

Adapting Financial Reporting to Technological Evolution: The Impact of Cryptocurrency, E-commerce, and ABC on IFRS

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Abstract

This paper delves into the intricate relationship between the fast-paced evolution of technology and the International Financial Reporting Standards (IFRS), focusing on the domains of cryptocurrency, e-commerce, and activity-based costing (ABC). It investigates the adaptability of IFRS to the emerging financial phenomena spawned by technological progress, despite the absence of tailored standards for cryptocurrencies, revealing a reliance on professional judgment and existing frameworks. The study further explores the impact of e-commerce growth on revenue recognition and cost accounting, guided by IFRS 15, amidst the challenges of digital transactions. Additionally, it assesses the integration of activity-based costing in industrial sectors, highlighting the pursuit of precision in cost analysis within the IFRS ambit. This analysis underscores the necessity for the continuous evolution of financial reporting standards to effectively capture the economic intricacies of technological advancements, emphasizing the importance of proactive learning and adaptation in the accounting profession.

Keywords: IFRSs, cryptocurrencies, E-commerce, ABC, Technological Advancements.

Introduction

The accelerated rise of technology in the twenty-first century will raise business productivity. Thus, technical advancement will enhance growth in the economy. The importance of technological advancement will keep growing as a result of economic globalization (Ahmad et al., 2023). One of the most recent breakthroughs in the economy, known as FinTech, is the use of computers and related digital technologies in financial

services, which significantly alters how financial institutions function. Our lives are slowly altering as a result of this technology, which is also helping to create new words (Abad-Segura et al., 2020). FinTech includes bitcoin, a completely new category of convertible assets. For Bitcoin and other forthcoming cryptocurrencies, blockchain technology, which is at the foundation of the industry, offers a decentralized distributed environment. These blockchain-based cryptocurrencies have gained attention and appeal over the past 10 years, paralleling the quick advancement of blockchain technology. By 2020, there were over 7,000 cryptocurrencies with a market value of over \$300 billion (Jreissat et al., 2024). The process of buying and selling products and services online while exchanging money and data is known as e-commerce. E-commerce leads the way in modernizing new marketing strategies based on technology, facilitating decision-making and a better understanding of the product. Huge amounts of data are now being used in marketing tactics to better understand consumer expectations, which begs the question of how to choose the most efficient marketing plan (Tsagkias et al., 2021). Even though it was introduced decades ago, activity-based costing is a system that is connected to new technology. As industrial technology advances, this system's components are updated (Adamova, 2022). Particularly for individuals who are involved in decision-making, financial information is becoming more and more crucial (Roychowdhury et al., 2019). This data displays the organization's operational and financial performance. Consequently, it is anticipated that the financial reporting standards can handle the financial data produced by these modern industries. This paper will examine the IFRS's ability to deal with the current technological challenges using the methods of theoretical analysis. Three areas of the theoretical study will be covered: cryptocurrency, e-commerce, and ABC.

Cryptocurrency

The definition of an asset in the conceptual framework is that an asset is an economic resource that the business can control and that results from a prior occurrence. A right that has the potential to result in economic advantages is often referred to as an economic resource. Cryptocurrency is an investment product that has the potential to yield profits and is already authorized to be exchanged on exchanges (Dunbar & Owusu-Amoako,

2022). Since the IFRS has not yet created a specific standard for cryptocurrencies, the financial reporter has the option to choose the proper treatment of an asset type based on its characteristics using professional judgment (Morshed, 2024). The discussion will cover four potential IFRS treatments for cryptocurrencies, including normal cash in foreign currency under IAS 21, tradable securities or financial investments under IFRS 9, and intangible assets under IAS 38.

IAS 21 "Effects of Changes in Foreign Exchange Rates."

Accounting for cryptocurrencies requires that they be converted into the functional currency of the business; preliminary recognition should be formed by using the spot exchange rate between the functional currency and the cryptocurrency, in accordance with IAS 21 "Effects of Changes in Foreign Exchange Rates (Sorici et al., 2021)." Non-monetary commodities measured in value will be converted to the closing price for each period ending, and non-monetary products measured at historical rates will be converted to the price on the transaction date. Using the exchange rates in effect on the day the fair value measurement was conducted, the fair value will be converted. Since cryptocurrencies are not thought of as money, the preceding non-monetary rules must also be followed (Blahusiakova, 2022; Morshed, 2020).

IFRS 9 as an investment or tradable securities

Given that it is a cryptocurrency, it should be classified as a financial instrument under IFRS 9. Although financial instruments have been thoroughly defined, they represent a contractual relationship between two or more parties in which an asset is received on one side and a financial obligation or equity instrument is created on the other (Chou et al., 2022). The IFRS9 business model was introduced for classifying and measuring financial assets. When a company holds financial assets for trading purposes, the assets are measured at fair value using profit or loss. Financial assets are measured at fair value using other comprehensive income if they are held in a business model that aims to collect cash flows as well as the trade (Adznan et al., 2023, p. 9).

IAS 38 as intangible assets

Typically, cryptocurrencies lack physical substance and are discreet. Because it does not meet IAS 16's definition of a tangible, cryptocurrencies are typically not categorized as

such. Cryptocurrencies are sometimes accounted for as intangible assets because they may fit IAS 38's definition of one (André et al., 2018).

Cryptocurrencies that satisfy IAS 38's recognition criteria can then be valued. After then, the cryptocurrency can be assessed based on its price or fair worth (Yatsyk, 2018).

Cryptocurrencies are indefinite living intangibles since no factors indicated that they had a particular useful life. then the accounting treatment will be under IAS 36 Impairment of Assets in Profit or Loss. Only a booming cryptocurrency market will allow for the implementation of the revaluation technique (Blahusiakova, 2022).

Some viewpoints mentioned additional accounting standards for cryptocurrencies, including IAS 2 inventory and IAS 40 investment property. The standards' requirements are where these presumptions are criticized. IAS 2 is for managing the stock associated with a trading or manufacturing company's primary business (Morshed & Ramadan, 2023). whereas the IAS 40 is for investments with particular purposes. They, therefore, do not apply to cryptocurrencies, and their requirements are irrelevant.

Ecommerce

The rapid advancement of web-based technology has expedited the rise of marketing methods, most notably e-commerce and related online retail operations. Internet retail is separating companies from their customers, changing the marketing battlefield from quality to experience. Several intriguing new trends have emerged as a result of recent changes in the global online retail business (Escursell et al., 2021). Major e-commerce companies that have succeeded in the sector include eBay, Amazon Inc., and AliExpress. For the trade procedure, these organizations serve as a guarantee and mediator. The purchaser pays the organization the total cost of the goods, including shipping, as stated by the seller on the website. When the customer receives the product and is satisfied with it, or when the deadline for requesting a return for a refund has expired, the business transfers the funds to the seller's account(Wu & Gereffi, 2018).

The revenue will only be recognized once the risk has been passed to the buyer, according to IFRS 15. After the mediator transfers the money to the seller's account, the seller is supposed to record the sale. The value will be equal to the purchase price less any

applicable middleman costs. When the item is sent, the postage will be considered an expense (Napier & Stadler, 2020; Ramadan et al., 2024).

When a retailer uses its website to conduct online business, IFRS 15's standard trading instructions will apply. Any costs associated with the delivery of the item will be expenses, and the provision for sales returns should be recognized (Tutino et al., 2019).

Activity-based cost

Activity-based costing (ABC), a cost management technique, is now being used by industrial companies in their quest for more exact cost analysis data and more efficient resource allocation. The ABC model analyses how organizations function to correctly calculate the direct and indirect expenses associated with various operations. In contrast to more traditional cost management techniques, this model blends income generation and expenditure, allowing decision-makers to base spending decisions on specific activities rather than large units or functions (Tirol-Carmody et al., 2019). The classification of the cost under IAS 2 as a product cost or periodic cost is the most frequent issue concerning the IFRSs. The conceptual framework of IFRS, however, supports the professional judgment. This enabled the finance manager to choose which costs, following industry standards, are product costs (Kabir & Rahman, 2018).

Discussion

The exploration into how the International Financial Reporting Standards (IFRS) grapple with the advancements in technology, particularly in the realms of cryptocurrency, e-commerce, and activity-based costing (ABC), reveals a landscape where traditional accounting frameworks are being stretched to accommodate new economic realities. The IFRS, despite not having bespoke standards for cryptocurrencies, offers a framework through which these assets can be classified and accounted for, albeit with a degree of ambiguity and professional judgment. This is evident in the potential treatments of cryptocurrencies under various standards like IAS 21, IFRS 9, and IAS 38, each providing a different lens through which these digital assets could be viewed—ranging from foreign currencies and financial instruments to intangible assets.

The rise of e-commerce challenges the IFRS framework in different ways, particularly in the recognition of revenue and the accounting for expenses and returns. IFRS 15 offers guidance on revenue recognition, which is crucial in the context of e-commerce transactions that involve multiple parties and steps. The standard aims to ensure that revenue is recognized in a way that reflects the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services.

Activity-based costing, while not a new concept, has gained renewed importance in the context of technological advancement and the shift towards more precise and efficient cost management techniques. The application of ABC within the IFRS framework raises questions about the classification of costs and the extent to which professional judgment can be used to determine product costs in line with industry standards.

Conclusion

The intersection of technology and accounting standards, as demonstrated through the examination of cryptocurrencies, e-commerce, and activity-based costing, highlights a dynamic area of accounting practice that is continually evolving. The IFRS provides a flexible yet sometimes ambiguous framework for addressing the financial reporting challenges posed by these technological advancements. While the standards offer guidance, the reliance on professional judgment underscores the need for ongoing adaptation and potentially the development of new standards or amendments to existing ones to better cater to the realities of the modern economy.

The role of technology in the economy is indisputable, and its influence permeates various aspects of financial reporting and accounting practices. As technology continues to evolve, so too will the frameworks and standards that govern financial reporting. The discussion and analysis of cryptocurrencies, e-commerce, and activity-based costing within the context of the IFRS are indicative of the broader challenges and opportunities that lie ahead for accounting professionals, standard-setters, and regulators. The journey towards more robust, clear, and comprehensive financial reporting standards that can fully embrace the nuances of technological advancements is ongoing. It is a journey that requires continual learning, adaptation, and forward-thinking to ensure that the financial reporting landscape can accurately reflect the complexities and dynamics of the modern digital economy.

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