



Considerations Regarding the Possibility of Emphasising the Virtual Currency Transactions in Accounting

Riana Iren RADU*, Violeta ISAI**, Oana Iuliana MIHAI***

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ABSTRACT

The phenomenon of virtual currency, and especially the virtual currency Bitcoin, have managed to draw attention of the population, organizations and governments, from the moment of its appearance, proliferating pro and against attitudes against their use in the day-to-day transactions. The study is a detailed analysis of the virtual currency phenomenon and an attempt to outline a possible status from the accounting point of view of the virtual worlds, starting from the position adopted by the regulating authorities in the countries where the virtual currencies register the highest rate of use.

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1. Introduction

The article represents a research of the phenomenon generated by the emergence of virtual currency respectively of virtual assets in the recent years. The research is based on two analyzes conducted both in the social and economic field, for which qualitative type research has been combined, in order to capture as much as possible, the impact which the currency and virtual assets have in the economic environment.

The main objectives of the research are:

- ✚ Defining and understanding the status of virtual currency from an accounting point of view;
- ✚ Identifying some politics and accounting treatments applicable for the currency and virtual assets.

Regarding the qualitative research methods used, for acquiring the first objective and the correlation with the accounting field, they have been used, as a basis for the research carried out in the field, some studies carried out in this field, which have the following themes: defining of the virtual currency and virtual assets, their use by the population, as well as the legislative path, as well as technical studies that effectively deepen the functioning of virtual coin ecosystems. The conclusions drawn from these research are accompanied by statistical data published in the field of virtual assets.

Another method used within the enterprise of accomplishment of this work, is the direct observation. It may seem paradoxical, but the whole process of trading currency and virtual assets takes place in the real world, which makes it easier to observe the way in which the phenomenon proceeds, the collection of statistical data and their interpretation in real time, in order to substantiate the allegations according to which the use of currency and virtual assets is an example of how the population and legal entities force and influence at the same time both the economic and the legislative environment in terms of adopting and conferring a legal and economic status on currency and virtual assets.

This attempt to define virtual assets in the accounting field is not a highly researched subject in the literature as well as neither the definition of some accounting treatments for them has not so far been a point of interest for the normalizing bodies in accountability (referring to FASB and IASB).

This was one of the reasons for choosing this topic as a subject of research. Another reason is represented by the innovative factor associated with currency and virtual assets. From this perspective, the fact that there is no regulatory authority, the anonymous user idea, the accumulation of some virtual revenues or the participation in some forms of virtual barter, constitute some of the innovations of this niche, which in the near future will raise questions both from the point of view of legal regulation, as well as from the perspective of accounting regulation.

Thus, although Bitcoin and alternative currency are parts of this category, in virtual-space there are many other facilities associated to the expansion of virtual space, such as activities generated by platforms that offer online games or platforms that intend to create some decentralized Internet sources whose legitimacy is conferred by their widespread use by the population. These obviously determine the emergence of some businesses that offer increasingly varied services within the area under consideration.

*,** Dunarea de Jos University of Galati, Romania. E-mail addresses: raduriana@yahoo.com (R.I. Radu), violeta.isai@yahoo.com (V. Isai), anghelio_76@yahoo.com (O. I. Mihai)

2. Literature review

The topic of virtual currency, as well as the magnitude that the phenomenon has gained in recent years, has not yet been fully debated in the literature, most of the theoreticians and financial and accounting practitioners expecting this niche to be first legally regulated.

However, the fulminating rise of virtual currency has not remained echoless, and has led to a rethinking of the concepts of "currency" and "virtual space", as well as the effects they have on the social environment, and more so in the field of business which began to develop more and more in the virtual environment.

If at first, social platforms such as Second Life or World of Warcraft offered a real world image, this type of platforms gradually began to integrate and facilities for users to get real money in the virtual environment (Mennecke et.al, 2007), which also led to the need to conduct transactions with their own virtual currencies (European Central Bank, 2012), and from here until the virtual Bitcoin it was just a step.

The main feature of the Bitcoin currency - decentralization (the quality of not being issued and controlled by any central authority) - has raised controversy. Thus, Gervais et. all claim that, although at the beginning, the entire Bitcoin project is supported by the concept of decentralization, Bitcoin actually shows its limits by controlling the virtual currency printing process (Kien-Meng Ly, 2014).

The aspect of regulation represents another controversy that Bitcoin currency has raised.

From this point of view, the only country that made available for the virtual currency users a detailed legal framework is the United States of America. Here, the federal authorities have regulated virtual currency as intangible assets and not currency, from the perspective of real money differentiation (Alper, 2014), but the status of virtual currency depends on the pluralistic view and the acceptance level of the population (Swanson, 2015). Bergstra and Weijland (2014) provided a much more elaborate framing for Bitcoin. They believe that Bitcoin should be considered a valuable information that stores value, having a function close to that of real money (embedded value). However, this classification has become obsolete because it corresponds to the original intent - the starting point of the Bitcoin project, that one to create a platform which allows the use of a system in which participants make transactions based on the access to this system and the real money measured in Bitcoin - a measure unit of the system characterized by rarity. Also from the point of view of the two theorists - Bergstra and Weijland - Bitcoin can now be considered an informational currency, thanks to its widespread use and acceptance across the globe.

As noted above, even if Bitcoin is considered a cryptomoned, some countries that allow transactions with Bitcoin and other alternative currency treat Bitcoin as an asset. Moreover, if other types of virtual assets are also taken into account (Wisniewski, 2008), there is a possibility for users to pay for the possession of these assets with virtual currency, and under the legal rules, the subjects involved in such transactions would create a virtual barter (Grebeel, 2014).

Virtual assets have specific economic features (Romero, 2011) as the users use real money to acquire these virtual assets (Tomas & Boniefiled, 2008); thus, virtual assets can be named the virtual objects, virtual coins and other virtual assets that can be used in the online environment and whose real money transactions involve real money (Chang, 2012).

3. Comparative analysis of virtual money schemes

Differences identified as a result of the comparative analysis between two-way virtual money schemes (currently representing most of the existing virtual money schemes) are technical and functional. Thus, the main differences refer to:

A. Validation system - on this system depends the validation of the trades performed and the network security from the point of view of security. Bitcoin, Litecoin or Dogecoin are based on the Proof - of - Work system, while the coins like Nextcoin are based on the Proof - of - Stake system. This PoS system tries to eliminate some PoW system vulnerabilities, such as: a possible temporary manipulation through a monopoly of users holding more than 51% of the computing power within the network, and can therefore dictate the transaction validation process or saving the electricity used;

B. Algorithms - Calculation and Mathematical Problem Solving Procedures determines the speed at which a new block of transactions will be displayed in the registry and the way in which virtual coins will be printed. Two types of algorithms are currently used: the SHA-256 algorithm for Bitcoin, Namecoin or PeerCoin, and the Script algorithm for Litecoin, Dogecoin or Auroracoin coins. However, a new algorithm has emerged on the market that can replace the two algorithms presented above, namely the X11 algorithm, which can provide a higher cryptographic security level and also lower the processing costs.

C. Existing Virtual Monetary Monetics - most virtual currencies have a value threshold up to which the currency can be issued (this is the case with virtual currency - Bitcoin, Dogeconi, or Litecoin), but in the virtual space there are also coins that have a flexible threshold up to which they can be issued, this is the case for the Peercoin (the threshold must not exceed a 1% annual inflation rate).

D. Functionality - it is clear that most virtual coins can not compete with Bitcoin, but there are a number of alternative coins that can provide complementary services to Bitcoin's offerings.

For example, Nextcoin provides a decentralized market where the users can purchase goods, services, and can trade assets. Also, the Namecoin virtual currency offers users the ability to denominate the coins issued or to attach the data to them, and the Mastercoin currency offers the ability to perform transactions with intelligent properties (services, products, other virtual currencies, contracts or patents - case in which the name of the patent holder will be added to the registry) through the Bitcoin network.

4. Impact of virtual assets in the economic environment

Because the virtual space is a real life replica, virtual assets work due to some servers owned by a person, a group of people or companies that have the capacity of virtual space administrators. Users can access them via the Internet with the help of some specific programs that have been created to provide a realistic picture (socially, economically or politically).

The most popular virtual spaces have been created to provide users with multiple roles - MMORPGs and others have been created to serve as social platforms. As part of these virtual tours, users control an avatar or a character through which they operate, and the most interesting aspect is that these spaces continue to grow even if the users are no longer active.

Prior to including in this presentation the virtual asset transactions and virtual currency transactions in exchange for virtual assets, a detailed presentation of all participants in the virtual currency process is required, and then an analysis of the progress of virtual assets (progress from an innovative point of view and the emergence of new virtual assets)

5. Status of virtual assets from the point of view of international regulations

Virtual coins are legally regulated differently in countries such as China, the United States of America, Canada, or the European Union, and are also a very large (still in development) area that still is not fully analyzed and regulated in all regions of the globe.

The following describes how to regulate virtual currencies in different jurisdictions (if applicable), this presentation being very important because it influences in an overwhelming manner the recognition process in accounting.

Brazil

In 2013, the Government of Brazil issued Law No.12.865 on the possibility of normalizing telephone payment systems and also creating electronic currencies, including the Bitcoin currency. Furthermore, in Article 6, paragraph III, electronic money is defined as a resource stored in an electronic system that allows end-users to make payments. Also under this law, the Brazilian Government has invested the Central Bank of Brazil to issue rules and instructions for law enforcement.

To conclude, in Brazil, the Bitcoin currency and other alternative currencies are legally recognized and their coinage status is certified by the fact that the Central Bank of Brazil is authorized to clarify how to apply Law 12.865.

Canada

In April 2013, the Canadian tax authority stated that users of digital currencies would have to pay fees for their transactions based on two tax regulations that refer to barter-specific and speculative transactions.

Thus, in Canada, virtual coins are not regarded as coins, such as those issued by the Central Bank, but as assets and respectively virtual assets.

China

The Chinese government, declared in December 2013, that the virtual currencies should not be used in the economy as coins in their nature, but rather that they should be classified as assets and referred to as virtual assets. In the case of credit institutions and other financial intermediation institutions, they are prohibited from using virtual coins in the purchase, sale, clearing or exchange of virtual currency transactions in Yuan and foreign currency.

The European Union

The European Union has not so far issued a legal act that would give the virtual currencies the legal statute of currency. Instead, in 2012 and in a revised version in 2015, the Central Bank of the European Union issued a report analyzing the characteristics of virtual money schemes and presenting their legal status under the European Union law. Thus, the ECB considers that from the economic point of view, virtual currencies - virtual money schemes - do not meet the requirements to be considered currencies, these requirements referring to the exchange function, the ability to incorporate the value and the quality of the account unit.

Also, compared to real money, used internationally to reflect the value of goods or services in a transaction, legally, virtual money schemes can not be a currency as they are not used globally within the types of the transactions mentioned above.

Finland

The Finnish tax authorities have issued instructions on how to charge virtual currencies. Thus, in the opinion of the Finnish authorities, if the virtual currencies are exchanged for another currency legally recognized and regulated as such, the transactions will be subject to the taxation of the capital gains. However, if they are used as a form of payment for the goods and services purchased, then these transactions will be subject to the charge for the exchange of goods and the increase in value that the virtual currencies have accumulated, between the time of purchase and the time of payment, will be taxable; However, any drop in value that the virtual coins have recorded since the acquisition date is not tax deductible.

Germany

The German Federal Financial Supervisory Authority issued a communiqué in December 2013 declaring the legality of the Bitcoin virtual currency, which is considered as a financial instrument that is part of the category of account units associated with currencies. According to the same communiqué, virtual currencies are not units that have a legal form, but they have a private payment function in private transactions or are substitutes for regulated currencies used to pay in multilateral transactions falling under the private law agreements.

The United States of America

In March 2013, the United States Department of Treasury issued a guide to clarify the implementation of the Bank Secrecy Act provisions for the people who create, obtain, distribute, exchange, accept and transmit virtual currencies. Therefore, a person using virtual coins is not subject to the applicable MSB rules, but the persons who are intermediating exchanges "Bitcoin - regulated currencies" must apply the MSB regulations.

As to the types of earnings made by virtual currency users, they can be classified as follows:

- Gains or losses resulting from the sale of virtual coins are considered as IRS norms as earning or loss of capital;
- If virtual currencies are held for sale, gains and losses will not be considered as gains or losses of capital. An example of this is stocks and other types of property held for sale, but which do not qualify as fixed assets;
- Any payment made with virtual currency must be reported to the IRS

6. The accounting status of the virtual assets in relation to IFRS / US GAAP

From an accounting point of view, the main normalizers at the international level have not yet issued an official opinion on these new categories of assets, but there is a standard draft made public on 18 July 2014 – named the FASB / IASB Joint Transition Resources Group for Revenue Recognition, which represents a collaboration between the Financial Accounting Standards Board (FASB) and the International Accounting Standard Board (IASB).

In this draft standard, the issue of Gross Income vs. Net income is presented. Both the IASB and the FASB recognize that new intangible assets have emerged in the international economy lately, often referred to them as virtual assets that are developed through the Internet, including through social platforms and applications of the mobile phones. Examples of this are: online games, technology platforms that mediate the sale and purchase of spaces for online advertising campaigns, virtual vouchers or travel vouchers, events, electronic cards and gifts.

There are also two specific types of arrangements that exist in practice:

- Online gaming developers can sell virtual goods to players to improve their gaming experience. In general, players have access to a free online game, and the revenue is largely generated by the sale of virtual goods. The virtual assets in this scenario are non-physical elements represented in the image game, animation, or three-dimensional object game (eg, clothing, equipment, weapons, speed or power). Often, virtual goods are sold through an intermediary, such as social platforms, mobile phones, or appstore stores. In which case the game developers provide some of the revenue from the sale of virtual assets to intermediaries, or intermediaries retain some of the payments made by customers (if they collect the client's payment directly).

- An online entity collects users' data and, in return for a fee, it gives third parties access to these data. However, the entity that acquired the access rights can combine it with its own services and sell the package to another entity. Thus, the final customer is aware of the composition of the tax, paying in fact a fee that relates to both the originally purchased service and the services the intermediary provider offers. Further, the intermediary service provider remits a commission to the original provider.

7. Accounting treatments for virtual assets in relation to IFRS and US GAAP

As we have shown, there is so far no formal position of the accounting regulatory bodies to provide information on the criteria for the recognition of virtual assets or the accounting treatments that may be used by the parties involved in the transactions of virtual assets. Therefore, in this study, the positions adopted by tax regulators will be used as reference points as a basis for defining and determining accounting treatments that can be applied in accordance with International Accounting Standards and the US GAAP.

In the following, the recognition of revenue and losses from online gambling transactions and virtual currency transactions will be presented separately. Although it may be created a confusion between the own virtual currencies of the online gaming platforms and decentralized virtual coins, in this study will be analysed the transactions with decentralized virtual coins.

In practice, there are three different models for recognizing the revenue from the sale of virtual assets, which are formulated in accordance with the SEC Staff Accounting Bulletin - Topic 13 "Recognition of Revenue". The three models used in practice are:

- A) The income recognition model based on the estimated life of the game;
- B) The revenue recognition model based on the average life of the user;
- C) The revenue recognition model based on the components of the games.

Each of these models uses different estimates of the corresponding revenue recognition period associated with the sale of virtual assets. The recognition period is determined by the date when the virtual goods are available and the pattern of each user in the games.

- A) The revenue recognition model based on the expected life of the game.

According to this model, the company will recognize the revenues from the sale of virtual goods, based on the estimated lifetime of the game, and not according to the "characteristics" of the virtual assets. For example, a company launches a new game, which has an estimated life span of five years. At the beginning of the second year, the company sells a virtual asset to a user. In this case, the company will recognize the revenue associated with the sale of the virtual asset, depending on the remaining life of the game, respectively during four years.

- B) The revenue recognition model based on the average life of the user

This model starts from the assumption that the delivery period for virtual assets is the estimated average lifetime of the users. In general, the average life of users is shorter than the estimated lifetime of the game, so the revenue recognition will be achieved over a shorter period than the pattern of recognition based on the expected life of the game.

In order to estimate the average lifetime of the users, the company must have enough data about the players 'pattern to demonstrate that it can make a reasonable estimate of the average users' lives, which can be a challenge for the company. But if a company does not have the capacity to estimate the average life of users, the application of this model would not be adequate, and the revenue from the sale of all virtual assets should be recognized based on the expected lifetime of the game.

- C) The revenue recognition model based on the components of the games

The revenue recognition model based on the characteristics of the game components and respectively of the virtual assets sold is the most complex model of the three. Unlike the first two models, this model takes into account the characteristics of the virtual goods sold to determine the period (whether or not explicitly) in which the virtual goods will be made available to the user (mandatory delivery period). Thus, the delivery period for virtual assets may vary depending on the category of virtual assets involved. Once the delivery period has been established, the earnings will be recognized based on this time period.

Also, in some cases, the estimated delivery time for a particular category of virtual goods is shorter than the estimated average life of users, which results in the recognition of the revenue from the sale of virtual goods for a shorter period of time than that used in the two above-mentioned models.

In order to apply this model, a company must be able to make reasonable estimates of the delivery period for each category of virtual goods, and in order to make those estimates, a company needs to collect numerous data on how to be used by the players for each type of virtual goods.

Concluding, for a company to set its accounting policy, it is necessary to consider the moment when the virtual goods are considered deliverable within the game, as the revenue recognition can begin when the user starts to consume virtual assets. However, if the general game experience is considered as a factor by which the accounting policy can be established, the revenue recognition can begin as soon as the user buys the virtual currency (or purchases directly virtual assets).

This is consistent with the fact that when players buy virtual currency (or buy virtual goods directly), they have access to the virtual assets, and those can improve their gaming experience. Once an entity determines that the pattern of each user in the game can be determined, it can begin recognizing the revenues on that basis but it is not allowed to change the accounting policy by applying another method unless changes are identified in the players' pattern, and the average life of users can not be estimated reliably.

Another particular situation is that of the entities that allow virtual goods and currencies to be resold or transferred between the players (although this practice is forbidden by many entities). These sales can be even facilitated by entities, or through intermediaries. Therefore, when revenues are recognized by virtue of the life of virtual assets, the existence of secondary markets may affect the ability of a gaming entity which determines or estimates the period during which the benefits of a virtual asset will be consumed, as the benefits may be consumed over a period longer than those consumed by the original buyer. Similarly, determining the lives of users may be influenced by the ability of the users to sell virtual goods and currencies in an open market, as this practice can alter the average life of the players.

Thus, in establishing the appropriate revenue recognition policies, the entities should consider the possibility that the benefits of virtual assets may be consumed by several players, which gives rise to another level of complexity as to the ability of an entity to obtain sufficient historical information to support its accounting policy.

In order to determine the accounting treatments that can be applied to virtual currency transactions, the quality of each stakeholder in the virtual currency ecosystems should be considered, as based on this, different accounting standards may be used.

Entities that need to report in their financial statements this type of transaction are those that are part of the virtual currency ecosystem, namely:

- Entities whose activity consists in buying and selling virtual coins;
- Entities whose activity consists in providing services - virtual currency exchanges - regulated currencies (real, fiat);
- Entities that have the quality of processors for virtual currency users;
- Entities whose work consists in mining.

In the process of establishing accounting treatments that can be applied to virtual currencies, will be taken into account the fundamental qualitative characteristics of the accounting information provided in the Conceptual Framework issued by the IASB, namely the relevance and accurate presentation of the accounting information contained in the financial statements.

8. Consider virtual currency trading as a form of virtual barter

Virtual currency users may initiate transactions through which they seek to acquire goods in the online environment, but if it is taken into account the fact that the virtual currency accounting treatment is that of financial assets or inventories in accordance with the International Accounting Standards, such transactions may be considered forms of barter, and, moreover, forms of virtual barter.

Although they are called "currencies" but are considered assets, virtual currencies could represent, according to IASB, non - monetary payments. Thus, the entity receiving the virtual currencies should recognize the transaction in accountability at the value of the assets received. The principle under consideration is the following: the way of recognizing these types of transactions should be the same as if the entity would receive money in return for the goods or services sold.

In accordance with the International Accounting Standard IAS 18 - Income from current operations, the recognition basis that should be used irrespective of the method of payment is the fair value. Of course, this treatment is questionable, in the sense that the fair value can not always be reliably determined, with intermediary entities whose purpose is to facilitate the sale of goods to the final customer, or the transaction has no economic substance.

By correlating this particular situation with the transactions involving the acquisition of virtual assets in the games offered by specialized platforms in this field, and supposing that users, instead of using real money to "take possession" of the virtual assets, use as a means of pay the virtual currency, the situation of accounting for these transactions becomes more complicated and the application of the three models used in practice will be made more difficult. In this way, the virtual currency will be recognized by the online gaming platforms at their fair value, and the accounting treatment to be applied will depend on their intention on virtual currency, respectively their resale in order to obtain real money or to keep them in order to increase their value, in which case they will be considered financial instruments.

Furthermore, if the entity providing online gaming is the intermediary and not the developer, accepting payments in virtual currencies raises other questions as it depends on the contractual commitments entered into between the two entities. Thus, if the two parties agreed that payments should be made in real money, then the intermediary entity should convert virtual money into real money, but the problem arises if the two parties have agreed to make payments in virtual currencies, the question being what the two entities must recognize in each other account.

The emergence and growth of the use of some new asset classes as a result of technological advances in recent years reflects more than ever the need for convergence of the International Accounting Standards with the Generally Accepted Accounting Principles in the United States of America as in the near future a part of traditional transactions will be replaced by many innovative transactions in the virtual environment, and practices to apply different accounting standards, specific to each jurisdiction, will become obsolete.

Therefore, the international key standardizers, namely the IASB and the FASB, will have to make consistent progress with the goal of developing new standards that are relevant in the application, and to provide the users of accounting information with a true picture of the financial statements.

9. Conclusions

Virtual assets, and virtual currencies, represent, as we have presented in the article, a new category of assets, which raises regulatory issues both for governments and for key international accounting standards, namely the International Accounting Standard Board and Financial Accounting Standard Board. However, this issue could be a catalyst for the process of accounting convergence initiated by the two bodies, as the magnitude of the virtual asset phenomenon is becoming larger and the organizations operating both at national and international level feel the lack of appropriate accounting regulations.

In terms of the objectives formulated that were at the basis of the research, these have been achieved. Thus, the first objective formulated "Defining and Understanding the Statute of Virtual Coins from an Accountant Point" was achieved by analyzing how to obtain virtual currency by identifying the implications of the participants in virtual currency ecosystems, and not ultimately, by presenting the current regulations applicable to virtual currency transactions, which was a starting point in the approach to achieving the second objective. The second goal formulated "Identifying some policies and accounting treatments applicable to virtual currencies and assets" has been achieved by virtue of the existing virtual asset rules. Thus, in the case of the online gaming, the accounting treatment applicable to the revenues from the sale of virtual assets depends on the information held by the organizations about the user's behavior or the characteristics of each element of the game, while the recognition of virtual currency transactions depends on the quality and intention of each participant within the virtual currency ecosystems. It should be noted, however, that current standards show inconsistencies with regard to the innovative factor that characterizes the virtual assets.

In conclusion, it is necessary in the future for virtual assets to represent a matter of concern for the accountants, as the number of organizations that carry out transactions in which real money is substituted by virtual money, is increasing and hence the lack of accounting regulation lead to presentations of accounting information in financial statements that no longer meet the fundamental characteristics according to the international accounting standards.

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