of users available: those who want to supplement their real-world business and those who want to use it as a primary business. Aelien Graef is a famous SL avatar whose actual name is "Anshe Chung". Another famous avatar in SL is Aimee Weber whose actual name is Alyssa LaRooche. There are many other examples who are utterly successful in the virtual world like Aelien Graef who has a net worth of US\$1 million earned entirely from the virtual world by dealing in real estate and content creation. The top 10 business people in SL are earning US\$200,000 annually (SL Website). Many

big business houses in real-world are now showing interest in the virtual worlds. Reebok, Cisco, Disney, are some examples who are now present in the virtual worlds.

C. Aims of the research

This research work is focused on two primary questions:

- Do the residents of Second Life show any compulsive behavior?
- Do the brands or any branded products acts as a medium enhancing compulsive behavior?

II. LITERATURE REVIEW

Previous discussion shows that the concept of the virtual world is expanding in every aspect and more and more users are joining here actively. Virtual world like Second Life is a popular place of commerce and business as users create virtual items and sell them to the virtual buyers. Moreover, there is a special current (Linden Dollar). As mentioned before, seeing the increasing interest of millions of users around the world in business transactions in the virtual worlds, several real-world business giants have ensured their existence in the virtual worlds too. The issue is that, can the presence of these brands make avatars compulsive buyers as it happens in the real world?

With the help of the two most popular compulsive buying scales, the current research work will scale the degree of consumer behaviorism present in the consumers of the virtual world brands. Moreover, this research work will try to evaluate whether the brands and demographics of the respondents in the survey can be used as a determining factor in prompting compulsive buying behavior in a virtual-world environment?

A. Compulsive Buying

It is necessary to study different types of negative consumer behaviors to understand their influence on the consumption process in a society and also to understand their impact on the well-being of others. Compulsive buying is one such negative consumer behavior [17].

"Compulsive buying can be thought of as a chronic tendency to purchases products far in excess of a person's needs and resources" [18].

Compulsive buying is a type of addiction – it is characterized by the denial of any negative consequence by the buyers and complete lack of control on the sudden impulses [19]. As such, compulsive purchase behavior is closely associated with impulsive buying. In impulsive buying, a buyer

goes for a product completely unplanned which is just similar to compulsive buying pattern of a buyer [20]. But, in compulsive buying, several negative consequences follow which are not generally the consequences of impulsive buying. Compulsive buying push a person to financial issues like a huge amount of debt.

In the words of Faber and O'Guinn (1987) compulsive buying is "A response to an uncontrollable drive or desire to obtain, use or experience a feeling, substance, or activity that leads an individual to repetitively engage in a behavior that will ultimately cause harm to the individual and/or others". They further stated that compulsive buying pattern is a "Chronic, repetitive purchasing that becomes a primary response to negative events or feelings".

Edwards (1993) finds the phenomenon of compulsive buying as a state of mind when "Consumers have an overpowering, uncontrollable, chronic and repetitive urge to shop and spend" [11]. The researcher goes on to define compulsive buying as both "an addictive process and experience". It is an addictive process because the buyer takes this path to escape from stress and tension in their life. It is also an addictive experience because the buyer tries to get rid of stress and tension by troubling themselves. Addiction to buying occurs gradually when an occasional buyer finds this is the easiest way to tackle negative emotions and stress in life.

Desarbo and Edward (1996) describe compulsive buying as "A crisis causing anxiety overload then triggers the individual to buy compulsively [20]. Experiencing less relief with each spending spree, the person requires "re-dosing" and comes to depend on shopping and spending as the primary means of coping with anxiety".

B. Narcissistic or Depresse

According to the study of Rosen (2011) teens that use Facebook more often than normal show narcissistic behaviors [21]. Teenagers have been using social networks like Facebook for self-promotion by displaying and sharing attractive pictures and videos which are in fact making them extremely self-centered. The virtual world has been designing a rosy cover on their self-conception. The present "teenage grandiosity" which is already an existing character of the age group is pampered further by these social networks.

Social networks create an environment for low self-esteem among teenagers which is another aspect of the narcissism story that we are discussing here. Some youngsters could be highly affected by depression seeing their friends constantly updating their "status" most of which are unrealistic and useless in real life. But, it brings a sense of

discomfort and depression in a young mind leading to low self-esteem. It is a common matter that we try to present our best in social networks which can really make some people depressed. The research outcome of a research conducted by Mandell (2011) reveals that constant "status update" from peers and "online friends" develops a void in the teenagers who then want to become like the peers and online friends [22]. Seeing the happy faces of others, new gadgets the friends using, happy status messages of others a feeling of worthlessness is developed in an adolescent leading to depression and anxiety.

C. The Dilemma of Real World vs. Virtual World

Several studies on the social network and its effects on our society reveal that the increased self-worth is like a godsend to the introverts, shy people, and youths with low self-confidence. They feel that they can show their self-worth in the virtual world what they have failed to do in the real world [23]. Studies show that the interactions in any social media keep on less concerned about the others and themselves, less nervous, and less attentive on how others are thinking about them [24]. Though this sounds perfect, the problem occurs when a teen could not get the similar treatment in real-world [25]. The real-life social environment is much tough to handle and much complicated than one finds in virtual life. As in a real-life situation we don't have an opportunity to erase or delete the message and right it again with more perfection to please others or show self-worth, moreover, in a real-life situation body language, voice tone, and several chemicals like pheromones act while a person interacts with others.

In this condition, a teenager who judges themselves on the basis of Facebook friends and who thinks that the actual world works in the way the virtual world works, unable to cope up with the real-world during hard times [26]. When it happens again and again, preteens and teens are trapped in anxiety and depression along with several other psychological disorders.

D. Inadequate Social Skills

Social media in fulfilling the need of affiliation that people want and in many situations it is as satisfactory as face-to-face affiliations but in this form of social affiliation, the importance of physical presence and pleasure people get when they are praised in real-world situations are undermined. In the virtual world, the youngsters could not understand and experience the role and importance of physical social interaction in our well-being [27]. Though text, images, and videos provide sufficient means for creating our virtual presence, the process of articulation differs much when we convey meaningful information through physical gestures. It is only through physical interaction with others we learn appropriate behavior in different situations and what

is going on surrounding us. In fact, social interaction teaches us "impression management" is important for different activities, interpreting different social skills, make adjustments in various situations. This process starts at home and kids learn it from their parents and relatives. However, reduced social interaction and increased use of social networking sites have been keeping today's youngsters deprived of this vital social skill. As a result, a teen may be very popular in a social network with lots of friends and followers but they may lack the critical social skills.

E. Virtual Empathy

Adolescents are roaming around in a "make them believe" world of social networking where "friends" are mostly not friends in its real term. Studies have shown that young people go on accepting friends request at random just to increase their friendliest and become popular in the virtual world [28]. As the teens recognize themselves as an inherent part of the virtual social world they accept the friend request from any strangers and even send friend request to strangers to increase their network.

Few studies, however, find the usefulness of social networking for teens. In the 119th Annual Convention of the American Psychological Association, Rosen (2011) said that young people who stay online longer than average are better in showing "virtual empathy" to their friends in the social networks [21]. He further opined that the receiver of this "virtual empathy" was also capable enough to understand the feeling of the virtual empathizer if they were regular on the social networks and it was found that these special traits of the teens make them empathetic to people in real-work too. But, this advantage is a much-debated issue. It is often said that for the sake of increasing virtual friend list, teenagers are forgetting the importance of interacting with the real-world friends and the necessity of having an emotional bondage with friends. They are also not getting the idea of good friends, best friends, etc. Researchers around the world argue against the assumed positive effects of social media and opine that children learn through a virtual process which provides very feeble idea about human behavior and relations. Many researchers opine that the empathy as discussed above is just superficial; it is useless when it is actually needed in a real-life crisis.

F. Social Media and Learning

Studies reveal that middle social media accounts several times a day and feel the necessity of staying there as long as possible [22]. A fear of "losing" some so-called important news about friends and groups create an inner compulsion to stay online as long as possible. They search people's profiles, play games, and upload their

status and images. All these activities are aimless and spoil quality time that they could have invested in studies or spent with families. Studies also reveal that too much affinity for social media is harmful to children in many ways. This is not good for their physical and psychological well-being too. Teens that spend more hours online for gaming and social networking are more prone to sleep disorders, depression, anxiety, eye problems, and digestive problems. These children try to avoid their studies and schools too [25]. Students who check Facebook once in every 15 minutes while studying lose their attention and do not understand or memorize anything important well. According to Rosen (2011), extremely high affinity for Facebook induces several antisocial characteristics in children including mania, anxiety, and aggressive tendency [21].

G. Risk of Social Networking

Lack of experience makes adolescents more vulnerable and less self-conscious in their online presence and virtual interactions. According to Australian Psychological Association (2010), this is indeed a risky situation for young people [29]. They are exposed to cyber bullying, virtual romantic relationships, sexting, and many such things. The prime drawback of the virtual world is that it opens up many personal information about teenagers and their families which should not be. Teenagers have a common characteristics risk taking in every matter which makes them more aggressive and reluctant while using social network sites. The natural tendency to peeping into others people's lives and comparing their lives with others make them more open in the virtual world. These unhealthy attitudes become extremely detrimental for their personal and career developments. Researchers have shown that the teenagers are either unaware of all these matters or show utter carelessness which makes their personal lives unsafe in the virtual world and in some situations in the real world too. Ignorance of cyber laws and cyber safety matters become really perilous as they seldom keep any personal information really personal.

H. The Other Side of the Coin

Researchers are opening up different aspects of social networking their advantages and disadvantages to common people and teenagers regularly. A study has revealed that the communication processes online is capable of supplementing traditional social communication processes rather than increasing or decreasing them. It supports the social network theory which says that more a person socializes in the real-world more they socialize on the internet.

Several studies have also supported the view that social networking is positively linked with the actual social connectedness of common people and their well-being [30]. With the help of social networking

teenagers are feeling their importance in their actual social life. Social media sites also function as forums where teenagers can openly express their views and participate in discussions.

I. Trapped Teenage

Several social networking sites have kept the young generation really engaged. The sites have been providing them various means of communication with the outer world. Moreover, there are online product buying, gaming, video chatting, and many more options that keep the teenagers engaged. These social networking sites are doing everything to attract teenagers by engaging their minds in different ways. They are leaving no stone unturned to make the adolescents their most loyal customers. According to the neuroscientist, there are three areas of computing that have the most effect on young mind: social media comes first in the list followed by gaming and imagined social life online. There are four primary reasons for which teenagers get attached to social media: entertainment, information, socializing, and social-status. It is the only process through which teenagers can hide their social awkwardness and get prompt feedback on any personal information that they display to the world. In India, where the freedom of expression for teens and children are virtually non-existing, social media give them an opportunity to speak their mind [26].

Ignored about its extended and veiled psychological impact, teens are getting hooked on social networking in huge numbers almost every day. The time they spent on an average in a clear indication of their psychological compulsion for using social networking sites. In most of the occasions, the interactions they made are irrelevant, meaningless, or aimless.

IV. CONCLUSION

The survey result shows that residents of Second Life show a compulsive buying pattern. The measurement scales Faber and O'Guinn (1992) and Edwards (1993) are used to measure the intensity of compulsive buying among the Second Life residents. The model here is used studies "the expectation of Y conditioned on brand X".

Both these scales approve that brands can instigate compulsive buying behaviour. Though the coefficient of determination of Edward's scale was somewhat higher than that of Faber & O'Guinn scale, our interest was in the determinates of Y and their importance.

Edward's scale was also used to determine the resident respondents within the income bracket £10-15K and who were spending calculated Linden Dollars and who were young. However, Y for Linden Dollars spending and young in age got

negative values depicting that compulsive behavior decreases if the respondent is young and spending calculated amounts. Respondents should be above the age of 25 and they should be spending L\$350 at least to be categorized as compulsive buyer.

A. Prospect of Future Studies

The virtual worlds are increasing with time. At the same time, number of users is also increasing in leaps and bounds. The virtual worlds are full of opportunities, so they are attractive and popular. Though it is a different environment, users show the same behaviors. This study shows that negative consumption is also present in the virtual worlds and brands can act as a medium in developing compulsive buying behavior in the virtual world users. It is necessary to see that matter seriously. More in-depth study is required to explore the other aspects in this matter. Developing an exclusive compulsive buying measurement scale for the virtual worlds is also necessary.

REFERENCES

- Guo, Y. and Barnes, S. (2007). Why people buy virtual items in virtual worlds with real money. *The DATABASE for Advances in Information Systems*, 38(4), pp. 69-76.
- Guo, Y. and Barnes, S. (2009). Virtual item purchase behavior in virtual worlds: An exploratory investigation. *Electronic Commerce Research*, 9, pp. 1-2.
- Quarmby, B. (2009). Pirates among the Second Life Islands - Why you should monitor the misuse of your Intellectual Property in online Virtual Worlds. *Cardozo Arts & Ent*, 6.
- Naylor, D. and Jaworski, A. (2007). Virtual Worlds, Real Challenges. *Entertainment Law Review*, 8.
- Craig, K. (2006). Second Life Land Deal Goes Sour. Available at <http://www.wired.com/gaming/virtualworlds/news/2006/05/70909>
- Lastowka, F.G. and Hunter, D. (2004). The laws of the virtual worlds, *California Law Review*, 92(1).
- Castronova, E. (2001). Virtual worlds: A first-hand account of market and society on the cyberian frontier, CESifo Working Paper Series No.618.
- Faber, R. J., O'Guinn, T. C. and Krych, R. (1987). Compulsive consumption. In M. Wallendorf & P. Anderson (Eds.). *Journal of Advances in Consumer Research*, 14, pp. 132-135.
- d'Astous, A. (1990). An inquiry into the compulsive side of 'normal' consumers. *Journal of Consumer Policy*, 13, pp. 15-31.
- Faber, R. J. and O'Guinn, T. C. (1992). A clinical screener for compulsive buying. *Journal of Consumer Research*, 19, pp. 459-469.
- Edwards, E. A. (1993). Development of a new scale for measuring compulsive buying behavior. *Financial Counselling and Planning*, 4, pp. 67-84
- Andrade, N. N. G (2009). Striking a Balance between Property and Personality: The Case of Avatars', *Journal of Virtual Worlds Research*, 1(3), p. 12.
- Rook, D.W. and Hoch, S.J. (1985). Consuming impulses. In Morris B. Holbrook and Elizabeth C. Hirschman (Eds.), *Advances in Consumer Research*, Provo, UT: Association for Consumer Research, pp. 23-27.
- Weinberg, P. and Gottwald, W. (1982). Impulsive consumer buying as a result of emotions. *Journal of Business Research*, 10, pp. 43-57
- Rook, D.W. (1987). The buying impulse. *Journal of Consumer Research*, 14, pp. 189-199.
- Hirschman, E. C. (1992). The consciousness of addiction: Toward a general theory of compulsive consumption. *Journal of Consumer Research*, 19, pp. 155-179
- Mittal, B., Holbrook, M. B., Beatty, S., Raghubir, P. and Woodside, A. G. (2008). Consumer behavior: How humans think, feel, and act in the marketplace. *Cincinnati, OH: Open Mentis Publishing Company*.
- Desarbo, W. S. and Edwards, E. (1996). Typologies of compulsive buying behavior: A constrained cluster wise regression approach. *Journal of Consumer Psychology*, 5, pp. 231-262.
- Rook, D.W. (1987). The buying impulse. *Journal of Consumer Research*, 14, pp. 189-199.
- Desarbo, W. S. and Edwards, E. (1996). Typologies of compulsive buying behavior:

- A constrained cluster wise regression approach. *Journal of Consumer Psychology*, 5, pp. 231–262.
21. Rosen, L. D. (2011). Poke me: how social networks can both help and harm our kids. Washington: Plenary session at the 119th Annual Convention of the American Psychological Association. Available from: <http://www.apa.org/news/press/releases/2011/08/social-kids.aspx>
 22. Mandell, N. (2011). Teens who use Facebook, social media may suffer from new condition called 'Facebook depression'. NY Daily News. Available from: http://articles.nydailynews.com/2011-03-28/entertainment/29372672_1_facebook-social-networking-friend-requests
 23. Wolfradt, U. and Doll, J. (2001). Motives of adolescents to use the Internet as a function of personality traits, personal and social factors. *Journal of Educational Computing Research*, 24, pp. 13-27.
 24. Greenfield, B. S. (2009). How Facebook addiction is damaging your child's brain: a leading neuroscientist's chilling warning. Mail online. Available from: <http://www.dailymail.co.uk/femail/article-1172690/How-Facebook-addiction-damaging-childs-brain-A-leading-neuroscientists-chilling-warning.html>
 25. Ito, M., Baumer, S., Bittanti, M., Boyd, D., Cody, R. and Herr-Stephenson, B. (2010). Hanging out, messing around, geeking out: kids living and learning with new media. Cambridge, MA: MIT Press.
 26. Jesse (2009). The psychological implications of social networking. Available from: <http://blog.plasticmind.com/social-networking/psychological-implications-socialnetworking/>
 27. Boyd, D.M. (2006). Friends, Friendster's, and my space top 8: Writing community into being on social network sites. *First Monday*, 11(12).
 28. Alivenow (2011). Social media and Indian teenagers. Available from: <http://blog.alivenow.in/2011/04/social-media-and-indian-teenagers.html/>
 29. Australian Psychological Association (2010). The social and psychological impact of online social networking: APS National Psychology Week Survey. Available from: <http://www.psychology.org.au/Assets/Files/Social-and-Psychological-Impact-of-Social-Networking-Sites.pdf>
 30. Valkenburg, P. M. and Peter, J. (2009). Social consequences of the internet for adolescents: a decade of research. *Curr Dir Psychol Sci*, 18, pp. 1-5.

Corresponding Author

Vivek Katiyar*

Assistant Professor, Department of Management, Dr. A.P.J. Abdul Kalam Technical University, Lucknow, Uttar Pradesh

vivekbiet0@gmail.com