Accounting for Business Financing Through Crypto Assets: An Evaluation of IFRS Compliance

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ABSTRACT

This study focuses on the evaluation of financing processes and accounting practices involving crypto assets within the framework of International Financial Reporting Standards (IFRS). It emphasizes that crypto assets, due to their versatility, can be classified in various ways. The study provides recommendations on how to account for financing methods involving crypto assets under international reporting standards. It also develops various examples inspired by real-world applications of crypto assets in business financing. This study differs from existing literature, which primarily focuses on the accounting of crypto assets from the perspective of holders, by addressing accounting practices related to their use as financing tools. Ultimately, this study aims to contribute to the development of reporting processes that comply with international financial reporting standards (IFRS) for the use of crypto assets in business financing.

KEYWORDS

Initial Coin Offerings (ICO), Crypto Assets, IFRS, Fintech.

1. INTRODUCTION

In recent years, the rapid development of digital technologies has fundamentally changed the dynamics of the financial system. The emergence of crypto assets, in particular, has reshaped financing methods by offering alternatives to traditional payment systems. Crypto assets can be defined as digital assets secured by Distributed Ledger Technology (DLT) and cryptography. These assets represent certain rights of investors and allow for trading in a trusted environment through blockchain transactions. Central banks in developed countries are conducting research to introduce their own digital currencies (Central Bank Digital Currencies) to improve existing payment infrastructures. Financial institutions aiming to leverage the opportunities offered by crypto assets seek to achieve lower costs in international payments. Crypto assets are also emerging as a new financing tool for businesses, gaining acceptance among a broad pool of investors. However, there are various challenges and uncertainties regarding the definition, classification, and accounting of crypto assets. International accounting standards have sparked debates about the financial reporting processes of these new-generation assets, leading to various opinions and recommendations on how to evaluate them. This study aims to contribute to the existing literature by addressing the financing processes and accounting practices involving crypto assets. The role of crypto assets in the financial system, the innovations they bring, and the new financing methods they introduce will provide an important foundation for future research.

2. CONCEPTUAL FRAMEWORK

2.1. Crypto Assets

Crypto assets are intangible, mathematically-based, digital, and cryptographically secured assets that are issued, registered, stored, transferred, and represent certain rights or functions of investors (Blemus & Guegan, 2019: 6). Crypto assets are digital value transfer tools based on blockchain, allowing independent trading among investors (Huang et al., 2020: 77). A crypto asset is a special type of asset with perceived or inherent value, based on cryptography and distributed ledger technology (FSB, 2019b: 10). Crypto assets refer to digital assets that operate on distributed ledger or blockchain technology, including those backed by another asset (Cuervo et al., 2019: 1). Crypto assets

backed by an asset or security are stored on a blockchain system using smart contracts (FSB, 2019a: 14). The emergence of crypto assets aims to provide an alternative to traditional payment systems (Huang et al., 2020: 81). Central banks are continuing their research on how to improve payment infrastructures using Central Bank Digital Currencies (CBDCs) operating on blockchain. Financial institutions plan to leverage the opportunities offered by stable-value crypto assets to conduct international payments at lower costs (PwC, 2020: 9). Crypto assets can be classified based on different criteria (FSI, 2020: 26):

- *Issuer Structure:* Crypto assets can be classified as those issued by illegal entities, legal financial institutions, or public entities.
- *Economic Function:* Crypto assets can be classified as those used for payment or conversion, those with security-like features, and those granting rights to specific goods or services.
- *Other Criteria:* Crypto assets can also be issued based on a specific currency (official or crypto), commodity (precious metals), real estate, or securities.

Crypto assets are generally classified into three categories: those with security-like features, those granting rights to specific goods or services, and those with cryptocurrency features. The diverse characteristics of crypto assets make it difficult for regulators to define them (Blemus & Guegan, 2019: 8). The fact that most issuers of stablecoins are not subject to financial regulations creates legal uncertainty in this area (Cuervo et al., 2019: 16). Recently, "Fan Tokens," crypto assets sold by sports clubs to their fans, also fall under the category of crypto assets that grant rights to goods or services. Another emerging type of crypto asset is Non-Fungible Tokens (NFTs), which represent ownership rights over digital art, allowing digital artworks to be traded in both primary and secondary markets.

Regulators generally consider the economic function of crypto assets when classifying them. The accepted approach is to subject them to legal regulations similar to assets with comparable risks (FSI, 2020: 26). Crypto assets are classified in various ways, such as intangible assets, cash assets, or inventory (Cuervo et al., 2019: 16). Compared to traditional financial instruments like stocks and bonds, crypto assets can have richer functionalities. Each project's crypto assets can have different features, such as voting rights, partnership rights, or specific advantages (Blemus & Guegan, 2019: 8).

Crypto assets cannot be classified under a single type of traditional asset, as they exhibit characteristics of multiple asset types. The rights provided by crypto assets vary depending on the issuing entity's goals and strategies. A crypto asset can offer one or more features, such as payment functionality, platform access rights, voting rights, ownership rights, rights to goods or services, participation in management, or profit-sharing rights (OECD, 2019: 46). There is a growing consensus among regulators, market participants, and legal experts that crypto assets with security-like features should be treated as securities (Blemus & Guegan, 2019: 16). Crypto assets can be issued based on commodities, securities, venture capital funds, real estate, oil products, or artworks, allowing all assets to be digitally represented through crypto assets (Blemus & Guegan, 2019: 11). The primary market for crypto assets refers to the market where they are first issued to investors. Crypto asset miners can also directly obtain these assets. Financial institutions are used for crypto assets issued based on a specific official currency. For example, when a crypto asset based on the Turkish Lira is issued, an equivalent amount of Turkish Lira is deposited in a bank. In the secondary market, crypto asset holders can sell their assets to other investors through crypto exchanges. Miners can also sell their assets in the secondary market. Information about crypto asset transactions is recorded both on the exchange and on the blockchain.

Crypto exchanges differ from traditional securities exchanges in two main ways. Crypto exchanges directly reach individual investors without intermediaries. Additionally, unlike securities exchanges, crypto exchanges offer custody services to their customers (Cuervo et al., 2019: 14). The process of obtaining crypto assets by solving complex mathematical problems through computer software is called "Crypto Asset Mining" (Benedetti & Kostovetsky, 2020: 3). Miners validate transactions on the blockchain network and are rewarded with crypto assets, thus earning income (OECD, 2019: 45). The value of crypto assets is supported by users' trust in them and the expectation that others will be willing to exchange them for official currencies or goods and services (FSB, 2017: 52).

After the first crypto asset, Bitcoin, other crypto assets that emerged as alternatives are called "Altcoins" (Thakor, 2020: 5). The emergence of Bitcoin is significant not only as a new asset but also because it created a trusted system for peer-to-peer transactions without intermediaries (Nicoletti, 2017: 148). The term "cryptocurrency" is often used for crypto assets. Money serves as a medium of exchange, store of value, and unit of account. The extent to which crypto assets possess these features is debatable. For example; Bitcoin can be used as a medium of exchange but is limited to a small number of goods and services. Even when Bitcoin is used in transactions, calculations are often made in official currencies. Additionally, Bitcoin does not have a stable value compared to official currencies. Due to these price fluctuations, crypto assets are seen more as investment tools rather than currencies (Thakor, 2020: 10).

2.2. Crypto Asset Issuance (Inıtıal Coin Offerings-ICO)

After the creation of Bitcoin, the development of new products and services using distributed ledger technology has enabled the emergence of a new ecosystem. In 2016, a new method of financing ventures using distributed ledger technology was discovered. This method, called Initial Coin Offering (ICO), involves raising funds by selling crypto assets created on a distributed ledger to the public (Blemus & Guegan, 2019: 6). Blockchain technology, as a new form of technology, has a significant impact on entrepreneurial processes. It facilitates entrepreneurs' access to financial and non-financial resources and allows them to further develop their ideas. It increases interaction with stakeholders, democratizes decision-making processes, and fosters community-oriented ventures (Schückes & Gutmann, 2020: 1029). Early-stage ventures that cannot secure sufficient funding from traditional financial systems can access the funds they need through ICOs (Zetzsche et al., 2018: 30). ICOs minimize transaction costs and eliminate the need for traditional financial intermediaries, offering a cheaper and faster alternative to traditional financing methods for new ventures (Schückes & Gutmann, 2020: 1031).

The first examples of blockchain systems, such as Bitcoin and Litecoin, were designed as payment systems. Later blockchain systems like Ethereum and EOS expanded the scope of what could be done on these systems through smart contracts. Today, most crypto assets issued for fundraising are created on the Ethereum system using smart contracts (Howell et al., 2019: 6). Entrepreneurs can create their crypto assets on the Ethereum blockchain with minimal effort and resources to raise funds (Schückes & Gutmann, 2020: 1038).

After the emergence of Bitcoin and blockchain technology, ICOs established a direct relationship between fund providers and entrepreneurs, enabling fundraising without traditional financial intermediaries. In this method, investors are offered crypto assets that provide project-specific rights and benefits (Blemus & Guegan, 2019: 10). In ICOs, the venture uses a distributed ledger technology like blockchain to create and sell crypto assets to the public. The crypto assets offered for sale may represent a unit of value, grant rights to specific goods or services, or have security-like features (Block et al., 2021: 866). The crypto assets issued in ICOs are typically used as a currency within the venture's ecosystem (Fisch, 2019: 1).

Initially, ICOs emerged as a way for innovative ideas in blockchain communities to raise small amounts of financial support from a limited number of investors. Over time, as the amount of funds raised increased, their use expanded, attracting broader investor interest (Zetzsche et al., 2018: 2).

Like other financing methods, ICOs are a way for fund supply and demand to meet. Fund seekers are usually entrepreneurs operating or planning to operate in the digital space, aiming to establish a new business or develop an existing one. Fund providers range from individual investors making small investments to institutional investors (Huang et al., 2020: 78). The traditional financial system is controlled by institutional investors and wealthy individual investors. ICOs allow a wide range of investors to invest in qualified projects, making financial markets more free (Schückes & Gutmann, 2020: 1041). Additionally, ICOs provide an alternative to traditional methods like venture capital or angel investors for new ventures to raise funds (Howell et al., 2019: 1).

ICOs have been defined in various ways by different researchers and organizations. The Financial Stability Board (FSB) defines ICOs as activities where entrepreneurs, companies, developers, or others exchange issued crypto assets for the funds needed to realize their projects (FSB, 2019b: 10). Huang et al. (2020) describe ICOs as a method of direct financing where entrepreneurs solicit online investors to finance their businesses (Huang et al., 2020: 77). Adhami et al. (2018) define ICOs as open fundraising calls made by organizations, companies, or entrepreneurs over the internet, where crypto assets are sold (Adhami et al., 2018: 64).

ICOs can be chosen for fundraising for various reasons. A new venture developing a product or service may find ICOs the easiest way to raise the necessary funds. Project owners announce their funding needs in a manner similar to crowdfunding and raise funds in exchange for the crypto assets they issue. The crypto assets offered for sale can be used to access the goods or services the venture will provide in the future. Entrepreneurs present their projects through a document called a "White Paper," which lacks a standard format (Hornuf et al., 2021: 6). Similar to securities offerings, ICOs also publish a document called a "White Paper" containing explanatory information (Hornuf et al., 2021: 2). The "White Paper" details the project and the terms of the crypto asset sale (Adhami et al., 2018: 66). ICOs disclose variables such as the target funding amount, the amount issued, the distribution method, and the pricing method (Howell et al., 2019: 17). Some White Papers provide detailed information about the project, while others focus only on financing details or the project team and product (Masiak et al., 2019: 4). The first example of a White Paper was published under the name Satoshi Nakamoto, explaining Bitcoin and its technical features (Zetzsche et al., 2018: 10).

The ICO ecosystem includes crypto asset issuers, crypto exchanges, digital wallet providers, financial and technical advisors, market participants related to the underlying asset for asset-backed crypto assets, investment funds, and regulators (OECD, 2019: 10).

ICOs offer investors crypto assets with different characteristics. Utility Tokens, which grant rights to goods or services, do not provide investors with a share of the venture's future revenues. However, the value of these crypto assets is directly affected by the venture's success (Howell et al., 2019: 12). Most investors in Utility Tokens aim to sell them in the secondary market for a profit (Masiak et al., 2019: 4). Cryptocurrencies and Utility Tokens are traded on crypto exchanges. Consequently, the market value of these crypto assets puts pressure on the issuing venture's management, indirectly making investors corporate stakeholders (Blemus & Guegan, 2019: 20).

Crypto assets with security-like features are used in fundraising processes, allowing companies to secure financing without traditional financial intermediaries. This enables companies to reach a broad pool of investors directly online (FSB, 2019a: 14). In some cases, crypto assets with security-like features are issued with certain rights restricted. For example, a crypto asset granting partnership rights may be offered to the public without voting rights (Blemus & Guegan, 2019: 16). Non-voting shares are often preferred by technology companies seeking to protect founders' rights. New ventures raising funds through ICOs also prefer to issue crypto assets without voting rights (Blemus & Guegan, 2019: 18).

2.3. Evaluation of Crypto Asset Financing Methods to International Accounting Standards

Scientific research, practitioner opinions, and regulatory studies on the accounting of crypto assets have focused on businesses holding crypto assets. Therefore, this section first discusses views on reporting crypto assets as assets in financial statements, followed by an evaluation of crypto asset financing examples under international accounting standards.

2.3.1. Accounting Views for Crypto Asset Holders

Scientific studies, regulatory opinions, and accounting audit firms' views on the accounting of crypto assets as assets have been examined. These views are summarized below.

The International Accounting Standards Board (IASB) examined how IFRS applies to cryptocurrencies from the perspective of holders in a 2019 report. The Board noted that there are many types of crypto assets and stated that all would be referred to as cryptocurrencies in the report.

Citing paragraphs 8 and 12 of IAS 38 and paragraph 16 of IAS 21, the Board suggested that cryptocurrencies should be classified as intangible assets. IAS 21, The Effects of Changes in Foreign Exchange Rates, paragraph 16, defines a monetary item as a right to receive or an obligation to pay a fixed or determinable amount of currency. IAS 38, Intangible Assets, paragraph 8, defines an intangible asset as an identifiable non-monetary asset without physical substance. Paragraph 12 of the same standard states that an intangible asset must arise from contractual or other legal rights, regardless of whether it is separable from the entity or other rights and obligations. The Board stated that if cryptocurrencies are held for trading in the ordinary course of business, IAS 2, Inventories, should be applied. If IAS 2 is not applied, IAS 38 should be applied. When IAS 2 is applied, crypto assets are measured at the lower of cost and net realizable value. When acting as an intermediary in crypto asset transactions, IAS 2, paragraph 3(b), requires reporting at fair value less selling costs. The Board also evaluated whether cryptocurrencies could be considered under other standards. It concluded that cryptocurrencies could not be classified as financial instruments under IAS 32 because they are non-cash assets and do not represent equity interests in another entity. The Board also examined whether cryptocurrencies meet the definition of cash. Cash is defined as a medium of exchange, used in pricing goods and services, and the unit of account in financial statements. While some cryptocurrencies can be used to purchase goods and services, they do not possess the other characteristics of cash.

The Financial Accounting Standards Board (FASB) published a study in 2023 on the accounting of crypto assets. The study argued that measuring crypto assets as indefinite-lived intangible assets at cost, less impairment, does not provide useful information for decision-making. It noted that only impairments are reflected in financial statements, while increases in value are not recognized until the crypto assets are sold. The study suggested that fair value measurement would best reflect the condition of crypto assets and that measuring them at cost, less impairment, is complex and costly. The study included crypto assets that meet the definition of intangible assets, do not grant holders rights to underlying goods or services, are embedded in blockchain technology, are secured by cryptography, are interchangeable, and are not created or issued by the reporting entity or related parties. Such crypto assets should be measured at fair value, with changes in fair value recognized in profit or loss. Crypto assets measured at fair value should be presented separately within intangible assets in the statement of financial position, and changes in fair value should be presented separately in the income statement. The initial measurement of crypto assets should be at acquisition cost, with subsequent measurements at fair value. Gains and losses from changes in fair value should be recognized in the income statement. Transaction fees and commissions incurred when purchasing crypto assets should be recognized as expenses in the period incurred. In the statement of financial position, crypto assets should be classified separately within intangible assets, and changes in fair value should be presented separately in the income statement.

The Association of Chartered Certified Accountants (ACCA) published a study in 2022 on the accounting of cryptocurrencies. The study noted that cryptocurrencies do not meet the definitions of cash or cash equivalents for the reasons mentioned above. It then considered whether cryptocurrencies could be classified as financial assets and concluded that they do not meet the characteristics of financial assets under financial reporting standards. The final assessment, consistent with the IASB's reasoning, was that cryptocurrencies meet the definition of intangible assets and should be reported as such. The initial measurement of cryptocurrencies should be at cost, with subsequent measurements using either the cost model or the revaluation model. Under the cost model, cryptocurrencies are measured at cost less amortization and impairment. Under the revaluation model, the value of cryptocurrencies traded in an active market is determined using market data. Revaluation increases or decreases are recognized in other comprehensive income. The study also noted that cryptocurrencies could be classified as inventory depending on the entity's business model. In such cases, cryptocurrencies are measured at the lower of cost and net realizable value, and indicators of impairment are assessed at each reporting period.

The American Institute of Certified Public Accountants (AICPA) published a guide in 2022 on the accounting and auditing of digital assets. The guide comprehensively addressed crypto assets from

various perspectives. It agreed with the FASB's view that purchased crypto assets should be classified as intangible assets. The guide noted that when crypto assets are held by third-party custodians, the entity's control over the assets should be assessed. If the entity controls the assets, they should be reported as crypto assets in the statement of financial position. If control is transferred to the custodian, the assets should be reported as receivables from the custodian. In such cases, the custodian should report the assets as its own and recognize a corresponding liability. The guide also noted that the financial instrument status of crypto assets should be assessed. Crypto assets that meet the definition of financial instruments should be accounted for and measured under relevant financial reporting standards. The guide also addressed asset-backed crypto assets, such as stablecoins. Stablecoins should be evaluated based on their characteristics and may be classified as cash or cash equivalents, receivables, or financial assets.

Ernst & Young (EY) published a study in 2018 on the accounting of crypto assets. The study classified crypto assets based on their characteristics into cryptocurrencies, utility tokens, security tokens, and hybrids. It noted that crypto assets should be accounted for under the appropriate accounting standards based on their characteristics. In a 2021 study, EY addressed the application of IFRS to crypto assets. It noted that most crypto assets qualify as intangible assets, but those held for trading in the ordinary course of business should be classified as inventory. Entities acting as intermediaries in crypto asset transactions should measure them at fair value less selling costs. The study separately examined whether crypto assets could be classified as cash or cash equivalents, financial assets, inventory, prepayments, or intangible assets. It concluded that crypto assets do not meet the definitions of cash or cash equivalents. Crypto assets that meet the necessary conditions could be accounted for under IFRS 9, Financial Instruments. If an entity holds a crypto asset to purchase goods or services in the future, it should be accounted for as a prepayment. The study also noted that when crypto assets are held in cold wallets or on crypto exchanges, the significant risks and rewards of ownership should be analyzed, and the assets should be reported accordingly.

KPMG published a study in 2022 on the accounting of crypto assets. Consistent with other studies, it emphasized that crypto assets meet the definition of intangible assets. It noted that stablecoins could be classified as financial assets depending on their conditions.

PricewaterhouseCoopers (PwC) published a study in 2019 on the accounting of crypto assets and related transactions under IFRS. The study noted that the appropriate accounting standards for crypto assets should be determined based on their characteristics and how their value is determined. It suggested that cryptocurrencies could be classified as inventory or intangible assets but not as cash or cash equivalents or financial assets. Other crypto assets could be classified as financial assets, inventory, intangible assets, or prepayments based on their characteristics. In a 2023 guide, PwC addressed crypto assets under US accounting standards, with conclusions consistent with IFRS.

Considering the above views, it is recommended that when accounting for crypto assets, the characteristics of the crypto asset and the entity's purpose for holding it should be considered. Accordingly, a crypto asset:

- If it provides rights that qualify it as a financial asset, it should be classified as such and measured under IFRS 9, Financial Instruments. Under IFRS 9, financial assets are classified as measured at amortized cost, fair value through other comprehensive income, or fair value through profit or loss.
- If it is held to purchase goods or services from the issuing entity in the future, it should be classified as a prepayment.
- If it is held for trading in the ordinary course of business, it should be classified as inventory. Inventory is initially measured at cost, with subsequent measurements at the lower of cost and net realizable value.
- If it is held for intermediation in buying and selling, it should be classified as inventory. Initial measurement is at cost, with subsequent measurements at fair value, and changes in fair value are recognized in profit or loss.
- If it does not fall into the above categories, it should be classified as an intangible asset. Initial measurement is at cost, with subsequent measurements using either the cost model or the revaluation

model. Under the cost model, the crypto asset is subject to impairment testing, and impairments are recognized in profit or loss. Under the revaluation model, fair value measurement principles are applied. There is no consensus on whether revaluation gains or losses should be recognized in other comprehensive income or profit or loss. Additionally, crypto assets are not amortized because they typically have indefinite useful lives.

2.3.2. Evaluation of Crypto Asset Financing Methods Under International Accounting Standards

As mentioned above, studies and published opinions on crypto assets have focused on their accounting from the perspective of holders. Only PwC's 2019 study, unlike others, addressed ICOs. It noted that if the crypto assets issued by an entity meet the definition of a financial liability, they should be accounted for under IFRS 9, Financial Instruments. If they meet the definition of an equity instrument, they should be accounted for under IAS 32, Financial Instruments: Presentation. If they represent prepayments for goods or services to be provided by the entity in the future, they should be accounted for under IFRS 15, Revenue from Contracts with Customers.

This section evaluates the accounting practices of entities raising funds through crypto assets under IFRS. Since the accounting for crypto assets backed by securities would be the same as for traditional securities, it is not separately addressed here. Different applications of crypto assets in business financing are discussed using developed examples.

Example 1: Sunny Days, a company operating in the solar energy sector, sells solar panels in exchange for local currency and Bitcoin. The solar panels are not physically delivered to customers. Instead, the company makes them available for use by different organizations on behalf of the customer. Over the useful life of the panels, the company collects the revenue generated and transfers it to the customer in local currency or Bitcoin. Accepting Bitcoin as payment allows the company to attract investors from around the world. The company has sold two solar panels for $100,000, receiving payment in Bitcoin. According to the agreement, the revenue generated over the panels' 5-year useful life will be collected and transferred to the investor in Bitcoin.

The transaction is evaluated under IFRS 15, Revenue from Contracts with Customers. The company has two performance obligations: the sale of the solar panels, fulfilled at a point in time, and the operation of the panels and collection of revenue, fulfilled over time. The company should recognize the initial payment as revenue for the sale of the panels and as a liability for the operation and revenue collection. The liability should be recognized as revenue over the panels' useful life as the performance obligation is fulfilled. If the company earns a commission from the revenue collected, it should recognize this as revenue in the income statement. The company should report the revenue to be transferred as a liability in the statement of financial position and fulfill the liability by purchasing and transferring Bitcoin.

In this example, the company uses Bitcoin as a payment method. However, Bitcoin is not a generally accepted payment method but is valid only between the company and its customers. Therefore, it is not appropriate to classify Bitcoin as cash or a cash equivalent. Since Bitcoin does not grant contractual rights to the holder, it should not be classified as a financial asset. The company holds Bitcoin in the ordinary course of business, using it as a payment method and trading it. However, the company's primary business is not trading Bitcoin or acting as an intermediary in Bitcoin transactions. Therefore, it is not appropriate to classify Bitcoin as inventory. Considering the above, the most appropriate classification for Bitcoin is as an intangible asset. The company should initially measure Bitcoin at fair value and subsequently use the revaluation model, recognizing changes in fair value in profit or loss. When transferring revenue from energy sales, the company should determine the amount of Bitcoin to transfer based on its fair value.

Example 2: A financial institution has decided to issue a USD-indexed cryptocurrency. The USD equivalent will be held in a bank. Holders of the crypto asset can request the USD equivalent from the company at any time. The company is obligated to fulfill such requests immediately. Holders can transfer value based on the USD on the blockchain. The company has issued $1,000,000 worth of crypto assets and sold them to investors.

Stablecoins, such as those indexed to the US dollar, protect investors from price fluctuations in crypto assets. Examples include Tether (USDT), USD Coin (USDC), and Binance USD (BUSD). These stablecoins allow investors to transfer value on the blockchain without exposure to price volatility. The issuing entity can earn income by investing the cash received from issuing the stablecoin, without any obligation to pay interest or dividends. The entity's only obligation is to repay the crypto asset's value in cash upon request.

In this example, the company will receive $1,000,000 in cash for the crypto assets issued. Since the crypto assets require the transfer of cash equivalent to their value upon request, they should be classified as financial liabilities under IFRS 9. The financial liability should be measured at cost. Since no interest is payable, the effective interest rate need not be calculated.

If the crypto asset is indexed to gold, it is recommended to classify the financial liability as measured at fair value through profit or loss. IFRS 9 defines financial liabilities held for trading as those acquired or incurred principally for the purpose of selling or repurchasing in the near term. The standard also defines a trading transaction as one that is frequently and actively undertaken. Since the company's primary business is issuing and trading the crypto asset, it is reasonable to assume that transactions will occur frequently. Although the timing of repurchase is uncertain, the obligation to repay the underlying asset's value upon request meets the definition of a financial liability held for trading. Therefore, the company should initially measure the financial liability at the transaction price and subsequently at fair value, recognizing changes in fair value in profit or loss. If the company holds the entire amount received from the issuance in gold or gold-backed assets, gains and losses from changes in fair value will offset each other. If the company invests the proceeds in other assets, measuring the financial liability at fair value through profit or loss will more accurately reflect the company's financial performance.

Example 3: A crypto exchange has issued a native cryptocurrency for its platform. The crypto asset does not grant holders any rights over the company's net assets or create any financial liability for the company. Investors can purchase the crypto asset in exchange for official currencies or other crypto assets. The crypto asset can be traded on the company's exchange or other exchanges where it is listed. The company has sold 1,000,000 units of the crypto asset for $1,000,000.

In this example, the crypto asset issued by the company does not grant investors any rights over the company's net assets or create any financial liability. Therefore, the proceeds from the issuance should be recognized directly in the income statement. If the company accepts other crypto assets in addition to official currencies, it should report these as inventory since it acts as an intermediary in their trading. Crypto assets held for intermediation should be measured at fair value, with changes in fair value recognized in profit or loss based on the business model. The company will also hold its native cryptocurrency in the ordinary course of business and should apply the same reporting and measurement principles.

On crypto exchanges, not all crypto assets can be directly exchanged. For example, crypto assets based on the Ethereum blockchain are typically traded with Ether or certain stablecoins. To acquire such a crypto asset, an investor must first acquire a crypto asset that can be traded for it on the exchange. In this example, the company allows its native cryptocurrency to be used in trading all crypto assets listed on its exchange. Binance, a globally operating crypto exchange, allows its stablecoin BUSD (indexed to the US dollar) and its native token BNB to be traded with almost all crypto assets listed on its platform. This provides an advantage to holders of these crypto assets.

Example 4: A cloud storage provider has issued a crypto asset that it accepts as payment for its services. The crypto asset is offered to investors at a specific price. Investors can buy and sell the crypto asset on exchanges where it is listed and use it as a payment method when purchasing services from the company. The company prices its goods and services in official currency. When selling services in exchange for its crypto asset, the company determines the amount of crypto asset to request based on its market value. The company also pays its storage providers in its crypto asset. The amount of crypto asset to be transferred is determined based on the payment amount in official

currency and the crypto asset's market value. The company only accepts its crypto asset as payment from customers and only pays its storage providers in its crypto asset. According to the crypto asset's whitepaper, the initial issuance amount will not be increased. The company has issued 1,000,000 units of the crypto asset and sold them to investors at $10 each.

This example is evaluated under IFRS 15, Revenue from Contracts with Customers. The company promises customers that the crypto asset can be used as a payment method for future storage purchases. Therefore, the company's performance obligation at the time of the crypto asset sale is to deliver a crypto asset that can be used as a payment method for future services. In the future, the company will receive its crypto asset in exchange for providing services. It will also pay its storage providers in the same crypto asset. Since crypto assets are recognized as a separate asset class and the issued asset does not create any additional liability for the company, the proceeds from the issuance should be recognized directly in the income statement. The absence of a buyback obligation also supports this view. The issuance of the crypto asset is similar to reward-based crowdfunding. However, in reward-based crowdfunding, the rights obtained through contributions cannot be sold in a secondary market. In this respect, the crypto assets issued in utility token offerings are recognized as separate assets.

If a company purchases the crypto asset in this example, it should report it in its financial statements based on its purpose for holding it. If the company intends to use the crypto asset to access the company's future services, it should be classified as a prepayment. If the company holds the crypto asset for trading or intermediation in the ordinary course of business, it should be classified as inventory. If the company holds the crypto asset for other reasons, it should be classified as an intangible asset. Utility Coins, which grant rights to specific goods or services, are closely linked to the success of the platform or organization they are associated with. Investors who do not prioritize using the company's goods or services aim to profit from the increase in the crypto asset's price following the company's success.

The company should report the crypto assets it receives from sales at fair value, with changes in fair value recognized in profit or loss. The crypto assets can be considered as assets traded in the ordinary course of business. The company will accept its crypto asset as payment for goods sold and services provided. At the time of any sale, the amount of crypto asset accepted at fair value should be recognized as revenue. Under IFRS 15, paragraph 66, the company should treat the accepted crypto assets as non-cash consideration and measure them at fair value.

In some ICOs, the issuing entity commits to using a portion of its revenue or profit to repurchase crypto assets traded in the market and destroy them permanently. This process, known as "burning" in the crypto asset market, aims to increase or stabilize the crypto asset's price. This action is similar to public companies repurchasing their shares traded on stock exchanges. An entity making such a commitment should recognize the repurchase amount calculated based on its profit or revenue as a liability in the statement of financial position. The amount should also be recognized as an expense in the income statement.

Example 5: A football club has issued a crypto asset exclusively for its fans. The crypto asset can be bought and sold on pre-announced crypto exchanges. The club has successfully completed the ICO, with $1,000,000 deposited into its account. The issued crypto asset does not create any liability for the club.

Fan tokens, crypto assets sold exclusively to fans, support football clubs and allow investors to profit from trading the crypto assets on exchanges based on the club's success.

In this example, the crypto assets sold do not grant investors any rights over the club's net assets or create any financial liability. Therefore, the proceeds from the issuance should be recognized directly in the income statement.

If the issuing entity commits to selling a specific good or service in the future in exchange for a certain amount of crypto asset, the proceeds from the issuance should be recognized as a contract liability.

The liability should be recognized as revenue when the good or service is delivered or the benefit from the crypto asset expires.

3. CONCLUSION AND DISCUSSION

Crypto assets have significantly impacted financial systems in recent years, offering an alternative to traditional payment methods. Crypto assets are classified based on their economic functions and characteristics. However, the accounting of crypto assets under current international accounting standards has sparked debates about their definition, measurement methods, and reporting processes. Due to their versatility, crypto assets can be evaluated not only as financial assets but also as intangible assets. Academic studies and expert opinions on the topic generally focus on the accounting of crypto assets from the perspective of holders. This study presents views on the accounting of crypto assets from the perspective of holders. However, the study's contribution to the literature is its discussion of accounting practices when crypto assets are used as financing tools. In this context, the study provides financial reporting recommendations based on examples inspired by current uses of crypto assets in business financing. The study addresses various applications, such as the use of crypto assets for cross-border payments, stablecoin issuance, fan token issuance, crypto exchange native token issuance, and utility coin issuance. In conclusion, developing more standards and guidelines on the accounting and financial reporting of crypto assets is essential to reduce uncertainties in the industry and increase investor confidence. The evolution of crypto asset financing methods and accounting practices will enable businesses to effectively reflect their financial positions, further increasing the adoption of crypto assets.

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