



Financial Reporting and Accounting Treatment of Crypto Assets: Professional Accountants Perspectives

Abiodun Akanbi

Department of Business Administration, Nile University of Nigeria, Abuja, Nigeria

Email address:

abiodunakanbi1@yahoo.com

To cite this article:

Abiodun Akanbi. (2024). Financial Reporting and Accounting Treatment of Crypto Assets: Professional Accountants Perspectives. *International Journal of Accounting, Finance and Risk Management*, 9(1), 1-11. <https://doi.org/10.11648/j.ijafrm.20240901.11>

Received: October 27, 2023; **Accepted:** December 11, 2023; **Published:** January 18, 2024

Abstract: Crypto asset is a broad term covering all assets stored on distributed ledgers using block chain technology. Crypto assets are used to undertake commercial transactions and serve as investment options globally; yet there are no specific accounting standards that guide how crypto assets should be recorded in financial statements. There are few studies that address the issue of accounting treatment of crypto assets. The lack of literature has resulted in the need to investigate the views of professional accountants on how crypto assets should be reflected in financial statements. The research relied on primary data and adopted an expert sampling technique which is a form of judgmental sampling technique. The data was collected using questionnaire surveys to get the views of sixty-four professional accountants in Nigeria. The study attempts to contribute to the existing literature on crypto assets by providing a practical insight into the accounting treatment of crypto assets. The compliance of crypto assets having the features of assets in accounting was established by this study. According to the respondents' crypto assets can be classified in various forms of assets like intangible assets, cash and cash equivalent, inventory, and financial instrument. Also, crypto assets can be classified as short-term assets or long-term assets. This is because of the accounting concept of substance over form that requires that the economic substance of transactions and events are decisive for the recognition and measurement of transactions in financial statements. The study concluded that crypto assets have an impact on financial statements of entities that hold the assets. The study recommends that there is need for standalone standards specifically for crypto assets to avoid the discretionary judgment current relied upon. There is also the need for the regulation of crypto assets in general.

Keywords: Crypto Assets, Financial Reporting, Accounting Treatment, Professional Accountants

1. Introduction

The emergence of financial technology in the last fifteen years has created a new type of asset i.e., cryptographic assets also known as crypto assets. "Crypto assets" are transferable digital representations that are designed in a way that prohibits their copying or duplication [19]. Crypto asset is a broad term covering all assets stored on distributed ledgers using block chain technology. Crypto assets include cryptocurrencies and non-currency assets such as security tokens digital tokens and utility tokens [21, 29]. The technology that facilitates the transfer of crypto assets is referred to as blockchain or distributed ledger technology. Blockchain technology is on peer-to-peer connectivity, allowing a decentralized approach with enhanced

transparency and trust instead of the centralized and opaque feature of traditional monetary systems [22]. Crypto assets have attracted significant and growing attention from consumers, regulators, and financial markets globally during recent years [19]. Crypto assets are now being used to undertake commercial transactions and serve as investment options [13, 15].

There is no specific accounting standard currently to explain how crypto assets should be accounted in financial statements. Crypto assets are treated currently using the International Financial Reporting Standards (IFRS). IFRS does not have specific guidance on the accounting for crypto assets, so the accounting for crypto assets could fall into a variety of different standards [15]. Crypto assets are recognized as assets for accounting purposes in form of; cash and cash equivalent, inventory, currency, commodities,

stocks, financial investments, or intangible assets. Crypto assets differ not only in technology but also in intended purposes [19]. Crypto assets are subject to variations in value, and some have non-monetary value, some assets are used as a medium of exchange while others provide rights to the use of other assets or services, or can even represent ownership interests [14].

The different interpretation and diversity of views on the accounting principles of IFRS have resulted to several challenges in classification and measurement of crypto assets [18]. Crypto assets come in a variety of forms, some of these assets serve a medium of exchange, others provide a right to use a product or service [23, 24]. Also, some crypto assets give rights to an underlying asset, provide voting rights or provide ownership rights in form of profits and losses. All these pose many issues to accountants in practice and financial reporting [19, 24, 25]. This may result in information asymmetry between stakeholders [27].

A lot of existing research focus on the technological issues and the technical features of crypto assets. Also, many existing literatures employed the use of qualitative methodology and content analysis in their studies. This has resulted in a methodological gap. To fill this gap, this study relied on primary data from professional accountants to gain practical insights from preparers and users of financial statements. Thus, this study offered a normative perspective on financial reporting of crypto assets based on the views of finance and accounting professionals.

Statement of the Problem

Many companies are using crypto assets for investment purposes or accepting them as a means of payment. There is no legal definition of crypto assets as there is for other types of securities and assets in many countries and this poses a major problem for financial reporting [19, 29]. The foundation of financial statements is that it should provide relevant and useful information for the users. To provide such relevant and useful information there are many challenges which need to be resolved when accounting for crypto. This is because there are diverse rights and obligations in crypto assets. In defining the accounting treatment of crypto assets, it is important to understand the intention from a professional perspective. Substance over form is an accounting concept that requires that the economic substance of transactions and events are decisive for the recognition and measurement of transactions in financial statements. This has resulted in the need of accounting standards to regulate how crypto assets are treated in financial [2]. There is so much judgement and uncertainty involved in the recognition and measurement of crypto assets in financial statements [5, 22]. The lack of a uniform standard and guidance has led to different accounting treatments used in practice which have created challenges for preparers of financial statements [3, 5, 10, 14].

Crypto assets financial reporting affects professional accountants' two areas [18]. The first area is that technology in use will possibly affect how accounting transactions can

be recorded and presented in financial statements since crypto assets are now used by companies in their daily business operations. Secondly, because the lack of proper asset classification poses the problem of authentication by auditors while carrying out their audit work. Consequently, this results to a lag in accounting standards and accounting guidance [18]. This brings about the questions what are the accounting standards that are to be used to for crypto assets? This is a question yet to be answered because there is little formal academic research and literature on how crypto assets should be reflected in financial statements. This study attempts to fill in the gap by obtaining the views experienced accountants (experts' opinion) on the accounting treatment of crypto assets.

2. Literature Review

2.1. Conceptual Review

2.1.1. Financial Reporting

The main goal financial reporting is to provide financial information concerning an entity useful for economic decision making [16]. A financial report is expected to provide information about the management's stewardship i.e., information about the entity's assets, liabilities, revenue and expenses, equity, and cash flows. This information is usually provided in the financial statements in form of statement of financial position; income statement, statement of comprehensive income; statement of cash flows and statement of changes in equity as well as notes to the accounts. To enhance reliability and confidence for the users of the financial statements they are subjected to scrutiny by external auditors [6, 16, 19, 28].

A major prerequisite for achieving quality financial reporting is the adherence to the qualitative characteristics of financial reporting information as prescribed by regulators. These qualitative characteristics are the features that meet the decision usefulness of financial information [16]. These features are listed as relevance, faithful representation, comparability, understandability, verifiability, and timeliness [4, 16]. It has been argued that the qualitative characteristics approach in measuring quality financial reporting provides a direct and better measure of financial reports [16, 23, 25].

2.1.2. Professional Accountant

A professional accountant is an individual who has adequate knowledge in accountancy through certification, experience, and training. A professional accountant must demonstrate an appropriate level of professional competence in knowledge and character, and this must be assessed and certified by a professional accountancy body. However, professional accountants may use their accounting certification and knowledge in different roles, functions, responsibilities, and services provided. For financial reporting the main role of a professional accountant is to provide information in accordance with established standards and rules and such information assists in economic decision making [4, 8, 16].

Professional accountants need to comply with the ethical code of conduct of the profession [8]. The code of ethics for professional accountants are decency, objectivity, professional competence, due diligence, and confidentiality. The principle of professional competence and due diligence are important attributes for a modern accountant [8]. The need for accountants to have relevant knowledge is important because professional competence is the possession of the necessary amount of knowledge and skills that allows an accountant to provide professional services in a high-quality manner. However, professional competence goes beyond knowledge of principles, standards, concepts, facts, and procedures; it is the integration and application of technical competence, skills, and professional values as well as ethics [4, 8].

2.2. Empirical Literature Review

Yatsyk T. V. [28] opined that crypto assets do not meet the classification for cash or cash equivalents under International Accounting Standards (IAS) 7 because they lack the broad definition as a means of exchange and they are not issued by any central bank. The study went further to state that crypto assets that does not meet the definition of a financial instrument under IFRS 3 due to the fact that there is no contractual relationship which is required in the classification of financial asset for one party and a financial liability for a counterparty as provided by IFRS 3. Yatsyk T. V. [28] also opined that crypto asset satisfies the definition for the classification of an intangible asset under IAS 38 as it is an identifiable non-monetary asset without physical substance. However there some ambiguity on using IAS 38 for assets held for sale in the ordinary course of business in the context of crypto assets.

Procházka. D [18], unlike Yatsyk T. V. [28] stated that crypto assets can be treated as cash. This because according to IAS 7 cash can be cash on hand and or demand deposits. Procházka. D [18] identifies situations when crypto currencies can be classified as foreign currencies although regulators do not consider crypto currencies to be money. Procházka. D [18] stated that since crypto assets are used as payment method for international trade and transacted at spot rate closing balances they can be stated at a closing rate while gain or losses recognized at year-end are recognized as profit or loss.

Brukhanskyi, R. F and Spilnyk, I. V. [6] posit that crypto assets should be reported based on identification, type of assets and the be attribute of the assets to ensure a reliable reflection of their value on financial statement.

Ryabova, T. S and Henderson, S. [23] investigated the role crypto assets plays in the accounting environment in order to assess whether this topic should be introduced into an intermediate financial accounting curriculum. The study concluded that the need for accounting faculty and students requires knowledge of crypto assets so as to be able make good decisions.

Tarasova, T and al. [26] concluded that crypto assets should be reflected in financial statements as investment

asset because of their features. The study pointed out features advantages of crypto asset are decentralization, emission, and reliability while the disadvantages are possible loss volatility and prohibition by financial regulators.

Empirically Vincent, N and Wilkins, A. [27] concluded that an auditor's opinion financial statement on crypto assets should be based on adequate disclosures in financial statements since there are limited accounting standards there is no guidance from standard setters for appropriate disclosures for financial statements containing crypto asset transactions.

Morozova T and al. [17] conducted a comparative analysis of the process for the recognition of crypto assets in the financial statements of the world's largest companies. They concluded that crypto assets are recognized as current assets and therefore their valuation should reflect in profit or loss without accumulating value gains in equity through other comprehensive income. This valuation model is similar to the treatment traded stock prices which are marked to the market in financial statements. They opined that users of financial statements can obtain information about fair value cryptographic assets based on adequate disclosures.

Ramassa and al. [20] conducted extensive analysis on existing literature, they concluded that crypto assets as a new class of asset has accounting reporting vacuum because crypto assets have distinctive rapidly evolving and uncertain features. They recommended more studies are required in the ways crypto assets should be reported at the global and local levels.

Mustapha, I and al. [10] using content analysis provided evidence that that there were divergent views by experts on the appropriateness of accounting for the crypto asset. Some experts classify crypto assets as an investment and recommend that it should be accounted for in line with IAS 32. This is in contrast of other opinions that advocates for the accounting treatment of crypto-asset as financial instruments using IFRS 3. Furthermore, some experts opined crypto-asset should be treated as inventories held for sale under IAS 2 inventories held for sale, whereas others believe it should be treated as cash under IAS 7.

Chou and al. [7] adopted a qualitative methodology of interviews to examine the perception of stakeholders on application of current accounting standards on crypto assets. The findings from the study showed that the fast growth of crypto-assets and fluidity hampers the development of accounting standards for crypto assets. The study concluded that it is only when crypto-assets have economic features and functionality that there will be a requirement of a new set of accounting standard and principles. They opined that the current accounting standards are robust enough to capture the accounting requirements for crypto-assets. However continuous monitoring by standard-setters is required.

Küçükgergerli, N. and Atılğan A [12] used content analysis to investigate accounting requirements cryptocurrencies based suggestions of global accounting institutions. The study concluded that there are many different approaches to accounting of cryptocurrencies, and

the main point of accounting of cryptocurrencies depends underlying economic features of the cryptocurrency.

Blahusiakova M [3] adopted content analysis and comparison as methodology for this study. The study concluded that IAS 2 applies to cryptocurrencies when they are held for sale in the ordinary course of business. If IAS 2 is not applicable, holdings of cryptocurrencies should be accounted for under IAS 38. The study further showed that the Slovak Republic is applying different approaches on the treatment of cryptocurrency, and cryptocurrency is considered the short-term financial asset.

Luo, M and Yu, S. [14] undertook analysis of financial statements of 40 publicly quoted global companies using the United States of America (USA) generally accepted accounting principles (GAAP) and IFRS reporting practices for crypto assets. The major findings of the study were that there were different applications between the USA GAAP and IFRS standards. This led to inconsistencies in financial reporting. While most US firms recognize crypto assets as intangible assets at cost less impairment, other firms that use IFRS principles account for crypto assets as intangibles or inventory at fair value.

Bharti, P [3] posited that Crypto assets accounting is more complex than it originally appears in India because of lack of a formal definition crypto assets. The study concluded that according to IFRS 9, it would seem innately appropriate to account for crypto assets as a financial asset at fair value through profit or loss. However, because it does not reflect an ownership stake in a company or a contract creating a right or obligation to deliver or receive cash, it does not fit the definition of a financial instrument under IFRS.

Hubbard, B [9] concluded that the best option in the classification of crypto currency is to use intangible asset revaluation model. This is because it allows companies to use a fair value option and record fluctuations in market value to other comprehensive income. This will increase the correctness of the accounting treatment of asset and it will also retain the relevance of income stopping large gains or losses from fair value fluctuations from flowing through the income statement.

3. Methodology

3.1. Research Design

The study adopted a quantitative approach where the researchers collect and interpret findings using a descriptive statistic. The study adopted a purposive or judgmental sampling technique. This is a non-probability technique which the researcher's judgment forms the basis of selection of the respondents. This study adopted expert sampling method which is a form purposive sampling technique. Thus, the respondents were selected on purpose and the basis of the selection of the individuals were based on the assumptions

those selected can provide the best information to realize the study's objectives. An expert sampling technique is used when the research requires individuals with a high level of knowledge about a particular subject [30]. The experts were selected based on a demonstrable skill set and level of experience possessed. This type of sampling technique is helpful when there is a lack of observational proof and when investigating new areas of research [30]. Therefore, the study identified professional accountants who have experience and knowledge in financial reporting as sample units. As with other non-probability sampling techniques, purposive sampling is prone to bias because the selection of the sample units depends on the researcher's subjective judgment [30]. The study population are the professional accountants in Nigeria. These professionals work in different segment of the economy i.e., private sector, public sector regulators, and self-employed practicing professionals. There was no a priori established hypothesis; the study just investigated opinion professional accountants with regards to financial reporting of crypto assets.

3.2. Data Collection

The research relied on primary data. Data was collected using questionnaire survey to get view of professional accountants in Nigeria. Close-ended questions were prepared for the questionnaire. The researcher designed the questionnaire using the Google form and the questionnaire was e-mailed to the respondents. This method is relatively cheap to collect data because it involves only preparing the questionnaire and sending it to the respondents [11]. We got responses from 64 professional accountants from different fields. The study formulated a questionnaire with 20 clear and precise questions, which helped us to collect information from respondents in an easy way. The study used Likert scale questions which is of one of the most common ways to measure opinions. Likert scale survey questions are defined by a large variety of response choices, generally from one extreme to another.

4. Data Analysis and Results Discussion

After collecting answers from our survey, we proceeded with the analysis of the results in order to answer our research problem.

Figure 1 shows the breakdown of the experience of the professional accountants. The result showed that 29 respondents which represents 48% of the respondents have over 16 years of experience, this shows that many of the respondents have adequate experience in financial reporting. While 6 respondents which represents 9% of the respondents have between 11- 15 years' experience. Also 11 respondents which signify about 18% of respondents and 15 respondents which is 25% of the total have 1-5 years of experience.

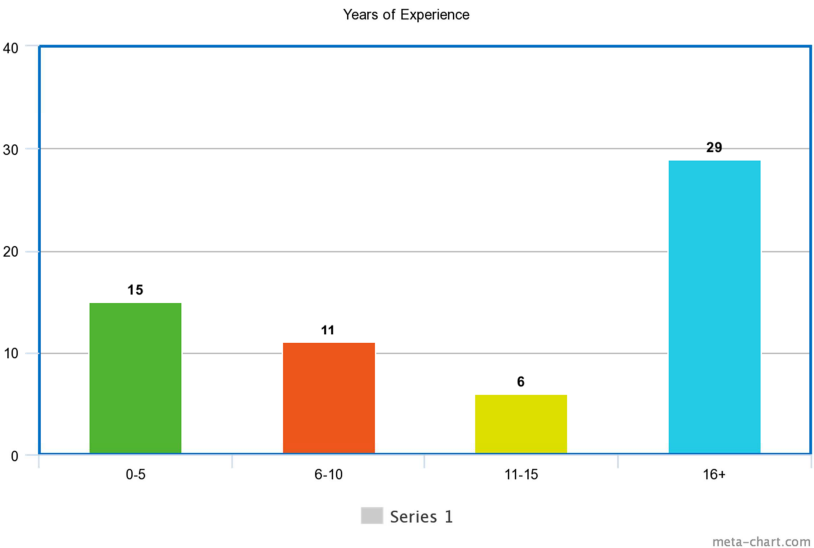


Figure 1. Experience of the Professional Accountants.

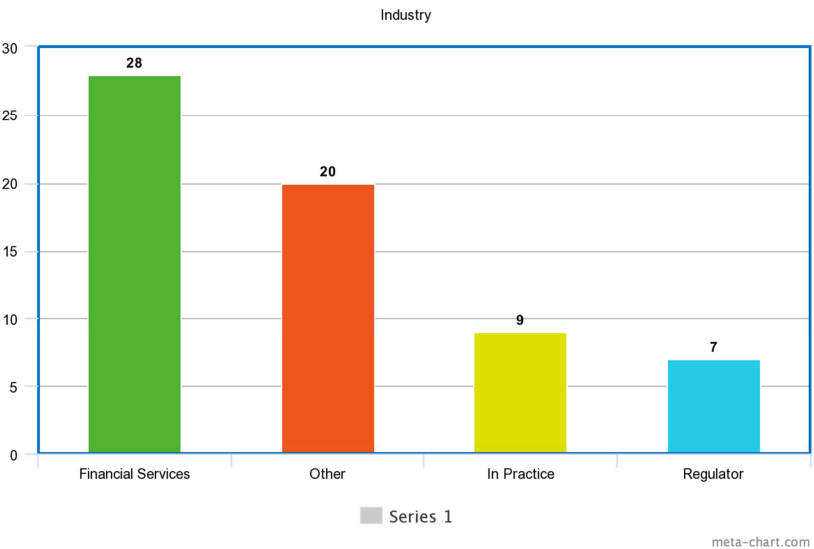


Figure 2. Industry Distribution.

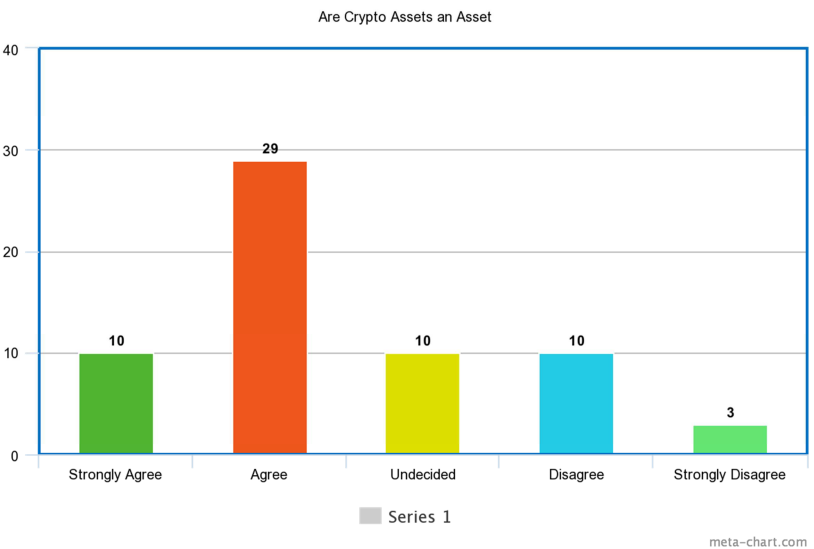


Figure 3. Recognition of Crypto Asset as an Asset.

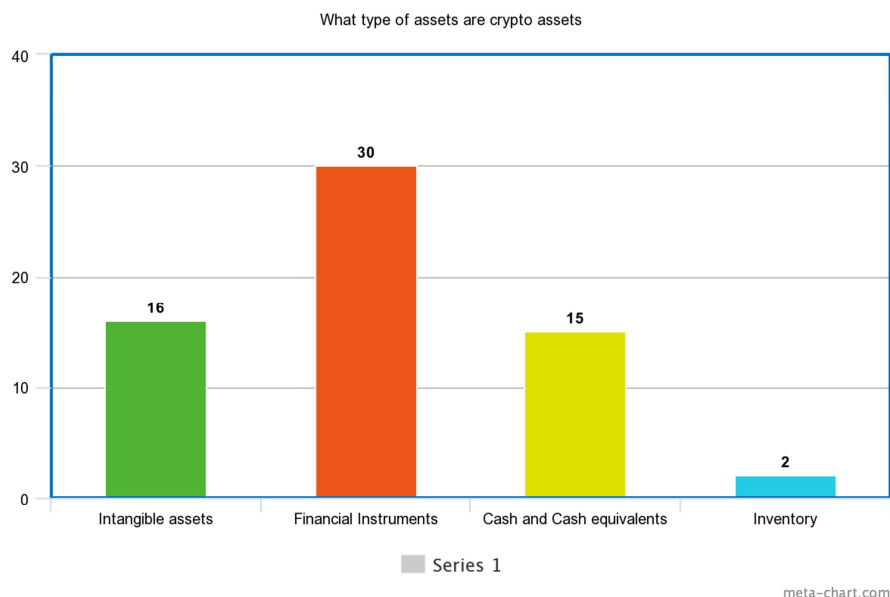


Figure 4. Classification of Crypto Asset.

Figure 2 shows the industry distribution and indicates that majority of the respondents work in the financial services sector, i.e. 28 respondents which represents 44% of the respondents. The respondents in other sector were 20 which indicates 31% of the respondents. Those in private practice were 9 which represents 14% and 7 respondents which 11% of the respondents work with regulatory agencies.

Under IFRS an asset is defined as: “An asset is a present economic resource controlled by the entity because of past events [19]. The result on figure 3 shows that many of the respondents, 47% agree that crypto assets can be classified as asset while another 16% strongly agree that crypto asset can recognize as an asset. This is consistent with the view of [5, 19]. Another 16% are undecided about the classification. Yet a group of respondents representing 16% disagree on the recognition of crypto assets, while 5% of the respondents strongly disagree on the recognition of crypto assets as assets.

IFRS does not give definite guidance on the accounting for crypto assets and there is no clarity in practice on which applicable standard accounting to be used for crypto assets [19]. Therefore, crypto assets could be classified into different asset classes. Figure 4 shows that 30 respondents which reflects 48% of respondent believe that crypto assets should be classified as financial instruments. Some crypto assets give the holder a right to cash subject to performance of the asset or the future value of the underlying assets, however financial instruments can only arise from a legally enforceable contractual relationship. Therefore, there will be need to ascertain if such rights and obligations are enforceable. Unless crypto assets provide the holders with a right to cash, they will not meet the definition of a financial instrument [2, 20, 28].

The results on figure 4 show that 25% of the respondents

opined that crypto assets should be classified as intangible assets. Crypto assets will likely meet the definition of an intangible asset under IAS 38 which provides that an intangible asset is one in which an entity has the power to obtain the economic benefits and that the asset limit the access of others to those benefits and from which future economic benefits are expected to flow to the entity. IAS 38 also provides that if any asset is identifiable, because it can be sold and exchanged it can be recognized as an intangible asset [3, 14]. IAS 38 further provides that an intangible asset is not cash or a non-monetary asset; and it has no physical form which are some features of crypto assets. However, if crypto assets are be classified as an intangible asset, entities need to establish whether the crypto asset has a finite or indefinite useful life. The useful life of an intangible asset should be seen as indefinite if no legal, regulatory, contractual other factors restrict its useful life [19]. The features of many crypto assets suggest they will have usually had an indefinite useful life.

Also, on figure 4 15 respondents (24%) believe that crypto assets can be classified as cash and cash equivalent. Crypto assets have significant level of volatility in their value and because they are not issued or backed by any government there is a substantial risk of changes in value, thus crypto assets might not be considered as cash and cash equivalents [10].

IAS 2 does not demand inventories to be in a physical form, but inventory ought to comprise of assets that are held for sale in the ordinary course of business. The data shows that 3% of respondents opined that crypto assets can be classified as inventories. The classification of crypto assets as inventories might be appropriate if an entity holds crypto assets for sale in the ordinary course of business [2, 28].

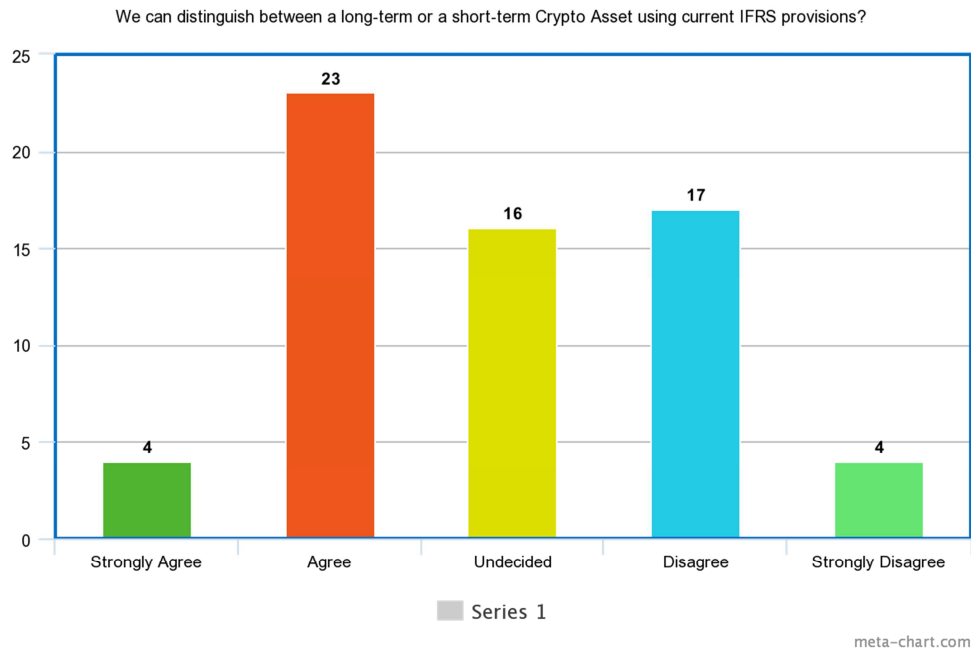


Figure 5. Distinguishing Crypto Asset as long or short term Asset.

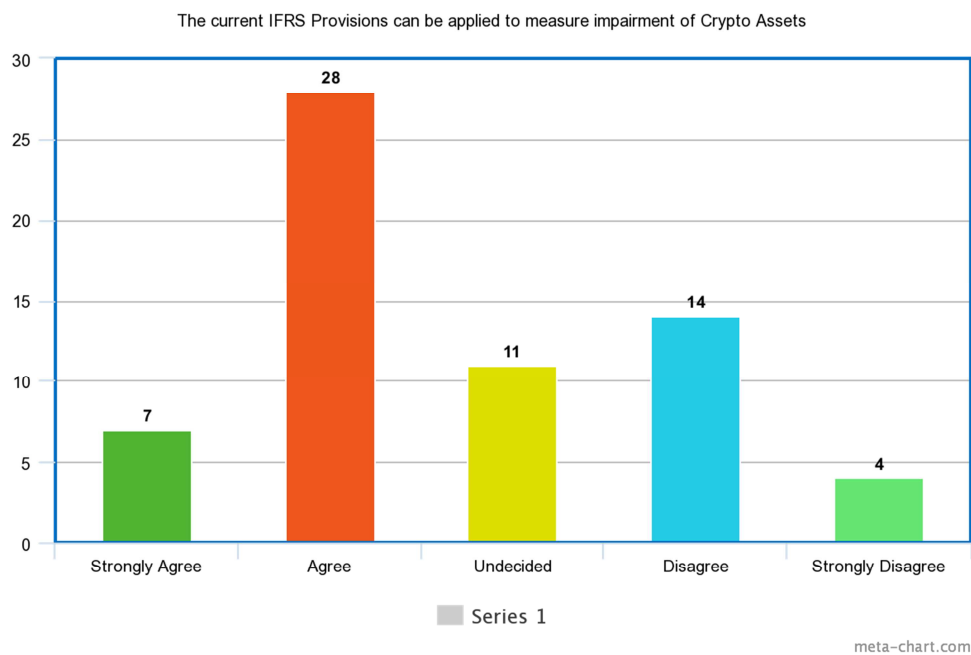


Figure 6. Impairment of Crypto Assets.

As illustrated in Figure 5, 23 respondents (36%) believe that the current IFRS provision can distinguish crypto assets between short-term assets or long-term assets. While 17 respondents (27%) disagree that current IFRS provision can distinguish crypto assets between as short-term assets or long-term assets. While 16 respondents (25%) are undecided, 4 (6%) strongly disagree and another 4 (6%) strongly agree that the current IFRS provision is able to distinguish crypto asset between as short term asset or long term asset.

As displayed in Figure 6, 28 (44%) professional accountants

agreed that the current IFRS provision on impairment can be applied on crypto asset and 7 (11%) strongly agree. The impairment treatment for an indefinite intangible asset is based on comparison of the fair value of the asset with the carrying amount. If the carrying amount of the asset is above its fair value, it is expected that entity recognize an impairment loss in an amount equal to that excess [19]. While 14 (22%) respondents disagree that current IFRS provisions on impairment can be applied on crypto asset and 4 (6%) strongly disagree, while 11 (17%) are undecided.

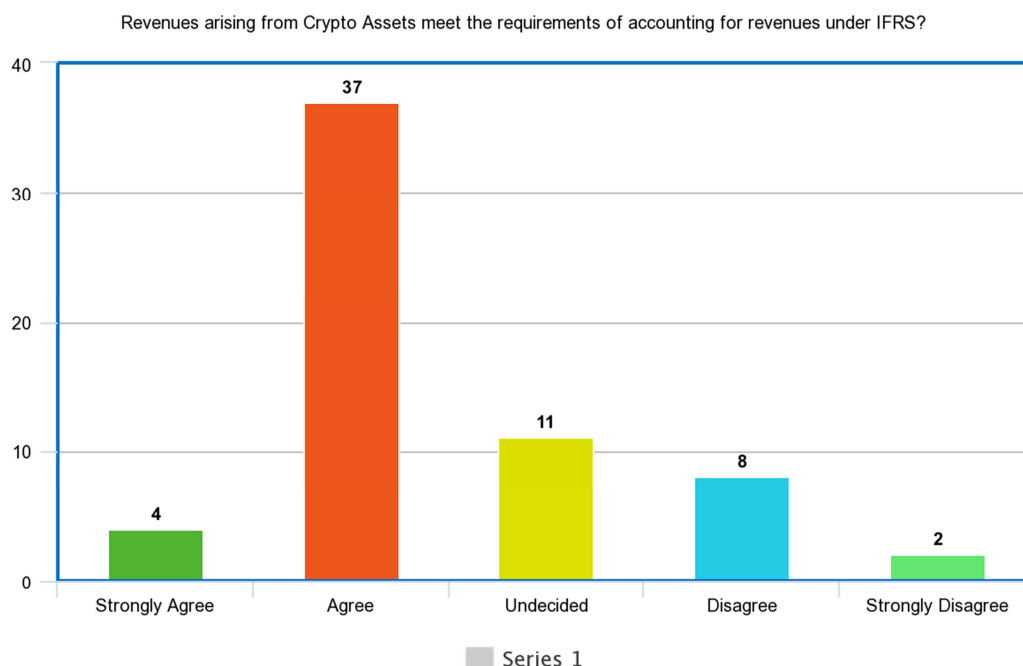
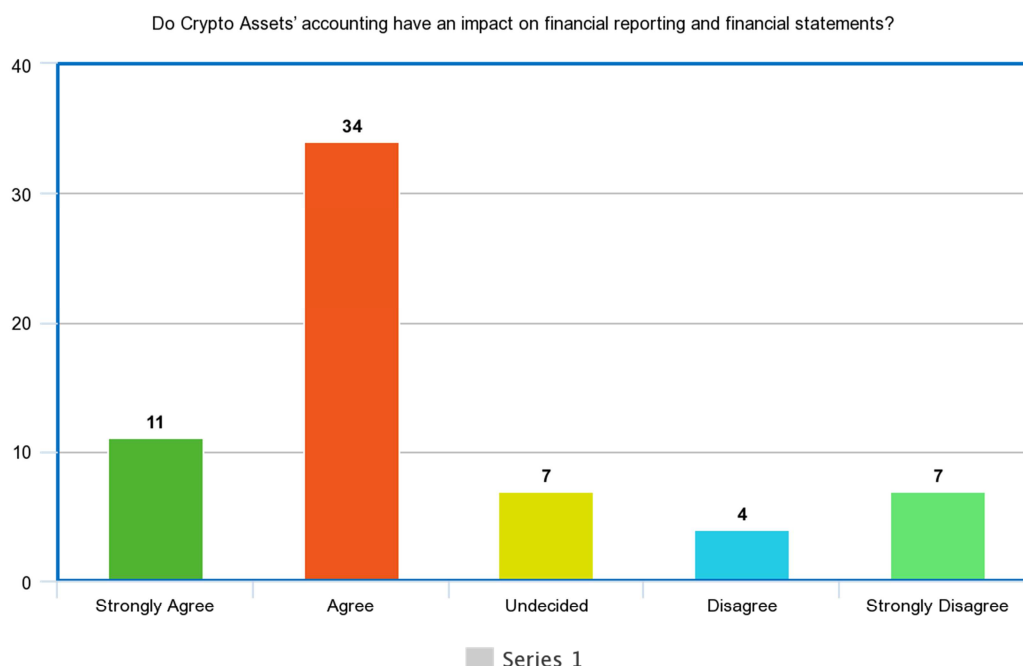


Figure 7. Recognition of Crypto Asset revenues.

When entities accept or receive crypto assets as a form of payment in exchange for goods or services this is a type of noncash consideration [19]. When the entities accept crypto assets as form of payment it should reported in the financial statements using fair value of the crypto asset measured at

the time of the transaction. Based on Figure 7, 60% respondents agree that revenue arising from crypto assets meets the requirement of IFRS on revenue while 6% strongly agree. Figure 7 also shows that 18% are undecided, 13% disagree and 3 strongly disagree.



meta-chart.com

Figure 8. Impact of crypto assets on financial statement.

As illustrated in Figure 8 most of the professional accountants representing 34 (54%) of respondents agree and 11 respondents (17%) strongly agree that crypto asset accounting has an impact on financial statements. The

accounting treatment of crypto assets is substantial judgmental based on the underlying facts and condition, because there is no accounting standard explicitly addressing the financial report needs of these types of assets [12, 20, 28].

The lack of disclosure requirements specifically designed for crypto assets and related transactions means that reporting entities will need to include disclosures based on the applicable accounting standard [12].

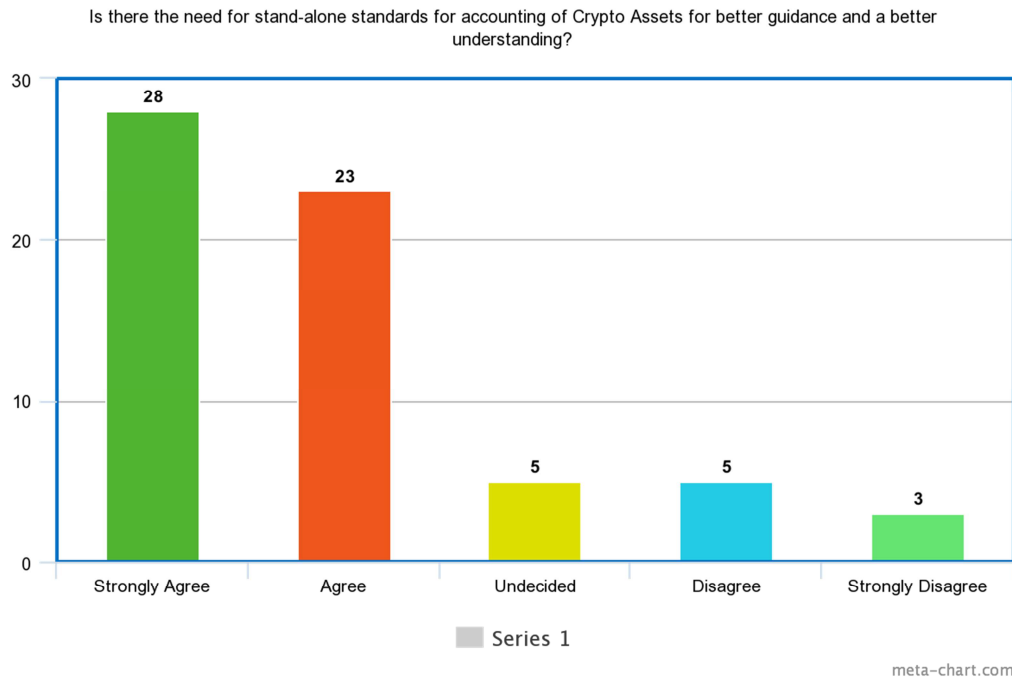


Figure 9. The need for stand-alone Accounting standards.

As shown in figure 9 majority of the respondents (44% strongly agree and 36% agree) the need to have a stand-alone accounting for crypto assets. This is consistent with the opinion of Vincent, N and Wilkins, A. [20] that concluded

that there are limited accounting standards and there is no guidance from standard setters for appropriate disclosures for financial statements containing crypto assets.

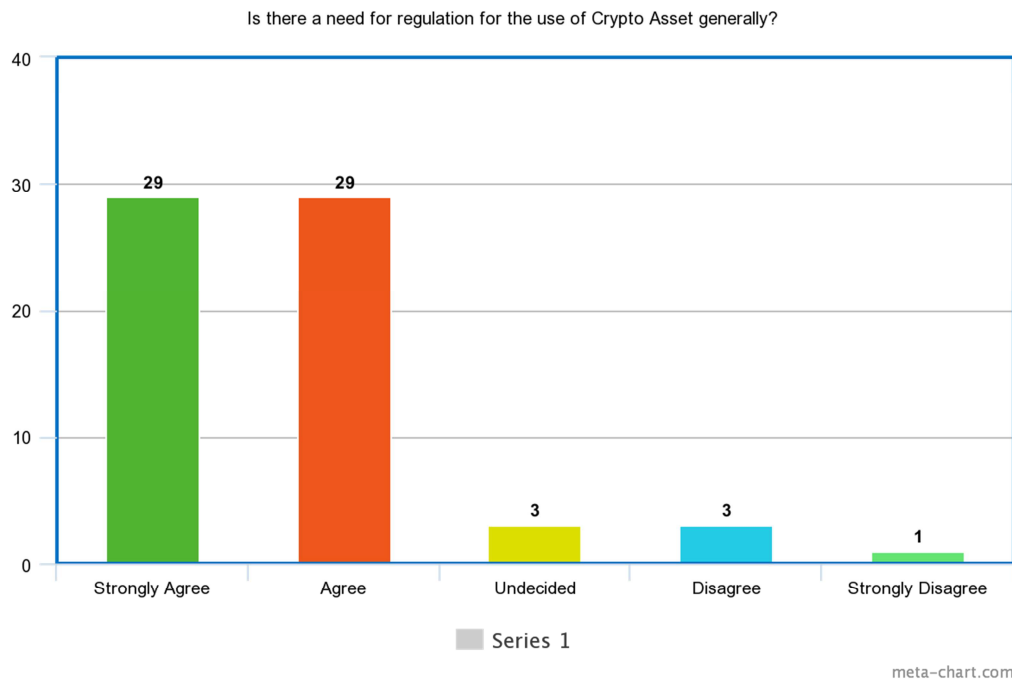


Figure 10. Regulation of Crypto Assets.

The crypto asset market has grown at exceptional speed over the years. According to Figure 10, most of the

respondents believe that (44% strongly agree and 44% agree) that there is need for regulation of crypto assets.

5. Summary Conclusion and Recommendation

The crypto asset market has grown at exceptional speed over the years which and it represents a new type of asset different from the conventional assets. Despite their volatile nature, crypto assets have become increasingly used by many individuals and institutions for investments and payments. However, the accounting treatment of crypto assets is substantial judgmental based on the underlying facts and condition because there is no accounting standard which explicitly addresses the accounting reporting issues. This study focused primarily on how crypto assets should be reflected in financial statements offered a normative perspective on financial reporting of crypto assets. It also attempts to contribute to the existing literature on crypto assets by providing practical insights on how entities can account for crypto assets in their financial statements.

The compliance of crypto assets having the features of assets in accounting was established. Crypto assets could be classified into different asset classes i.e., intangible assets, cash and cash equivalent, inventory, and financial instrument. Also, under current accounting standards crypto assets can be classified as short-term asset or long-term asset. Many respondents agree that crypto asset accounting has an impact on the financial statements of entities. This is because substance over form is an accounting concept that requires that the economic substance of transactions and events are decisive for the recognition and measurement of transactions in financial statements. We can conclude that revenue arising from crypto assets meets the requirement of the current standard on revenue.

This study recommends that there is the need for stand-alone accounting standards and guidance for crypto assets to avoid the discretionary judgment current relied upon. Regulators should undertake standard setting specifically for crypto assets instead of allowing entities to choose which existing standard to apply and how to do so. Overall, we recommend that accounting standard-setters issue a standard specific to crypto assets to accommodate its unique features. However, the rapid growth of crypto-assets and volatility might impede the development of specific accounting guidance. The study also recommends that there should be proper regulation of crypto assets.

Conflicts of Interest

The authors declare no conflicts of interest.

References

- [1] Andrianto, Y., & Diputra, Y. (2017). The effect of cryptocurrency on investment portfolio effectiveness. *Journal of finance and accounting*, 5(6), 229-238.
- [2] Bharti, P. (2023). The Accounting Of Cryptocurrency As Per Indian Accounting Standards: A Review Paper. *Journal of Pharmaceutical Negative Results*, 413-416.
- [3] Blahusiakova, M. (2022). Accounting for Holdings of Cryptocurrencies in the Slovak Republic: Comparative Analysis. *Contemporary Economics*, 16(1), 16-32.
- [4] Brouard, F., Bujaki, M., Durocher, S., & Neilson, L. C. (2017). Professional accountants' identity formation: An integrative framework. *Journal of Business Ethics*, 142, 225-238.
- [5] Brukhanskyi and I. Spilnyk, "Cryptographic Objects in the Accounting System," 2019 9th International Conference on Advanced Computer Information Technologies (ACIT), Ceske Budejovice, Czech Republic, 2019, pp. 384-387.
- [6] Brukhanskyi, R. F., & Spilnyk, I. V. (2019). Crypto assets in the system of accounting and reporting. *The Problems of Economy*, 2, 145-156.
- [7] Chou, J. H., Agrawal, P., & Birt, J. (2022). Accounting for crypto-assets: stakeholders' perceptions. *Studies in Economics and Finance*.
- [8] Chulpanovna, K. Z., Botiraliyevna, Y. M., & Turgunovich, M. A. (2021). Society interests, professional competence and ethical requirements for professional accountants. *World Economics and Finance Bulletin*, 4, 3-5.
- [9] Hubbard, B. (2023). Decrypting crypto: implications of potential financial accounting treatments of cryptocurrency. *Accounting Research Journal*.
- [10] Ibrahim, M., Waziria, B. Z., & Auwal, B. A. M. (2021). Accounting for Crypto Assets and its Implication for Financial Reporting. In *3rd ICAN Malaysia International Conference on Accounting and Finance* (p. 29).
- [11] Kasomo, D. (2006). *Research Methods in Humanities* (1st ed.). Egerton University Press Publishers.
- [12] Küçükgergerli, N., & Atılğan Sarıdoğan, A. (2022). Development and accounting of cryptocurrencies. *Current financial studies volume I*.
- [13] Liu, Y., and A. Tsyvinski. 2020. Risks and returns of cryptocurrency. *The Review of Financial Studies* 34(6): 2689–2727.
- [14] Luo, M., & Yu, S. (2022). Financial reporting for cryptocurrency. *Review of Accounting Studies*, 1-34.
- [15] Makarov, I., and A. Schoar. 2020. Trading and arbitrage in cryptocurrency markets. *Journal of Financial Economics* 135(2): 293–319.
- [16] Mbobo, M. E., & Ekpo, N. B. (2016). Operationalising the qualitative characteristics of financial reporting. *International Journal of Finance and Accounting*, 5(4), 184-192.
- [17] Morozova, T., Akhmadeev, R., Lehoux, L., Yumashev, A. V., Meshkova, G. V., & Lukiyanova, M. (Morozova, Crypto asset assessment models in financial reporting content typologies. *Entrepreneurship and Sustainability Issues*, 7(3), 2196.
- [18] Procházka, D. (2018). Accounting for bitcoin and other cryptocurrencies under IFRS: A comparison and assessment of competing models. *The International Journal of Digital Accounting Research*, 18(24), 161-188.
- [19] PwC. 2021. Crypto asset guide. https://viewpoint.pwc.com/dt/us/en/pwc/accounting_guides/crypto-assets-guide/crypto_assets_guide/ca_pdf.html. Accessed 1 December, 2022.

- [20] Ramassa, Paola, and Giulia Leoni. "Standard setting in times of technological change: accounting for cryptocurrency holdings." *Accounting, Auditing & Accountability Journal* (2021).
- [21] Ramrakhiani, N. (2018). *An introductory outlook: what are the prospective and current issues with regards to accounting for cryptocurrency?* (Doctoral dissertation, Dublin Business School).
- [22] Rejeb, A., Rejeb, K., & Keogh, J. G. (2021). Cryptocurrencies in Modern Finance: A Literature Review. *Etikonomi*, 20(1), 93-118.
- [23] Ryabova, T. S., & Henderson, S. (2019). Integrating cryptocurrency into intermediate financial accounting curriculum: a case study. *Journal of Accounting and Finance*, 19(6), 167-179.
- [24] Sixt, E., & Himmer, K. (2019). Accounting and Taxation of Cryptoassets.
- [25] Sundqvist, E., & Hyytiä, P. (2019). Accounting for Cryptocurrencies-A Nightmare for Accountants.
- [26] Tarasova, T., Usatenko, O., Makurin, A., Ivanenko, V., & Cherchata, A. (2020). Accounting and features of mathematical modeling of the system to forecast cryptocurrency exchange rate. *Accounting*, 6(3), 357-364.
- [27] Vincent, N. E., & Wilkins, A. M. (2020). Challenges when auditing cryptocurrencies. *Current Issues in Auditing*, 14(1), A46-A58.
- [28] Yatsyk, T. V. (2018). Methodology of financial accounting of cryptocurrencies according to the IFRS. *European Journal of Economics and Management*, 4(6), 53-60.
- [29] Yu, T., Z. Lin, and Q. Tang. 2019. Blockchain: Introduction and application in financial accounting. *The Journal of Corporate Accounting & Finance* 29(4): 37.
- [30] Zafar, M. B., Bhattacharya, P., Ganguly, N., Gummadi, K. P., & Ghosh, S. (2015). Sampling content from online social networks: Comparing random vs. expert sampling of the twitter stream. *ACM Transactions on the Web (TWEB)*, 9(3), 1-33.