

Current Accounting Practices For bitcoins

Ahmed Elsayed Hamdallah *
Hamdy Mahmoud Kadous **
Rana Mahmoud Abdou ***

***Ahmed Elsayed Hamdallah:** Professor of Financial Accounting faculty of commerce and business administration , Helwan university.

** **Hamdy Mahmoud Kadous:** Professor of Financial Accounting faculty of commerce and business administration , Helwan university.

*** **Rana Mahmoud Abdou:** Assistant lecturer, faculty of commerce and business administration , Helwan university.
Email : Alaa_serafy@yahoo.com

Abstract:

The rapid development of cryptocurrencies has attracted the attention of investors, speculators, regulators, and academics in recent years. A large amount of research has been devoted to the pricing mechanisms of cryptocurrency markets, the drivers of volatility and the diversification potential of cryptocurrencies.

bitcoin is the best-known cryptocurrency which currently holds the largest market capitalization and is regarded as a standard example of a cryptocurrency. bitcoin has emerged as the most popular virtual currency, and maintains the greatest share ahead of its competitors; the Ethereum, Ripple, Litecoin and bitcoin Cash.

The researcher reviewing different current accounting practices for bitcoins , how number of countries dealing with bitcoins , and the efforts of some formal organizations in accounting for bitcoin.

المخلص

جذب التطور السريع لل عملات المشفرة انتباه المستثمرين والمضاربين والمنظمين والأكاديميين في السنوات الأخيرة. تم تخصيص قدر كبير من الأبحاث لآليات التسعير الخاصة بأسواق العملات المشفرة ، ومحركات التقلب وإمكانية التنويع في العملات المشفرة. عملة البيتكوين هي العملة المشفرة الأكثر شهرة والتي تمتلك حالياً أكبر قيمة سوقية وتعتبر مثالاً قياسياً للعملة المشفرة. برزت عملة البيتكوين باعتبارها العملة الافتراضية الأكثر شعبية ، وتحفظ بأكبر حصة في المستقبل من منافسيها (الايثيرم ، الريبل ، اليتكوين والبيتكوين كاش). تستعرض الباحثة الممارسات المحاسبية المختلفة للبيتكوين ، كيفية معاملة بعض الدول للبيتكوين وأيضاً جهود بعض المنظمات الرسمية في المحاسبة عن البيتكوين.

1. Introduction:

By a variety of metrics, bitcoin is no longer a financial curiosity. From its genesis transaction of 50 bitcoins in January 2009, bitcoins in circulation now number more than 17 million. An estimated 35 million Bitcoin wallets are held worldwide with 10,000 companies accepting payments in bitcoins, some via the newly issued bitcoin debit card. (Easley, et al, 2019, P.91)

Interestingly, bitcoin was released around that time as a solution to the fragile global financial system, and the academic literature draws attention to bitcoin's role as an investment shelter during stress periods such as the European debt crisis of 2010 (Jawad et al, 2019, P.323)

bitcoin has recently been observed to function more as a speculative asset than a medium of exchange. With low spreads and sufficient market depth, bitcoin is argued to be an investible asset. The research on bitcoin price formation is growing and the extant literature provides evidence that bitcoin exhibits relatively independent price behavior from other traditional financial assets, such as stocks, bonds and commodities, and hence, may become beneficial to portfolio diversification purposes (Nguyena, et al, 2019, P.421)

Many papers in recent years have examined the benefits of adding alternative assets to traditional portfolios containing stocks and bonds. bitcoin has emerged as a new alternative investment for investors which has attracted much attention from the media and investors alike. (Emmanouil & Andrew, 2019, P.2)

As the exchange and trade with bitcoins is steadily rising, consequently, they become subject to financial reporting. The essence of financial reporting derives from the objective to provide stakeholders of an enterprise with sustainable information about the financial well-being of the business. Accountants might face complications meeting the objective of financial reporting considering cryptocurrencies such as bitcoins due to the absence of guidelines in both, IFRS and US GAAP.

2. Current Accounting Practices For bitcoins :

Cryptocurrencies are becoming widespread throughout the world, Cryptocurrencies have been used in a variety of ways, from means

of payment to speculative trading assets, and, importantly, investments as stores of value. (Jaywant , 2019 , P.147) As with other economic phenomena, cryptocurrencies shall be addressed in the financial statements of the entities using them, albeit without any accounting guidance in current financial reporting standards (Procházka., 2018 , P.162)

bitcoin is regarded as a standard example of a cryptocurrency and was chosen for this study because it is the largest cryptocurrency by market capitalisation (CoinMarketCap, 2019). The market capitalization (at the time of writing) of Bitcoin is over US\$1.8bn (CoinMarketCap, 2019).

bitcoins are used by companies in their daily business and, as such, they should be accounted for and presented in financial statements. As with other new phenomena, accounting standard-setters are lagging in the delivery of accounting guidance (Procházka., 2018 , P.162).

In certain scenarios, a transaction involving a cryptocurrency shall be accounted for as a transaction in a foreign currency, despite the claim from central bankers that cryptocurrencies are not money. In the same way, it is shown that cryptocurrencies cannot be recognized and reported as intangible assets despite their having a digital (virtual) form and regulators urging for such a treatment. Mining of cryptocurrencies shall, therefore, follow different accounting principles other than receiving payments in cryptocurrencies or investing into cryptocurrencies (Procházka. 2018, P.164).

With no authoritative guidance for accountants relating to bitcoins, the only alternative left is to identify and adapt existing accounting standards. From an accountant's perspective, how should a transaction involving bitcoins be accounted for? , So let's present the different current practices in accounting for bitcoins with concentration at IFRS practice as it the more common standards around the world as follows:

2.1 Accounting Practices According To IFRS :

In IFRS, effective 1 January 2018, there is no reference regarding cryptocurrencies. In such circumstances, a general procedure for the selection of an accounting policy applies. According to IAS8.10,

management shall use its judgment in developing and applying an accounting policy, in the absence of IFRS that specifically applies to a transaction, other event or condition. A selected policy shall result in information that is relevant to the economic decision-making needs of users and will be reliable. In making the judgment, management is restricted as it shall refer to, and consider the applicability of, the following sources in descending order (IAS8.11):

- The requirements in IFRS dealing with similar and related issues;
- The definitions, recognition criteria and measurement concepts for assets, liabilities, income and expenses in the Framework. (Procházka, 2018, P.164).

In determining an appropriate accounting treatment as described above, an entity needs to adhere to the fundamental principle of useful accounting information. To represent financial position and performance, it is not important which item an entity acquired, but why it was acquired. The purpose of acquisition and the expected use of the item within the entity is the key determinant of its presentation in financial statements.

Theoretically, transactions related to bitcoins can be presented in financial statements as:

- Cash;
- A Financial asset (other than cash);
- A non-financial investment;
- Inventory;
- Leases/right-to-use;
- An intangible asset.
- Property, Plant and Equipment.

The following section analyzes the conditions under which each treatment would be relevant, along with a description of the impact of respective policy on financial statements under IFRS standards:

2.1.1 Cash:

Cash is categorized as a financial asset under IFRS principles. A financial asset (IAS32.11) is any asset that is:

- Cash;

- An equity instrument of another entity;
- A contractual right to receive cash or another financial asset from another entity, or to exchange financial assets or financial liabilities with another entity under conditions that are potentially favorable to the entity;
- A contract that will or may be settled in the entity's own equity instruments.

We can see certain settings under which bitcoins can be treated as cash. According to IAS7.6, cash comprises cash on hand and demand deposits. Unfortunately, this definition is just an enumerative list. There is no other attempt to define cash positively in IAS7 or in any other standards. Therefore, a general definition of cash (money) shall be used. The approach taken by (Berchowitz, 2017, P.3), i.e., a definition of cash in terms of legal tender is not entirely appropriate for two reasons.

Firstly, legal tender (or fiat money) covers only one stage in the evolution of payment systems. Which may be overcome by more efficient or secure systems. Secondly, treating cash as legal tender is a pure technical (legal) view which contradicts the fundamental principle of the economic substance over legal form (Framework 4.6).

In economics, money is usually defined as anything that is generally accepted as payment for goods and services or in the repayment of debts. bitcoins can meet such a definition Using this economic exposition in accounting, bitcoins shall be presented in financial statements as cash if it is acquired in a business transaction as a medium of exchange, i.e., as a means of payment received for goods or services sold by an entity.

IAS 21 shall be applied in such cases. Under current development, bitcoins are not generally accepted as a medium of exchange, therefore any payment received in bitcoins shall be treated as a transaction in foreign currency, translated into functional currency by applying a spot exchange rate at the date of the transaction (IAS21.22). Any holdings of bitcoins are monetary items, and, in preparation of financial statements, they shall be translated using a closing rate (IAS21.23a).

Certain communities process most payments in bitcoins. If an element of such a community is an accounting entity reporting under IFRS, it may happen, in exceptionally rare circumstances, that certain bitcoins will become a functional currency of that entity.

A functional currency is the currency of the primary economic environment in which the entity operates (IAS21.8). In that case, transactions not processed in bitcoins (meeting the definition of functional currency) will be treated as a transaction in a foreign currency. However, it shall be stated that this is a hypothetical situation, as we are not aware of any such company at this point in writing. (Procházka., 2018 , P.164).

2.1.2 Financial Asset :

Referring to the definition of a financial asset ,bitcoins do not meet the definition of a financial asset in the form of an equity instrument or a contractual right to receive cash. For that reason, three measurement models defined by IFRS 9:

- A financial asset at fair value through profit or loss;
- A financial asset at fair value through other comprehensive income;
- Amortized cost.

Are not directly available. However, the main motive for the purchase of bitcoins is based on speculation to realize future capital gain. This kind of a transaction does not fulfil the definition of a financial asset, but the economic factors surrounding the (“buy and hold”) transaction are comparable to trading with financial instruments. Using the provision of IAS8.11, an accounting policy adopted for investment-like bitcoins can refer to the measurement models of IFRS 9. From applicable models, amortized cost cannot be employed, as bitcoins do not have any maturity date. Only FVPL or FVOCI models can be applied and shall be applied as a relevant source of useful information for the users of financial statements.

Both models require entities to remeasure financial assets at their fair values as at the reporting date. The main difference between the methods is geography where the gain or loss on remeasurement is reported within the comprehensive income statement. The first method prescribes the recognition within the profit and loss section (IFRS9.5.7.1), the second within other comprehensive income with a

subsequent reclassification adjustment from equity to profit and loss (IFRS9.5.7.10).

When selecting an appropriate model, the entity's business model test and the contractual cash flow test shall be performed (IFRS9.4.1.1). Their applicability to bitcoins is impossible, it can only result in the selection of an FVPL model. The sole application of FVPL approach may, however, not be fully appropriate under all situations. Therefore, the choice between FVPL and FVOCI can be done once again by setting one's own accounting policy. To justify the selection, it can be supported by the provisions of IAS 39 (the old standard on financial instruments replaced by IFRS 9).

The wording of IAS 39 offers a better understanding of the differences between two basic investment horizons, when trading with financial instruments, than the terminology of IFRS 9 and the new conceptual framework which contradict anew fundamental principle of the economic substance over legal form.

According to IAS39.9, a financial asset at fair value through profit or loss is the asset which is classified as held for trading and the financial asset is classified as held for trading if it is acquired or incurred principally for the purpose of selling or repurchasing it in the short term. Furthermore, available-for-sale financial assets are those non-derivative financial assets that are designated in such a way, i.e., they are acquired to realize capital gains in the remote rather than in the near future.

2.1.3 Non-financial investment:

As bitcoins do not meet the exact definition of financial assets, they can be treated in the same way as non-financial investments (e.g., art, gold coins, investment gold, etc.). Once again, non-financial investments are not regulated by any specific piece of IFRS4 and entities shall develop their own accounting policy (Procházka., 2018, P.164). In practice, two methods prevail. Firstly, a conservative historical cost (HC) model, under which an investment is measured at its acquisition cost, tested for impairment at year-end, and any holding gain is realized and reported in the income statement once the asset is sold.

Secondly, the FVOCI model is applied with continuous recognition of unrealized gains and losses under other

comprehensive income. The HC model is preferable when the current market value of the investment is not reliably determinable.

Non-financial investments are purchased to invest money in the long-term and investments in bitcoins shall be treated within this category only if the purchase is not driven by short-term speculation. As the market value of bitcoins is readily available, FVOCI is a more relevant measurement model (Procházka., 2018 , P.164). Under such circumstances, the similar treatment of bitcoins as non-financial investments will produce the same outcome as their treatment for an available-for-sale-like financial instrument.

2.1.4 Inventory:

Two scenarios, leading to the recognition of bitcoins as inventory can be identified:

Firstly, an entity may purchase bitcoins in order to resell them to customers. In this case, bitcoins shall be similarly treated as merchandise or as a commodity held by broker-traders. Broker-traders are those who buy or sell commodities for others, or on their own account, and such inventories are principally acquired with the purpose of being sold in the near future to generate a profit from fluctuations in price or the broker-traders' margin (IAS2.5). Despite there being no exact definition of commodities under IAS2, their description corresponds to the economic model of bitcoin brokers and this model is more relevant and reliable compared to merchandise by bitcoins brokers.

bitcoins brokers provide the investors with an alternative OTC platform to buy and sell bitcoins rather than directly via a regular exchange (Buntinx, 2017, P.8), meeting, thus, a condition of IAS 2 for broker-traders to buy or sell commodities for others. Regarding the measurement, IAS 2 presumes that commodities are mainly measured at fair value less costs to sell and changes in fair value less costs to sell are recognized in profit or loss in the period of the change (IAS2.3b). The required measurement model is close to the FVPL model and produces comparable results regarding income statement.

The comparability of both models is important, as it may be difficult, in practice to distinguish whether an entity acts as a broker to buy or sell bitcoins on its own account (IAS 2 guidance), or

whether trading is made for the purpose of selling or repurchasing it in the near term (IFRS 9 guidance).

The accounting treatment of purchased bitcoins for brokering purposes does not constitute any serious difficulties. The mining of bitcoins is a more interesting and sophisticated case. Regarding the accounting treatment of bitcoins acquired by mining, IAS 2 guidance on the cost of conversion shall be applied. The cost of inventories shall comprise all costs of conversion incurred in bringing the inventories to their present location and condition. The costs of conversion of inventories include costs directly related to the units of production as well as a systematic allocation of fixed and variable production overheads that are incurred in converting materials into finished goods (IAS2.11).

Electricity and labor costs (if any) directly related to the mining are the main examples of direct costs. Indirect production overheads will be formed by depreciation of hardware and mining software, depreciation of the mining “factory” (if any) and other mining equipment (e.g., fans to cool the spaces), wages of programmers and service workers, etc.

When determining production costs, IAS2.13 requires the allocation of fixed production overheads based on the normal capacity of the production facilities. Normal capacity is the average production over a number of periods under normal circumstances, taking into account the loss of capacity resulting from planned maintenance. However, there is no normal capacity in the production of bitcoins, as mining is a competition in which the winner takes all. The exact production of a miner depends on its computational power relative to the power possessed by other miners. The first miner to get a resulting hash for a given block announces its victory to the rest of the network. All the other miners immediately stop work on that block and start trying to find the encryption for the next one (Acheson, 2018,P.3).

The question is how to account for costs incurred during unsuccessful mining conquests. Such costs can be regarded as wastage and shall be therefore excluded from the acquisition cost and immediately expensed (IAS2.16a).

2.1.6 Intangible Asset:

State authorities and regulators (such as central banks) usually strongly disagree that bitcoins shall be treated as cash and that they do not comply with the (legal) definition of money (Procházka., 2018, P.166).As bitcoins are digital currencies, not having a physical form, some authors prefer to recognize them as an intangible asset on the balance sheet statement, with the cost model as a basic treatment and the revaluation model as an available alternative (Berchowitz, 2017, p.3).

According to IAS 38.6, an intangible asset is defined as an identifiable non-monetary asset without physical substance. In a subsequent treatment, an entity needs to resolve two aspects – amortization and measurement.

Firstly, amortization requires assessing whether the useful life of an intangible asset is finite or indefinite. An asset is identified as having an indefinite useful life when there is no foreseeable limit to the period over which the asset is expected to generate net cash inflows for the entity. This is the case of bitcoins, when viewed as intangibles.

According to IAS 38.107, an intangible asset with an indefinite useful life is not amortized. There is an additional requirement of IAS 36.10 that an entity shall test such an intangible asset with an indefinite useful life for impairment annually, or whenever there is an indication that the intangible asset may be impaired.

Secondly, an entity may opt between cost model and fair value model for any subsequent measurement of intangible assets. Contrary to tangible assets under IAS 16, IAS 38 contains strict conditions, under which fair value model is allowed. A revaluation model can be applied only if fair value is determined by referring to an active market. bitcoin comply with the condition of being traded in active markets.

However, based on a previous analysis of economic reasons to acquire bitcoins, hardly any setting can be identified under which an entity would use and would be able to use bitcoins as intangible assets. Surely, bitcoins cannot be utilized in the same way as software, patents, or licenses, neither it is a trademark, customer list, etc. (Tan & Low, 2017, P.222).

Furthermore, if bitcoins are mined, their assignment under the scope of IAS 38 would mean that they cannot be recognized as an asset at all. IAS 38.51 requires that an entity apply the requirements and guidance in paragraphs IAS38.52–67 to all internally generated intangible assets, though no entity can prove the fulfilment of all 6 conditions for the development phase of IAS38.57. For the reasons outlined, recognizing bitcoins as intangibles is neither appropriate for externally purchased bitcoins, nor for mined bitcoins. Despite bitcoins “technically” meeting the definition of an intangible asset according to IAS 38, they do not possess the economic characteristics of intangible assets, in a way presumed as by IASB, when developing the standard. The issue of bitcoins may, thus, require a future redefinition of an intangible asset in an IFRS setting or it will need a new standard dealing with it and all other types of cryptocurrencies.

2.1.7 Plant, Property and Equipment:

bitcoins do not fall into the scope of IAS 16, ‘Property, Plant and Equipment’, because they are not tangible items. It doesn’t have physical form, certainly not land and buildings and The use of bitcoins does not lead to the production of goods or services, which is required of Assets for IAS 16. It is easy to recognize bitcoins as an asset – its holder can derive future economic benefit from it and the amount is easily measured. (Bitcoin – Its Economics for Financial Reporting, 2017.p.5)

2.1.8 Disclosure For bitcoins :

Entities should comply with the disclosure requirements of the IFRS Standards they use in accounting for bitcoins (e.g., IAS 2, IAS 38, and IFRS 13). However, given the complexity and volatility associated with bitcoins, entities should consider whether additional disclosures about their bitcoins holdings are necessary. (CPA, 2018, P.12)

IAS 1.9 states: “The objective of financial statements is to provide information about the financial position, financial performance and cash flows of an entity that is useful to a wide range of users in making economic decisions” and that the notes shall “provide information that is not presented elsewhere in the financial statements, but is relevant to an understanding of any of them.”

IAS 1.17 requires an entity to “provide additional disclosures when compliance with the specific requirements in IFRS is insufficient to enable users to understand the impact of particular transactions, other events and conditions on the entity’s financial position and financial performance.” However, IAS 1.31 notes that disclosure is not required if the information resulting from that disclosure is not material. In addition to the disclosures required by a specific IFRS Standard, the following disclosures, among others, may also be relevant:

- A description of the bitcoin, its important characteristics and the purpose of holding it (e.g., investing, buying goods and services)
- The number of units of the bitcoins held at year end.
- How the accounting policy was determined.
- If the cost model is used, the fair value for the bitcoins together with the appropriate IFRS 13 disclosures.
- Information on the market risk associated with the bitcoins (e.g., historical volatility).

In addition, there may be disclosures outside of financial statements that are required by securities regulators. Entities should consider what disclosures might be required for management’s discussion and analysis or other documents filed as continuous disclosure under securities rules.

2.2 Accounting Practices According To FASB :

After review and analysis, two current alternatives appear to be promising according to FASB practices: Non-monetary Exchanges and Foreign Currency Transactions: (Harrison & Mano, 2018, P.113)

2.2.1 Non-monetary Exchange:

The view that virtual currency transactions should be accounted for as non-monetary exchanges hinges on the argument that the virtual currency is similar to a barter credit. (Harrison & Mano, 2018, P.113)

Given this opinion, ASC 845 Non-monetary exchanges, in general, include an “Exchange of product held for sale in the ordinary course of business (inventory) for other property as a means of selling the product to a customer.” [ASC 845-10-05-06].

More specifically to barter transactions per the ASC “In a barter transaction involving barter credits, an entity enters into a transaction to exchange a nonmonetary asset (for example, inventory) for barter credits. These transactions may occur directly between principals to the transaction or include a third party whose business is to facilitate those types of exchanges (for example, a barter entity).”[ASC 845-10-05-10].

Under ASC 845-10-30-01, non-monetary exchanges are based on the fair value of the assets (or services) involved. In general, the fair value of the assets given is used to measure the value of the transaction with any difference between fair value and carrying value being recognized as a gain or loss. However, if the fair value of the asset received is considered more reliable, then that is used to measure the value of the transaction.

If a virtual currency transaction is to be viewed as a non-monetary exchange, one of the contributing arguments would be the lack of reliable value of the currency (similar to a barter credit). Thus, in a typical transaction in which inventory is sold to a customer, the likely value to be used would be the fair value of the inventory.

This is consistent with ASC 845-10-30-17, which states, “In reporting the exchange of a nonmonetary asset for barter credits, it shall be presumed that the fair value of the nonmonetary asset exchanged is more clearly evident than the fair value of the barter credits received and that the barter credits shall be reported at the fair value of the nonmonetary asset exchanged.”

The existence of quoted market values for barter credits, however, does not disqualify a transaction from being considered a non-monetary exchange. Per ASC 845-10-30-18, “However, that presumption might be overcome if an entity can convert the barter credits into cash in the near term, as evidenced by a historical practice of converting barter credits into cash shortly after receipt, or if independent quoted market prices exist for items to be received upon exchange of the barter credits. It also shall be presumed that the fair value of the nonmonetary asset does not exceed its carrying amount unless there is persuasive evidence supporting a higher value.” For a bitcoin, the infrastructure via merchant services, to

trade the virtual currency for dollars is in place. Additionally, several exchanges providing current market prices are available.

2.2.2 Foreign Currency Transaction:

ASC 830, Foreign Currency Matters, provides accounting guidance for the alternative method under consideration herein for transactions using bitcoin. The assumption made, if this view is taken, is that the virtual currency is considered a form of currency and a foreign currency to the entity entering a transaction. (Harrison & Mano, 2018, P. 114)

Per ASC 305-10-20 (Glossary), cash is defined in part as “not only currency on hand but demand deposits with banks or other financial institutions. Cash also includes other kinds of accounts that have the general characteristics of demand deposits in that the customer may deposit additional funds at any time and also effectively may withdraw funds at any time without prior notice or penalty.” A strict interpretation of this definition could exclude virtual currencies from being considered cash as most existing forms are not associated with a financial institution and the effective withdrawal of funds may not always be possible; however, the invention of virtual currencies as stated previously is to provide a method of payment that does not rely on a financial industry—a method of electronic payment from one person to another without the need of a third party. Likewise, from a practical perspective, if individuals accept a virtual currency as means of payment, it is a currency. Similar to government-issued coin and currency, virtual currencies have value primarily as a means of transacting business (and secondarily as an investment).

Given that virtual currency is considered a type a currency, it would then have to pass another test to determine if it is a functional or foreign currency. Per ASC 830-10-20 (Glossary), a foreign currency is defined as “a currency other than the functional currency of the entity being referred to.” The functional currency referred to within this definition is simply the currency in which the company typically transacts business and presents its financial statements.

It “is the currency of the primary economic environment in which the entity operates; normally the environment in which an entity primarily generates and expends cash.” [ASC 830-10-45-02].

Presently, it is unlikely that any company can claim that virtual currency is its functional currency as financial statements are not presented in a virtual currency and virtual currency is not pervasive enough for any company to claim it as being the currency in which it primarily generates and expends cash. Thus, virtual currency is a foreign currency.

Accepting that virtual currency is a foreign currency, use of the foreign currency method requires a known exchange rate between the functional and foreign currency. “At the date a foreign currency transaction is recognized, each asset, liability, revenue, expense, gain, or loss arising from the transaction shall be measured initially in the functional currency of the recording entity by use of the exchange rate in effect at that date.” [ASC 830-20-30-01]. Such exchange rates between bitcoin and the U.S. dollar are known and published. Accounting for Virtual Currency Transactions.

So the researcher find the difference between the two methods according to this study depends fundamentally on whether the bitcoins can be accepted as a medium of exchange such as fiat money backed by central banks.

In other words, if the virtual currency does not a known value, the other assets associated with the transaction will have to be used to determine the value of the virtual currency used. This is the basis of non-monetary exchanges. If the virtual currency does have a known, comparable value, the currency can be used to value the business transaction. This is the basis of foreign-currency exchange accounting. (Harrison & Mano,2018, P.114)

3. Issues in the Current Accounting Practice For bitcoins :

After the previous analysis of different accounting practice for bitcoins the researcher can summarize an opinion as follows:

If bitcoins are used as payment methods, then they shall be treated as “foreign currencies”, i.e., transactions shall be translated at a spot rate, and closing balances, if any, shall be restated at a closing rate. The gain or losses recognized at year-end shall be included in profit or loss. A bitcoin as a functional currency is also possible, but hardly probable under current business and market conditions.

The most interesting scenarios are when bitcoins are purchased to realize future capital gains from an expected increase in the market

price. Basically, three models are available with reference to IFRS guidance on similar items: the historical cost model (with impairment testing), the fair value model through profit or loss, and the fair value model through other comprehensive income.

Even though IAS 8 would allow an application of cost model, it can hardly depict the economic nature of investments into bitcoins faithfully (neither by trade-brokers, nor by “normal” investors). The assertion can be supported by the high volatility of market prices of bitcoins which precludes the historical cost model from providing useful information for users. Ignoring increases in the price of a bitcoin over its acquisition costs magnifies the risks that users would not be capable of identifying the source of earnings persistency (Procházka, 2018, P.1⁴), as the accrual and cash-flow components of performance are extremely different under historical cost model which reduces the magnitude of the accruals.

All proposals of the application of cost model for the measurement of bitcoin (either as inventory under IAS 2 or as an intangible asset under IAS 38) are unattainable from the perspective of decision-usefulness.

Withholding information concerning the steep price increases and subsequent massive corrections prevents the users of financial statements from making qualified economic decisions. The logic of this assertion stems from the universal characteristics of fair value measurements, even under unstable economic conditions, and their usefulness in an investor’s decision-making process fair value accounting is irreplaceable when delivering useful information on financial instruments. (Procházka., 2018 , P.164)

Purchasing and selling bitcoins follows a similar pattern as investing into financial instruments or other investment instruments of a non-financial nature. The accounting treatment of bitcoins, if they are acquired for short-term speculative or long-term investment purposes, shall therefore also refer to fair value measurement. A fair value model can also be justified by referring to the accounting treatment of short-selling bitcoins. From the perspective of symmetry, it does not make any sense to have a different accounting treatment when the speculator expects an increase in price (traditional trading) or decrease in price (short-selling derivative)

and fair value shall be applied for all transactions of investing or speculation nature.

There are two open issues when applying the fair value model:

- The presentation of fair value gains/losses – within PL or within OCI
- The reliability of the measurement.

3.1 The presentation of fair value gains/losses – within PL or within OCI:

The first issue relates to the general question of which level of income provides users with more useful information: net income (profit and loss) or total comprehensive income (including components of other comprehensive income)?

Empirical studies provide mixed evidence on the value relevance of OCI components, depending on the context in which accounting information is used and how the income concept is defined. (Ress & Shane, 2012, P.7) On the other hand (Procházka.,2018, P.185) show that comprehensive income dominates net income when explaining equity returns, but net income dominates comprehensive income when explaining executive compensation.

As the importance of various levels of income statements differ in various contexts, a selection between the FVPL and FVOCI models for the presentation of changes in the market value of bitcoins shall be the same as under the guidance for financial instruments. If an entity invests into bitcoins with short-term (speculative, trading) purposes, all changes in fair value shall be reported within net income (profit and loss). If a longer investing perspective is taken, fair value changes shall be accounted for via other comprehensive income.

Regardless of whether the FVPL or FVOCI model is applied, documented high price volatility constitutes a serious risk that reported financial position and performance will suddenly change to a significant extent. For this reason, extensive disclosures about all risks and an estimate of their impact under potential scenarios of future economic development shall be presented, e.g., in an analogous way as disclosures required by IFRS 7 on financial instruments and risk management. (Procházka., 2018 , P.185)

3.2 The Reliability of The Measurement ;

The second issue related to the usage of fair value accounting for bitcoins refers to the potentially low reliability of their market prices because of:

- **Firstly**, there is no active market for many Cryptocurrencies. According to the data of Coinmarketcap.com, the monthly trading volume of more than half of all cryptocurrencies is under \$1,000,000. A low frequency of trading and insufficient number of willing sellers and buyers can contradict the conditions of IFRS 13 on Level 1 inputs in fair value hierarchy which means adjustments would need to be made. However, a deviation from quoted market prices, albeit in low active markets, may raise concerns of the users about the accuracy of mark-to-market measurement.
- **Secondly**, low market activity increases the risk of manipulation with the market price. As documented by (Gandal et al., 2018, P.5), a single market participant managed to manipulate the Bitcoin/USD exchange rate from \$150 to \$1000 in two months. Evidence of Bitcoin price manipulation, which is the biggest CC in terms of market capitalisation and trade volumes, indicates that unregulated cryptocurrency markets remain vulnerable to manipulation (Gandal et al., 2018,P.5).

The significant risk of manipulation leading to an “unfair” market value can have negative consequences on the validity and precision of accounting measurements. However, the solution of this problem lies outside the boundaries defining the scope of financial reporting .but this problem is not abig deal in the case of bitcoins because it already has active market due to the great number of transactions made daily and as it have high capitalization of the total market of cryptocurrencies.

4. Conclusions and Future Research :

4.1 Conclusions :

The results of the research about classification of bitcoins was as follows:

The views from the respondents on what type of asset cryptocurrencies should be classified as were varying. The suggested asset classifications were financial assets, intangible assets,

inventory and cash. Some researches were very sure on what type of asset it can be classified while others were more uncertain and thought several standards could be applied.

A view shared by all the researchers is that circumstances affect the asset classification and different classifications may be suitable for different companies. So it is very important to have a deep understanding of the bitcoins in order to be able to classify in one of the existing asset classes.

Other researchers believed that bitcoins can be classified as financial instruments in general, but also that Bitcoin can be classified as a currency, but it not agreed as long cryptocurrencies are not backed by a government or broadly accepted, and they also do not meet the definition of a financial asset under IFRS 9.

If it would be either broadly accepted or government backed, then it could be classified as an equivalent of a currency.

Others believed that cryptocurrencies should be considered as foreign currency since there are already established systems handling foreign currencies and then cryptocurrencies should fall under that category.

The researcher found that some studies argued that bitcoins should be classified as inventory. While confusion certainly exists, some common themes are emerging from these discussion papers. Three asset categories are widely accepted as applicable: financial instruments, inventory and intangible assets.

4.2 Future Research :

The researcher suggests the following areas for future research in respect of this research:

- 1- Make more researches on the effect of accounting for bitcoins and other crypto currencies on the role of auditor while auditing financial reports.
- 2- Make more researches on the effect of the bitcoin price volatility on the investors .
- 3- Make more researches on the tax impact for bitcoins .
- 4- Make more researches in accounting for other cryptocurrencies which have different features than bitcoins .

References:

- ACHESON, N. (2018): “How to Store Your Bitcoin”.
<https://www.coindesk.com/information/how-to-store-your-bitcoins>.
- Asheer , R . (2019), “Bitcoin as a new asset class” , **Meditari Accountancy Research Vol. 27 No. 1, 2019, pp 5-8.**
- BERCHOWITZ, G. (2017): “Accounting for Cryptocurrency”.
<http://pwc.blogs.com/ifrs/2017/11/accounting-for-cryptocurrency.html>
- BUNTINX, J. P. (2017): “What is a Bitcoin Broker?”
<https://themerke.com/what-is-a-bitcoin-broker/>.
- CPA Chartered Professional Accountant Canada, 2018 , “Introduction to Accounting for Cryptocurrencies “ .
- Easley,D. Maureen , O. and Basu , S. (2019) , “From mining to markets: The evolution of bitcoin transaction fees” , **Journal of Financial Economics 134 (2019) 91–109 .**
- Feng, W. Wang, Y. and Zhang, Z. (2018) , “Informed trading in the Bitcoin market” , **Finance Research Letters 26 (2018) 63–70 .**
- Financial Accounting Standards Board.** “Issues Grouped by Type”. Retrieved March 13, 2014 from <http://www.fasb.org/>
- Financial Accounting Standards Board.** Accounting Standards Codification. “Accounting Standards Updates.” Retrieved March 13, 2014 from <http://www.fasb.org/cs/ContentServer?site=FASB&c=Page&pagename=FASB%2FPages%2FSectionPage&cid=1176156316498>).
- GANDAL, N.; HAMRICK, J. T.; MOORE, T.; OBERMAN, T. (2018): “Price Manipulation in the Bitcoin Ecosystem”, **Journal of Monetary Economics, forthcoming.**
<https://doi.org/10.1016/j.jmoneco.2017.12.004>
- Harrison, J. and Mano, R.(2018) , **Journal of the Utah Academy of Science**, Pp112-116.
- IAS 2 (2-5). (2018). **IFRS.** Retrieved from IAS 2: Inventories: <http://eifrs.ifrs.org/eifrs/bnstandards/en/IAS2.pdf>
- IAS 32 (11). (2018, 2 21). **IFRS.** Retrieved from IAS 32: Financial Instruments Presentation: <http://eifrs.ifrs.org/eifrs/bnstandards/en/IAS32.pdf>

- IAS 38 (12). (2018, 2 23). **IFRS**. Retrieved from IAS 38: Intangible Assets: <http://eifrs.ifrs.org/eifrs/bnstandards/en/IAS38.pdf>
- IAS 7 (6). (2018, 2 22). **IFRS**. Retrieved from IAS 7: <http://eifrs.ifrs.org/eifrs/bnstandards/en/IAS7.pdf>
- International Financial Reporting Standards, IFRS**, (2018), Conceptual framework.
- Kurka , J. (2019) , “ Do cryptocurrencies and traditional asset classes influence each other?” , **Finance Research Letters** **31 (2019) 38–46 .**
- Nguyena, T. Binh , T. Nguyen,T. and Quang ,N. (2019) ,” Bitcoin return: Impacts from the introduction of new altcoins” , **Research in International Business and Finance** **48 (2019) 420–425 .**
- Platanakis ,E. and Urquhart ,A.(2019) , “ Should investors include Bitcoin in their portfolios? A portfolio theory approach” , **The British Accounting Review .**
- Procházká, D. (2018), “ Accounting for Bitcoin and Other Cryptocurrencies under IFRS: A Comparison and Assessment of Competing Models” , **The International Journal of Digital Accounting Research Vol. 18, 2018, pp. 161-188.**
- REES, L. L.; SHANE, P. B. (2012): “Academic Research and Standard-Setting: The Case of Other Comprehensive Income”, **Accounting Horizons**, vol. 26, no. 4: PP 789–815. <https://doi.org/10.2308/acch-50237>
- Shahzada, S. Bourib, E. Roubaud, M. Kristoufekd, L. and Lucey, B (2019) ,”Is Bitcoin a better safe-haven investment than gold and commodities?” , **International Review of Financial Analysis** **63 (2019) 322–330 .**
- TAN, B. S.; LOW, K. Y. (2017): “Bitcoin: Its Economics for Financial Reporting”, **Australian Accounting Review**, vol. 27, no. 2: 220–227. <https://doi.org/10.1111/auar.12167>
- Vardar, G. and Aydogan ,B. (2019) ,” Return and volatility spillovers between Bitcoin and other asset classes in Turkey Evidence from VAR–BEKK–GARCH approach “ , **EuroMed Journal of Business.**