Decarbonization and the obstacles to carbon credit accounting disclosure in financial statement reports: the case of UAE

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Abstract

Purpose – This study investigated the visibility of carbon emissions allowances accounting in the financial reports of 32 clean development mechanism (CDM) projects in the UAE to uncover the obstacles to setting consistent standards for carbon emission accounting. As carbon emissions are monetized as credits, consistent accounting standards can aid decision-makers in the development of carbon emission mitigation strategies.

Design/methodology/approach – This study used a grounded theoretical framework for exploring the terms used in the policy documents of international accounting bodies regarding accounting standards and guidelines for carbon emission credits. Raw qualitative data were gathered, and an inductive approach was used by analyzing documents from various sources using the qualitative data text analysis software QDA Miner 6.

Findings – The findings showed that the financial statement reports of the corporations did not include disclosure of the carbon credit account. This omission was due to the lack of global standardization of carbon credit accounts and emission allowance recognition. This may hinder the production of a comprehensive report containing accurate and valuable financial information relevant to all stakeholders.

Originality/value – The study is among the first to use a grounded theoretical framework to investigate whether corporations are applying common standards and guidelines for carbon emissions accounting.

Keywords Carbon accounting, Carbon credit, Emission allowances, Clean development mechanism, Qualitative data analysis, UAE

Paper type Research paper

1. Introduction

In a 2021 study, the United Nations Environment Program characterized a green economy as "low-carbon, resource-efficient and socially inclusive" [1]. The growing impact of climate change on the global economy has prompted concern about decisions that rely on the trustworthiness and quality of financial data presented to decision-makers.

Therefore, for investors to be encouraged to develop their understanding of the challenges of climate change and drive trillions of dollars of new investments into a wide range of sectors, accounting policies and standards to deal with carbon accounting-related matters must be in place [2]. The 2017 final report by the Task Force on Climate-related Financial Disclosures (TCFDs) included recommendations for assisting businesses in disclosing climate-related financial data [3].

In fact, global warming caused by greenhouse gas emissions poses severe risks to the global economy and has wide-ranging impacts. Therefore, the Association of Chartered

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Certified Accountants (ACCAs) advised that every major corporation should be prepared to be vigorously questioned about its greenhouse gas emissions and mitigation strategy [4]. In this vein, in 2011, the International Chamber of Commerce (ICC) published ten conditions for the green economy transition [5]. The ICC stated that carbon-related actions must be represented in financial accounting terms in annual reports.

Carbon accounting is critical in providing such information through financial report analysis and disclosure (Lovell and MacKenzie, 2011). In addition, the Accountants in Business Advisory Group's 2021 report listed the five perspectives of carbon accounting, namely physical, political negotiations, market-ending, financial observation and social impacts, and provided insights into how accountants can contribute to value creation and sustainability in their organizations in both the private and public sectors [6].

After a thorough reading and evaluation of the literature available on carbon credit disclosure, the researcher noticed that little attention has been given to the decarbonization and challenges to carbon credit accounting disclosure in financial statement reports, which has several implications for the users of financial reports. Therefore, the researcher decided to address this issue in an attempt to contribute to the discussion around this topic and fill the existing knowledge gap.

Indeed, the lack of transparency in carbon credit accounting results in various issues such as:

(1) The diversity in accounting practices for greenhouse gas emissions are presented and used and therefore, generating conflicting financial results;

(2) Inconsistent accounting guidance in this area is causing significant diversity in practice and reducing comparability and

(3) Multiple interpretations of terms produced by businesses lead to variations in the quality and quantity of information.

Hence, these issues form the basis of the present study, the objective of which is to shed light on the abovementioned concerns, discuss their potential risks, and eventually offer significant insights on this matter. Also, through this paper, the researcher does not only aim to raise the relevant stakeholders' awareness regarding the implications of lacking clear guidelines and standard-setters for the disclosure of carbon credits and emissions allowances in financial reports but also offer recommendations and call for actions from the relevant stakeholders.

The present work starts with an introduction to carbon credit account disclosure and provides an overview of it, followed by a literature review where the theoretical framework used in this study and key terminologies are presented. The study then explains the research methodology and presents the findings and the analysis, followed by a conclusion in which the limitations and recommendations for future research are stated.

2. Theoretical framework and key concepts

2.1 Carbon accounting

According to Brander (2019) [7], carbon accounting can be divided into two categories. Physical carbon accounting measures carbon emissions from greenhouse gases into the atmosphere (greenhouse inventory). Financial carbon accounting measures carbon emissions in physical and financial units. Figure 1 shows how carbon emissions affect the climate and lead to a distinction between the green economy marketing and accounting perspectives.

Figure 1 is available online at: https://drive.google.com/file/d/1pxbS9ua8wujtkj2aceYBRbNjr9TG0Aa5/view?usp=share_link

The monetary value of pollution and the cap-and-trade program mechanism A Cap & Trade program is a market approach that encourages companies to reduce carbon emissions by using "allowances" or "credits" to allocate monetary value to pollution. The purpose of setting a cap on emissions is to create a market-based incentive for companies to reduce their emissions in the most cost-effective way possible. By placing a limit on the total amount of emissions that can be released, the government or regulatory agency creates scarcity in the market for emission allowances, which gives them a monetary value. This creates an economic incentive for companies to reduce their emissions so that they can either sell any excess allowances they may have or avoid having to purchase additional allowances.

The "upper limit" phase of the program begins when the government or regulatory agency sets targets for the maximum number of specific emissions a company is allowed in a particular period. Participants are then assigned a certain number of emission allowances, usually equal to the national target, based on a formula that considers previous emission levels. Companies report actual emissions at the end of the compliance period and are provided with appropriate allowances. The "transaction" aspect of the program occurs when a company's emissions are higher or lower than its allowance. Thus, companies with lower emissions will receive an excess allowance. Those with emissions that exceed the target will need to purchase additional allowances. Extra allowances can be bought (or sold) directly between companies through brokers or exchanges (Fornaro *et al.*, 2009) [8]. Surplus allowances are often "deposited in a bank" and used to meet compliance goals for subsequent years. In most cases, a fine is imposed if a sufficient allowance is waived at the end of the compliance period [9].

The flexibility of the program lies in the fact that companies can choose how to reduce their emissions, whether through investing in cleaner technologies, changing their production processes or purchasing emissions credits from other companies. This allows companies to find the most cost-effective way to reduce their emissions, rather than being forced to adopt specific technologies or methods that may be more expensive or inefficient. In addition to the fine for not having sufficient allowances at the end of the compliance period, companies that consistently exceed their allowance may face additional penalties or regulatory action. This provides a further incentive for companies to stay within their emissions limits and continually look for ways to reduce their carbon footprint.

2.2 The clean development mechanism (CDM)

The CDM was established by the Kyoto Protocol governed by the Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC) [10, 11]. The CDM presented in Figure 2 has the following roles:

Figure 2 available online at: https://docs.google.com/document/d/18IZ-GZIBHgbFlktWEFI1yEdyZznCLr0Y/edit?usp=share_link&ouid=107482033894877015201&rtpof=true&sd=true

(1) Allowing industrialized countries to commit to reducing greenhouse gas emissions.

(2) Investing in projects in developing countries that reduce emissions to improve the community.

(3) Protecting livelihoods through job creation or increased economic activity.

(4) Assisting developed countries in meeting their commitments to reduce emissions and earn tradable, saleable certified emission reduction (CER) credits worth one ton of CO2.

The CDM will save at least USD 3.6bn in costs associated with emissions reduction, according to a 2018 report by the CDM Executive Board. The CDM has attracted $215bn in development investment, with a total of USD 92.2bn already invested, a sum roughly equal to total foreign direct investment in Denmark, France and Germany between 2007 and 2011, with the remainder expected shortly [12]. Recently, the CDM has been criticized for its complex procedures, high transaction costs, and for not doing enough to promote sustainable development in developing countries. However, it has also been praised for providing a mechanism for developed countries to support emissions reduction efforts in developing countries and for stimulating the growth of the carbon market. In 2020, the CDM was officially closed to new projects as the Paris Agreement replaced the Kyoto Protocol as the primary international treaty on climate change. However, some existing CDM projects will continue to generate CERs until 2025, and these credits can still be bought and sold on international carbon markets.

2.3 CDM engagement case of the UAE code of conduct and the future vision of the energy strategy

On April 12, 2013, the United Nations Development Programme's (UNDP) Millennium Development (MDG) Carbon program and Dubai Carbon announced the successful registration of five CDM projects in the UAE in 2012. These included the first Dubai-based projects related to Dubai Electricity and Water Authority (DEWA), Dubai Aluminum (DUBAL) and a compact fluorescent light (CFL) distribution owned by Dubai Carbon of Excellence (DCCE) to the Dubai Community. The projects generated CERs and were considered a significant step in Dubai's transition toward a low-carbon economy. The UAE is now ranked second among the Arab States, with a total of 12 registered CDM projects, after Egypt's total of 14. These CDM projects demonstrate that climate change mitigation can represent a successful business model that delivers important development co-benefits rather than being a cost and a brake on growth. The UAE's efforts toward a low-carbon economy can be traced back to the Abu Dhabi Government's Regulation and Supervision Bureau, which issued a Regulatory Policy Statement on October 30, 2008, related to CERs credits, also known as carbon credits. The UAE has since engaged in the energy cluster to promote green economic growth among stakeholders and committed to using environmental finance and financial instruments such as green funds, clean development mechanisms and sustainable development mechanisms. The policy regarding CER income earned by electricity and water production companies, which only applies to the power and water sectors, allows those companies to retain their CER income in most cases. The 2021 UAE Vision for Green Development aligns with the Abu Dhabi Economic Vision 2030 and UAE Energy Strategy 2050, which aim to reduce the power generation carbon footprint by 70% and support the UAE Economic Vision.

2.4 Sectorial scopes of CDM projects [13]

As part of the procedures by which a designated operational entity accesses CDM, the UNFCCC establishes sectoral scopes of accreditation to control and validate work verification and certification. The UNFCCC website lists 15 sectorial scopes, such as energy industries, manufacturing industries, transportation and mining. The researcher investigated the financial statement reports of the 32 projects listed on the UNFCCC website. The reports revealed ambiguities in carbon credit emission allowances account disclosure in the financial reports, notes and supporting documents. The researcher sought to ascertain whether the absence of these accounts in financial reports was due to a lack of firm accounting standards. This required a review of the agents' statements and standards, such as those of the ACCA, Financial Accounting Standard Board (FASB), International Accounting Standard Board

(IASB), International Financial Reporting Standards (IFRS) and International Financial Reporting Interpretations Committee (IFRIC3) concerning the carbon credit and emission allowances account (Golden, 2018).

2.5 Gaps in CER financial accounting

In 2022, the Financial Accounting Standards Board and the Climate Disclosure Standards Board acknowledged general gaps in climate, environmental and sustainability reporting. These gaps are caused by a lack of standardized methodologies for preparing and presenting relevant information, resulting in multiple interpretations of terms and variations in the quality and quantity of information businesses produce [14]. Several researchers raised concerns in their publications about the apparent lack of accounting setters and standards to be reflected in the treatment of transactions involving carbon accounting (Milanes Montero *et al.*, 2020). In a joint project, Lovell and Mackenzie (2011) argue that accountants of major companies participating in the European Emissions Trading System have indicated willingness for clear guidance from standard-setters due to a strong desire to reduce choice and be competitive.

According to Ascui and Lovell (2012), the difficulties in investigating the standard-setters of carbon accounting in financial statements are significant. It is challenging to value emissions allowances and to account for such valuations in financial statements. De Aguiar (2018) states that the financial reporting standards on emissions allowance should be established in a cycle. Jan and Larrinaga-Gonzalez (2008) point out that the accounting profession must deal with the situation where the financial framework of carbon accounting overlaps with other structures, such as those mentioned above (Lovell and MacKenzie, 2011). The absence of financial reporting standards addressing emissions allowances jeopardizes financial statement transparency and comparability (De Aguiar, 2018; Anderson, 2019) [15], assesses financial statement materiality using the Australian Accounting Standards Board (AASB)/(IASB) Practice Statement and discusses how climate change-related risks are reported. He further states that climate change as a topic is essential for investors and other IFRS stakeholders.

Currently, most climate-related disclosures are made in the broader annual report, primarily in the director and corporate governance statements rather than the financial statements. Seidenstein (2021) [16], the chair of the International Auditing and Assurance Standards Board (IAASB), has pointed out that the need for standardized reporting on companies' performance on nonmeasures is growing due to the demand for assurance engagements on sustainability, environmental, social and governance reporting requirements for companies.

2.6 The increasing demand for assurance engagements in the areas of sustainability and environmental, social and governance (ESG) reporting

A trusted and independent source for developing globally accepted reporting standards has been established by the IFRS Foundation counterpart, the International Sustainability Standards Board. In addition to the International Standard on Assurance Engagements (ISAE) 3000 (revised) and subject-matter specific-standards such as ISAE 3410 and Assurance Engagements on Greenhouse Gas Statements (ISAE 3410). Price Waterhouse Coopers PwC [17] is shortly expected to unveil a work plan to improve sustainability assurance and ESG reporting. In a survey of 25 companies in the industrial oil and gas, steel, chemicals and aviation sectors based on the financial reporting standards (IFRS), 45% of the respondents raised concerns that there was no single accounting treatment for emission credits, which leads to a lack of comparability in emissions accounting and causes diversity in practice [18]. Fornaro *et al.* (2009) have reiterated the need for global accounting standards.

2.7 Roles played by the chosen professional bodies in carbon accounting deals

The researcher investigated the professional bodies' engagement (summarized in Table 1 and Graph 1. The author merely sought to draw attention to the efforts being made by several international accounting bodies to raise awareness of the issue. The author believes that these accounting agencies are making diligent and continuous efforts that should be investigated in future research. Moreover, the researcher used the text analysis tool QDA and referred to Lovell and Mackenzie (2011). Graph 1 shows the proportion of the selected international bodies' engagements with carbon accounting. It shows that IASB had the most significant proportion of carbon accounting activities at 26.9%, followed by IFRS at 23% and IFRIC3 at 19.2%.

Table 1 is available online at: https://docs.google.com/document/d/1F_NXNSJUhcyqGXMYTTVeLNPIiVmgf5L1/edit?usp=share_link&ouid=107482033894877015201&rtpof=true&sd=true

Graph 1 is available online at: https://docs.google.com/document/d/11VvOs5A5h8JKtLS6pUIhb-c_EG0MSLxA26ghaxxb1-w/edit?usp=share_link

3. Research methodology and analysis

3.1 Research methodology

The study is the outcome of a comprehensive assessment of diverse documents, financial and sustainability reports, Kyoto statements, international accounting standards (IAS) and a literature review utilizing a grounded theory method, as indicated by Saldaña (2015), Saldaña (2021) and Birks and Mills (2012). In essence, grounded theory entails thorough analytical attention by applying particular codes to data via a series of cumulative coding cycles that eventually lead to the creation of concepts (Saldaña, 2015). In other words, grounded theory explores emerging patterns in data rather than imposing a preexisting view or lens. The study approach is phenomenological and inductive, producing a unique insight into phenomena that are difficult to quantify numerically. It indicates that the theory is driven by data and uses triangulation to examine the same issue, utilizing many methods. Figure 3 is a graphical representation of the theoretical framework adopted in this study.

Figure 3 is available online at: https://drive.google.com/file/d/1tiOIGHf8TxOOjjybvteoHUTjcLMcEKKe/view?usp=share_link

The questions raised by the researcher were obtained by conducting extensive research and consulting a variety of resources located all over the world. These resources included the manual for the Kyoto Protocol, UNFCCC, International Federation of Accountants (IFACs), booklet for the CDM, Annual Sustainability reports of the corporations located in the UAE, consolidated financial reports of the 15 CDM Projects and IAS.

This was followed by text-based analysis of the selected data: exploration of materials using advanced topic modeling to categorize data into five clusters broken down into items; extraction of entities, keywords, phrases and topics and classification of content and use of multi-text search tools for quick coding of text and annotation of text segments. The QDA Miner qualitative data analysis software [19] was used as a tool to assist in the decision-making process for the coding scheme.

(1) Establish the degree of linkage between the selected references (term cases used by the QDA);

(2) Improve data validity by organizing and structuring it so it can be reviewed methodically;

(3) Remain mindful of possible biases while interpreting data and

(4) Utilize labeling codes to identify distinct themes in the data and conduct thematic analysis by extracting themes from a text by analyzing word and sentence structure (Wæraas, 2022).

Figure 4 is available online at: https://drive.google.com/file/d/1NEWCj5IuiRo4T-GseM93dTE88ciQi4WC/view?usp=share_link

3.2 The research questions, cluster structure and coding schemes

To provide evidence in support of the validity of the researcher's claims regarding the obstacles leading to the financial statement reports. The researcher formulated the following research questions:

(1) What were the impediments to the publication of the carbon accounting setters?

(2) What are the roles of international accounting bodies in carbon accounting?

(3) Does carbon accounting have a specific set of accounting standards to follow?

(4) Why do the carbon credit account and the emission allowance account have different accounting treatments in transaction recording processes?

(5) Whether this misrepresentation affects the stakeholders' confidence in the financial statement reports.

The data were organized into five primary clusters. These clusters were broken down into sub-topics that addressed the following researcher's questions and concerns:

(1) Carbon accounting and financial reporting disclosure

- Absence of an accounting standard and disclosure of the policy emission allowances account
- Nondisclosure of the carbon credit account
- Nonguided leads to unclear and diverse treatment and impact on the balance sheet
- Off-balance sheet report nonrecognition
- The impact on the stakeholders the financial reporting
- Transparency, the need for a standard and guide

(2) CDM

- CDM policy
- The implications arising from climate-related changes
- UAE climate change plan and CDM

(3) Emission trading schemes (pollutant pricing mechanisms)

- Kyoto protocol market
- Non-Kyoto protocol market

(4) Professional worldwide bodies "engagement"

(5) Recognition of the emission allowances and IAS.

Graph 4 is available online at: https://drive.google.com/file/d/1AGGx4PtQ0OsYzX4gM8kSgGlsIIQDYFfh/view?usp=share_link

3.3 QDA notes for analysis and results

Figure 5 displays the results of the text-based analysis and coding schemes chosen by the researcher, which are based on a total of 26 references, see Appendix 1.

Appendix 1 is available online at: https://drive.google.com/file/d/1nc6pJavcy83D70IiQPKxMeehBaBRQRjh/view?usp=share_link

The references cannot be cited individually in text due to being assigned codes with strong linkage by the QDA Miner software. QDA software assigned the term "case" to each reference under the text-based analysis based on cluster structure and the coding schemes. The researcher concentrated on clusters 2 through 5, leaving cluster 1 for a future investigation of emission trading schemes based on pollutant mechanisms. This decision was made because the first cluster is connected to the marketing perspective. The results generated by the system software revealed the frequency of each coding category under investigation as numbers and percentages. The strength of the linkage between the assigned codes justifies the interpretation of the findings. In the absence of an accounting standard, a disclosure policy and other factors. Noted that the total percentages in Table 2 and Graph 2 are greater than 100% due to the repetitive code in different cases. As an example: the code "The need for a standard and guide" was raised by various references (cases). The same cases raised the importance of carbon credit disclosure in the financial reports for the stakeholders.

Figure 5 is available online at: https://drive.google.com/file/d/1mkx20dK009ZzqPVELP8-uajDVr6E34n/view?usp=share_link

Table 2 available online at: https://drive.google.com/file/d/194kWY7aLvEf3GSNih3FbvqOsOf3GkXFj/view?usp=share_link

Graph 2 available online at: https://drive.google.com/file/d/1aJwqIUasGonWF2KRXvKR-lVqAvarDNBU/view?usp=share_link

4. Findings and discussion

As shown in Graph 2 and Table 2, Figure 96.1% (0.423 + 0.269+0.269) emphasizes the need for a standard and guidelines to ensure the disclosure of carbon credits and emission permits in financial reports. The researcher realized that the carbon credit was hidden within another account and was reported off-balance sheet, mainly within the sustainability reports.

Referring to Table 2, around 56% of the cases assured the impact on the stakeholders and with the proximity plot shows the impact on stakeholders.

The Climate Disclosure Standard Board (CDSB) emphasized that disclosing environmental information with the same rigor as financial data are critical for evaluating company performance. Furthermore, it allows the corporation to provide investors with decision-useful environmental information via the mainstream corporate report, thus improving capital allocation efficiency. Compliance-ready documents, on the other hand, assist regulators in developing the confidence and openness required to promote resilient financial markets and more sustainable economic, social and environmental systems. According to the IASB report (2019), investors may request information in financial statements regardless of the numerical impact.

As a result of the absence of the assigned standard (Table 3 and Graph 4), the most common IAS were utilized to acknowledge the emission allowances.

Graph 3 is available online at: https://drive.google.com/file/d/1cgCPWaUDfUUgJ9hHuz7XpIqmbbyOq-Kp/view?usp=share_link

Table 3 is available online at: https://drive.google.com/file/d/1Zp9-5oXxea31IZydotOmnZL6QwSPbfJQ/view?usp=share_link

Graph 4 is available online at: https://drive.google.com/file/d/1AGGx4PtQ0OsYzX4gM8kSgGlsIIQDYFfh/view?usp=share_link

IAS 38: About 15.4% of most cases recognize emission allowances as intangible assets that need to be accounted for.

IAS 37: About 15.4% of the cases for a provision recognized the obligation to deliver allowances or pay a fine to the extent that pollutants have been emitted (IAS 37 para 14) [20], accounting for ETS publication (2009). The allowances reduce the provision used to satisfy the entity's obligations through delivery to the government at the end of the year.

IAS 20: About 11.5% of the cases refer to IAS 20, accounting for emissions trading schemes. Initial recognition of emission allowances can be at zero cost (i.e. if received from the government) or at a fair value [21].

In conclusion, there are several complexities associated with accounting for emission allowances, including but not limited to reporting entities using various models to account for emission allowances (generally as an intangible asset or inventory). Accounting for emissions allowances can be subjective, and it is not yet addressed by authoritative guidance in IFRS.

5. Limitations of the study

Carbon credit accounts are not typically disclosed in financial statement reports because they are not considered tangible financial assets or liabilities. This is because they do not provide any future economic benefits to the organization, and they do not require any future sacrifices. Additionally, carbon credit accounting is not yet well established, and there are no standard accounting rules for carbon credits. The accounting standards board has not yet provided any specific guidelines on how to account for carbon credits; hence, companies use their discretion on how to account for them in their financial statements. Another reason is the lack of a standardized market for carbon credits. The prices of carbon credits vary widely depending on the type of project, location and level of emissions reduction. As a result, it can be difficult for organizations to value their carbon credits and include them in their financial statements.

6. Recommendations for future studies

Future studies must be directed toward the following various approaches: standardization, transparency, materiality, ESG factors and regulations.

Standardization: There have been increasing efforts to standardize the way carbon credits are accounted for and reported in financial statements. This is important because a lack of consistency in reporting can create confusion and make it difficult to compare the carbon performance of different companies. A standardized approach could help make carbon credits more visible and accessible to investors and would allow them to be more easily integrated into investment decision-making. It would also help companies to report their carbon emissions more accurately, which could improve their overall carbon management and reduce their risk of facing regulatory penalties.

Transparency: recent studies [22] have been aimed at improving the transparency of carbon credit disclosures in financial reports to make it easier for investors and stakeholders to understand a company's exposure to carbon risk. This would involve disclosing detailed information on the quantity and quality of carbon credits held by a company as well as any significant risks associated with those credits. By improving the transparency of carbon credit disclosures, investors and other stakeholders would be better equipped to assess a company's carbon exposure, which could lead to more informed investment decisions and greater accountability for companies in managing their carbon emissions.

Materiality: Research is being conducted into the materiality of carbon credits in financial statements and their impact on a company's financial performance and risk profile. Carbon credits can have a significant impact on a company's bottom line, as they

can represent a significant portion of a company's overall carbon management strategy. The materiality of carbon credits in financial statements is important because it affects the way investors and stakeholders view a company's carbon management practices. This research aims to identify the key factors that determine the materiality of carbon credits and how these factors can be used to better assess a company's overall financial performance and risk profile.

Integrating ESG factors: Studies [23] on how carbon credits and ESG factors can be integrated into financial statements are also being conducted to provide a complete picture of a company's sustainability. This involves considering a wide range of factors, such as a company's carbon emissions, resource usage, labor practices and community engagement, to better understand a company's impact on the environment and society. Integrating ESG factors into financial statements can help investors and other stakeholders make more informed decisions and can also help companies better manage their environmental and social impacts.

Regulation: There is also ongoing analysis of the impact of existing and future regulations on the disclosure of carbon credits in financial statements. This includes mandatory reporting requirements and disclosure standards, which can vary by jurisdiction and can have a significant impact on the way carbon credits are reported in financial statements. This research aims to provide a better understanding of the regulatory landscape and to identify potential areas of risk and opportunity for companies concerning their carbon management practices. By staying up-to-date on the latest regulations and standards, companies can ensure that they are complying with legal requirements and are well-positioned to manage their carbon emissions effectively.

7. Contribution and concluding remarks

The researcher examined the historical timeline of numerous initiatives made by international accounting and auditing agencies currently being disputed. Companies are encouraged to publish carbon credits and emission permits in sustainability reports rather than financial reports. On the one hand, previous efforts to govern this area by the FASB and IASB have proved ineffective. On the other hand, the current authoritative literature gap has resulted in various worldwide accounting procedures. The researcher realized that the system must be based on a clear accounting standard that guides accountants and auditors in adjusting and documenting transactions.

In 2020, five sustainability and integrated reporting leaders – the Carbon Disclosure Project, CDSB, Global Reporting Initiative, International Integrated Reporting Council and Sustainability Accounting Standard Board – released a vision for a complete corporate reporting system. The group issued a study on enterprise value reporting guidelines and a climate-related financial disclosure prototype in September 2020 [24].

The abovementioned organizations have co-authored an example of how their present frameworks, standards and platforms, coupled with TCFD aspects, might be utilized to produce global standards that allow disclosure of how sustainability concerns generate or degrade company value. The partnership between these groups comes when global stakeholders recognize the necessity for transparent assessment and publication of information regarding sustainability performance. Kaplan and Karthik (2022) have conducted hundreds of talks about the e-liability system with business executives, consultants, regulators and standard-setters. Many people have expressed disappointment that something similar has not been presented sooner. Regardless, carbon accounting is extensively integrated into several global climate accords. However, the absence of internationally accepted standards for recording carbon allowances in the financial statements of corporations remains a cause for concern. Especially now, as there is a pressing need for openness and accountability in implementing the policies that will bring us to a net-zero carbon footprint [25].

Notes

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