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Toward a Better Understanding of The Virtual Economy Platforms

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ABSTRACT

Understanding the virtual world (VW) platforms, the virtual currency (v-currency) exchange rate, and the marketplace is critical to the success of the virtual economy (v-economy). However, the current knowledge on VW platforms, marketplace, and currency exchange rate is incomplete. Drawing on the v-economy dimensions, this study proposes a diagram that produces a suitable integration of dimensions, which provides high chances of improving the v-economy activities in the VW. The finding indicates that there are three dimensions that could integrate together to improve a v-economy platform, and these are a dynamic platform, a free currency exchange rate, and a free marketplace.

Keywords: Virtual economy, virtual world, virtual marketplaces, exchange rate, virtual currency

INTRODUCTION

Since the early days of the internet, individuals have been interacting with others through a virtual representation of themselves. This kind of interaction ranges from web communication, typing chatting, forums, virtual worlds/environments, etc. The different online ways of communication have become very intrinsic parts of modern day-to-day life. Especially with the ability to shop and buy using these communication platforms.

The virtual environment is the representation of the surrounding nature and imagined environment digitally. This digital representation can be in two-dimensions (2-D), such as the web, and 2-D virtual worlds or three-dimensions (3-D), such as some social and virtual worlds (Second Life, World of Warcraft, Entropia Universe). These virtual environments are also called Massively Multiplayer Online Role Playing Games (MMORPGs).

Scarle et al. (2012) study has defined the minimum set of features for the existence of the virtual environment, which are the Environment (platform), the Avatar (representation), and the communication (interaction).

Environment (platform): Environment is the place where the virtual representation and communication take place. The user should be able to interact and communicate with the surrounding environment and with the virtual items in this platform [23].

Personal representation (Avatar): The avatar is the virtual representation of the users in the virtual worlds. Avatars allow users to be able to communicate and interact with each other, as well as with items and their surrounding environment [23].

Communication (interaction): It is the way avatars communicate with each other in the virtual environment. There are different ways of communication in the virtual environment, such as typing, voice, interacting [23].

BACKGROUND

The use of the virtual environment for business (v-economy) – where e-commerce activities take place in the virtual worlds through buying and selling – has expanded rapidly day after day. Different virtual economies activities can take place in the v-economy, such as meetings and commercial conferences, advertising and marketing campaigns, learning and educational centers, private businesses, research and development, customer relationships and customer engagement.

V-economy or Real Money Trade (RMT) refers to the trading of VW currency, virtual items, and services for real money. V-economy is not isolated from the real world economy; they have created a “dual economy” where transactions can take place between virtual and real economy with the possibility of exchanging real money flowing in and out the VW economy and the real world economy.

V-economy environments start getting more attention from academics in the last few years. This can be a normal reaction to the rapid increase in the v-economy market. According to DFC Intelligence, in 2007, it was expected that the worldwide online game revenue would pass US\$ 13 billion by 2012, going up from US\$ 4.5 billion in 2006. In 2012, subscription revenue was still expected to remain the largest portion of the market [3]. However, it was forecasted that in the same year (2012) trading virtual and digital items will account for over 40% of the market size [3]. As the famous economist named Edward Castronova said in his TED talk, *We're witnessing what amounts to no less than a mass exodus to virtual worlds and online game environments* [17].

Obviously, virtual economic platforms involve unique characteristics and features that are very different from the traditional real market economy. Highlighting the differences between the two economies and clarifying in depth the characteristics of v-economy can be very beneficial/essential for business, market analysis, and traders for driving successful business strategies. The objective of this paper is to understand the v-economy factors and elements, and their potential implications on business

success.

Table 1. Examples of using virtual environment for different business purposes

Business activity	Example
Meetings and commercial conferences	San Francisco-based non-profit TechSoup hosts its monthly all-hands meeting in SL, where as many as 50 people meet in the VW [28]. IBM has been known for hosting offsite staff meeting in Second Life [15], [28].
Advertising and marketing campaign	Nissan has already several driving campaigns using 3D models of their existing cars in real life. Users have tried driving the free cars in the VW and left comments on their blogs and websites [15].
Learning and education	Texas A&M University hosts lecturers in SL that anybody can attend [28]. Wong (2006) wrote that Harvard Law School now has a virtual extension in SL in which virtual teachers teach the courses and students can interact with each other. Emory University used to teach a combined business and political science course on SIMsim Island, located in SL as well [1].
Private business	Anshe Chung has made over US\$ 1 million (270,000,000 Linden Dollar) through developing real estate and virtual islands, crafting landscape, and providing virtual homes for participants who are ready to pay [1], [8] It has been reported by Thomas (2010) that Erik Novak bought Crystal Palace Space Station in Planet Calypso (Entropia Universe) with US\$ 333,000. The sale price includes the ownership of the station, the surrounding land, as well as the associated virtual hunting and mining rights.

VW CLASSIFICATIONS

Avatars in VWs can interact with the surrounding virtual objects and other contactable end-user avatars [9], [15], [19]. Like humans, avatars can exchange instant messages, virtual objects, and virtual money. They may also communicate through chatting, displaying different gestures, voice conversations, and the like [20].

Henttonen et al. (2009) grouped existing VWs into four categories. These categories include a static game world (game oriented environment with limited content creation), a dynamic game world (game oriented environment with unlimited content creation), a static VW (a socially oriented environment with limited content creation), and a dynamic VW (a socially oriented environment with unlimited content creation).

Figure 1 outlines the three most popular VW types (Second Life (SL), Entropia Universe (EU), World of Warcraft (WOW)) based on four main dimensions, which are the marketplace, the content creation, the exchange rate, and the VW orientation.

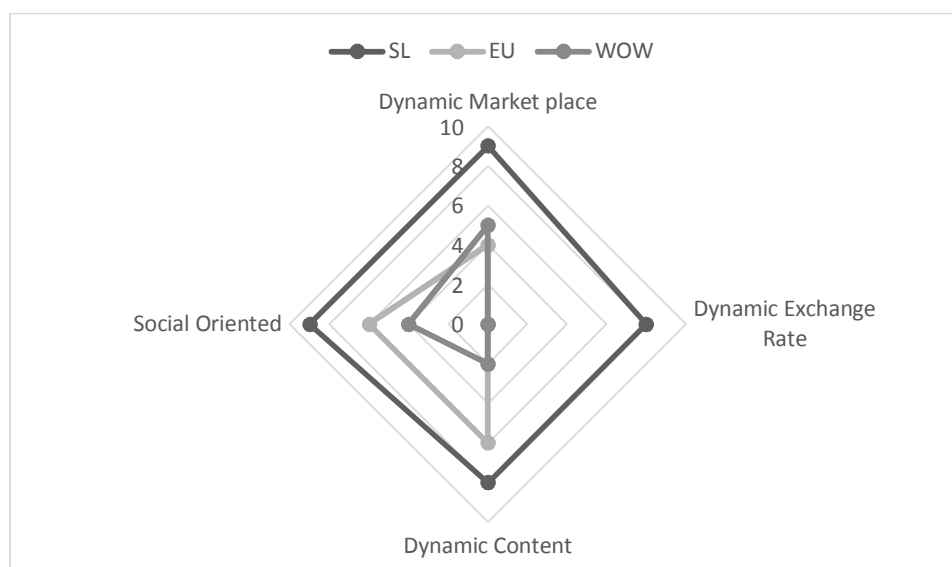


Figure 1 VW classifications

To further refine the differences between these three types of VW, this research focuses on the dynamic game world (DGW) and the dynamic VW (DVW) because these categories offer a high level of flexibility, interactivity, and integration and are suitable platforms when considering v-economy research. There is no tangible limitation (other than any technological limitation) in the VW. Hence, software developers can convert anything imaginable into a form of virtual reality [9].

There are different elements of virtual commerce (v-commerce) in these VWs, such as the marketplace, the virtual currency, and the exchange rate. A marketplace is the platform where users can buy/sell goods from/to other players or other users, it can take place inside the VW (in-world) (WOW auction house), outside the VW but supervised by the game developer (SL marketplace), and outside the VW but supervised by the game developer (eBay or similar platforms). V-currency exchange rate is the exchange rate that users can utilize to exchange money from v-currency, such as Linden\$ (L\$) or PED to real money, such as US\$. There are different types of the exchange rate mechanism, such as the fixed exchange rate (the v-currency is equal to fixed real currency, such as PED), the flexible exchange rate (the v-currency have a changing exchange rate, which changes based on the demand and supply of this currency, such as L\$), or no exchange rate from v-currency to real currency, such as WOW Gold.

Figure 1, is mapping the different VWs based on two dimensions, which are the marketplace type and the exchange rate mechanism.

This study of SL, WOW, and EU considers the differences between different VW types, and unlike most of the previous studies, it is not focused on one type of VW [7], [10], [11], [24], [29], [32].

Jung (2011) classified VWs into two types, which are the social virtual worlds (SVWs) (e.g., SL, EU, and there) and the gaming virtual worlds (GVWs) (e.g., WOW). Some studies have included EU and similar VWs under the category of SVW (e.g., Jung, 2011), while other studies have included EU and similar VWs under GVW category (e.g., Kieger, 2010,). Other studies, such as [7], describe EU as a VW, which attempts to combine a gaming-focused VW with a socially oriented VW. This study believes that EU and similar VWs are sitting in the stage between SVWs and GVWs, as shown in Figure 1, which will be called in this study as Mixed VW (MVW). Based on this assumption, the VW types will be categorized into three main categories, which are the SVWs, GVWs, and MVWs.

SVWs, MVWs, and GVWs. Second Life (SL), as the SVWs, does contain some gaming activities, but these are developed by the end-user and not by the SL developers. At the other extreme, Entropia Universe (EU) is a dynamic gaming world, which also includes very high-level social activities and collaboration. In 2013, Entropia Universe listed a moon for a development-and-management-rights bid starting from US\$ 150,000. The winner is now allowed to operate their own moon in Entropia Universe [5], [16]. There are various extensive differences between the social-related and game-related activities in these differing VWs. There are also different features available for creating a dynamic content and interactions with other end-users.

World-of-Warcraft (WOW) allows end-users to just explore the landscape, fight monsters, and complete quests (Calvert, 2010). The v-currency used in WOW is Gold. In the past, exchanging gold with real money happened illegally, outside the control of Blizzard Entertainment (the WOW game developer). In April 2015, the new token trading system was introduced by Blizzard for its WOW VW (BBC News, 2015).

V-ECONOMY DIMENSIONS

From a v-economy point of view, there are three dimensions that can affect the v-economy activities in the VWs. As explained in Figure 2, these dimensions are the marketplace, the exchange rate, and the platform. Figure 2 classifies the different constants under each dimension. Firstly, the marketplace can be a fixed marketplace, such as the auction house in WOW [4], [31], A dynamic marketplace, such as SL's marketplace (XStreet SL) [13], [25], or a semi-dynamic marketplace, such as EU's marketplace (auction) [6], [20], [27], as explained in Figure 2.

Secondly, the exchange rate is also classified in this study to three types: a fixed exchange rate, such as the exchange rate in EU (1 USD = 10 PED) [7], [18], [21], a dynamic exchange rate, such as the SL currency exchange rate (1 USD equal to an average of L\$270) [22], [32], and a semi-dynamic exchange rate, such as SL again; the reason we include SL in the semi-dynamic exchange rate as well [2] is that the game developer (Linden Lab) controls the exchange rate or financial transactions in the cases of attacks, spams, etc. to secure the exchange rate value. The different exchange rate classifications are explained in Figure 2.

Thirdly, the virtual platform, which can be a limited platform in which there is no possibility of adding or editing content in the VW (e.g., WOW) [9], a dynamic platform in which the users have a very high level of customizing the virtual platform (e.g., SL) [9], and a semi-dynamic platform in which the user has the ability to edit in the virtual platform but with limitations (e.g., EU). These three types of platforms are explained in Figure 2.

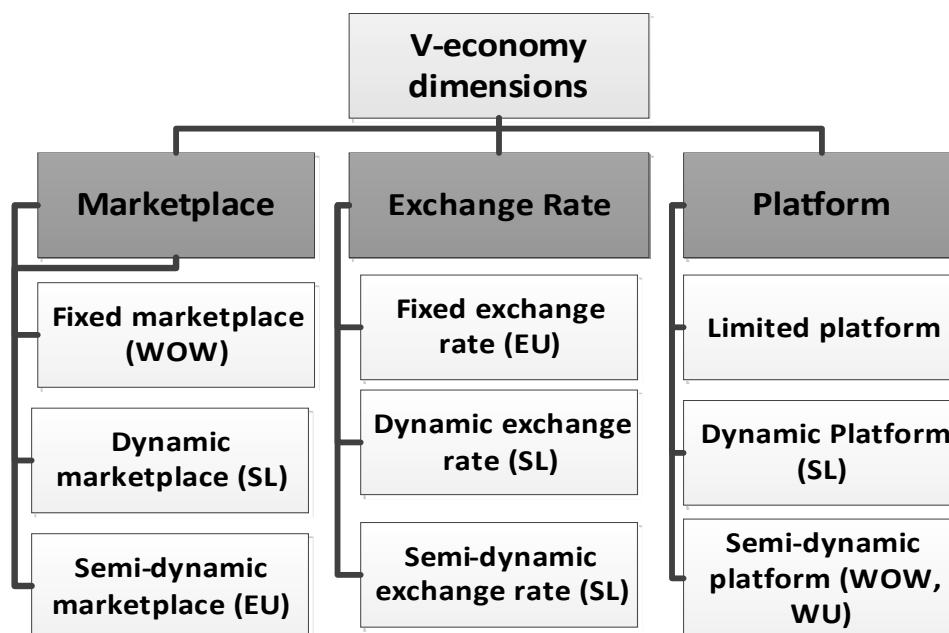


Figure 2. V-economy dimensions and exchange rate classifications

FINDING AND CONCLUSION

The purpose of this paper was to investigate, from the economist’s point of view, into the VW marketplaces, v-currency exchange rate, and VW platforms, and their implications on v-economy phenomena.

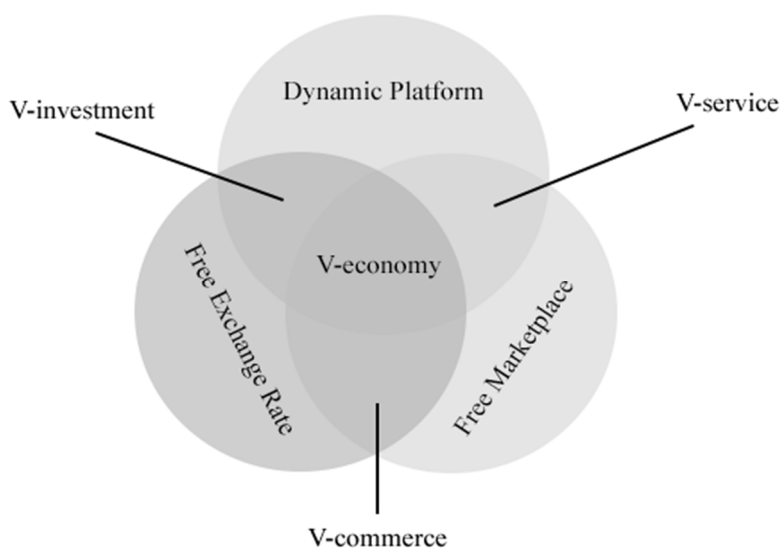


Figure 3. Describe the diagram

Figure 3 illustrates our conceptual model of the success factors for the v-economy in the VW. Through this conceptual model, for example, VW developers can understand their readiness to provide a successful platform for V-economy. At the same time, companies can assess the platform that they need to enter and the suitability of their platform for their commercial and economic activities. As explained in Figure 2, there are three v-commerce dimensions, which are the marketplace, the exchange rate, and the platform. A dynamic platform, supported by a free marketplace and a free real-money exchange rate, will provide the highest possibility for a successful v-economy platform.

A dynamic platform, supported by a free marketplace only, will provide a suitable platform for virtual exchange (v-exchange), while a dynamic platform, supported by a free real-money exchange rate only, will provide a suitable platform for virtual investment (v-investment). Finally, a free marketplace, supported by a free real-money exchange rate, will provide a suitable platform for virtual commerce (v-commerce).

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