

FEATURES OF AUDITING DIGITAL ASSETS IN ACCORDANCE WITH AICPA REQUIREMENTS

Liudmila LAPITKAIA ²⁶ PhD., Associate Prof.
Alexandru LEAHOVCENCO ²⁷ PhD Student

Abstract: *The rapid development of digital technologies has led to the emergence of various types of financial digital assets. As a result of a number of features of operations with digital assets, certain opportunities for money laundering have arisen. Thus, there is an urgent need to conduct an audit of the financial statements of enterprises that work with digital assets. When conducting an audit, it is necessary to take into account the specifics of the definition and recognition of digital assets, the order of their reflection in the accounting, the regulatory regulation of digital assets, which may vary in different jurisdictions. This article analyzes the main areas of digital asset audit and provides suggestions for high-quality audit.*

Key words: *audit, digital assets, financial instruments.*

JEL CLASSIFICATION: M42

1. Introduction

Analysis of modern scientific publications and research on digital asset issues shows that today there is no clear definition of this concept. Today, a "digital asset" does not have a single comprehensive definition that would fully reveal the essence of the term, which significantly complicates the understanding of many processes associated with the use of digital assets, and quite often affects the distortion and erroneous interpretation of information embedded in the basis of the existence of digital assets.

For example: the electronic site bits.media notes that a digital asset exists in a binary format and offers ownership rights. Anything can act as a digital asset - from videos to documents and other types of data: assets stored on electronic devices: computers, mobile devices, media players, and any cryptocurrency can also be classified as a digital asset. However, not every digital asset is a cryptocurrency. For example: token XRP is a digital asset that, although it is stored in a distributed ledger, is not a cryptocurrency. [1]

The Russian scientist Koshelev K. A. considers "digital financial assets" as composite, which include three components-assets, financial assets and digital technologies. The problem of the lack of a unified approach to the definition of the category of "digital financial assets" integrates the economic, legal and accounting aspects of this phenomenon into a single whole. [2]

Scientist Kud, A in his article: Substantiation of the Term “Digital Asset”: Economic and Legal Aspects states that: *«Digital asset is an information resource derivative of the right to a value and circulating in the distributed ledger in the form of a unique identifier. The components of the clarified term have been considered in detail in the economic and legal aspects; the interconnection and interdependence between them have been revealed. The essence and content of the term “digital asset” have been analyzed on the basis of etymological analysis. The use of a complex of theoretical research methods allowed determining the essential semantic features of the phenomenon under consideration, which are characterized by the following four components: economic, legal, information, value. This allowed substantiating the essence and content of the term “digital asset” in the economic and legal aspects, identifying features of the use of this term, as well as clarifying the interconnection and interdependence between its*

²⁶ E-mail: liudmila@ase.md, ASEM str.Banulescu-Bodoni 61,MD-2005, Chişinău, R. Moldova, tel.022 402757,

²⁷ ASEM str.Banulescu-Bodoni 61,MD-2005, Chişinău, R. Moldova, tel.022 22-41-28

components. Further research will focus on identifying the characteristics of this phenomenon, fields and levels of application, as well as methodological tools». [3]

Thus, it can be stated that digital assets are stored on electronic media and represent the right of ownership.

2. DISCUSSIONS

AICPA& CIMA published the Practice aid: Accounting for and auditing of digital assets. [4]

So today's guide from AICPA & CIMA can be considered rather an update of the previous one. The changes were made taking into account additional developments after studying the professional literature, as well as analyzing the real practical experience of members of working groups on digital assets in both organizations. At the same time, the guidance is consistent with the requirements of the American generally accepted auditing standards (GAAS)

When conducting an audit, first of all, it is necessary to determine how digital assets should be correctly reflected in accounting. As it was mentioned in the Generally accepted accounting principles (GAAP) digital assets will not meet the definition:

✓ *cash or cash equivalents (do not have a maturity date and have traditionally experienced significant price volatility),*

✓ *financial instruments or financial assets (they do not represent a contractual right to receive cash),*

✓ *inventory (as defined in the FASB ASC Master Glossary).*

Thus, in a situation where there is no inherent limit imposed on the useful life of the digital asset to the entity, then it would be classified as an indefinite-lived intangible asset. If initially digital asset is purchased for cash, it would be measured at cost.

In order to conduct an audit of digital assets in accordance with the provisions of the GAAS, the following regulations, it is necessary to use:

✚ *The AICPA Code of Professional Conduct,*

✚ *Quality Control, section 10, A Firm's System of Quality Control,*

✚ *AU-C section 200, Overall Objectives of the Independent Auditor and the Conduct of an Audit in Accordance With Generally Accepted Auditing Standards,*

✚ *AU-C section 210, Terms of Engagement,*

✚ *AU-C section 220, Quality Control for an Engagement Conducted in Accordance With Generally Accepted Auditing Standards.*

The following areas should be taken into account when auditing digital assets, which are reflected in Figure 1.

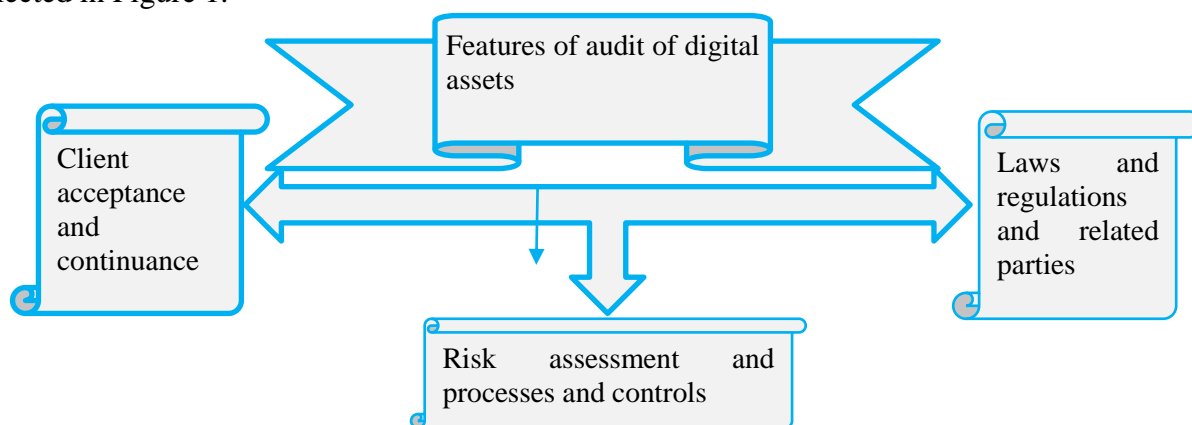


Figure 1. Features of audit of digital assets

Source: elaborated by the author based on materials Practice aid: Accounting for and auditing of digital assets [4]

Client acceptance and continuance provides for the following:

- ✓ *auditor and management skill sets and competencies, integrity and overall business strategy,*
- ✓ *processes and controls, including information technology.*

Risk assessment and processes and controls must provide understanding the:

- *audited entity and its environment,*
- *entity's risk assessment process,*
- *entity's processes and controls.*

When initiating an audit of digital assets, the audit firm must be confident that the firm's personnel has the necessary competence and capabilities and the audit firm is able to complete the engagement. From the point of view of the availability of trained personnel, an audit firm in the audit of digital assets should:

- *have competent legal counsel, IT specialists, or cybersecurity specialists,*
- *assess the risks that may arise during the audit in terms of accounting and presentation of digital assets in the financial statements,*
- *identify applicable laws and regulations in areas of digital assets circulation.*

Before accepting the client's offer to conduct an audit, the audit firm must familiarize itself with the client's data, namely: business reputation of the client's principal owners, key management, and those charged with governance; the nature of the client's digital assets operations; situations when the client might be involved in money laundering or other criminal activities. For example: the nature of the digital asset transactions may present an opportunity for money laundering or other illegal activities.

Thus, when conducting an audit of digital assets, an audit firm must execute a number of additional procedures and inquiries related to: audited entities transactions in this field (to track, aggregate, reconcile, and report digital assets balances and operations), client's internal control for identifying, authorizing, approving, tracking the operations with digital assets. In situation when the client holds digital assets itself, it is necessary to investigate the client's ability to verify existence of the digital asset as well as safeguards to prevent digital asset loss due to fraud or error.

Checking the internal control system at the audited enterprise, the auditor must comprehend:

- ✓ *how the entity protects the private keys and other customer information (infrastructure, utilized for storing the private keys), segregation of duties in the authorization of digital asset operations, the number of users required to process a operations, monitoring of addresses for any unauthorized activity),*
- ✓ *the process for identifying, accounting for, and disclosing related parties,*
- ✓ *the existence of cybercrime or fidelity insurance.*

In terms of risk assessment processes and controls, the auditor should obtain the following understanding:

- ❖ *the purpose of entity in the field of current and future transactions in digital assets,*
- ❖ *types of digital assets,*
- ❖ *entity's controls around safeguarding of assets,*
- ❖ *digital asset transactions (frequency, types, and value of the entity's digital asset transactions),*
- ❖ *entity's method of recording digital asset transactions (on the blockchain, others),*
- ❖ *entity's complying with applicable regulations: International regulations if the entity has foreign operations, Know your customer (KYC), Anti-money laundering (AML) requirements to prevent criminal activity,*
- ❖ *finance policy of the entity in terms of attracting the funds (loans, equity, crowdfunding, token sale, etc),*
- ❖ *principles of accounting established in accounting policies for digital assets.*

To understand and test entity’s processes and controls at the audited enterprise, the auditor should consider the following areas.

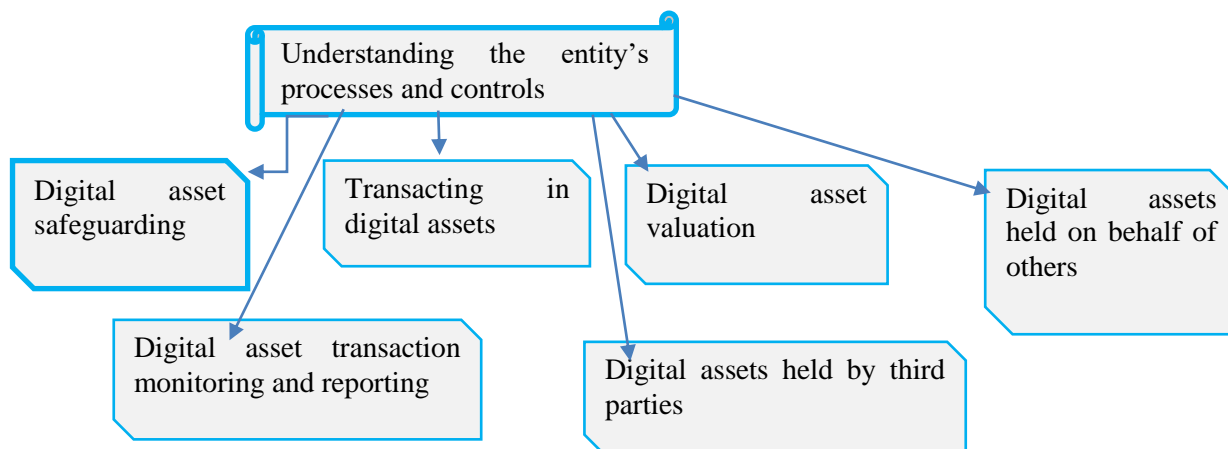


Figure 2. Understanding the entity’s processes and controls in term of digital assets operations

Source: elaborated by the author based on materials Practice aid: Accounting for and auditing of digital assets [4]

When considering security issues (procedures surrounding the key generation), the auditor should verify: physical security of the infrastructure storing the private keys, encryption of private keys, multi-signature addresses.

There are several means in transactions in digital assets and for a variety of purposes which conduct to different accounting considerations and risks. But it should be emphasized that transactions in digital assets are similar to transacting in securities and financial instruments, such as acquiring assets on an exchange or through an over the counter (OTC) desk. But some means of transacting in digital assets, especially in the acquisition of digital assets, are unique to digital assets.

In Practice aid Accounting for and auditing of digital assets there are indicated the following methods of transacting in digital assets:

- Acquiring or transferring digital assets using a third-party exchange or OTC desk,
- Acquiring digital assets as payment for selling products or services to customers,
- Transferring digital assets for payments to vendors or employees,
- Acquiring from a token issue,
- Acquiring through forks and air drops (discussed later) from existing digital assets owned by the entity,

The auditor should pay special attention to the procedure for acquiring digital assets, which can occur in the following methods: as forks or airdrops. The blockchains on which digital assets exist can be “forked” by other entities and developers. Airdrops occur when blockchain developers distribute digital assets, often for free, to blockchain addresses.

An auditor must assess the risk because such assets have different properties. When auditing such assets, the auditor needs to verify: the classification of the digital asset under the relevant regulatory framework, related parties involved in the development or governance of the digital asset, capability of the digital assets network, including whether the blockchain is visible to the public, documentation of the entity’s processes and controls surrounding the acquisition and transacting of digital assets, understand management’s policies for recognizing digital assets received resulting from hard forks, airdrops, or validating activities.

An auditor must do the overview of concepts, processes, and controls for digital asset transaction monitoring and reporting, which include reporting the digital asset transactions on the

blockchain, evaluating the reliability of blockchain data and methods used to extract blockchain data, determining the appropriate cutoff of digital asset transactions.

The auditor verifies digital asset transactions and balances in its ledgers and records, so that can be sure that the information being recorded is complete, accurate, appropriately classified, and recorded in the appropriate period.

Special attention should be paid to the case when digital asset transactions are not processed, in this case must appear the risk that information obtained from a third party (for example, an exchange) is not reliable.

The auditor examines the disclosures related to digital asset operations that must be included in the financial statements and planned disclosures that may be appropriate or required for those charged with governance.

There are different management's processes and controls over digital asset operations and reporting may differ depending on the characteristics of a particular blockchain.

It is necessary for an auditor to have technical capabilities to identify and assess the risks related to each relevant blockchain and digital asset. These capabilities include understanding the technical parameters of the data output by the blockchain, such as the definition of various fields and components of amounts presented in transaction data.

Another important question that arises when auditing the fair value measurements of digital assets.

It should be mentioned that there are many digital assets on the market that may not have been fully developed, institutionalized, or regulated, in this case, enterprises independently establish the procedure for their subsequent evaluation in their accounting policies. Transactions with digital assets are carried out on several exchanges, which can lead to different market prices in different markets.

Enterprises should provide controls to ensure reliable valuation of digital assets in accordance with GAAP and accounting policies. In this regard, the following difficulties should be noted when auditing the market valuation of digital assets:

- *lack of accurate value of many types of digital assets,*
- *problems in accessing the main digital asset market, given that there are often several markets for the same assets around the world,*
- *the decentralized nature of the blockchain and the ability to make transactions between the parties at any time,*
- *differences in the levels of regulation in the digital asset markets.*

When auditing digital assets, a special place is occupied by checking how the entity complies with the legal and regulatory acts applicable to the industry or sector in which it operates. Given the undulating nature of the regulatory, it complies with existing laws and regulations in force in the digital asset ecosystem, which may require significant judgment and experience.

Transactions with digital assets assume pseudo-anonymity of the transaction participants. At the same time, pseudo-anonymity may have advantages for certain elements of the market, it increases the risk that participants may engage in money laundering.

A number of problems related to meeting the requirements or goals of Generally Accepted Auditing Standards (GAAS) specific to digital assets are presented below:

- ✓ *the unclear regulatory framework related to digital assets varies in different jurisdictions,*
- ✓ *Pseudo-anonymity of participants in public blockchain transactions.*

3. CONCLUSION

The development of computer technologies in the last decades of the twentieth century made it possible to present money in digital form, contactless electronic payments changed the idea of physical carriers of value.

In the created digital environment, new technologies such as advanced analytics, block chains and big data, in addition to the use of robotics, artificial intelligence, as well as new forms of encryption and biometrics, have contributed to changes in the provision of financial products and services that could call into question modern models of policy and regulation of central banks.

The digital financial assets market as a new stage in the evolution of the electronic money market is a relatively young, but dynamically developing platform where purchase and sale transactions are carried out every day in real time. Financial assets are a part of property values that are in monetary form, various financial instruments and assume the receipt of income in the future.

In this article, issues related to the audit of digital assets were considered, after analyzing the definitions given in the economic literature to digital assets, the authors specify this definition.

Considering the procedure for conducting an audit of digital assets, analyzing the provisions of the Practice aid: Accounting for and auditing of digital assets, the authors examine in detail the most important stages of the audit and offer the main directions that you need to pay attention to when conducting an audit of such assets in accordance with AICPA requirements.

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