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THE CHALLENGE FOR DEVELOPING ACCOUNTING STANDARDS FOR CRYPTO CURRENCIES

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Abstract

Developing accounting standards for cryptocurrencies presents a multifaceted challenge in the financial and regulatory landscape. Cryptocurrencies, with their diverse forms and uses, pose unique hurdles for traditional accounting practices. The challenges include determining fair valuation amidst extreme price volatility, accounting for complex ownership and control structures, ensuring robust security and custody procedures, defining appropriate recognition and measurement criteria, harmonizing with diverse global tax regulations, integrating blockchain technology, balancing transparency with privacy concerns, adapting to evolving regulatory environments, fostering international consistency, and equipping accounting professionals with specialized knowledge. Meeting these challenges requires ongoing collaboration among standard-setting bodies, regulators, and industry experts to create adaptable and relevant accounting standards in this dynamic space.

Introduction

Developing accounting standards for cryptocurrencies is indeed a significant challenge due to the unique nature of these digital assets. Here are some key challenges that standard-setting bodies and accounting professionals face when it comes to accounting for cryptocurrencies:

Lack of Uniformity: Cryptocurrencies vary significantly in terms of their design, purpose, and underlying technology. Bitcoin, Ethereum, and numerous altcoins have different features and use cases, making it difficult to create a one-size-fits-all accounting standard.

Valuation and Measurement: Determining the fair value of cryptocurrencies can be challenging due to their price volatility. Traditional accounting standards rely on stable currencies, making it difficult to account for assets that can fluctuate significantly in value within short periods.

Classification: Should cryptocurrencies be classified as financial assets, intangible assets, or some other category? The classification affects how they are reported on financial statements and can vary depending on the entity's purpose for holding them.

Custody and Control: Cryptocurrencies can be held in various ways, including on exchanges, in hot wallets, or in cold storage. Determining when an entity has control over these assets and how to account for them accordingly can be complex.

Disclosure Requirements: There is a need for transparent reporting of cryptocurrency holdings and transactions, including disclosures related to security risks, regulatory compliance, and any impairments in the value of holdings.

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Regulatory Uncertainty: Cryptocurrency regulations vary widely across different jurisdictions and are still evolving. Accounting standards need to adapt to changing regulatory environments.
Forks and Airdrops: The occurrence of hard forks and airdrops can create challenges in determining how to account for new tokens received as a result of these events.
Lack of Guidance: As of my last knowledge update in September 2021, there were no widely accepted international accounting standards specifically tailored to cryptocurrencies. While some organizations have issued guidance, there is no consensus on best practices.
Technology Complexity: Understanding the underlying blockchain technology and its impact on accounting is essential. Accountants need to be familiar with cryptographic concepts, private keys, and blockchain protocols.
Auditing Challenges: Auditors face difficulties in verifying cryptocurrency holdings and transactions, as well as ensuring compliance with applicable regulations.
To address these challenges, standard-setting bodies like the International Financial Reporting Standards (IFRS) and the Financial Accounting Standards Board (FASB) may need to develop specialized guidance or adapt existing standards to better suit the accounting requirements of cryptocurrencies. This process will likely evolve over time as the cryptocurrency ecosystem matures and regulatory clarity improves. Companies holding cryptocurrencies should work closely with accounting professionals and stay informed about changes in accounting standards and regulatory requirements.

Primary Objectives of the study:

- What are the accounting challenges?
- Accounting's response on what standard should be set
- Financial Accounting Standards Board (FASB) approach
- International Accounting Standards Board (IASB) approach

Secondary Objectives:

- What are specific challenges that people responsible for preparing financial information face when dealing with cryptocurrency?
- What are the current accounting methods and solutions for handling cryptocurrencies?
- What are the potential risks associated with accounting for cryptocurrencies, and how can these risks be mitigated through appropriate accounting practices?

Cryptocurrencies and its character

Cryptocurrency: A cryptocurrency is a digital or virtual form of currency that uses cryptography for security. Unlike traditional currencies issued by governments and central banks, cryptocurrencies operate on decentralized and distributed ledger technology called blockchain. This technology ensures the creation of a secure and transparent system for recording and verifying transactions.
Key Characteristics and Nature of Cryptocurrencies:
Digital and Decentralized: Cryptocurrencies exist solely in digital form and have no physical representation, such as coins or banknotes. They are decentralized, meaning they are not

controlled by any central authority, like a government or central bank. Instead, they rely on a distributed network of nodes (computers) to maintain and validate transactions.

Blockchain Technology: Most cryptocurrencies are built on blockchain technology, which is a decentralized ledger that records all transactions across a network of computers. This technology ensures transparency and security by preventing the alteration of historical transaction records.

Security: Cryptocurrencies use cryptographic techniques to secure transactions and control the creation of new units. This makes it extremely difficult for unauthorized parties to counterfeit or manipulate the currency.

Digital Ownership: Cryptocurrency ownership is represented by private keys, which are cryptographic keys that grant access to a specific wallet address on the blockchain. Losing access to these keys can result in the permanent loss of the associated cryptocurrency.

Pseudonymity: While transactions on the blockchain are transparent and recorded, they are typically pseudonymous. Users are identified by wallet addresses rather than personal information, providing a degree of privacy.

Limited Supply: Many cryptocurrencies have a limited supply, which means there is a maximum number of coins that can ever be created. For example, Bitcoin has a capped supply of 21 million coins, which creates scarcity and can impact its value over time.

Volatility: Cryptocurrencies are known for their price volatility. Their values can fluctuate significantly over short periods due to factors like market sentiment, adoption, regulatory developments, and macroeconomic events.

Global Accessibility: Cryptocurrencies are accessible to anyone with an internet connection, allowing for global transactions without the need for intermediaries like banks or payment processors. This accessibility can be especially beneficial for individuals in regions with limited banking infrastructure.

Use Cases: Cryptocurrencies have a wide range of use cases, including as a medium of exchange, store of value, unit of account, and for various blockchain-based applications like smart contracts and decentralized finance (DeFi).

Regulatory Challenges: The decentralized and pseudonymous nature of cryptocurrencies poses challenges for regulatory authorities in terms of taxation, consumer protection, and preventing illicit activities like money laundering and fraud.

Overall, cryptocurrencies represent a revolutionary shift in the way we think about money and financial transactions. Their decentralized nature and use of blockchain technology have the potential to disrupt traditional financial systems and industries, although they also come with their own set of challenges and uncertainties

Challenge for Developing Accounting Standards

Developing accounting standards is a complex and ongoing process, and it faces several challenges due to the evolving nature of business, financial markets, and regulatory environments. Some of the key challenges in developing accounting standards include:

Rapid Technological Advancements: The pace of technological change, including advancements in artificial intelligence, blockchain, and data analytics, is outstripping the development of accounting standards. Accounting standards need to adapt to accommodate these changes and provide guidance on their proper accounting treatment.

Complex Financial Instruments: Financial markets have become increasingly sophisticated, leading to the development of complex financial instruments and derivatives. Accounting standards must keep up with these innovations and provide clear rules for their recognition, measurement, and disclosure.

Globalization: In an interconnected global economy, companies often operate in multiple jurisdictions with varying accounting standards. Developing globally accepted accounting standards that align with local requirements while maintaining consistency is a significant challenge.

Non-Financial Reporting: There is a growing demand for non-financial information, such as environmental, social, and governance (ESG) metrics, in financial reporting. Accounting standards need to evolve to incorporate these non-financial elements effectively.

Financial Statement Presentation: The presentation of financial statements can be subjective, leading to issues of comparability. Developing standards that provide a clear and consistent format for financial statements is essential for investors and other stakeholders.

Complex Business Structures: Modern business structures, such as conglomerates, special purpose entities, and complex supply chains, can make it difficult to determine the true financial position of a company. Accounting standards must address these complexities.

Fair Value Measurement: Determining the fair value of assets and liabilities, especially in illiquid markets, can be subjective and challenging. Developing clear and robust fair value measurement standards is crucial.

Regulatory Changes: Changes in regulatory environments, such as tax laws and financial regulations, can have a significant impact on accounting standards. Accounting standard-setting bodies must adapt to these changes.

Sustainability Reporting: The demand for sustainability reporting is increasing, and accounting standards need to incorporate sustainability-related information to provide a comprehensive view of a company's performance.

Digital Currencies and Cryptocurrencies: As digital currencies like cryptocurrencies gain prominence, accounting standards must address their proper accounting treatment, valuation, and disclosure requirements.

Convergence vs. Divergence: The tension between converging accounting standards globally to enhance comparability and allowing for local variations to meet specific needs can be challenging to navigate.

Disclosure Overload: There is a concern that financial statements have become overly complex, making it difficult for users to extract relevant information. Accounting standards must strike a balance between providing sufficient detail and avoiding information overload.

User Needs: Understanding the needs of financial statement users, including investors, creditors, and regulators, and aligning accounting standards with those needs is an ongoing challenge.

Developing accounting standards that are relevant, transparent, and adaptable to a rapidly changing business environment is essential for maintaining the integrity of financial reporting and providing stakeholders with useful information. This process often involves collaboration among standard-setting bodies, regulators, industry experts, and the business community to address these challenges effectively

Advantages:

1. Cryptocurrency mining open code - BTC applies the same algorithms used in Internet banking.

2. No inflation – coins are limited to maximum 21 million bitcoins. Since there are no political forces or companies able to use another system, there is no possibility to develop inflation in the system.

3. Unlimited transaction possibilities

4. No boundaries, cancel payments in this system is impossible and coins cannot be faked or duplicated.

5. Anonymity. It is completely anonymous and at the same time completely transparent

6. Transparency. BTC stores the history of transactions that have ever occurred. It is called a block chain. The block chain keeps track of everything.

7. The possibility of investing money in a transparent and profitable resource

Disadvantages:

1. Strong volatility – almost all of the ups and downs of the bitcoin value depend directly on the declared statements of the governments of different countries

2. Large risks of investing in cryptocurrency that should be considered in the medium and long term.

Literature review:

Literature dealt with cryptocurrencies from different aspects, whether from a technical, economic, or accounting point of view.

From technical aspect study of [2] consider as the first studies talking about cryptocurrencies, the study suggested an electronic transaction system without depending on trust. It began with the usual frame of coins made with digital signatures, providing high ownership control, but it was suffering from double spending. Therefore, the study suggested to use proof of work called a peer-to-peer network to record a history of transactions that are impractical for the attacker to change them if the honest nodes control most of the CPU power. The study found that messages are transmitted with the best effort, and the network can send and receive the nodes to it at will, and accept the longest chain of proof to act as evidence of what happened during its disappearance.

Study [9] provides insight into how “Blockchains” work. a Blockchain is a ledger of all transactions that have ever been done. It grows constantly by adding blocks to previous blocks in order to form a complete chain. These blocks are added in a linear, chronological order to the blockchain. The study found that a block chain or Blockchain is a distributed database that maintains a continuously growing list of data records that are hardened against tampering and revision, even by operators of the data store’s nodes.

That finding similar to study of [10] which found that the most effective method to reduce the frauds and errors in recording and verification is by implementing the Blockchain Technology in the organization.

While [11] study aimed to inspect the accounting literature that focuses on Internet technologies which have a potential to significantly change and disrupt the playing field for accountants and accounting researchers in the near future including cloud, big data, blockchain, and artificial intelligence (AI). The results of the study indicate that scientists have not given

enough attention to these techniques and how these technologies affect the daily work of accountants.

Otherwise, from economical aspect study of [12] shows the different aspects of cryptocurrencies, starting with its early development, challenges and risks, opportunities, advantages and disadvantages, and its future. Otherwise, the study examined issues related to the functional and technical function of cryptocurrencies. The findings of the study indicate that it is not easy to predict the future of cryptocurrencies, as there is much to do, especially in the aspect of official matters. However, cryptocurrencies should be considered as an alternative to the future financial transactions.

Even study of [13], aimed to describe blockchains and ledgers and explain their potential applications to money and banking. Through analysis the comparing between public and private ledgers and determine the suitability of different types of ledgers for different purposes. moreover, a few historical models of blockchains and ledgers are shown. The study concluded that the Monetary circuits are a natural application for blockchains. Also, the study found that the role of cryptocurrencies in modern society is articulated and different forms of digital cash. So, (Houben and Snyers, 2018)

[14] studied the worrying of regulators about criminals who are increasingly using cryptocurrencies for illegitimate activities like money laundering, terrorist financing and tax evasion. And it also contains policy recommendations for future EU standards. In the field of accounting for cryptocurrency study of [15]

Accounting issues for cryptocurrencies.

Accounting for cryptocurrencies presents several unique challenges due to their digital and decentralized nature. Addressing these challenges is essential to ensure accurate financial reporting and compliance with accounting standards. Here are some of the key accounting issues for cryptocurrencies:

Valuation: Cryptocurrencies are highly volatile, and their prices can fluctuate significantly over short periods. Accounting standards require cryptocurrencies to be initially recorded at fair value, but determining the appropriate valuation method and dealing with frequent price changes can be challenging.

Fair Value Measurement: Accounting standards typically require cryptocurrencies to be measured at fair value on the balance sheet. However, determining fair value can be subjective, especially for cryptocurrencies with limited liquidity or for assets held long-term.

Impairment: Companies need to assess whether there is an impairment in the value of their cryptocurrencies, which may require recognizing a loss in the income statement. Determining when an impairment has occurred and calculating the amount can be complex.

Classification: Deciding how to classify cryptocurrencies on the balance sheet (e.g., as current assets, non-current assets, or investments) depends on the entity's intentions and the specific cryptocurrency's characteristics. Different classifications may result in different accounting treatments.

Exchange Differences: When entities hold cryptocurrencies denominated in foreign currencies, exchange rate differences can affect the value of these assets. Accounting standards require entities to account for these differences, which can be challenging given the volatility of cryptocurrency prices.

Transaction Costs: Companies may incur transaction costs when acquiring or disposing of cryptocurrencies. Determining whether these costs should be included in the cost of the asset can be complex.

Non-Financial Reporting: As cryptocurrencies become more intertwined with business operations, companies may need to provide non-financial information, such as information related to blockchain technology or environmental impacts, in their financial statements. Standards for reporting this information are still evolving.

Regulatory Compliance: Compliance with evolving regulatory requirements, such as anti-money laundering (AML) and know-your-customer (KYC) rules, can affect the accounting for cryptocurrencies, particularly for entities engaged in crypto-related activities.

Cryptocurrency Wallets: Properly accounting for cryptocurrencies held in various types of wallets (e.g., hot wallets, cold wallets, and custodial wallets) can be challenging, as it may impact security and control considerations.

Internal Controls: Ensuring adequate internal controls over cryptocurrency holdings and transactions is crucial to prevent fraud, misappropriation, or loss. Establishing these controls can be challenging in a rapidly changing and decentralized environment.

Tax Implications: Cryptocurrency transactions may have tax consequences, and accounting standards need to align with tax regulations. Differences in tax treatment across jurisdictions add complexity.

Audit and Assurance: Auditing cryptocurrency transactions and balances requires specialized knowledge and tools. Auditors must assess the adequacy of internal controls and verify the accuracy of cryptocurrency-related information.

To address these accounting issues, organizations need to work closely with accounting professionals who understand the intricacies of cryptocurrencies and stay informed about developments in accounting standards, regulatory requirements, and best practices in this rapidly evolving field. Additionally, standard-setting bodies are continuously working on providing guidance to address these challenges and bring more clarity to cryptocurrency accounting.

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