Chapter 16
Accounting Implications in Virtual Worlds

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ABSTRACT
With the rapid growth and development of virtual world applications such as Second Life, created by Linden Lab, where virtual goods and services are exchanged for currency, there are real world implications with regard to taxes and financial regulations. This chapter discusses some of the accounting implications in virtual worlds related to virtual goods, intangible assets, tax issues, real estate issues, copyright issues, and presents a model of utility maximization in virtual environments, specifically, Second Life, based on the income generated by users. The virtual world of Second Life differs from games where users have to follow certain paths or game options. Events and transactions inside Second Life do not pause when a user exits the virtual environment (Chodorow, 2010). Second Life is designed to give users control over all activities in order to foster user creation and self-expression. It is this unique characteristic that is creating a whole new realm for business that is currently unregulated. For example, some activities that may be considered illegal in real life may not be illegal in the virtual world, and this adds a layer of complexity (Kennedy, 2009). Clearly Second Life is not a game; it is a virtual environment that has real world implications (Schlimgen 2010). These virtual worlds are becoming an increasingly important part of life for many users that spend a lot of time and money not only developing their virtual world identities but also doing business in those virtual environments (Kennedy, 2009). The market for virtual items was estimated to exceed U.S. $2.1 billion in 2007 (Lehdonvirta, 2009), and the virtual income that some users generate represents their real-world income (Bonifield and Tomas, 2008). In fact, many users are making a substantial living out of their virtual income, even generating an equivalent of more than $100,000 in real world dollars (Hemp, 2006). On average, Second Life members spend $1.5 million per day on virtual transactions, including virtual real estate transactions (Alter, 2008). While it is difficult to get an accurate estimate of the number of Second Life users due to the dynamic environment, and one in which one user may be represented by more than one avatar, Second Life is estimated to have more than 6.6 million active users from around the world (Moran, 2007), up from a handful of users in 2003 when Second Life started to gain popularity (Wiki Second Life, 2010).

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VIRTUAL GOODS

Virtual worlds, such as Second Life, have a unique economic characteristic in which members use real money to buy virtual goods (Bonifield and Tomas, 2008). Virtual goods include characters, items, currencies and tokens that are available for sale in virtual environments. Virtual items are interconnected, which means that the item does not exist in isolation and it does not disappear when the creator logs off the virtual environment (Lehdonvirta, 2009).

In general, brand assets, knowledge assets, and managerial assets are called intangible assets, and they are not included in the balance sheet because it is difficult for accountants to value them under the Generally Accepted Accounting Principles (GAAP) reliability criterion. Intangible assets are listed in the balance sheet only when they are acquired in the market and therefore this is a real valuation (Penman, 2003). Intangible assets in real life do not exist physically (e.g. brands). In a similar manner, the goods in virtual worlds do not exist physically in real life, but may be considered as intangible assets in the real world. Moreover, goods in virtual worlds can be delivered electronically, buyers and sellers do not have physical contact with goods, and there is no physical presence of the virtual goods. A user may be represented by several avatars; therefore an additional layer of complexity is anonymity due to the fact that the buyer is an avatar and not the user directly. All of these factors mean that for accountants asset valuation in this context is not an easy task.

VIRTUAL MONEY

Second Life has similarities with eBay (www.ebay.com), where users trade goods in exchange for money. In order to acquire goods inside Second Life, users can convert their U.S. dollars, Euros, or other currencies into Linden dollars, and vice versa. Linden dollars work in a similar fashion to any other foreign currency (Chung, 2008; Freeman, 2008).

Firms and entrepreneurs are seeing virtual worlds as an opportunity and a new channel to do business and advertise. For instance, fashion designer Giorgio Armani has a store in Second Life that resembles its main store located in Milan (Bonifield and Tomas, 2008). In addition to many smaller firms, large firms such as Dell, General Motors, Toyota, Nissan, Mercedes-Benz, Coca-Cola, and Nike have also stores inside Second Life. Some of them sell their products; others use their shops for branding, or to obtain customer feedback (Bonifield and Tomas, 2008). Virtual Worlds may be the equivalent of adding another dimension to business transactions.

In a real economy, money is defined as having the following two characteristics: money as a medium of exchange, and money as a temporary store of value (Hirshleifer, 1988). So, do Linden dollars really have the characteristics of real world currency? Can Linden Dollars be considered real money? In the case of Second Life, Linden dollars are only used inside the virtual world Second Life which we can say is the equivalent of a geographical boundary, but this does not affect the fact that we can classify Linden Dollars as a currency because they still have the two basic properties of money mentioned above: it is a medium of exchange inside the virtual world, and can be used as a temporary store of value and users can do any transaction like in the real world. Also, real currencies are usually used within a geographical boundary (Yamaguchi, 2004). In the case of the Linden dollar, there is an exchange rate and therefore it is valuable in the real world and people may accept it as a means of payment. Lindex is the official Second Life currency exchange.

Linden Labs has changed their policy related to virtual banks after the collapse of Ginko Financial in August 2007, and as of January 2008, if someone wants to have an ATM inside Second Life or offer interest on an investment in Second
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