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Establishing the financial reporting of cryptocurrency in light of existing International Reporting

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Abstract

The objective of this research is to establish the appropriate financial reporting classification of cryptocurrency in light of existing International Financial Reporting Standards (IFRS) via qualitative comparative research method. This research analyses Bitcoin based on five different viewpoints, namely cash, cash equivalent, financial asset, inventory, and intangible asset. The research identifies the applicable IFRS requirements and compares those with Bitcoin characteristics. The research concludes by proposing the most appropriate classification and disclosure recommendations that the local and international standard setters can take into account in developing financial reporting requirements for cryptocurrency.

Keywords: Cryptocurrency, Bitcoin, Financial Reporting, IFRS.

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Informes financieros de criptomoneda

Resumen

El objetivo de esta investigación es establecer la clasificación de criptomoneda apropiada para la presentación de informes financieros a la luz de las Normas Internacionales de Información Financiera (NIIF) existentes a través del método de investigación comparativa cualitativa. Esta investigación analiza Bitcoin en función de cinco puntos de vista diferentes, a saber, efectivo, equivalente de efectivo, activo financiero, inventario y activo intangible. La investigación identifica los requisitos IFRS aplicables y los compara con las características de Bitcoin. La investigación concluye al proponer las recomendaciones de clasificación y divulgación más adecuadas que los emisores de normas locales e internacionales pueden tener en cuenta al desarrollar los requisitos de información financiera para la criptomoneda.

Palabras clave: Criptomoneda, Bitcoin, Información financiera, NIIF.

1. INTRODUCTION

Even though the concept of cryptocurrency and its existence is not something new, it gained a momentum in 2017. Cryptocurrency became one of the hot topics that have been largely discussed around the world at different levels. The international media provided an extensive coverage, and any fintech discussion was incomplete without referring to this concept. In identifying the international media coverage on cryptocurrency, the research team searched for items published in the Financial Times (ft.com) and Bloomberg with the cryptocurrency keyword. The Financial Times published more than

230 items in 2017 that addressed cryptocurrencies. In comparison, the number was only around 30 in 2016. Within just first five months of 2018, the number was equal to 2016 and 2017 combined. A similar trend is observed in Bloomberg.com. They published a mere 67 items in 2016. The number leaped to 1,056 in 2017, and within first five months of 2018 to 1,140 (Bloomberg, 2018).

An increasing number of people presently accept the cryptocurrency concept. This might be due to their personal interest in the new technology, gaining from price volatility, progressive thinking, or an idealistic reason. Noting that the cryptocurrency market currently is highly volatile, at present, there are about two thousand types cryptocurrencies with a market capitalization of more than USD 200 billion and daily trading volume of over USD 12 billion (Coinmarketcap, 2018). Although cryptocurrency is a digital form of exchange that does not exist in physical form, it is claimed to be an international currency that can be used similarly to any other fiat currency. It is not linked to any physical currency, nor is it backed by any government, central bank, legal entity, underlying asset or commodity. Despite these facts, it is receiving an increasing acceptance as a medium of exchange. Many individuals and companies also acquire or invest in cryptocurrencies. Bitcoin is one of the major cryptocurrencies that have significant values today and can be easily liquidated to any of the major fiat currencies. Noting the fact that the market is constantly changing, Bitcoin accounts for the major share of total market capitalization and trading volume of all cryptocurrencies. On September 20, 2018, the market capitalization of

Bitcoin recorded at USD 111,117,076,595 (55% of all cryptocurrencies) and 24-hour trading volume at 4,427,367,837 (35% of all). There is no reliable estimation of the number of businesses accepting bitcoin as a mode of payment, even though one suggests that the number is more than 100,000 worldwide and increasing. There are no specific standard or guidelines that can be followed by the businesses for financial reporting of their Bitcoin or other cryptocurrencies (Alkali and Imam, 2016). The objective of this research is to identify the financial reporting classification of Bitcoin in the books of its holders. The principles of the findings of this research can be applied for other cryptocurrencies with similar characteristics (Abidin & Haseeb, 2018; Haseeb, 2018).

2. CONCEPT OF MONEY, CURRENCY AND CRYPTOCURRENCY

Currency is a liquid asset that is used to acquire commodities and services. People in different communities across history have used different physical forms as currency. This includes the usage of shells and big rocks. In principle, each community agreed on using some object as a currency that is to facilitate their trading which otherwise would be so difficult to perform by barter trading. These currencies are not only a medium of exchange but also a store of value and a unit of account.

With the development of human civilizations, people tend to widely agree on using gold and silver. Gold is believed to be a durable and rare object in this earth and people around the world seems to agree on its intrinsic value that makes it an ideal currency. However, with the increasing international trade, carrying the gold around was inconvenient and risky. It is much easier and safer to have some paper representing the value of the gold instead of the gold itself. Hence, some represented certificates issued by a trusted custodian party of the gold were created. Since that point fiat currency emerged and evolved. At a certain point the central banks were created that they acted as guarantor of gold represented certificates. In 1970s, the 100 per cent coverage of gold has been removed. Central banks continued to issue fiat currencies without being backed by gold or any other assets, and yet these currencies are widely accepted by people. In fact, people of each country are obliged by law to use the national currency, which is fiat currency. A creditor is obligated by law to accept the national currency toward repayment of a debt. This concept is often referred to as legal tender. Although national currencies are available in physical forms in the form of paper notes or coins, they do not have any value of their own (i.e. no intrinsic value). Moreover, people in the present time keep their money at bank and use bank's checks, cards or online transfer to purchase any needed commodity or service. These current accounts at the banks are also considered and treated as money.

In other words, money today does not refer only to currency (paper notes and coins).

The concept of money or money supply is defined by the economists as anything that is generally accepted in payment for goods and services or in the repayment of debts (Mishkin, 2007). This implies a broader definition of money. In addition to notes and coins (currency), it includes demand and savings deposits. Cheques issued from demand deposits are accepted as payment for purchases and savings deposits can be quickly converted into currency or demand deposits. Furthermore, with the present-day developments in economics and the increasing usage of online transfers, the concept of electronic money (e-money) has appeared. A notable example of e-money is PayPal. E-money is a stored monetary value as represented by a claim on the issuer which is issued on receipt of funds for making payment transactions. E-money is stored and transferred electronically through a variety of means such as a mobile phone, tablet, contactless card (or smart cards), computer hard drive or servers. E-money does not necessarily involve bank accounts in transactions, but still need a third party. In principle, electronic money is based on the trust of the users on the third party. When a user sends money to another user, both parties trust the third party (such as PayPal) to credit the account of the sender and debit the account of the receiver. Such a system works as far as the third party is capable to keep such ledger accurate. For instance, the third party must ensure that the sender has the money before sending it and will not able to reuse the money that he has already spent. This kind of verification and accuracy require the third party to maintain a strong governance and structure. Any kind of hacking, fault, or manipulation on this ledger would result on a double spending or more generally a creating unlawful wealth for someone,

but still, the system may or may not be able to discover such issue. In addition, the involvement of this third party as a middle man for any transaction means a cost that will be charged and would require time for verification.

Cryptocurrency attempts to avoid the need for a middle man. The concept implies that each user can keep a copy of the ledger that registers all transactions instead of trusting someone to keep the ledger. In other words, the cryptocurrency depends on distributed verifications of transactions, updating and storage of the record of the transaction histories. This requires maintaining a consensus between the users about the correct record or transaction. This consensus is enabled by the recent Blockchain technology. Despite some technical challenges, the acceptance of cryptocurrency is growing. Nonetheless, it should be noted that the acceptance of these cryptocurrencies varies. Bitcoin, Ethereum, and Ripple are among the most famous ones. On January 01, 2018, it is reported that 9,922 different corporations accept Bitcoin Dell (Bitcoin, 2017), Microsoft, and Bloomberg are among these corporations. Although the acceptance of the Bitcoin and other cryptocurrencies as a medium of exchange is growing, it is yet so limited as compared to e-money or national currencies. However, despite their limited acceptance by stores, it is noticed that many individuals and companies are buying it because of the potential capital gain resulting from the increasing if its value against the other local currencies. This raises the question of how this cryptocurrency shall be classified and reported in the financial statements according to IFRS.

3. ACCOUNTING OF CRYPTOCURRENCY: CURRENT PRACTICES AND LITERATURE REVIEW

Firstly, it is important to note that there is no specific guidance in IFRS or US GAAP on accounting for cryptocurrencies, despite its accelerating use. Secondly, it is important to mention that from a legal perspective different countries have adopted different stands towards cryptocurrencies. For instance, German Federal Financial Supervisory Authority (BaFin) regards cryptocurrency as financial instrument, Canada anti-money laundering Act refers to cryptocurrency as money service business, Brazil Law No 12,865 considers cryptocurrencies as financial asset, Internal Revenue Service in the USA considered cryptocurrency as property (not currency), and Japanese lawmakers in April 2017 allowed the use of Bitcoin and several other cryptocurrencies as an officially legal payment method. Analysing the relevant literature, it is found that most of the available articles have focused on taxation of cryptocurrencies, whereby a very limited number of articles discussed its classification according to IFRS. In fact, for the best of our knowledge, only a few news articles and reports are found in this regard (Kenneth & Grazyina, 2013).

PwC China has published an article discussing several options to account for cryptocurrencies. The article suggested that traders of cryptocurrencies may record their transactions considering cryptocurrencies as inventories, while non-traders of cryptocurrencies may recognize them as intangible asset either at cost or at fair value. However, the concept of fair value needs some active markets that

may not be available for all cryptocurrencies. In fact, several major exchanges around the world have experienced a delay in execution or even stopped working at several occasions in 2017 due to the sudden increase in demand for cryptocurrencies or due to some technical failure or even hacking Forexnewsnow (2017) and Bitcoin (2017). For example, Poloniex exchange was forced to shut down severally on May 16, 2017, and Zebpay (one of India's Bitcoin exchanges) has implemented a limit of about USD 780 in Bitcoin transactions per day in May 2017. Coinbase was forced to halt Ethereum and Litecoin trading for a spell on December 13, 2017 citing a major outage (Imeokparia, 2013).

Such incidents raise a significant issue on the availability of an active market. It is also possible that a company may invest in some newly established cryptocurrencies or in Initial Coin Offerings (ICOs). Such cryptocurrencies would not have an active market. In PwC IFRS news for March 2017, Yvonne Kam argues that cryptocurrencies appear to meet the definition of an intangible asset and suggest measuring them at fair value rather at cost. In line with this suggestion, the fair value movements would be recognized in the other comprehensive income, while losses are taken through the statement of profit or loss. Apart from the above, the high volatility of cryptocurrencies raises a question on whether some further disclosure is necessary. A company that holds a significant amount of cryptocurrency expose the shareholders and creditors for a high risk that they need to be informed about. In addition, shall same treatment be applied to companies accept cryptocurrencies for their sales similar

to companies that hold cryptocurrencies as a short-term or long-term investment? If the company received a sum of cryptocurrency for services provided to a client, shall the company use the average price on the day of receipt, the day's high price, or the day's low price? If it is treated as an inventory then what would be the best inventory valuation method for reporting; first-in-first-out (FIFO), last-in-first-out (LIFO) or average? These questions among others are yet to be answered.

4. CLASSIFICATION OF BITCOIN FOR FINANCIAL REPORTING

This section discusses the classification of cryptocurrencies for financial reporting applying International Financial Reporting Standards (IFRS). Since there is no specific standard for cryptocurrency, we analyze the various possibilities; namely, reporting it as cash, cash equivalent, inventory, property, financial instrument/financial asset or intangible asset.

4.1. Shall Bitcoin be classified as cash?

IAS 7 provides a very general definition of cash. Para 6 states: Cash comprises cash on hand and demand deposits. Bitcoin clearly is not a demand deposit. However, Bitcoin can be classified as cash only if it can be established that Bitcoin behaves like cash or the holder of it

uses it as cash (i.e. to purchase goods or services). Bitpay (2015) claims that more than 100,000 merchants (including Microsoft and Expedia) worldwide accept Bitcoin. In November 2017, PwC – one of the Big Four – also joined the list as they accepted a payment in Bitcoin for their advisory services. Even though these may seem appealing, but the level of Bitcoin's acceptance is still extremely limited. Furthermore, a few countries banned transactions in Bitcoin or have a very cautious look at it. Nevertheless, before classifying Bitcoins as cash, the behaviour of the Bitcoin holder can be evaluated whether it has been used to buy/sell goods or services, and the frequency of the use. For an entity, merely selling goods or providing services for Bitcoin is not sufficient to classify it as cash, unless the entity uses Bitcoin for the purchases as well. A classification other than cash likely to be more appropriate if the entity is selling goods or providing services for Bitcoin but then holding it.

4.2. Shall Bitcoin be classified as cash equivalent?

IAS 7: Para 6 defines cash equivalents as follows: Cash equivalents are short-term, highly liquid investments that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value. Liquidity of Bitcoin can be argued. Some see it as a highly liquid as it can be readily converted into any major currencies. However, some others question its liquidity as not everywhere it is accepted. Nevertheless, the Bitcoin price currently is highly volatile. This fails the readily convertible to known

amounts of cash and insignificant risk tests. This removes the potentiality of a cash equivalent classification. Even if the price stabilizes, a cash equivalent classification will still be unlikely as even then Bitcoin will fail the aforementioned tests. That is why IAS 7: Para 7 specifically excludes equity investments from a cash equivalent classification.

4.3. Shall Bitcoin be classified as a property?

IAS 16 deals with only tangible assets that are held for use in the production or supply of goods or services. IAS 40 deals with the only land and/or buildings that are held for rental or capital appreciation or both. Therefore, Bitcoin does not qualify as a property under any of these two standards.

4.4. Shall Bitcoin be classified as an inventory?

IAS 2 deals with inventories. Even though IAS 2 does not specifically say that inventories must be tangible, the tone of the standard is that inventories by default are tangible assets. IAS 2: Para 6 defines inventories as follows: Inventories are assets: held for sale in the ordinary course of business; in the process of production for such sale; or in the form of materials or supplies to be consumed in the production process or in the rendering of services. Bitcoin is not an inventory, at least as we commonly understand an inventory.

However, since this is a completely new phenomenon, this must be explored from a proper perspective. Bitcoin mining can be claimed as a process of production. However, a careful evaluation is needed in determining whether these are held for sale in the ordinary course of business, even though at present this does not appear to be happening (Jaya & Verawaty, 2015).

4.5. Shall Bitcoin be classified as a financial instrument/financial asset?

IAS 32: Para 11 provides the following definition of a financial instrument: A financial instrument is any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity. Ownership of Bitcoin does not involve any contract with anyone. It does not give rise to a financial liability or equity instrument to any party either. Hence, this cannot be classified as a financial instrument. IAS 32: Para 11 provides the following definition of a financial asset. A financial asset is any asset that is:

(a) Cash;

(b) An equity instrument of another entity;

(c) A contractual right:

(i) To receive cash or another financial asset from another entity; or

(ii) To exchange financial assets or financial liabilities with another entity under conditions that are potentially favorable to the entity; or

(d) A contract that will or may be settled in the entity's own equity instruments …

Bitcoin is not an equity instrument of another entity, it is not a contract, and it does not give any contractual right. Therefore, Bitcoin cannot be classified as a financial asset except the possibility of a cash classification in certain limited circumstances.

4.6. Shall Bitcoin be classified as an intangible asset?

IAS 38: Para 8 provides the following definitions of an asset and an intangible asset.

An asset is a resource:

(a) Controlled by an entity as a result of past events; and

(b) From which future economic benefits are expected to flow to the entity.

An intangible asset is an identifiable non-monetary asset without physical substance.

Bitcoin perfectly meets the above two definitions. Bitcoin meets the definition of an asset as its holder holds the complete control as in when, how, where, and for what purpose to spend it. Future economic benefits are also expected from it as it can be converted into cash or used to purchase an asset or service. These features continue to hold even if the Bitcoin price goes down. Bitcoin also fulfils the identifiability criteria stipulated in IAS 38: Para 12, which is:

… separable, ie is capable of being separated or divided from the entity and sold, transferred, licensed, rented or exchanged, either individually or together with a related contract, identifiable asset or liability, regardless of whether the entity intends to do so …

Intangible asset classification is the most appropriate for Bitcoin if it is not classified as cash or a monetary asset. As an intangible asset, Bitcoin shall be measured at cost at initial recognition (IAS 38: Para 24) and recorded in the entity's functional currency (IAS 21: Para 21). There is no identifiable useful life for Bitcoin, hence this cannot be depreciated. An active market exists for Bitcoin that allows determining its fair value. Hence, at every reporting date, Bitcoin must be revalued and any gain from revaluation must be recognized in other comprehensive income (IAS 38: Para 85 and 86).

5. CONCLUSION

For an entity, merely selling goods or providing services for Bitcoin is not sufficient to classify it as cash, unless the entity uses Bitcoin for the purchases as well which does not seem the case today. Furthermore, the Bitcoin price currently is highly volatile. This fails the readily convertible to known amounts of cash and insignificant risk tests. This removes the potentiality of a cash and cash equivalent classification. In investigating the potential classification as property, we found that Bitcoin does not qualify as a property under standards IAS 16 and IAS 40. As a financial asset, Bitcoin is not an equity instrument of another entity, it is not a contract, and it does not give any contractual right. Therefore, Bitcoin cannot be classified as a financial asset except the possibility of a cash classification in certain limited circumstances. In analyzing classifying Bitcoin as an inventory, we found that IAS 2 define inventories as assets that are held for sale in the ordinary course of business, in the process of production for such sale, or in the form of materials or supplies to be consumed in the production process or in the rendering of services. Though this definition does not seem to fit the Bitcoin, Bitcoin mining might be claimed as a process of production. However, a careful evaluation is needed in determining whether these are held for sale in the ordinary course of business, even though at present this does not appear to be happening.

As a result, we found that intangible asset classification is the most appropriate for Bitcoin if it is not classified as cash or a monetary

asset. As an intangible asset, Bitcoin shall be measured at cost at initial recognition (IAS 38: Para 24) and recorded in the entity's functional currency (IAS 21: Para 21). There is no identifiable useful life for Bitcoin, hence this cannot be depreciated. An active market exists for Bitcoin that allows determining its fair value. Hence, at every reporting date, Bitcoin must be revalued and any gain from revaluation must be recognized in other comprehensive income (IAS 38: Para 85 and 86).

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