

Cryptocurrencies Accounting Treatment

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Tratamento Contábil das Criptomoedas
Tratamiento Contable de las Criptomonedas

We examine the perspectives of Brazilian accounting professors on the accounting treatment of cryptocurrencies. Experts have established a moderate consensus among the situations examined for the circumstances in which an entity buys cryptocurrencies for itself and in cases where an entity produces cryptocurrencies (mining). In such circumstances, the initial recognition should be a financial instrument, and the initial and subsequent measurement should be at fair value. This understanding differs from the prevailing literature, which states that cryptocurrencies cannot be recognized as a financial instrument. There are also disagreements about the initial and subsequent measurements. As a result, the accounting regulatory framework must be updated so that cryptocurrencies can be recognized, measured, and disclosed more reliably.

Examinamos as perspectivas de professores brasileiros de contabilidade sobre o tratamento contábil das criptomoedas. Os especialistas estabeleceram um consenso moderado entre as situações examinadas para as circunstâncias em que uma entidade compra criptomoedas para si e nos casos em que uma entidade produz criptomoedas (mineração). Em tais circunstâncias, o reconhecimento inicial deveria ser como um instrumento financeiro e a mensuração inicial e subsequente a justo valor. Esse entendimento difere da literatura predominante, que afirma que as criptomoedas não podem ser reconhecidas como um instrumento financeiro. Há também discordâncias sobre as mensurações iniciais e subsequentes. Como resultado, o marco regulatório contábil deve ser atualizado para que as criptomoedas possam ser reconhecidas, mensuradas e divulgadas de forma mais confiável.

Examinamos las perspectivas de los profesores brasileños de contabilidad sobre el tratamiento contable de las criptomonedas. Los expertos establecieron un consenso moderado entre las situaciones examinadas para las circunstancias en que una entidad compra criptomonedas para sí y en los casos en que una entidad produce criptomonedas (minería). En tales circunstancias, el reconocimiento inicial debería ser un instrumento financiero y la valoración inicial y posterior al valor razonable. Este entendimiento difiere de la literatura predominante, que afirma que las criptomonedas no pueden ser reconocidas como un instrumento financiero. También hay desacuerdos sobre las valoraciones iniciales y posteriores. Como resultado, el marco regulatorio contable debe actualizarse para que las criptomonedas puedan ser reconocidas, valoradas y divulgadas de manera más fiable.

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1. Introduction

The growing acceptance of cryptocurrencies in commercial transactions encourages discussions regarding their recognition and measurement as an item of value to their holder. Among the cryptocurrencies used in digital media, Bitcoin deserves to be spotlighted due to its current value and the magnitude of transactions (Dinkins, 2017; Chuen et al., 2018; Alsami et al., 2023; Bommer et al., 2023; Hubbard, 2023).

According to Hayes (2017) and Subačienė and Kurauskienė (2020), there is a market still under development but "vibrant" and the recognition of cryptocurrencies as an emerging asset class. Due to the worldwide computer network and the speed, it provides for the transmission of information, cryptocurrency has spread rapidly, being recognized, and accepted as a means of payment for goods and services worldwide and becoming an essential part of the global economy (Teh et al., 2020; Ferreira & Sandner, 2021; Bommer et al., 2023).

Previous studies testify that cryptocurrencies are used in two functions: as currency, in goods and services markets, and as an asset in the financial market (Dong & Dong, 2014; Baur et al., 2018; Bianchi, 2020). Conceptualizing it involves identifying points of contrast or resemblance with payment methods, digital currency, stocks, and commodities. Moreover, cryptocurrencies have become the buzzword in society, especially after some companies such as Wikipedia, Microsoft, and Amazon have come to accept the use of cryptocurrencies (Teh et al., 2020), making them extremely popular among individual investors and consumers (Hubbard, 2023).

However, an official technical position on this subject by international regulatory institutions is incipient (Ram et al., 2016; Procházka, 2018; Brezoeva, 2020; Subačienė & Kurauskienė, 2020; Shehada & Shehada, 2020) and the rapid growth of the crypto-assets ecosystem has intensified the focus of regulators (Ferreira & Sandner, 2021). The regulatory board of Japan - Accounting Standards Board of Japan (ASBJ), the Australian Accounting Standards Board (AASB) of Australia, the International Accounting Standards Board (IASB), and some others started discussions and have some publications on the subject.

The study aims to present the possible models of the accounting treatment for recognizing and measuring cryptocurrencies based on the opinion of Brazilian academics specializing in accounting. We used the Delphi technique, interviewing experts on the subject, to obtain a consensus on the topic, and, with this, indicate how companies can recognize and measure cryptocurrencies in their financial statements.

KEYWORDS

Accounting.
Cryptocurrency.
Bitcoin. IFRS.
Delphi.

PALAVRAS-CHAVE

Contabilidade.
Criptomoedas.
Bitcoin. IFRS.
Delphi.

PALABRAS CLAVE

Contabilidad.
Criptomoneda.
Bitcoin. NIIF.
Delphi.

JEL CODES

G39, G53, G59

This is a study that addresses a current theme, whose literature is still under development, giving the possibility of contributing to the accounting literature and regulation, given that the results may be used by regulatory bodies in by regulatory bodies in eventual accounting regulation. The differential of the research on the accounting aspects of cryptocurrencies lies in the use of interviews with experts in order to present a consensus view on the appropriate accounting treatment of an uprising asset class.

2. Literature Review

Cryptocurrencies are digital currencies that use cryptographic techniques to regulate the generation of currency units and verify the transfer of money, operating independently from a central bank (DeVries, 2016). Ernest Young (2018) points out that Bitcoin and Ethereum are the most famous examples of cryptocurrencies and have the following characteristics: (a) They are created through "mining", which consists of using computational strength to solve complex cryptographic algorithms; (b) There is not an entity that regulates its use; (c) Its value is based on the law of supply and demand only; and (d) Its general purpose is to be used in exchange for goods or services.

The issue addressed in this study is the accounting regulating of cryptocurrencies. Considering this aspect, there is an effort by accounting regulatory bodies, such as AASB, ASBJ, and IASB, and auditing companies, such as PwC, Delloite, Ernest & Young, and Gran Thornton, to understand, through an accounting analysis, cryptocurrencies, and their respective applicability. In this context, AASB (2016), ASBJ (2018), PwC (2018), Brezoeva (2020), Luo & Yu (2022), and Jackson & Luu (2023) argue that the current accounting standards do not provide sufficient guidance for companies to disclose useful financial accounting information regarding transactions with cryptocurrencies, proposing, each as to its form, the need to update the current conceptual framework. Differently, Chou et al. (2022) understand that the principles of current accounting standards are robust enough to address gaps in accounting requirements for crypto assets.

Cryptocurrencies are like computer files, like an mp3 or a text file, and can be destroyed or lost just like money. They are stored both on a computer and on a trusted website that offers such a service. As they are like files stored on a computer, spending them is like sending them from one user to another, such as sending an e-mail over the internet (Kaplanov, 2012; Plassaras, 2013; DeVries, 2016).

Individual cryptocurrency transactions are encrypted, logged on a decentralized peer-to-peer network operated and maintained by thousands of independent computers worldwide, and recorded in a public ledger (Sheridan, 2011; DeVries, 2016). This public ledger, known as blockchain, records which cryptocurrencies were negotiated but does not record the identity information of the parties that traded them. Thus, bringing security and anonymity to its users.

There are three ways for anyone to access cryptocurrencies. To begin, users can buy cryptocurrencies by exchanging "real money", such as the Brazilian actual and the US Dollar, for cryptocurrencies. The price of a cryptocurrency varies against other currencies, just like in a traditional foreign exchange market, and

is determined by supply and demand. Users can also obtain them by exchanging products or services like they would with traditional cash. Finally, the final method of obtaining a cryptocurrency is through a process known as mining.

Mining allows you to generate cryptocurrencies instead of acquiring them. As no company manages this process, miners use their computers voluntarily to solve multiple mathematical problems (complex computer algorithms). The Bitcoin algorithm, for example, restricts the total number of bitcoins in circulation. This enables miners to go through a verification process for each Bitcoin transaction in exchange for a reward for creating a block. Bitcoin distribution software decreases its production over time so that there are no more than 21 million Bitcoins in circulation, something that should happen around the year 2140, according to Plassaras (2013), Antonopoulos (2015), Yermack (2015) and Narayanan et al. (2016). This gradual decline in the Bitcoin supply removes any human intervention. This means this currency is not subject to an inflationary whim if a central bank decides to print more money or any other kind of government intervention (Plassaras, 2013).

Ram (2015) can be considered the first in the academy to research the topic of cryptocurrency accounting. However, his finding presents only a general outline of how cryptocurrencies could be recognized and measured. It did not consider other possible cases of application and use. Morozova et al. (2020) focus on a practical analysis of the current accounting policies of companies operating with crypto assets, considering the position of the International Financial Reporting Interpretations Committee (IFRIC). It was concluded that the most promising way out of the conflict of interests of business and the current rules of International Financial Reporting Standards (IFRS) is to refine the existing standards and introduce rules of classification and evaluation of crypto assets.

Subačienė and Kurauskienė (2020) evaluated the alternatives to cryptocurrency accounting. Although various authors and accounting standards regulators provide their insights and recommendations on cryptocurrency accounting, the results indicate that a unified system has not been formed yet. Currently, such alternatives of cryptocurrency accounting as financial assets, intangible assets, or inventory. Ferreira and Sandner (2021) evaluate the EU's current regulatory approach to crypto assets against the views and reports of several advisory and supervisory bodies, international organizations, and market developments.

Ramassa and Leoni (2022) explore how the International Accounting Standards Board has dealt with the emerging issue of accounting for cryptocurrencies by investigating its constituents' expectations and the motivations underlying its regulatory response. The results show the constituents ask for new solutions and the IASB tries to resist such pressures, while defending its position, despite criticism from constituents and Board members.

Hubbard (2023) asserts that current accounting guidance has been deemed ineffective. He examines potential financial accounting treatments for cryptocurrencies and provides insights into the most appropriate financial accounting treatment of cryptocurrencies. It indicates that the best option is an intangible asset revaluation model that allows firms to elect a fair value option. Pramana et al. (2023), in turn, indicate that the most acceptable treatment for crypto assets under IFRS is as intangible assets and inventory.

France et al. (2022) evaluated the application of accounting standards in recognizing cryptocurrencies in Indonesian companies. The results show that the Indodax Company uses IAS 2 (inventory) because the company's core business is in brokerage, which measures cryptocurrency inventory recorded at

fair value after deducting costs to sell and is recognized in the income statement and reported in the Available for sale financial asset account. In addition, entities that measure and value cryptocurrency assets (cash and tokens), use IFRS 9 to record them as financial assets at fair value through profit or loss.

Luo and Yu (2022) compare US and international accounting and financial reporting practices for cryptocurrency. They document inconsistency between Generally Accepted Accounting Principles (GAAP) and International Financial Reporting Standards (IFRS) and distortions that can mislead users in assessing asset value, liquidity, profitability, and cash-generating abilities across firms. In general, companies classify as intangibles using different measurement bases. They conclude that limited guidance about crypto assets from both IFRS and USGAAP lets companies choose which existing standard to apply and how to apply it. Alsalmi et al. (2023) reach similar conclusions, that current accounting standards do not precisely cover the accounting treatment of digital currencies.

Jackson and Luu (2023) assess potential treatments under current GAAP, namely as intangibles, inventory, or financial instruments. They provide policy advice to standard setters, with a call to either develop a new stand-alone standard or to amend the definition of financial instruments to include cryptocurrencies, to allow greater comparability and understandability in firms' reporting.

Differently, Chou et al. (2022) show that unless crypto-assets have economic characteristics and functionality that are pervasive enough to warrant a new accounting standard, principles of current accounting standards are robust enough to address gaps in accounting requirements for crypto-assets.

It is noticed that the literature indicates different accounting treatments of how to recognize and measure cryptocurrencies, given the current regulatory gaps. Thus, based on this literature, the understanding of Brazilian experts on the subject is sought, aiming to obtain a consensus on the best accounting treatment.

3. Methodology

Our population of specialists were the Brazilian professors in financial accounting of all the postgraduate courses in accounting (30 programs from five regions of Brazil). We conducted a thorough analysis of their resumes to identify those who could opine on the accounting treatment of cryptocurrencies, resulting in a total of 71 experts. However, it is impossible to guarantee that they are the ones who really master the subject. Concerning this aspect, Marei et al. (2023) show that recent accounting graduates and CPA members have the slightest awareness of cryptocurrencies, likely due to a lack of professors' comprehension or exposure to the concept. This is a possible limitation, but we believe academics should be sculpted on the topic. Our choice was to use a specialist profile more focused on the academy.

There is no precise determination of the number of specialists applying the Delphi technical. Okoli and Pawlowski (2004), establish a number between 10 to 18 participants, and Giovinazzo (2001), between

15 and 30. Brito (2016), Cunha (2007), Lyra (2008), Miranda (2011), and Vieira (2009) point out that the dissertations and theses in the accounting area that used the Delphi technique have a number between 12 and 21 expert respondents. We used Google Forms to apply the questionnaire to specialists in the second half 2020. The number of survey respondents is adherent to the literature.

The questionnaire was prepared from a presentation containing a synthesis of the primary information on the recognition and measurement of cryptocurrencies collected from the literature for each question. Based on the literature and publications from international accounting authorities, we prepared the first-round questionnaire to identify potential elements for the accounting treatment of cryptocurrencies linked to initial recognition, initial measurement, and subsequent measurement. We created four possible scenarios of the use of cryptocurrencies by companies, for which experts should opine as "agree" or "do not agree" for each proposed accounting treatment described in factors 1, 2, and 3 (Table 1). Os cenários e critérios de reconhecimento e mensuração foram baseados em AASB (2016), ASBJ (2018), Deloitte (2018), IASB (2019), France et al. (2022), Luo and Yu (2022), Jackson and Luu (2023) and Hubbard (2023).

Table 1 - Scenarios of the use of cryptocurrencies and recognition and measurement criteria

Scenarios	Factor 1: Initial Recognition	Factor 2: Initial Measurement	Factor 3: Subsequent Measurement
1. An entity acquires cryptocurrencies for itself maintains them and may dispose of them in the future.	Asset in general, Commodity, Inventories, Financial Instrument or Intangible?	Cost Value, Net Realizable Value or Fair Value?	Cost Amount, Amortized Cost, Net Realizable Value or Fair Value?
2. An entity receives cryptocurrencies as a means of payment for goods or services provided.			
3. An entity is a cryptocurrency broker and keeps it safe in favor of its customers.			
4. An entity is a cryptocurrency miner; that is, its activity is to produce cryptocurrencies.			

The items of each factor received an evaluation of "agree" and "do not agree", and those that obtained a more significant agreement were used for the second round. The literature on the Delphi technique does not establish a rule for carrying out the statistical treatment of the responses obtained (Brito, 2016). For this work, the statistical measures used to evaluate the responses were the mean, mode, minimum, maximum, standard deviation, and variation coefficient.

We tabulated the data from the first round to provide feedback to the specialists, that is, to show the percentage of agreement/disagreement for each item and each factor. A new questionnaire covered the items with the highest agreement for each factor, thus converging on possible models of accounting treatment related to the recognition and measurement of cryptocurrencies. In this research, two rounds were applied once after analysis of the responses of the second round, and there was a stabilization of the experts' opinions, as suggested by Miranda (2011).

The experts' responses should express the magnitude of agreement with each model presented, which ranged from 1 to 5 points, with 1 being total disagreement and 5 being total agreement. With that done, it was possible to calculate the average score of each proposal and the variation coefficient. Green et al. (1999) suggest focusing on the 80% consensus goal to determine the consensus in the second round. The Variation Coefficient (VC) is the parameter for measuring this stability between rounds. We used the mean score of the experts for this purpose.

Then, we divided the consensus into three categories: high-level, moderate, and no consensus. A VC of up to 15% and a mean of at least 4.5 was accepted for high-level consensus. A VC of up to 30% and a mean greater than 4 were accepted for the moderate consensus. Without consensus, it was enough not to fit into the other types, such as a VC greater than 30% and a mean less than 4. It also used the mode and comments received from experts for qualitative analysis.

4. Results

4.1. Specialists Characterization

The Delphi technique was performed in two non-face-to-face rounds to obtain a consensual position on the best accounting treatment for cryptocurrencies. Of the 71 invited to the expert committee, 21 participated in the first round. The second round had four abstentions, getting 17 participants. Of the 21 respondent specialists, all were PhDs. Eighteen specialists have been professors for more than 10 years, demonstrating that the interviewees are experienced academics in the accounting area of research interest. The sample includes specialists from 16 universities and all four Brazilian regions (the northern region does not have a postgraduate course in accounting). There was no significant concentration of respondents from the same university and the geographical distribution represents the distribution of courses in Brazil. Thus, it can be considered that the sample represents the Brazilian reality. The data can be seen in **Table 2**.

Table 2 - Specialists Characterization

<i>Reference</i>	<i>Postgraduate</i>	<i>Region</i>	<i>Experience (years)</i>
Expert 1	University 3	Southeast	10 – 20
Expert 2	University 14	South	5 – 10
Expert 3	University 14	South	10 – 20
Expert 4	University 14	South	10 – 20
Expert 5	University 5	Northeast	Less than 5
Expert 6	University 4	South	10 – 20
Expert 7	University 7	Midwest	20 – 30
Expert 8	University 11	South	5 – 10

Expert 9	University 10	South	20 – 30
Expert 10	University 5	Northeast	10 – 20
Expert 11	University 12	South	20 – 30
Expert 12	University 8	Northeast	10 – 20
Expert 13	University 13	South	20 – 30
Expert 14	University 2	South	20 – 30
Expert 15	University 6	Midwest	20 – 30
Expert 16	University 1	Southeast	10 – 20
Expert 17	University 9	South	10 – 20
Expert 18	University 8	Northeast	20 – 30
Expert 19	University 15	Southeast	10 – 20
Expert 20	University 16	Southeast	More than 30
Expert 21	University 11	South	20 – 30

4.2. Results Presentation

4.2.1. First Round

In the first round, recognizing cryptocurrencies as an Asset is almost unanimous in the cases addressed, scoring 100% agreement in three of the four scenarios and 81% agreement in the other. Also, within the Initial Recognition factor, the item that showed the greatest agreement in all scenarios was the Financial Instrument. There is a slight dispute between Cost Value and Fair Value for the Initial Measurement factor. There is an agreement tie in scenarios 2 and 3, whereas in scenarios 1 and 4, the Fair Value presented the highest agreement. The Fair Value had the highest agreement for the Subsequent Measurement Factor in all scenarios. **Table 3** presents the results of this round.

Table 3 - First-round results

	Agreement Percentage			
	Scenario 1	Scenario 2	Scenario 3	Scenario 4
<i>Factor 1 - Initial Recognition</i>				
Asset	100,00%	100,00%	81,00%	100,00%
Commodity	23,80%	19,00%	23,80%	33,30%
Inventories	4,80%	4,80%	23,80%	14,30%
Financial Instrument	76,20%	81,00%	47,60%	57,10%
Intangible	14,30%	14,30%	4,80%	28,60%

Factor 2 – Initial Measurement				
Cost Value	47,60%	52,40%	42,90%	42,90%
Net Realizable Value	9,50%	4,80%	9,50%	9,50%
Fair Value	61,90%	52,40%	42,90%	61,90%
Factor 3 –Subsequent Measurement				
Cost Value	0,00%	0,00%	14,30%	9,50%
Amortized Cost	4,80%	0,00%	0,00%	9,50%
Net Realizable Value	23,80%	23,80%	33,30%	14,30%
Fair Value	85,70%	85,70%	57,10%	85,70%

In addition to issuing their opinions of agreement or disagreement with the accounting treatment of cryptocurrencies, the experts were asked for opinions on the items evaluated in the questionnaire, suggestions for other items if they found them valid, and comments on the survey.

4.2.2. Second Round

Before applying the second-round questionnaire, we presented the results obtained in the first round (the agreement percentage regarding the items of each factor in each case) to the experts (see **Table 3**). The items of each factor that obtained the greatest agreement were condensed into possible models of accounting treatment to be voted on by the experts in the second round. As pointed out in the first-round results, there was a tie in the Initial Measurement factor in scenarios 2 and 3. Then, two options for the accounting treatment model for these scenarios were elaborated. The accounting models proposed for each case are as follows:

<i>Accounting Models Proposed</i>	<i>Initial Recognition</i>	<i>Initial Measurement</i>	<i>Subsequent Measurement</i>
Scenario 1	Financial Instrument	Fair value	Fair value
Scenario 2	-	-	-
Option 1	Financial Instrument	Cost value	Fair value
Option 2	Financial Instrument	Fair value	Fair value
Scenario 3	-	-	-
Option 1	Financial Instrument	Cost value	Fair value
Option 2	Financial Instrument	Fair value	Fair value
Scenario 4	Financial Instrument	Fair value	Fair value

In this round, we asked the specialists to express their agreement with each model presented, varying from 1 to 5 points, where 1 is total disagreement, and 5 is total agreement. See **Table 4** for the results of the second round.

Table 4 - Second-round results

Accounting Models Proposed	1	2	3	4	5	Mean	Mode	CV
Scenario 1	1	0	2	3	11	4.35	5	25.61%
Scenario 2								
Option 1	3	5	1	3	5	3.12	2 e 5	50.57%
Option 2	3	0	1	5	8	3.88	5	38.51%
Scenario 3								
Option 1	3	5	0	4	5	3.18	2 e 5	50.07%
Option 2	5	3	0	5	4	3.00	1 e 4	55.28%
Scenario 4	2	0	1	6	8	4.06	5	31.97%

Analyzing each scenario individually, the results show that:

- Scenario 1 presented an average of 4.35 and a VC of 25.61%, which means an average dispersion and a moderate consensus.
- Scenario 2 (Option 1) presented a mean of 3.12 and a VC of 50.57%, which means a high dispersion. Therefore, there is no consensus.
- Scenario 2 (Option 2) presented a mean of 3.82 and a VC of 39.49%, considered high dispersion. Despite presenting a relevant score above the mean, it also had many scores below the mean, making it express an absence of consensus among the specialists.
- Scenario 3 (Options 1 and 2) presented a mean of 3.18 and 3.00 and a VC of 50.07% and 55.28%, respectively for options 1 and 2, which means a high dispersion. The scores were diverse and well-illustrated by the sample's mode. These data frame scenario 3 has no consensus.
- Scenario 4 presented a mean of 4.06 and a VC of 31.97%, indicating a moderate consensus (above 30%). At first glance, these data suggest a failure to fit into the previously raised consensus profiles. However, its mode is 5, and 82.35% of the experts (14 out of 17 specialists) scored above average, with only 2 out of the 17 experts voting against the model presented (read vote equal to 1). Therefore, with such information, plus the mean presented, whose value is 4.06, most experts favor this model, thus concluding with a moderate consensus in general.

4.3. Results Discussion

A moderate consensus was reached in scenarios 1 and 4, while scenarios 3 and 4 did not show consensus at the end of two rounds. Scenario 1 referred to an entity that acquires cryptocurrencies for itself, maintains them, and may dispose of them in the future, and scenario 4 referred to a mining entity, whose activity is to produce (or mine) cryptocurrencies. In both cases, the consensual accounting treatment was recognized as a Financial Instrument and Fair Value for initial and subsequent measurement.

The literature points out that it is not possible to recognize cryptocurrencies as a Financial Asset under any circumstances, whether as cash, cash equivalent, foreign currency, or financial instrument, going against what was moderately converged among the experts interviewed as ideal for the scenarios 1 and 4 (AASB, 2016; ASBJ, 2018; Delloite, 2018; PWC, 2018; IASB, 2019; France et al., 2022; Jackson & Luu,

2023). This brings us back to Jackson and Luu's (2023) considerations for changing the definition of financial instruments to include cryptocurrencies.

Some Brazilian experts point out that cryptocurrencies may be recognized as cash, but some criteria must be met first. For the IASB and AASB, the criteria are that they must be used as a means of exchange and as the monetary unit in the pricing of goods or services to the point that it is the basis by which all transactions are measured and recognized in the Financial Statements. This understanding is consistent with Chou et al. (2022), that developing new accounting standards would depend on the further expansion of cryptocurrencies in economic terms and functionality.

For initial recognition, the literature points to the existence of three other possible ways for the recognition of cryptocurrencies, either as an intangible asset (IAS 38), inventories (IAS 2), or as commodities (IAS 2) (France et al., 2022; Jackson & Luu, 2023; Alsami et al., 2023; Bommer et al., 2023; Pramana et al., 2023). Although the established scenarios have contemplated these recognition possibilities, a consensus was not reached among Brazilian experts. This is somewhat surprising evidence since there is a predominance in the literature of treatment as an intangible asset (Hubbard, 2023). On the other hand, the opinion of the specialists interviewed in this research converges with literature and the ASBJ point of view when proposing the measurement of cryptocurrencies at fair value, initially and subsequently, proving to be the most acceptable way in a possible accounting regulation.

5. Conclusion

The goal of the present paper was to present the possible models of the accounting treatment for the recognition and measurement of cryptocurrencies based on the opinion of Brazilian professors specialized in financial accounting. For that, the method chosen to carry out this research was Delphi, which is used to obtain a consensual opinion from a group of specialists through questionnaires interspersed with comments.

Considering the accounting conceptual framework, the opinion of the specialists interviewed, and the literature explored, we concluded that the normative accounting framework needs updating for cryptocurrencies to be recognized, measured, and disseminated in the most reliable way possible. Cryptocurrencies can even be embedded in some types of assets, but these types of assets, in their respective theoretical frameworks, do not present the proper accounting for cryptocurrencies.

Cryptocurrencies could be considered as currencies if so agreed. However, as IASB (2019) brought to the discussion, if it does not reach a point at which an entity's financial statements are presented based on a given cryptocurrency, then it cannot be recognized as a currency. However, suppose it reaches a point where an entity buys, pays, receives, and records its accounting facts based on a cryptocurrency. Why not recognize cryptocurrencies as a currency or cash for accounting purposes? Thus, if a company acquires cryptocurrencies for investment, future appreciation, or mere speculation, why not recognize them as a financial instrument and update them at fair value? Or recognize them as intangible, updating them to fair value?

The answer is that the form has prevailed over the economic substance of the transactions, which impedes progress from a regulatory point of view. The idea is not to create more rules to tighten the conceptual structure but to make it more flexible to increase the current range of possibilities. The present study presented a brief discussion, which, as demonstrated by the results, requires more debate in the academy. The discussion on the topic addressed does not end here with these results. The need for a viable north persists.

Our results can be used for future research, as a basis for discussion with experts other than academics, or for future public hearings in discussing a standard or technical interpretation. As a limitation of the results presented in the study, there was no consensus in scenarios 2 and 3 and, for scenarios 1 and 4, a divergence between the position of accounting regulatory bodies. Therefore, this may mean that respondents have little knowledge of the essence of cryptocurrency transactions. Alternatively, it may show that this topic is difficult to understand, given that even the accounting regulatory bodies do not express, in their discussions, an alignment of ideas.

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