

## Increase product sales of electronic companies by using IT applications in creating an effective e-marketing plan in social virtual worlds

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**Abstract**—The objective of this research is to determine the effect of using IT applications for e-marketing in social virtual worlds on real products sales by focusing on electronic companies. The findings of this research suggests that marketers have to use specialized IT applications for e-marketing in social virtual worlds, which can improve the interaction with virtual products, and this can lead to an increase in the real product sales.

**Research purpose** —To identify the benefits the electronic companies will gain by using IT applications for e-marketing in social virtual worlds.

**Research question** —How using IT applications for e-marketing in social virtual worlds can help in increasing electronic companies real product sales?

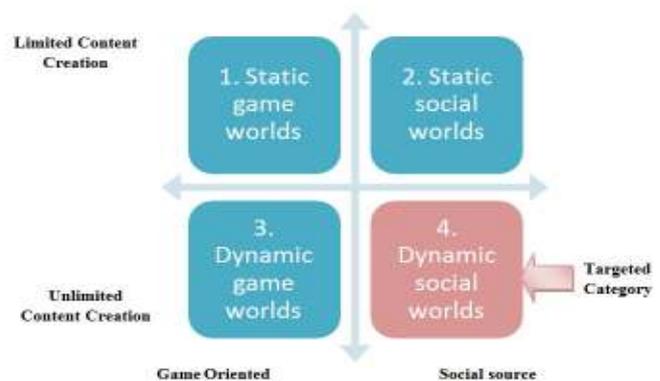
**Methodology** — This research is using survey research method and the data are collected through questionnaire submitted to a random e-marketing department staffs from random electronic companies.

**Keywords-component:** *Virtual worlds, second life, IT applications, e-marketing, electronic companies*

### I. VIRTUAL WORLDS

The term “virtual world” describes the electronic virtual environment which visually mimics the physical spaces which allow people to interact with virtual objects and virtual actors [1]. Virtual worlds are mainly designed for social interaction without keeping any points or scores like the virtual gaming environment. The virtual worlds are considered as virtual environments which allow avatars or users for social interaction; example of these worlds is second life (SL). “In virtual environment individuals can socialize, play games, form affiliation to group, teach/learn, and shop/sell” [2]

### • A CATEGORIZATION OF VIRTUAL WORLDS



“A Categorization of virtual worlds”

[Redesign from the source: Exploring virtual worlds: success factors in virtual world marketing, 2009]

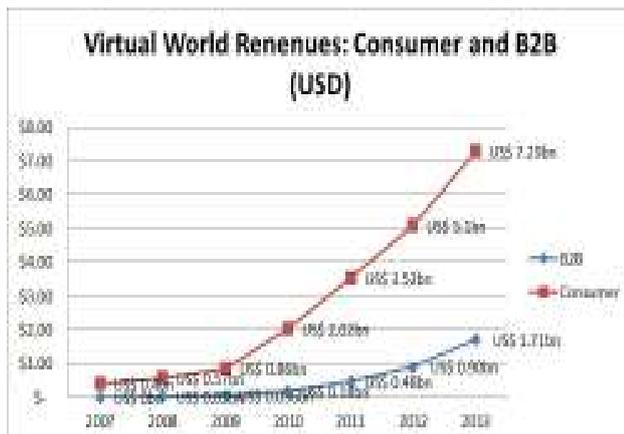
### II. SECOND LIFE (SL) VIRTUAL WORLD

The most known social virtual world is second life (SL); SL is a virtual environment based Social Networking Site (SNS), which has grown rapidly from 2 million users in January 2006 to more than 18 million users in January 2010. Some 1.3 million of these users use the official software and logged-in to SL in March 2007, and the number of users in these worlds increased by 46 percent by 2007. In addition to being an entertainment medium for multiplayer online gaming and social networking, SL is a bustling forum for online shopping and e-commerce [3].

### III. THE IMPORTANCE OF SOCIAL VIRTUAL WORLDS

The virtual worlds and the growing use of it worldwide transform these worlds and environments to be a very important media for both marketing and business, but most people and firms still do not know the influences of participating and using these worlds [4]. It is estimated that the users of virtual worlds will reach 50 million users by 2011[5].

The estimated number of hours spent by adults in virtual environments such as SL and World of Warcraft (WOW) is twenty-two hours per week, while some predicted that after five years virtual worlds will become as important to companies as the web nowadays [6]. It is also expected that 80% of the internet users will have virtual characters in one of the virtual communities by 2011, and it will reach more than one billion by 2017 [7].



“Virtual World Revenues”

[Redesign from the Source: Virtual Goods: Good for business, 2010]

The previous graph [8] is showing that the virtual world revenue from consumer (B2C) has reached \$2.02 billion in 2010 and it is expected to reach \$7.29 billion in 2013.

#### IV. BENEFITS OF USING IT APPLICATIONS FOR E-MARKETING IN SOCIAL VIRTUAL WORLDS

Nowadays the technology has shifted from the text-based interaction into the 3-D environment, which helps customers to gain a better and comprehensive experience. From customers and firms point of view, the virtual experience has both direct and indirect experiences.

The aim of building a perfect web marketing strategy is to increase the total number of sales, which leads to an increase in revenue and profit of the electronic companies [9]. E-marketing in social virtual worlds can be used to predict the long term and short term market preferences, market trends, and testing the impression of customers about some product before it becomes available in reality. *“To be aware of others, we need to be around them. However, in the virtual world environment, we can change the definition of “being there.” In the past, being “together” meant showing up physically, costing time, money and effort to get to places to meet people, conduct transactions and see*

*performance. Now, in the age of social networking, e-commerce and video streaming, we can do all that online”* [10].

The widespread use of the internet offers companies an opportunity for better marketing of their goods and services, and to reach much more customers than ever before. The various ways of reaching these customers allow the companies to develop their customer loyalty by delivering quality, price competitiveness, convenience, and the right products and services. Regardless whether the organization is going to move to e-marketing or is already an e-marketer, it will need to develop the e-marketing plan and IT applications needed for this plan. Then implement this plan, and to be accountable for the actual result and utilize metrics that can help propel the organization towards successful e-business.

#### V. E-MARKETING STRATEGIES AND PLANS

Researchers suggest the use of marketing 4Ps (product, price, place, and promotion) model which can help in establishing the conceptual platform for e-commerce marketing planning, and some transformation and modification can be applied in order to adapt this model to the digital market place. The web-marketing mix model is considered as the basis for the web strategic and marketing planning, especially intended for Business-to-Customer (B2C) segment. *“The web-marketing mix identifies four online marketing strategies, operational, organizational and technical critical factors: the scope (strategic issues), the site (operational issues), the synergy (integration into the physical processes) and the system (technical issues)”* [11].

#### VI. SUCCESS FACTORS OF E-MARKETING IN SOCIAL VIRTUAL WORLDS

It is very important for companies which are providing e-marketing in social virtual worlds to identify their market domain, potential, segmentation, profiles of potential customers and the online strategies of competitors. The way of applying marketing mix (product, price, place, and promotion) in social virtual worlds is also a very important aspect in the success of e-marketing in social virtual worlds.

The web marketing analysis is considered a very challenging task due to the global characteristics of the internet, the huge users' numbers, the fast growing online business, and the changing demographics of the online population. By analyzing the web market this can open new opportunities, provide a clear picture of

the market, competitive situations and future trends.

Advertising has to be provided everywhere in social virtual worlds, providing links to external resources such as company website, Facebook, twitter, etc. providing optimized IT applications which can collect the customer data and facilitate sending of advertisements and e-mails by the companies of their news and promotions[12]. Security and privacy has to be provided to the customers and users who are using e-marking IT applications in social virtual worlds.

Using the techniques of e-marketing can help the organizations, professional service marketers and their firms to manage the company knowledge effectively to save money and time, minimize the amount of non-useful work in the marketing effort and maximize the innovative work. There is also a need for higher level skills which is required to focus on effective messages and marketing strategies which is targeted to meet organization goals and objectives, which lead not only to improvement of organization bottom line management but also increases marketing value to the organization by marketing staff beyond "proposal writers" to valuable strategic assets[13].



"Success Factors for Virtual World Marketing"  
[Redesign from the source: Exploring Virtual Worlds: Success Factors in Virtual World Marketing, 2009]

This graph discusses about three factors which needs more attention to guarantee the success of virtual world marketing, which are creation of value for customers by focusing on the customer needs and requirements, highly interactive applications by developing and using IT applications for e-marketing and providing integration between different software, and community management by collecting feedback and suggestion for different sources such as customers, users, employees, experts, and developers. Integration with some web analytical tools (such as Google analytics, Alexa web analytics, etc.) have to be provided to analyze the effect of using IT applications for e-marketing in social virtual worlds. These three factors

are differing in importance according to the nature of the virtual world used. By focusing on these three factors and giving them more attention this will lead to the success of the e-marketing process by bearing in mind that the importance of these factors changes from virtual world to another according to the nature of each one of them [14].

#### VII. SUGGESTIONS AND RECOMMENDATIONS

After analyzing the data collected from the questionnaire submitted to e-marketing department staffs the following suggestions and recommendations are obtained.

- 1- Electronic companies which seek for e-marketing in social virtual worlds have to cope with the international trends and strong competition to keep its position in the markets. Analysis that has been done to the selected sample companies showed that 88.6% of the electronic companies think that there is a need to use IT application for e-marketing in social virtual worlds, while the electronic companies which already use IT applications for e-marketing in social virtual worlds is only 13.63 %, which shows a huge gap between electronic companies which think that there is a need to use IT application for e-marketing in social virtual worlds and the electronic companies which already use it.
- 2- Giving more attention to the motivation factors for applying IT application for e-marketing in social virtual worlds, such as:
  - Developing a specialized IT applications and software for providing interactive environment for e-marketing in social virtual worlds.
  - Providing clear frameworks to guide the way of applying IT applications for e-marketing in social virtual worlds.
  - Provide a clear data analysis of gender, age, education, interest, etc. of the users of social virtual worlds.
  - Providing the integration between the different software that can be used for this type of e-marketing (for example: the ability to integrate Autodesk 3ds Max, Adobe Photoshop, Adobe Flash, etc. with each other).
  - Existence of suitable infrastructure (High speed internet, suitable database by using MS Microsoft SQL Server or/and MySQL or/and Oracle Database) needed for this type of e-marketing in social virtual worlds.

- 3- Overcome the problems of applying IT applications for e-marketing in social virtual worlds through:
- Improving the human resource skills that can help in using IT applications for e-marketing in social virtual worlds (such as 3D-Max, Adobe flash player, Adobe Photoshop) that can help in providing interactive e-marketing in social virtual worlds.
  - Make the management believe in the importance of using IT applications for e-marketing in social virtual worlds (by providing them with a case study for companies which are successful in increasing their sales by using IT applications for e-marketing in social virtual worlds such as DELL and NOKIA).
  - Providing security and privacy solutions by using some advanced firewall and security software (such as ISA Server 2006 or/and TMG 2010 or/and Kaspersky Anti-Virus or/and Avast Anti-Virus) that can protect the user information and data from any hacking or threat to them.
  - Allowing integrating with some web analytical tools such as Google analytics and Go-Daddy website analytics to provide data about the number of users and the bandwidth used in this type of e-marketing in social virtual world so improvement can be achieved.
- 4- The companies have to keep in touch with customers through advertising programs to determine and clarify the advantages of using IT applications for e-marketing in social virtual worlds for customer and company as well and encourage them to use these IT applications.
- 5- Continuous improvement to the IT applications used through collecting feedback and suggestion from customers, users, employees, experts, and developers.

#### REFERENCES

- [1] William Sims Bainbridge, 'The Scientific Research Potential of Virtual Worlds', *science*, 2007, Vol. 317 No. 5837 pp. 472-476
- [2] Enrique P. Becerra, Mary Ann Stutts, V.(2008) 'Virtual Worlds Research: Consumer Behavior in Virtual Worlds', *Journal of Virtual Worlds Research*, Vol. 1, No. 2, pp. 1 – 19.
- [3] Seung-A Annie Jin, Justin Bolebruch, V.(2010) 'Virtual Economies, Virtual Goods and Service Delivery in Virtual Worlds', *Journal of Virtual Worlds Research*, Vol. 2, No.4, pp. 1 – 12.
- [4] Enrique P. Becerra, Mary Ann Stutts, 'Virtual Worlds Research: Consumer Behavior in Virtual Worlds', *Journal of Virtual Worlds Research*, 2008, Vol. 1, No. 2, pp. 1 – 19.
- [5] Sue Bennett, Karl Maton, Lisa Kervin, 'The 'digital natives' debate: A critical review of the evidence', *British Journal of Educational Technology*, 2008, Vol 39, No. 5, p775–786
- [6] E. Driver, P. Jackson, C. Moore, C. Schooley, *Getting Real Work Done in Virtual Worlds*, Forrester Research, Jan. 2008.
- [7] Sherman, C. China's Grand Virtual Worlds Plan—A First Hand Look. *Virtual Worlds News*, Nov. 26, 2007. <http://www.virtualworldsnews.com/2007/11/a-close-look-at.html>. Accessed Oct. 8, 2009.
- [8] Seung-A Annie Jin, Justin Bolebruch, V.(2010) 'Virtual Economies, Virtual Goods and Service Delivery in Virtual Worlds', *Journal of Virtual Worlds Research*, Vol. 2, No.4, pp. 1 – 12.
- [9] Heeter, C. (2000). Interactivity in the Context of Designed Experience. *Journal of Interactive Marketing*. Retrieved 25 October, 2007 from: <http://www.jiad.org/vol1/no1/heeter/heeter.pdf>
- [10] David C. Wyld, V. (2010) 'A Second Life for organizations?: managing in the new, virtual world', *Management Research Review*, Vol. 33, No. 6, pp. 529 - 562.
- [11] Constantinides, Efthymios, V.(2002) 'The 4S Web-Marketing Mix model', *Electronic Commerce Research and Applications*, Vol. 1, No.1, pp. 57-76.
- [12] Richards, J. (2008), "McKinsey: ignore Second Life at your peril: companies which do not embrace virtual worlds risk missing the next wave of the web's development, the consultancy said", *The Times Online*, April 23, available at: [http://technology.timesonline.co.uk/tol/news/tech\\_and\\_web/article3803056.ece](http://technology.timesonline.co.uk/tol/news/tech_and_web/article3803056.ece) (accessed October 20).
- [13] "The perfect web marketing strategy" Online resource: <http://minttwist.wordpress.com/2009/03/12/the-perfect-web-marketing-strategy> [accessed on 20/9/2010] (Elliott King, 2009)
- [14] David C. Wyld, 'A Second Life for organizations?: managing in the new, virtual world', *Management Research Review*, 2010, Vol. 33, No. 6, pp. 529 - 562.