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Artículo Original

Research of interferential factors of accounting and evaluation of cryptocurrency in the practical business model of a company

Investigación de factores interferenciales de contabilidad y evaluación de criptomonedas en el modelo práctico de negocio de una empresa

Authors
Lyudmila I. Petrova[1], Sergey A. Nikiforov [2], Elena N. Klochko,[3] Ekaterina V. Litti[4], Olga V. Stepanova[5], Maxim V. Protasov[6]

[1]Altai State University, Barnaul, Barnaul, Russian Federation

[2]Southwestern State University, Kursk, Russian Federation

[3]Kuban State Agrarian University named after I.T. Trubilin, Krasnodar,

[4]Plekhanov Russian University of Economics (PRUE), Moscow, Russian Federation

[5]Plekhanov Russian University of Economics (PRUE), Moscow, Russian Federation

[6]Plekhanov Russian University of Economics (PRUE), Moscow, Russian Federation

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Abstract
Cryptocurrency is a modern phenomenon of the digital economy, which is gradually becoming part of the business processes of companies of various profiles and economic sectors. The presence of unsettled issues at the legislative level of jurisdictions, as well as the ambiguity of approaches to the classification and assessment of cryptocurrency in financial reporting, gives rise to discussions of both practical and scientific nature. For trade organizations, the need to resolve this issue is evident, since already now businesses are considering the possibility of accepting payment for goods with some types of cryptocurrencies, as well as using cryptocurrencies to pay for the resources the company needs. The study results allow concluding that the criteria for recognizing cryptocurrency received as payment as reserves, in essence, do not fit into the formation of a business model of core assets, which are reserves, in trade organizations. Regarding the recognition of cryptocurrencies by trading organizations as intangible assets, it can be noted that although the key criterion for intangible assets is the absence of a tangible form, their other characteristics are controversial. The authors propose to treat the receipt of payment in cryptocurrencies by merchants as barter transactions. Barter is a form of non-cash settlement, which fits well into the concept that cryptocurrency is not cash or its equivalents. The authors also proceed from the assumption that cryptocurrency is a type of asset since it has all the characteristics that are defined by the Conceptual Framework for Financial Reporting. The introduction of an understanding of a barter transaction when paying for goods of trade organizations with cryptocurrency provides other opportunities for professional judgment when classifying this type of asset. Since the presented model is a professional judgment based on the presentation of the economic essence of cryptocurrency within the business model of a trade organization, but it represents a departure from the requirements for classification and valuation of cryptocurrencies prescribed by international financial reporting standards, it is necessary to disclose

information in financial statements. In the authors' opinion, this approach will reflect the real financial position of the trading company as of the date of the financial statements and take into account all the fundamental factors of accounting and valuation of cryptocurrency in the business model.

Keywords: business models, crypto assets, digital economy, finance

Resumen
La criptomoneda es un fenómeno moderno de la economía digital, que paulatinamente se está convirtiendo en parte de los procesos comerciales de empresas de diversos perfiles y sectores económicos. La presencia de problemas sin resolver a nivel legislativo de las jurisdicciones, así como la ambigüedad de los enfoques para la clasificación y evaluación de las criptomonedas en los informes financieros, da lugar a discusiones de naturaleza tanto práctica como científica. Para las organizaciones comerciales, la necesidad de resolver este problema es evidente, ya que ya las empresas están considerando la posibilidad de aceptar el pago de bienes con algunos tipos de criptomonedas, así como utilizar criptomonedas para pagar los recursos que la empresa necesita. Los resultados del estudio permiten concluir que los criterios para reconocer las criptomonedas recibidas como pago como reservas, en esencia, no encajan en la formación de un modelo de negocio de activos centrales, que son reservas, en las organizaciones comerciales. Con respecto al reconocimiento de las criptomonedas por parte de las organizaciones comerciales como activos intangibles, se puede señalar que aunque el criterio clave para los activos intangibles es la ausencia de una forma tangible, sus otras características son controvertidas. Los autores proponen tratar la recepción de pagos en criptomonedas por parte de los comerciantes como transacciones de trueque. El trueque es una forma de liquidación que no es en efectivo, que encaja bien en el concepto de que la criptomoneda no es efectivo ni sus equivalentes. Los autores también parten del supuesto de que la criptomoneda es un tipo de activo ya que tiene todas las características definidas por el Marco Conceptual para la Información Financiera. La introducción de una comprensión de una transacción de trueque al pagar bienes de organizaciones comerciales con criptomonedas brinda otras oportunidades para el juicio profesional al clasificar este tipo de activo. Dado que el modelo presentado es un juicio profesional basado en la presentación de la esencia económica de la criptomoneda dentro del modelo comercial de una organización comercial, pero representa una desviación de los requisitos para la clasificación y valoración de las criptomonedas prescritos por los estándares internacionales de información financiera, es necesario para revelar información en los estados financieros. En opinión de los autores, este enfoque reflejará la situación financiera real de la empresa comercial a la fecha de los estados financieros y tendrá en cuenta todos los factores fundamentales de contabilidad y valoración de la criptomoneda en el modelo de negocio.

Palabras clave: modelos de negocio, criptoactivos, economía digital, finanzas

Introduction

National jurisdictions of various countries perceive the status of cryptocurrencies such as bitcoin and its counterparts – altcoins – ambiguously. In some countries, cryptocurrency transactions are actually limited or prohibited. For example, in Morocco, Vietnam, and some other countries, any operations with cryptocurrency are prohibited and fines are provided for violation of the law, according to the research by L'Office des Changes. Such fines are quite significant, up to 200 million donts, which is approximately USD 9000 (Fischler, 2018). In most countries, cryptocurrency transactions are more loyal.

However, it should be noted that international and national legislation regarding the status of cryptocurrency is under development, although many issues have already been settled. First of all, official representatives, such as central banks of countries and financial departments, unanimously issue warnings about the high risks of transactions with cryptocurrency. Cryptocurrency is not recognized as a means of payment, is not secured by any rights, and all risks are taken by the participants in the transactions. The specificity of operations with cryptocurrency is the actual impossibility of their total control by government agencies. In those countries where the mining of cryptocurrencies is not prohibited, participants can be miners of various types of digital resources, of which there are already more than 300 in the international space. Of course, mining farms require significant investments, high energy consumption, but the combination of business interests gives positive results. Besides, the blockchain technology itself, which is the technological basis for the development of cryptocurrency, is positively perceived by both regulatory government bodies and businesses, as an innovative technology that can reduce the time of transferring and storing information and mitigate the associated risks.

Moreover, blockchain technology is already used by commercial businesses (Jun 2017).

At the same time, jurisdictions consider issuing their own state digital assets, improving legislation on entering ICOs, licensing digital platforms, crypto exchanges, and crypto ATMs. Some countries already allow settlements in cryptocurrency for some operations: for example, Antigua and Barbuda allow funding of charities with Ethereum-backed coins. Thus, the promotion of cryptocurrencies in the world space contributes to the possibility of their full or partial legalization in jurisdictions or at least the legalization of certain operations. Businesses are already considering the possibility of accepting payment for goods, works, and services with some types of cryptocurrencies, as a rule, bitcoin, as well as using cryptocurrencies to pay for the resources the company needs (Yemelyanov et al., 2018, 2019; Rahman, 2017). Despite the deterrent effect of the legislation of jurisdictions on recognizing cryptocurrency as a means of payment, digital resources are a potential competitor to fiat money, if not at the moment, then in some future.

Understanding such prospects makes it necessary to prepare for the growing challenge of the digital economy at the level of companies and national jurisdictions, as well as at the level of international law (Caplinska and Tvaronavičienė, 2020; Palamarchuk et al., 2019). Operations with cryptocurrencies can be of a different nature, for example, exchange operations, but most actions are certainly related to the process of their production, providing services for their production, as well as multiple transactions for the purchase and sale (Demir, 2020). In turn, the theoretical and practical issues of recognizing cryptocurrency by companies, its classification and assessment are becoming more and more relevant due to the increase in the number of market players.

In this regard, statistical data on operations with cryptocurrency should be collected not only at the level of information provided by crypto-exchanges but also at the level of reliable information provided by companies that carry out operations with crypto assets using techniques that have positively proven themselves in the international space (Frolova et al., 2019). These methods, understood and accepted by the business community, are international financial reporting standards (IFRS), which contain the rules, on the basis of which professional judgment should be built.

Although the IFRS Interpretations Committee has presented its position on the recognition and valuation of cryptocurrency, this does not exclude the possibility of other professional judgment of the reliability of the information provided (Morozova, 2019). Based on this, the purpose of the study is to summarize the underlying factors that can be the basis for the professional judgment of trading organizations in the recognition and valuation of cryptocurrency in a business model.

Literature review

For trading organizations, cryptocurrency is a modern technological phenomenon that can become an integral part of doing business over time. The interests of business and scientific research converge in terms of practice, raising the issues of regulation of legislation both at the level of individual jurisdictions and in international law. More and more attention is paid to the regulation of trading activities using cryptocurrency (Ahmed, 2019). Some authors note the insufficient reaction of international organizations; in particular, the World Trade Organization (WTO), the largest trade organization in the world, did not respond to the possible consequences of cryptocurrency for trade organizations, and the general position of the WTO on these issues is not clear (Viriyasitavat, 2020; Sholihah, 2020).

Scientific and practical research on the issues of law enforcement, identification, and classification of cryptocurrency has been carried out since the advent of blockchain technology. Currently, according to some studies, there are more than 300 works dedicated to these issues. If the initial research was largely devoted to the prospects for the development and application of blockchain technology, now the authors are also considering problematic aspects related both directly to the technology itself and the possibilities of its correlation (Treiblmaier, 2019). Blockchain technology is seen as a competitive advantage in the business environment, capable of solving many business issues, including accounting. At the same time, the system is superstructured, and its further development and adaptation can be associated with a proactive approach of existing specialists and researchers (Vincent, 2019).

One of the most innovative blockchain-based solutions is cryptocurrency. The ambiguity of its classification and assessment gives rise to many debatable questions both in the present and possibly in the future. One of the reasons is the rather loyal approach of IFRS, which define cryptocurrency either as reserves or intangible assets (Aloini, 2012). However, IFRS are not a rule, but a basis for professional judgment ensuring that the information presented to users is as reliable as possible (Morozova, 2020). IFRS allow deviations from the rules, but with the obligatory explanation of the reasons for such a decision and disclosure of information to the extent that could help users to understand the differences in the recognition and measurement of objects. The unequivocal decision not to recognize cryptocurrency as a means of payment is refuted by some authors (Procházka, 2018), which gives space for discussion. This can be considered a positive aspect, since general issues may not always be unambiguously resolved within the sectoral structure (Atzori, 2017).

There are many examples of a sectoral nature, for example, for upstream companies in the oil and gas sector, IT technologies, etc (Mullakhmetov et al., 2019). Trade organizations also have their own specific business model, within which the most important issues of tactics and business strategies are solved (Anokhin, 2009). It is within the framework of the business model of an industry organization that it is necessary to consider approaches to the recognition and assessment of objects, relying on classical and understandable rules in international practice, such as IFRS standards, as well as specific industry methodologies and business rules typical for a certain segment of the economy.

Research question

According to the IFRS interpretation of accounting for cryptocurrencies, cryptocurrencies can be treated as intangible assets or inventories. For merchants, working with cryptocurrencies seems to be an area of risk at the moment, but the inevitable necessity in the future. The classification of cryptocurrencies by trade organizations should be based on the nature of the functioning of such commercial entities, and in the modern interpretation, on a business model that covers multiple aspects taking into account the specifics of trade organizations' activities.

At the same time, trade is one of the areas of entrepreneurial activity aimed at shaping commodity-money (less often commodity exchange) relations between the seller and the end consumer. As before, trade currently remains a direct exchange of values. The rise of trade was closely related to the division of labor and dates back to ancient times. At that time, trade had exclusively the form of exchange of surplus products and goods and acquired the form of commodity-money relations only from the moment when money appeared.

A business model is the core of any organization. A business model in the broadest sense of this term refers to a description of how a particular organization does business. A business model is a way of doing business that ensures the sustainable development of an organization related to the internal and external environment, as well as the resources and competencies of the organization.

An effective business model allows generating more revenue from customers than is required for product development costs. A specific business model involves the analysis of many factors and the description of a large number of processes. Particular attention in the description of a business model is paid to the resources of the company. Knowing the resource of the company, one can determine the required pricing policy, predetermine the size of the profit received, and find ways to increase it.

For trading companies, in building a business model, a resource such as inventory plays a key role. Stocks in the broad sense of this term mean a material resource involved in the processes of consumption and sale. Inventories are part of the company's current assets. Trade stocks can be divided into two categories:
a) purchased;
b) released.

Inventories of purchased products are understood as assets generated as a result of procurement activities. The presence of stocks of purchased products is typical for almost all organizations. In trading companies, stocks of purchased products are an integral attribute of activities. Stocks of manufactured products are the result of own production. This group of stocks is typical for companies producing finished goods and semi-finished goods. Moreover, their subsequent sale will be interpreted not as trade in goods, but as a continuation of the production process – the promotion of products in the market. However, for many manufacturing companies, the process of selling own products can also be accompanied by the sale of purchased goods. This business combination forms a distinct business model.

In the classical understanding of national jurisdictions and IFRS, reserves are assets: raw materials and materials used in production; assets held for sale; assets used for the organization's management needs, finished goods and unfinished products. Thus, production inventories are assets that are required solely to support the production process. In this category, subgroups can be distinguished: raw materials, auxiliary materials, semi-finished products and components, returnable waste, packaging, spare parts. Goods are acquired assets that are used solely for the purpose of selling them. Finished products are the result of the own production process, intended for subsequent sale and meeting all requirements and standards. Work in progress is an element that includes products that have not gone through all stages of processing.

The effectiveness of inventory management has a significant impact on the results of the financial and economic activities of the organization. Effective inventory management directly affects the efficiency of the entire business model of the organization, and hence the amount of profit. Inventories have a particular influence on the business models of trade organizations since such a category of inventory as goods is central to the construction of a business model of a trade enterprise. In order to manage inventory, traders should consider all external and internal factors that affect the efficiency of using goods. Among the external factors, one can single out the economic situation in the country and the world, peculiarities of the taxation system, credit conditions, and other external factors. Internal factors are associated with the operating conditions of a particular enterprise: existing internal reserves, management strategy, storage conditions, sales methods, etc.

The business model of any company should include the following business areas as the main components: the target clientele of the company and the motivation for its attraction, the values offered by the company for external customers in the form of products or services, a system for creating values offered to customers, a financial business model (capital system, sources of financing activities, cost structure, profit distribution procedure). The business model is succinctly characterized as focused on creating value in the short, medium, and long term, a system of inputs, actions to increase value and outputs. At the same time, value cannot be created only within the organization, since its formation depends on:

a) factors that create an environment for the organization's activities (economic conditions, technological progress, social and social problems, environmental problems);
b) relationships with various stakeholders (including regulators, employees, business partners, resource suppliers, product consumers, etc.);
c) the availability of various resources, their quality, their provision, and management capabilities.

Core resources, such as inventory, must be recognized when they are incorporated into the business model. Examples of such criteria are presented in Table 1.

Table 1 – Conditions for recognizing assets as reserves

Recognized as reserves	Not recognized as reserves
1) Raw materials, fuel, spare parts, components, purchased semi-finished products intended for the production of products, performance of work, provision of services; 2) tools, inventory, overalls, special equipment, containers, etc.; 3) finished products for sale; 4) goods purchased for sale; 5) objects of work in progress; 6) real estate acquired or created for sale; 7) objects of intellectual property acquired or created for sale.	1) Financial assets, including those held for sale; 2) material assets of other persons held by the organization in connection with the purchase, storage, transportation, revision, processing, service, sale under agency agreements, commission agreements, warehouse storage, transport expedition, contract, delivery.

Source: The authors' own data

Based on this, the recognition of cryptocurrencies as stocks by trade organizations receiving them as payment does not correspond to the business model of a trade organization.

Regarding the recognition of cryptocurrencies as intangible assets, their adaptation to the business model of trade organizations implies many inconsistencies. Trade organizations, as a rule, have many intangible assets, among which a significant place is given to the trademark as a guarantor of product quality and the reliability of a trade organization. Also, trading companies can have a significant share of other intangible assets, usually software, licenses, and franchises. All classification groups of intangible assets are long-term in nature, and their useful life is at least a financial year, which is usually twelve months or more.

Intangible assets must be identifiable. On the one hand, this is due to the possibility of separating the object from other property of the company for the purpose of selling it or transferring it under a license agreement. On the other hand, an intangible asset can be individualized, personal, and a trading company can use it. These intangible assets include various types of permits, quotas, and licenses. Such types of intangible assets as know-how, loyal customer lists, customer bases, etc. are not typical for trade organizations. Attracting customers to a retail network is a strategic development that takes into account the interests of buyers, regular market monitoring, determining competitive advantages, and formulating a strategy for further development. Thus, intangible assets, being an active resource base in the business model of trade organizations, represent a completely different purpose. Given the specifics of the business model of trading organizations, the classification of cryptocurrencies as inventories or intangible assets requires sound professional judgment.

Discussion

Depending on the jurisdiction, cryptocurrencies can be defined as digital assets or virtual money. If in some jurisdictions, any operations with cryptocurrencies are prohibited and penalties are provided for violating the law, in other jurisdictions, the legislation is more loyal. For example, in Canada, the use of bitcoins and some other cryptocurrencies is allowed to purchase goods and services on the Internet, as well as in stores. One of the conditions is that sellers of goods and services accept payment in bitcoin or other tokens. Operations for the purchase and sale of cryptocurrencies on specialized digital currency exchanges are also allowed. However, it has been clarified that any cryptocurrencies, including bitcoin, are not legal tender, which is defined in Canada as banknotes issued by the Bank of Canada and coins of the Canadian Mint (Petrova, 2019).

In countries with loyal legislation for cryptocurrencies, virtual currencies are not totally regulated and, accordingly, not controlled. Cryptocurrencies are introduced into circulation in a decentralized manner and are not guaranteed by the central banks of jurisdictions (Benarous, 2020). At the same time, cryptocurrency can be used in the online environment, social networks, stores selling goods as a means of payment. Thus, trade organizations from the area of private or network business are the first to face the issues of including the ability to work with cryptocurrencies in the business model.

When deciding to embed the possibility of accepting cryptocurrency payments from buyers into the business model of a trading company, it is necessary to decide on the line of cryptocurrencies. It is known that not all cryptocurrencies are liquid, but all are subject to the risk of high volatility. The most stable cryptocurrency market with the largest capitalization includes Bitcoin, Ethereum, Ripple, Bitcoin Cash, Litecoin, and some other types of cryptocurrencies (Table 2).

Table 2. Market capitalization of the most resilient cryptocurrencies

Cryptocurrency name	Market capitalization, USD
Bitcoin BTC	218,392
Ethereum	44,098
XRP	12,648
Tether	10,007
Bitcoin Cash	5557
Chainlink	4623
Bitcoin SV	4107
Litecoin	3781
Cardano	3725
Binance Coin	3241

Source: Compiled by the authors according to the analytical website https://www.sberometer.ru/bitcoin.php

If a trading company, in accordance with the legislation of a certain jurisdiction, can carry out operations with a cryptocurrency, then it should be accounted for in accordance with the recommendations of the jurisdiction and IFRS, and it is also necessary to take into account the economic essence of the resource and the economic benefits expected from it. The main criterion for recognition should be the interests of users of financial statements so that financial statements accurately reflect the financial position of the company and the results of its activities.

To this end, the company needs to develop an accounting policy for the recognition, classification, assessment, and subsequent revaluation of a cryptocurrency, the procedure for its reflection in financial statements and disclosure of information that will explain the economic essence of the transactions performed, the conditions for the probability of obtaining future economic benefits and recognition of commitments, if necessary, (Akhunzada, 2016).

The IFRS Interpretations Committee, considering the issues of recognition and classification of cryptocurrencies, determined that in some cases, such resources could be classified as reserves. It follows from this that the mining of cryptocurrency can be considered as a production process and digital assets are obtained during the production and sale, which is typical for miners.

For trading organizations, mining operations can take place, but this can only be a non-core activity, an accompanying activity, but in no way the activity that was the purpose of creating the company. Alternatively, inventory may be obtained for sale in the ordinary course of business (Dasgupta, 2019; Avvakumova, 2020). From this point of view, obtaining crypto assets in the course of the sale of goods by trading organizations can hardly be called their normal activity, at least currently and, most likely, in some near future.

When forming an integrated business model of a trade organization, it is necessary to correlate the models for reflecting information on core assets with the overall strategy, formulated in an integrated business model. Since inventories are a core asset in trade organizations, the development of a reporting model is part of the accounting policy that is necessary for the most complete and reliable disclosure of information for both business owners and interested users. The basic model for reflecting information about reserves is shown in Figure 1.

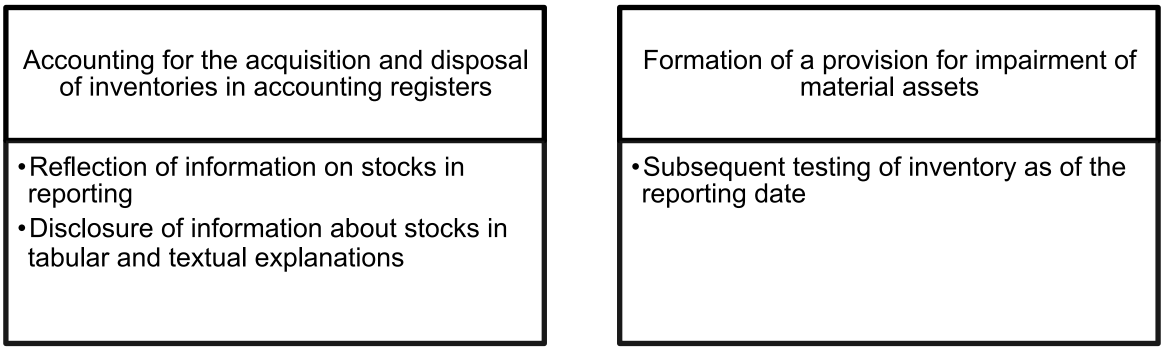


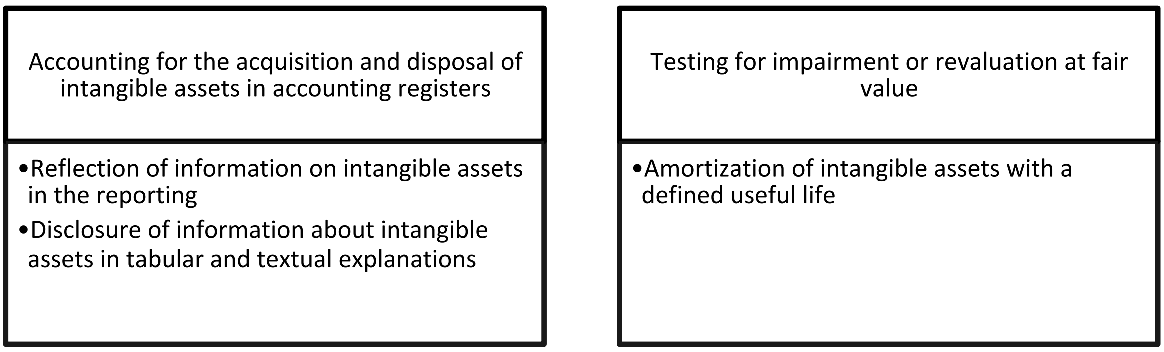
Figure 1. Model for reflecting information on stocks in accounting and reporting

Commenting on the data in Figure 1, it can be noted that the criteria for recognizing cryptocurrencies as reserves, in essence, do not fit into the formation of a business model of core assets, which are reserves, in trade organizations. Perhaps, at first glance, it would be more logical for trade organizations to recognize the crypto assets received as payment as cash or their equivalents, but this is not possible. There are many arguments against such a classification, and this is not so much a consequence of prohibitive measures as the company's ability to correctly build an accounting policy in accordance with internationally recognized standards. As the basic argument, one can indicate a reasoned unanimous decision of national jurisdictions, leading financial structures of countries, that cryptocurrencies are not recognized as money, which is fiat money. A cryptocurrency is not secured as fiat money, it is decentralized and all risks related to working with this type of assets are borne exclusively by the participants in the transactions (Lehoux, 2019).

It should be noted that the IFRS Interpretations Committee also did not recognize cryptocurrencies as cash in accordance with IFRS. The rationale is that monetary funds are involved in the pricing of goods, works, services, and the accounting currency, as well as the reporting currency, is presented in the assessment, expressed in monetary units of fiat currencies. At the same time, cryptocurrencies have such properties that do not allow them to be the basis for assessing assets, liabilities, capital and be presented as an estimated value in financial statements. Based on this, cryptocurrencies cannot be recognized as cash or cash equivalents under IFRS, since they currently do not have the characteristics inherent in cash.

However, the International Accounting Standards Board (IASB) does not deny that cryptocurrencies can be used as payment for goods, work, services, or held to add value. In the latter case, cryptocurrencies can be considered in the intangible assets classification group. So the IASB confirms that cryptocurrencies are classified as one of the types of intangible assets, since they have sufficient characteristics inherent in intangible assets. The basic model for reflecting information about intangible assets is shown in Figure 2.

Figure 2. Model of reflection of information on intangible assets in accounting and reporting



Commenting on Figure 2, it can be noted that the key criterion for intangible assets marked by the IASB is the absence of a tangible form. However, in the authors' opinion, other characteristics of intangible assets are controversial. These are the long-term nature of their use and the economic essence of intangible assets as long-term resources that are used in the production process of products, works, and services, transferring their value to the cost during their useful life, if any. For trading organizations that have received cryptocurrency as payment for goods sold, their classification as intangible assets is possible if their accumulation corresponds to the purpose of the company and the economic content of the concept of an intangible asset (Khan, 2020).

Thus, despite the many conceptual intersections of the economic essence of cryptocurrencies with goods and intangible assets (Maltseva, 2020), there are controversial aspects that can be a reason for discussion and search for alternatives to recognize them. In this regard, it can be proposed to consider the receipt of payment in cryptocurrencies by trade organizations as barter transactions. As is known, barter is a form of non-cash settlement, which corresponds to the concept that cryptocurrencies are not cash or its equivalent. In barter transactions, participants in the transaction act as both sellers and buyers, exchanging goods that are equal in price to the resources being exchanged (Boettke, 2009). Although barter transactions are more common between legal entities, exchange transactions can also take place between an individual and a legal entity. Besides, cryptocurrencies can be assumed to be a type of asset, since they have all the characteristics defined by the Conceptual Framework for Financial Reporting.

The introduction of an understanding of a barter transaction when paying for goods of trade organizations with cryptocurrencies provides other opportunities for professional judgment when classifying this type of asset. Thus, clause 19-20 of IAS (International Accounting Standards) 1 "Presentation of financial statements" provides an opportunity to deviate from the requirements of the standard if, in the opinion of the company's management, compliance with the requirements leads to a distortion of the financial statements and is so misleading to users that, on the basis of these data, an incorrect economic solution can be taken by stakeholders (Falazi, 2020). In the authors' opinion, the accounting policy regarding cryptocurrencies in a trade organization may be based on one's own professional judgment. Based on the fact that the classification of cryptocurrency obtained in a barter transaction for the transfer of goods to the buyer does not fully correspond to the classification of inventories or intangible assets and is not adapted to the business model typical for trading organizations, alternative options should be considered (Guo, 2014). If a cryptocurrency is obtained as a result of a barter transaction, then it is an asset that, in terms of its value, corresponds to the price of the transferred goods.

Next, it is needed to determine the intent of the guide to use the resulting resource. By analogy with cash, which is intended for the purchase of the next batch of goods, repayment of obligations, and other necessary operations for doing business, the received cryptocurrency is also hypothetically considered as similar to cash in its economic essence for the company. However, since a trading company cannot recognize a cryptocurrency as cash or its equivalents, and IFRS provide no other alternative other than stocks and intangible assets, there is a need to predetermine the classification in accordance with the functionality of the resource. A cryptocurrency with a sufficiently high capitalization can be exchanged for fiat money or held for some time while waiting for the most favorable period for an exchange operation.

Also, trading companies in a barter transaction can exchange cryptocurrency for a subsequent batch of goods or pay off an obligation, provided that the second party participating in the barter transaction accepts cryptocurrency in exchange for the desired resource. Since transactions with cryptocurrencies in the classical business model of trading organizations do not provide for long-term use, the cryptocurrency should be classified as short-term assets or current assets, depending on the typology of financial statements. The basic model for reflecting information about a cryptocurrency is shown in Figure 3.

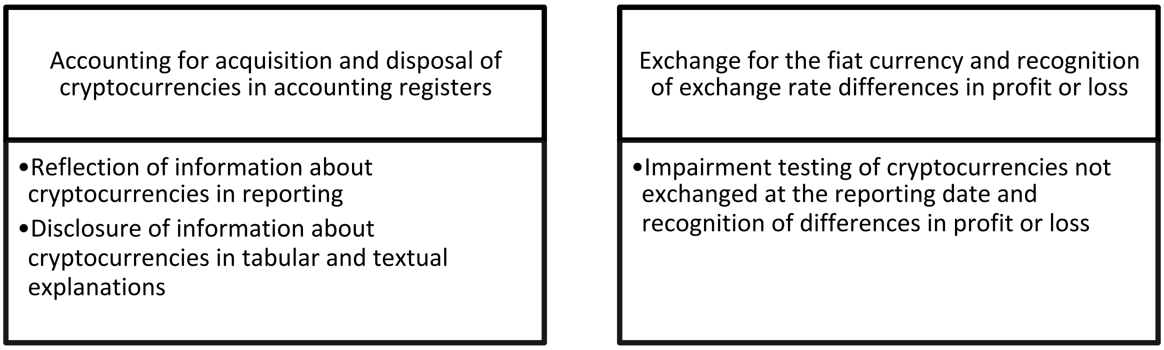


Figure 3. Model of reflection of information about cryptocurrency in accounting and reporting

Commenting on the data of the model shown in Figure 3, it can be noted that the barter transaction is carried out for assets that are not equivalent in terms of their properties and characteristics; therefore, in this case, revenue from sales should be recognized as the difference between the cost of the transferred asset, formed in accordance with the accounting policy, and the value estimated at the transfer of goods (Karlstrøm, 2014). Also, revenue can be reduced by the amount of costs associated with the transaction in accordance with the accounting policy of the trading organization. Cryptocurrencies should be initially recognized at a value equal to the fair value of the revenue. Liquid cryptocurrencies converted to fiat money are written off with the simultaneous recognition of exchange differences in profit and loss with the information reflected in the income statement or statement of comprehensive income, depending on the adopted accounting policy of the organization (Bykanova, 2019).

If at the reporting date, the cryptocurrency is not exchanged for fiat money and is reflected in the company's financial statements, then it should be recognized at fair value less costs of its exchange or disposal (Heiskanen, 2017). The assessment of the cryptocurrency as of the reporting date depends on the value of a particular cryptocurrency in the market so that the real change in the cost of the resource is presented, taking into account the costs of its subsequent disposal (Kopczak, 2003; Akhmadeev, 2019).

Since the presented model is a professional judgment based on the presentation of the economic essence of a cryptocurrency within the business model of a trade organization, but it represents a departure from the requirements for classification and valuation of cryptocurrencies prescribed by international financial reporting standards, it is necessary to disclose information in financial statements (Li, 2019). First of all, this is the opinion of the company's management on the reliable presentation of the company's financial position, financial results of operations, and cash flows. Financial statements drawn up in accordance with IFRS must contain information on compliance with the requirements of the standards, and in the case of deviation from the rules, information on the reason for such a departure. Since there is no specific standard for accounting for cryptocurrencies in IFRS, the deviation from the rules should be viewed through the prism of IAS 2 "Inventories" or IAS 38 "Intangible assets". Besides, it is necessary to provide comparative information on the impact on each affected reporting line of the derogation. In the authors' opinion, this approach will reflect the real financial position of the trading company at the date of the financial statements.

Conclusion

The results of the study allow concluding that the practical and research issues of cryptocurrency classification are of high interest both for business communities and in the scientific field. Currently, the turnover of operations with cryptocurrencies is not high, but ignoring this phenomenon of the digital economy is no longer possible for the legislation of jurisdictions. Nevertheless, the ambiguity of approaches to the regulation of legislation in the international space does not allow a non-core business, i.e. a business that does not provide cryptocurrency mining services, its purchase, sale, and exchange, to fully include operations with cryptocurrency in the business model. Discretion is a basic concept when presenting information in financial statements, and the multiple risk characteristics of a cryptocurrency must be considered.

First of all, this is the fact that cryptocurrencies are not recognized by any jurisdiction as legal tender, such as fiat money, recognized in international practice. High risks are also due to the lack of legislative regulation of issues related to the rights to a digital asset in the event of their loss as a result of cyber attacks and unauthorized access to the company's information resources. Prudence in dealing with cryptocurrencies should also be shown due to their high volatility.

However, as the study showed, there are many types of cryptocurrencies in which a sufficiently high level of capitalization has been observed for a long time, and this should be taken into account when developing accounting policies and a company's business model. Currently, many practical situations have already arisen when trade organizations cannot avoid the fact of the possibility of buyers paying for goods with crypto assets. Delaying the acceptance of this fact into the merchant's business model may be the services of an intermediary, such as Coinbase, which provides fiat conversions. If one considers the hypothetical option of accepting cryptocurrency payment for goods by trading organizations, then this fact requires the development of an accounting policy and the inclusion of information in the general business model. When considering the fundamental factors of the influence of accounting and valuation of cryptocurrency on trade organizations' business model, the authors proceed from the broad meaning of this term as a description of the way a particular organization does business. A business model is a way of doing business that ensures the sustainable development of an organization related to the internal and external environment, as well as the resources and competencies of the organization. An effective business model generates more revenue than product development costs. Particular attention in the description of the business model is paid to the company's resources. Knowing the resource of the company, one can determine the required pricing policy, predetermine the size of the profit received, and find ways to increase it.

For trading companies, in building a business model, a resource such as inventory plays a key role. If a trading company, in accordance with the legislation of a certain jurisdiction, is entitled to carry out operations with a cryptocurrency, then it should be accounted for in accordance with the recommendations of the jurisdiction and IFRS, and it is also necessary to take into account the economic essence of the resource and the economic benefits expected from it. The main criterion for recognition should be the interests of users of financial statements so that financial statements accurately reflect the company's financial position and the results of its activities.

To this end, the company needs to develop an accounting policy for the recognition, classification, assessment, and subsequent revaluation of crypto assets, the procedure for their reflection in financial statements and disclosure of information that will explain the economic essence of the transactions performed, the conditions for the probability of obtaining future economic benefits and recognition of obligations, if necessary.

The study results allow concluding that the criteria for recognizing cryptocurrencies as reserves, in essence, do not fit into the formation of a business model of core assets, which are reserves, in trade organizations. Since the IASB also did not recognize cryptocurrencies as cash in accordance with IFRS, they cannot be recognized as cash or cash equivalents, since they do not currently have the characteristics inherent in cash.

However, the IASB does not deny the fact that cryptocurrencies can be used as payment for goods, work, services, or held to add value. Regarding the recognition of cryptocurrencies by trading organizations as intangible assets, it can be noted that although the key criterion for intangible assets is the absence of a tangible form, their other characteristics are controversial. These are the long-term nature of their use and the economic essence of intangible assets as long-term resources that are used in the production process of products, works, and services, transferring their value to the cost during their useful life, if any.

For trading organizations that have received cryptocurrencies as payment for goods sold, their classification as intangible assets is possible if their accumulation corresponds to the purpose of the company and the economic content of the concept of an intangible asset. It can be proposed to treat the receipt of payment in cryptocurrencies by merchants as barter transactions. As is known, barter is a form of non-cash settlement, which corresponds to the concept that cryptocurrencies are not cash or its equivalent. The authors also proceed from the assumption that cryptocurrencies are a type of asset, since they have all the characteristics that are defined by the Conceptual Framework of IFRS.

The introduction of an understanding of a barter transaction when paying for goods of trade organizations with cryptocurrencies provides other opportunities for professional judgment when classifying this type of asset. Thus, clause 19–20 of IAS 1 "Presentation of Financial Statements" provides an opportunity to depart from the requirements of the standard if, in the opinion of the company's management, compliance with the requirements leads to a distortion of the financial statements and is so misleading to users that, based on these data, an incorrect economic solution can be taken. Based on the fact that the classification of the cryptocurrency obtained in a barter transaction for the transfer of goods to the buyer does not fully correspond to the classification of inventories or intangible assets and is not adapted to the business model typical for trade organizations, alternative possibilities should be considered in accordance with the functionality of the resource.

Since transactions with cryptocurrencies in the classical business model of trading organizations do not provide for long-term use, cryptocurrencies should be classified as short-term assets or current assets, depending on the typology of financial statements. At the same time, a barter transaction is carried out for assets that are not equivalent in terms of their properties and characteristics. Therefore, in this case, the proceeds from sales should be recognized as the difference between the cost of the transferred asset, formed in accordance with the accounting policy, and the value estimated when transferring the goods. Also, revenue can be reduced by the amount of costs associated with the transaction in accordance with the accounting policy of the trading organization. Cryptocurrencies should be initially recognized at a value equal to the fair value of the revenue. Liquid cryptocurrencies converted to fiat money are written off with the simultaneous recognition of exchange rate differences in profit and loss, and the information is reflected in the income statement or the statement of comprehensive income, depending on the adopted accounting policy of the organization. If at the reporting date, the cryptocurrency is not exchanged for fiat money and is reflected in the company's financial statements, then it should be recognized at fair value less the costs of their exchange or disposal. At the same time, the assessment of the cryptocurrency at the reporting date depends on the value of a particular cryptocurrency in the market so that the real change in the cost of the resource is presented, taking into account the costs of its subsequent disposal.

Since the presented model is a professional judgment based on the presentation of the economic essence of cryptocurrency within the business model of a trade organization, but it represents a departure from the requirements for classification and valuation of cryptocurrencies prescribed by international financial reporting standards, it is necessary to disclose information in financial statements. In the authors' opinion, this approach will reflect the real financial position of a trading company as of the date of financial statements and take into account all the fundamental factors of accounting and valuation of cryptocurrency in the business model.

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