OPEN ACCESS

Volume: 11

Special Issue: 3

Month: February

Year: 2024

E-ISSN: 2582-0397

P-ISSN: 2321-788X

Received: 21.12.2023

Accepted: 06.02.2024

Published: 28.02.2024

Citation:
Mukherjee, Kankhita, and PK Hridhya. "Impact of Carbon Accounting on Mitigating Greenwashing." *Shanlax International Journal of Arts, Science and Humanities*, vol. 11, no. S3, 2024, pp. 156–66.

DOI:
https://doi.org/10.34293/sijash.v11iS3-Feb.7256

Impact of Carbon Accounting on Mitigating Greenwashing

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Abstract
This paper is based on a systematic review of the development of carbon accounting research and knowledge gaps. The audit shows thewriting has formed into four significant floods of carbon bookkeeping: carbon disclosure, management, performance, and assurance, in addition to the fact that carbon accounting is beginning to emerge as its distinct Field. Last but not least, our paper highlights future research opportunities to enhance carbon accounting to aid businesses even more in achieving the Paris Agreement's climate goals and GHG protocol.
Keywords: Carbon Accounting, GHG Protocol, Corporate Sustainability Greenwashing, Carbon Credit.

Introduction

The green market is expanding, as reported by Delmas and Burbano. Products, services, firms, capital markets, and consumers have all grown. As there is an expansion in green business sectors, it is trailed by the peculiarity of greenwashing. The term used to describe the phenomenon is the intersection of two healthybehaviours: poor natural execution and positive correspondence about ecological execution".Some businesses invest in green marketing communications to be seen as eco-friendly and socially engaged. They use Corporate Social Responsibility (CSR) and advertising to make people more likely to buy from them and like their brand. However, corporate environmentalism's reality can be disappointing. According to Terra Choice, 95% of products claiming to be green in Canada and the United States committed at least one of the "sins of greenwashing," such as worshipping false labels or the sin of the hidden trade-off. Greenwashing was first denounced in 1986 by extremist Jay Westerveld when lodgings started requesting that visitors reuse towels, guaranteeing that it was an organisation water protection procedure, even though it had no biological activities with more critical ecological effect issues. Ogilvy and Mather, an advertising agency, claims that greenwashing practices have reached epidemic proportions in recent decades. With the increment of green business sectors trailed by greenwashing, a trust issue has arisen since clients experience problems distinguishing a genuine green

case. Greenwashing has increased green scepticism, which would hinder green marketing. Because it is difficult for customers to determine the dependability of green marketing initiatives, genuine green claims would be met with more significant scepticism. Terra Choice has published a study on the seven sins of greenwashing to assist customers in identifying greenwashing practices by businesses.

Even though the majority of the population is concerned about environmental care, governments in developing nations do not have any or very few green regulations. Reusing by squandering, arranging, and the assortment is by all accounts something ordinary to do by the twenty to thirty-year-olds in created nations, on the opposite side in arising countries; it is an honour to have it. This study is undertaken to diminish the effects of greenwashing to the extent possible through a carbon accounting system (CAS) using various subsystems provided under it. This study is also undertaken to offer multiple tools and mechanisms under each of the following methods for further implementation and future initiatives for future growth and prospect.

Impact of Carbon Accounting on Greenwashing

Firm evidence exists that increasing greenhouse gas (GHG) emissions increase global temperatures (IPCC, 2018). About 200 countries signed the Paris Agreement to curb global warming as an ambitious effort to tackle climate change (United Nations, 2015). Investors also play a vital role in the fight against climate change. Investors representing over US$86 trillion in assets under management (AUM) have signed the Principles for Responsible Investment (PRI), aimed at, among other things, addressing climate change issues (PRI, 2019). Additionally, investors representing approximately $35 trillion in assets under management have joined Climate Action 100+, an organisation focused more directly on tackling climate change (Climate Action 100+, 2019). Investors are adopting multiple strategies to mitigate climate change, including shifting investments from brown to green companies and activist activity. The effectiveness of investor actions in creating incentives for the real economy to reduce CO2 emissions is highly dependent on available greenhouse gas data. Some companies report data voluntarily. Data providers try to fill the availability gap for non-reporting companies by estimating carbon emissions. Estimated emissions by data providers often compose a significant fraction of the data sets. Many investors view estimated emissions as a satisfactory substitute for company-reported emissions, thus revealing an implicit assumption in the status quo that data providers are successfully closing the data availability gap. Several studies analyse which factors contribute to a company's decision to disclose corporate GHG emissions (e.g., Prado-Lorenzo et al., 2009; Liesen et al., 2015) and how GHG emissions are priced in capital markets (e.g., Lee, Park, and Klassen, 2015, and Matsumura, Prakash, and Vera-Muñoz, 2014). In this context, some studies distinguish between mandatory or voluntarily disclosed GHG emissions (e.g., Busch and Lewandowski, 2018), and some analyse the effect of using different data providers (e.g., Busch et al., 2018, Berg, Koelbel, and Rigobon, 2019, and Li and Polychronopoulos, 2020). With this paper, we contribute to the existing literature by analysing the critical GHG data available to investors and examining how using these data can impact the efficiency of investor actions to combat climate change.

Introduction of CO2 Accounting

Introducing a carbon trading market raises classic financial accounting questions. How should carbon credits be recorded in the books? This discussion focuses on the valuation of allowances assigned without charge and the volatility caused by differences in asset valuation and liability recognition (Bevington and Larinaga González, 2008). This difficulty is mainly related to the multiple effects of CO2 certificates. The carbon allowance permits carbon emissions, a binding cap

on carbon emissions, and a financial asset that can be traded on the market. The conflict created by this unique feature of carbon allowances and the need for consistency between carbon-related assets/liabilities and other available assets and liabilities makes it difficult for standard setters to design a universal accounting standard (Cook, 2009).Disagreement over accounting for carbon allowances led to the withdrawal of International Financial Reporting Interpretations Committee Interpretation Emission Rights in June 2005. In the absence of accounting standards for emissions allowances, three different approaches are commonly used in practice:(i) a net liability approach that classifies allowances as intangible assets and only shows an emissions liability when emissions exceed free allocated budgets, (ii) a gross liability approach that recognises the free allocation at fair value and a corresponding gross liability, and (iii) an inventory approach with free allowances given at nil value (Black, 2013). These fall into different components, each with various tools and practices that play a role in optimising the carbon accounting framework. We believe that further explaining the carbon issue will be a fruitful research approach as the impact of climate change on corporate asset values becomes more pronounced.

Carbon Disclosure

Companies disclose carbon-related information through third-party channels such as annual reports, sustainability reports, CSR reports, company websites and CDP surveys. So far, disclosure of CO2 emissions has been largely voluntary, leaving companies to decide what and how much to disclose. The arbitrary nature of CO2 disclosure naturally raises two research questions. First, what factors influence the choice, content and scope of a company's carbon disclosure decisions? Second, how effective are voluntary CO2 disclosures? A literature review shows that these two issues have been extensively researched. Regarding the first question, the literature identifies several factors relevant to corporate carbon disclosure decisions at the country, sector and company levels. We believe this line of research leaves a lot to be desired. For example, climate change mitigation is a highly political issue, but previous studies have not considered politics as a possible country-level factor relevant to carbon emissions disclosure. Researchers can also leverage the framework of determinants of carbon disclosure to identify other gaps in this area. The second question shows that voluntary carbon disclosure in its current form may be of poor quality and inadequate. Comyns and Figge (2015) proposed that disclosure quality is a multidimensional component that includes accuracy, completeness, consistency, reliability, relevance, timeliness, and transparency. The current literature primarily focuses on wholeness and consistency of disclosure (Cotter et al., 2011; Haslam et al., 2014). Future studies may focus more on other quality aspects. Sustainability reports can, therefore, reduce knowledge about the company and act as a veil for the company (Hopwood, 2009), thus reducing the greenwashing that is a consequence of the quality of disclosure. (Delmas and Burbano 2011). Carbon accounting researchers can contribute to the literature by developing systematic approaches to detect greenwashing and investigating the causes and consequences of this practice. Moreover, research on carbon disclosure should by no means stop at his two research agendas above. Researchers can also explore stakeholder information needs to guide corporate practices and explore the social and economic impact of carbon disclosure.

Greenhouse Gas Data Coverage

To date, reporting greenhouse gas emissions has been voluntary in most countries. Reporting is only required in a few cases. When companies report to regulators, access to data is often complicated and inappropriate for investors. Voluntary basis data coverage for 18 reports is significantly reduced, introducing potential self-selection biases (Matsumura, Prakash, Vera-Munoz, 2014). We argue that carbon emissions are most beneficial to investors if they are widespread in the investment

community. To test this, we compare his GHG data coverage from different carbon data providers based on 1) market capitalisation and 2) carbon emissions. Overall, the DPA captures the reported carbon emissions of approximately 62% of all listed companies by market capitalisation. DPB and DPC coverage is significantly lower at 47% and 48%, respectively. DPA and DPB use models to supplement the dataset to estimate 25% and 38% of corporate emissions, respectively. Therefore, the remaining market capitalisation not covered by GHG data from the DPA and DPB is 13% and 52%, respectively. The lack of comprehensiveness in greenhouse gas data is due to voluntary reporting of climate-related information range of CO2 emissions. Green investors looking to mitigate climate change want their investments to reduce overall greenhouse gas emissions. To have the most significant impact, greenhouse gas data must be available for most assets, especially the largest emitters. Companies with high emissions have the most significant potential to reduce their emissions.

Comparability between Companies

There are no generally accepted reporting standards for greenhouse gas emissions. The Task Force on Climate-related Financial Disclosures (TCFD) guides what information is relevant to investors, lenders, insurers, and other stakeholders and how reporting companies should disclose that information. Established to provide guidance. When measuring and reporting carbon emissions, the TCFD references the GHG Protocol, one of the most adhered standards for many years. However,other reporting standards exist (such as the US EPA Corporate Climate Leadership GHG Inventory). UK Environmental Reporting Guidelines and China NDRC GHG Accounting and Reporting Guidelines). The ability to choose reporting criteria can introduce self-interested biases into the data reported and hinder comparisons between companies. In 2018, only 33% of companies said their greenhouse gas emissions aligned with TCFD recommendations (TCFD, 2019). Additionally, the academic body ClimateDisclosure100.info recognises that it is the only 21 companies worldwide reporting 100% of their GHG emissions in Scope 1. Finally, the standards often give companies much freedom to measure and report emissions. For example, the GHG Protocol allows carbon emissions to be written using equity shares or financial management approaches24. As such, said carbon emissions can vary significantly depending on the approach used. Consistency across data providers Most investors get their carbon data from dedicated carbon data providers. Each data provider's characteristics may lead to different investment decisions. For example, data providers differ in handling corporate events such as mergers and acquisitions. Some adjust carbon emissions for their corporate activities (e.g. the DPA and his DPB claim so), while others do not (DPC). Additionally, some data providers correct obvious reporting errors (such as using the wrong units), while others do not. Further discrepancies arise due to the different treatment of reported Scope 2 emissions. Specifically, the GHG Protocol allows companies to calculate their Scope 2 emissions using market- or location-based approaches. Companies oftensay issuances that comply with both directions, but some data providers only report one approach to investors. The choice of reporting appears to be arbitrary, leading to significant differences in reported Scope 2 emissions among data providers. By accessing multiple CO2 data sets, he can test whether his reported CO2 emissions data is consistent across data providers. Consistency by itself does not guarantee good data quality but serves as an indirect indicator of data accuracy. Compare the rank correlation of emission values to assess the thickness of emissions across datasets. Rankings are significant, as many investment firms and initiatives encourage excluding the 200 most polluting companies from their portfolios (negative screening).

Focus on Removing, Reducing and Reducing Greenhouse Gases

Although the IPCC proposes only anthropogenic CO2 sinks, removing all greenhouse gases is essential to keep the global average temperature rise below 1.5°C by the end of the century and avoid climate catastrophe. There is an urgent need to remove and reduce CO2 and other greenhouse gases from the atmosphere.

Incorporating LCA into Net Zero Commitments

Net Zero should incorporate LCA into its GWP assessments considering the "cradle-to-grave" or "cradle-to-cradle" lifecycle of all traded goods and services. By tracking greenhouse gases according to the LCA methodology, tariffs on traded goods/services can be set and distributed to ensure fair transition and implementation of the UN SDG.

Standardise the Lifecycle Assessment of Net-Zero Strategies/Measures

Greenhouse gases can be emitted at every stage of a product's or service's life cycle, including material procurement, manufacturing, distribution, usage, and resource recycling. This phase will occur worldwide and may interact with other global supply chains. A comprehensive lifecycle assessment considers the impacts of all interacting global supply chains associated with the product, activity or service. LCA considers Scopes 1-3 and considers system-wide greenhouse gas emissions. Therefore, net-zero measures based on LCA standardised in ISO14040-44 are essential.

Allocate a GHG Margin for Smoothing

Calculating Scope 2-3 GHG emissions requires company-specific allocations for joint cross-company activities to avoid double-counting GHG margins (credits minus costs). Greenhouse gas allocations can be assessed in various ways, by economic or functional contribution, based on a company's activities. Greenhouse gas margins can be shared among participating companies for fairness and justice. High-income countries must bear the global GWP cost and allow low-income countries to adjust.

Allocate Scope three Credits or Cost of Capital

Versatile, function-oriented allocation methods can be applied to distribute responsibilities between producers and consumers to ensure fairness. Current allocation methods are embedded in value analysis techniques that consider each stream's production costs and processing values and thus their marginal contributions, whether mass, energy or financial. The difference between her GWP value for the river and the GWP cost is his GWP margin. A fair and just society (zero-sum game) can be realised by sharing the GWP margin among participating entities.

Consider a Lifecycle Sustainability Assessment

A Life Cycle Sustainability Assessment (LCSA) enables a triple sustainability analysis that includes environmental, social and economic aspects. Lifecycle thinking can be applied to all LCSA criteria to consider the impact of all activities on spatial and temporal scales. Spatially, supply chains of traded goods and services can be intrinsically (attributively) connected or (consequentially) connected through rebound effects. Both must be considered in net zero measures. LCSA, like LCA, can cover periods of decades or centuries. Financial flows can meet LCSA goals by stabilising low-income economies.

Consider the Whole System through Interdisciplinary Modelling Innovations

Effective operation of a net-zero system requires mathematical modelling of components and programming to optimise their interactions. Determining a comprehensive LCSA for the entire system requires a basic physical model of the individual elements on the one hand and dynamic optimisation of interactions and data communication on the other. Such tools are available but not widely used. Furthermore, these mathematics-engineering approaches are grounded in interdisciplinary quantitative/qualitative analysis and insights from the arts, economics, law, governance, economics, social sciences, engineering, physics, and health sciences. I have to. Educating the workforce on gender/race equality issues is essential to unite the world.

Decarbonise with Nature-based Solutions

Nature-based decarbonisation through reforestation, ocean carbon cycling, rewilding and biodiversity can lead to sustainable net-zero systems. However, the earth's land, waters and biosphere must have made careful efforts to form diverse ecosystems and just societies. Integrated process modelling, value analysis embedded in LCA and LCSA, and observational approaches enable the development of sustainable nature-based net-zero strategies. Synergies between their applications are recognised, but standard procedures must be developed to apply them to telecommunications seamlessly.

Eco-Design, Remanufacturing for Longer Product Life

Some refining of engineering metals after decommissioning may be unavoidable, but environmental design, maintenance for longevity, and parts replacement extend life beyond the nominal energy of net-zero-related systems. Remanufacturing, including ensuring physical security and the world's primary resources. Reduce demand/depletion.

Configure Biomass and Biorefinery

An unavoidable non-food waste resource available locally is biomass. With the defossilization of the economic sector, biomass becomes independent of fossils. Biomass can be processed in a biorefinery. A biorefinery is a large energy-integrated, self-sufficient, multi-supply, multi-product, multi-process system.

Investment in Biorefineries

A sustainable circular bioeconomy requires an integrated biorefinery approach that converts biomass into value-added products to meet the needs of society without impacting the environment. Biorefineries are Category 2-3 because they can meet all their energy needs through on-site heat integration and combined heat generation to deliver their products (eliminating Category 2 GHG emissions). It has negligible GHG emitting activity, significant impact on infrastructure is little (reduction of Scope 3 GHG). Biomass sources, processing and other life cycle stages are co-located within system boundaries and considered to achieve the best environmental results. H. Replace fossil carbon-based linear economies.

Development of High-Quality Niche Raw Materials from Biorefineries

According to economic profit margins, bioenergy has the lowest, biofuels have medium, chemical and material profit margins, and food and medicine have very high financial profit margins. Since high-value target products account for less than 10% of the biomass feedstock, most biomass is available in self-sustaining biorefineries with built-in bulk energy integration for other product generations, including biofuels and bioenergy. It can be used. For a sustainable biorefinery system, it is essential to manufacture niche products rather than easily solvable product options.

There is an unmet need to incorporate Life Cycle Assessment (LCA) into net-zero initiatives and initiatives. Creating internationally standardised embedded-value LCA analysis tools will help transition to a net-zero paradigm for greenhouse gas sinks. Additionally, a Life Cycle Sustainability Assessment (LCSA) ensures that the net-zero goal is aligned with the sustainable development agenda. The LCA-LCSA embedded value analysis methodology demonstrates a universal method for allocating credit/impact across entities for fair and just transitions (zero-sum games). Within the sustainable development framework, 13 recommendations have been developed through methodological approaches and net-zero-related systems analysis. These include a net-zero policy incorporating comprehensive LCA, an LCA/LCSA-led climate stimulus analysis, and focused efforts towards equitable and impartial interdisciplinary modelling research across societies and systems. Broad examples include nature-based decarbonisation, holistic renewable energy systems, product life extension, technological metal security, biomass, biorefining processes, greening the economy and circularity as the basis for net zero action. Includes product options for carbon security.

Carbon Assurance

International Efforts in the Field of Sustainability Reporting

Due to the growing awareness and concern about companies' environmental and social impacts, many recent initiatives have been around sustainability reporting. There are also efforts to ensure sustainability reporting at international and national levels. These reporting and auditing efforts are described in the next section.

The Global Reporting Initiative (GRI) guidelines are widely recognised as the most critical reporting standards for sustainability reporting. A revised GRI Guidelines (G3) version was published in October 2006. The G3 guidelines are a more robust auditing standard than the G2, with improvements such as detailed protocols for standardising the compilation of performance indicators and a greater focus on reporting principles such as materiality. G3 also introduces an 'application level' system that indicates the extent to which the reporting framework has been used in the reporting process. This tiered system is aimed at both new and intermediate reporters, provides a starting point and emphasises "the importance and value of a graduated approach to coverage that expands over time.

International Effort to Develop Quality Standards for Sustainability Reporting

With the efforts of GRI and UNCTAD-ISAR to develop a common reporting framework for sustainability reporting, the related issue of assuring this type of reporting has been raised by international and national standard-setters in recent years. It's getting attention. These developments mean that these reporting frameworks will likely be viewed as an appropriate standard, a prerequisite for audits. As explained above, the IAASB has developed standards for the assurance of non-historical financial information over the past few years, including verifying sustainability reports. The IAASB's International Framework for Assurance Engagements, published in Australia as AUS 108 'Framework for Assurance Engagements', is a self-contained framework that applies equally to historical financial and other information assurance engagements.

The justification for specific carbon emission disclosures and assurances The initiatives above represent significant progress toward creating sustainability reporting assurance services. Due to the extensive and intricate subject matter covered in these kinds of reports, the requirements of relevance, completeness, reliability, neutrality, and understandability (i.e., the characteristics of suitable criteria) face numerous obstacles. It is acknowledged that developing appropriate measures for a more specific subject would be simpler, like reporting carbon emissions. A similar assurance standard would build on global sustainability reporting and assurance practices.

Carbon Management System (CMS)

The first component of the CMS that Tang and Luo (2014) proposed is establishing a carbon governance mechanism to guarantee a sound carbon policy and provide oversight over its implementation. A board of directors has the ultimate authority to develop a comprehensive climate change strategy, establish targets for mitigation, create incentives, allocate resources, and set priorities for mitigation and adaptation actions. This suggests that a solid corporate governance mechanism is the only way several CMS's very different parts can remain coherent. However, due to the inherent uncertainty of climate change and the various conflicts of interest among the stakeholders involved in the decision-making process, developing carbon strategies is difficult (Liao et al., 2014; 2016 Luo and Tang, 2009, Reid and Toffel). Furthermore, it can't be expected that carbon legitimisation and carbon responsibility inside a firm are dependably steady with the hierarchical goals of boosting benefits. Carbon management and existing organisational cultures or organisational priorities are inextricably intertwined. It is still debatable whether the relationship between economic performance measures and environmental performance indicators is cause and effect orlead–lag (Dikolli and Sedatole, 2007).The risk analysis techniques frequently advocated in the accounting literature are applicable to analyse climate change-related risks and their financial impact. An analytical scenario that models the financial and monetary effects of government policies and public sentiment (such as voluntary switching to renewable energy and low-carbon products) is one way to put these methods to use. For this purpose, traditional management accounting methods can be utilised, but they frequently fall short. 3 Employee participation in carbon-reduction initiatives Firms frequently implement incentives to encourage employee engagement and participation in carbon-reduction initiatives. For instance, introducing an ETS may have a direct or indirect, long-term or short-term impact. A company's efforts to meet its emission targets will be bolstered by the presence of managers who are personally inclined toward carbon control. Consequently, this component creates worker responsibility by plainly appointing responsibility and obligation and giving more prominent inspiration. Carbon training programs and increased managerial awareness may result in increased individual performance (Etzion, 2007), as well as extensive and widespread employee participation (Cole, 1991; (Willig, 1994) and increased team output (Hart, 1995). According to Brammer and Pavelin (2006), rewards for exceptional performance steer reduction by acting as an ex-ante signal regarding the desired outcomes to unlock employees' potential and permit optimal behaviour to emerge and continue. Such a CMS might install environmental change contemplations into compensation and advancement bundles, which should persuade capable officials to accomplish or surpass assumptions.

Carbon Performance

According to Tang and Luo (2014), the overall quality of the carbon management system significantly impacts the carbon performance of Australian businesses in terms of the factors that influence this performance. Jeffrey and Perkins (2015) state that an energy tax can help lower carbon intensity. Birchall and Co. 2015) suggest that the voluntary carbon market is only moderately effective at reducing emissions and that carbon accounting is not always evidence of improvement in climate change mitigation. According to Haque (2017), specific corporate governance mechanisms are linked to process-based carbon performance (carrying out initiatives to reduce carbon emissions) but not outcome-based carbon performance. In conclusion, Broadstock et al. 2018) demonstrate a nonlinear relationship between carbon performance and company financial performance, indicating that a win-win scenario is conditional. According to research on carbon performance, the complexity of measuring carbon performance may limit the comparability and reliability of carbon emissions reporting.

Corporate Carbon Pricing Approaches: Businesses employ various internal carbon pricing strategies, such as a carbon fee, shadow price, or implicit carbon price9. Additionally, businesses may employ a "hybrid" carbon pricing strategy that combines aspects of these strategies. Companies frequently use shadow pricing and internal carbon fees to assess and manage climate-related business risks.

Carbon Fee: Using the carbon fee method, emissions from typical business operations are given a monetary value. Even though the money would stay in the company, it could be used for projects to help it meet its goals for reducing greenhouse gas emissions. However, the difficulty of accurately measuring all types of emissions from scope three can frequently prevent businesses from covering all or some of them in their carbon pricing programs. Because it is simpler to measure and can be based solely on miles, business travel appears to be the exception. Each business activity, like business travel or business unit, like a manufacturing division, can be subject to a carbon fee. The fee may also be applied to a specific activity in other situations. Before applying the cost more broadly to other parts of the business, a pilot approach can be used by starting with just one exercise or division

Shadow Pricing: Many businesses use a "shadow price," or theoretical carbon price, as a risk assessment tool to evaluate investments, test assumptions, and guide business strategy in anticipation of future carbon constraints. This is in contrast to an actual fee. Frequently shadow costs depend on the predominant and additional guage cost of carbon guidelines (e.g., European Association's Discharges Exchanging Plan (EU ETS), the Local Ozone harming substance Drive (RGGI), California's cap-and-exchange program), winning and estimated product costs, and mechanical variables. Other government policies that implicitly price carbon, such as the price of renewable energy or taxes on particular commodities, can also set shadow prices. Prices may also vary based on location or type of activity, and some businesses, particularly in the materials and industrials sector in India, calculate their shadow price in part based on national government policies like the coal tax, the excise duty on fossil fuels, and the Performance Achieve Trade and Renewable Purchase Obligations schemes14. For example, BP uses an internal carbon price of $40 per metric ton to guide decision-making and applies a higher value of $80 per metric ton to stress test the robustness of its portfolios in jurisdictions highly exposed to carbon regulations, such as for carbon-intensive assets and projects covered by the EU ETS.

Future Projects: A Concept for a Carbon Credit Ecosystem Based on Blockchain

To improve carbon markets' liquidity, transparency, accessibility, and standardisation, we intend to establish a Carbon Credit Ecosystem on Blockchain. This environment incorporates all partners, a tokenisation system with clear printing and consuming conventions, a short dispersion of tokens, and an AMM for exchanging these carbon tokens. Work Program Wind farms, tree-planting operations, CO2 sequestration projects, and other stakeholders are all "Generators" of carbon credits in this project. Furthermore, "Buyers" of carbon credit (i.e., carbon producers or polluters of any sort like the energy business) and different partners like controllers, concerned residents, and validators. " The ecosystem's "validators" are an essential component. They are certified, universally conveyed, actually equipped advisors boosted to define properly and installed ventures to an open design commercial centre that matches closely involved individuals creating and resigning carbon credits. After properly validating the projects of carbon credit generators, we will transfer carbon credits to the blockchain by converting them into digital tokens. Buyers and sellers will use a Blockchain-based decentralised exchange platform to trade carbon credits. Supply and demand-driven market dynamics will determine the price. By sending the given Carbon Tokens to a smart contract or defined blockchain address whose private key is not known to any party and

can be visible to the collective of validators in addition to regulators or other stakeholders, the Carbon Tokens would be retired using a "buy and burn" model. As a carbon removal certificate, the individuals and businesses that successfully burn carbon tokens will receive non-fungible tickets.

Conclusion

Corporate carbon accounting uses accounting methods to collect, analyse, verify, and report climate change information, account for carbon assets and liabilities, manage carbon risks, and evaluate carbon performance to facilitate managers' and external users' more informed decision-making (Tang, 2017). Many researchers in carbon accounting respond to climate change by examining and identifying various carbon accounting issues that have been largely ignored or omitted from previous accounting research. As a result, carbon accounting is emerging as its distinct Field of study, different from sustainability or general CSR. Carbon bookkeeping research distinguishes the examples and determinants of administrative reactions to environmental change and the outcomes of fossil fuel by-products. It uncovers the moves organisations initiate and shows how organisations change their arrangements because of new carbon guidelines and regulations, public and partner feelings, and different elements. It is common knowledge that industry-sponsored decarbonisation programs can benefit significantly from carbon accounting while transitioning to a low-carbon planet.

We, therefore, call for an in-depth critical evaluation of carbon accounting practices to reveal the interplay and interactive dynamics of carbon accounting and overall business strategy. The knowledge is still speculative, unspecified, and untheorised at this time. Carbon accounting is anticipated to encourage further complementary and strengthening changes. This bolsters our effort to develop new, uniform, structured organisational capacities and competencies through research. Finally, there is a growing demand for carbon accounting and assurance professionals with expertise in carbon accounting, assurance, and knowledge of climate change. University business schools must develop carbon accounting units and textbooks to educate a new generation of accountants to address the shortage of skilled carbon accountants.

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