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Carbon Financial Accounting: A Brief Review

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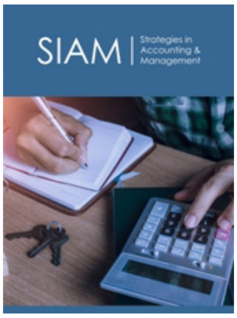

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Abstract

Carbon Financial Accounting quantifies Greenhouse Gas (GHC) emissions, track progress and implement strategies to reduce the environmental damage. It offers a promising avenue for the businesses to demonstrate their commitment to sustainability and environmental responsibility. The objective of this paper is to review the recent studies and progress achieved in carbon financial accounting.

Keywords: Carbon financial accounting; Climate change; Greenhouse Gas (GHC) Emissions

Introduction

In recent years, the nations have witnessed a significant need to address the environmental impact of business operations as industries across the globe have been contributing significantly to Greenhouse Gas (GHC) emissions and climate change. There is also an urgent need for business to adopt sustainable practices. To address this global challenge, Carbon financial accounting has emerged as a necessary tool for businesses to effectively measure and manage their carbon footprint. Carbon Financial Accounting quantifies Greenhouse Gas (GHC) emissions, track progress and implement strategies to reduce the environmental damage. It offers a promising avenue for the businesses to demonstrate their commitment to sustainability and environmental responsibility. With increasing awareness of the impacts of climate change, companies are increasingly realizing the value of carbon financial accounting in minimizing environmental impacts and complying with stringent regulations.

Carbon Financial Accounting involves measuring, analysing, recording, and reporting greenhouse gas emission and other financial data related to carbon emission. By integrating these reports with environmental data, organization can effectively access the environmental impact made by them. This integration facilitates a holistic understanding of environmental impact made by their businesses and enables them to take action to reduce their carbon footprint. In addition to the environmental responsibility, Carbon Financial Accounting creates economic benefits to businesses. By adopting sustainable practices and actively engaging in carbon accounting, companies easily identify the area to reduce the costs and improve the overall operational efficiency. This also helps them to align them with their financial goals along with environmental goals which provides them an opportunity to strengthen their competitiveness in the fast paced, rapidly growing market totally focused on sustainability. As India is making efforts towards a more sustainable future, carbon financial accounting has gained considerable importance as Indian business are becoming more conscious about reducing their own carbon footprint. The use of carbon accounting methods is expected to increase significantly and see substantial growth in coming years. Carbon financial accounting helps India to attain more progress towards greener and more sustainable future. By understanding the implications of carbon financial accounting, businesses and policymakers can make informed choices that advance both environmental obligation and financial thriving.

Review of Literature

As the economic effects of climate change continue to be of major concern, the relationship between climate change and carbon accounting has come into focus. Burritt et al. discuss two opposing perspectives on sustainability accounting and reporting. The critical approach suggests that sustainability accounting is a passing trend that contradicts corporate objectives within a capitalist system. On the other hand, the second approach argues that sustainability accounting offers valuable tools to measure and manage environmental challenges W. Young. Dhar delves into the carbon-trading scenario in India in the broader global context. The aim of his research was to understand how Indian companies approach carbon emissions trading and how they settle these trades. Carbon emissions trading involves the buying and selling of carbon credits, including Certified Emission Reductions (CERs) and other carbon credits, to regulate greenhouse gas emissions. The study highlights the lack of a standardized accounting policy specific to carbon emissions trading in India. As a result, companies have developed their own accounting practices for recording carbon credits. This lack of consistency in accounting policies has been a challenge for parties assessing the financial impact of such transactions. Sood [1] studied how companies account for emission norms and CERs in their financial statements. Due to the lack of specific accounting guidelines for emission limits and CERs, companies have developed their own accounting policies to manage these assets. Some companies recognize revenue immediately after issuing carbon credits, while others record revenue when the credits are marketed. Chotaliya undertook a detailed analysis focused on the emission patterns of six significant carbon-emitting nations between 2008 and 2012. The objective was to comprehend variations in greenhouse gas emissions over a five-year period and find trends or variables causing such trends. The research also examined accounting and tax issues of certain carbon credits in the Indian context. It was observed that while some nations have seen downward trajectory of emissions owing to industrial expansion and rising energy consumption, others have experienced upward trajectory due to higher adoption of renewable energy and energy efficiency measures. The report also emphasises the importance of tax policy in encouraging businesses to implement emission reduction plans and actively take part in carbon credit activities that support sustainable development. Maheswari & Goyal did an important study highlighting the dual meaning of carbon credits, which is to address environmental challenges and act as a source of income. It highlights the contribution of carbon credits to environmental sustainability and reducing greenhouse gas emissions. Carbon credits have facilitated investment in sustainable development projects in developing countries. By providing an additional source of revenue, carbon credits allow these countries to access capital for environmental initiatives, renewable energy projects and infrastructure development, thereby advancing their sustainability goals. In order to successfully address the issues of climate change and advance sustainability in the area Finau [2] emphasised the significance of including carbon-related data and accounting practises into the SEA research programme for PSIDS. He, Luo, Shamsuddin & Tang distinguished the requirement for creating, enactment and administrative systems particularly customised to carbon credit bookkeeping. This will help businesses to lock in in carbon credit exchange, which can be more straightforward and responsible. Empowering companies to reveal their carbon emanations and carbon credit exercises cultivates straightforwardness and makes difference partners assess their natural affect. Straightforward revelation moreover encourages educated decision-making for speculators and other partners. Companies can accomplish emanation decrease targets and capitalize on carbon credit openings by contributing in economical hones, energy-efficient innovations, and renewable vitality ventures. Carbon credit bookkeeping act as an urgent tool in handling climate alter challenges. Li, Zakaria, and Azmi examined the variety of methods to accounting practices, underlining the necessity for customised techniques in various situations and sectors. They focused on the significance of appropriately estimating the financial worth of these allowances as they looked at the redefining of emission allowances and the accompanying valuation techniques. The study showed a significant amount of non-disclosure in carbon accounting practises, highlighting the importance of openness and reporting requirements. The relevance of accounting practices in advancing sustainability was also emphasised, along with the function of carbon accounting in supporting sustainable business practices and governance. In order to understand their viewpoints and difficulties with applying carbon accounting practises, the attitudes of accounting professionals to carbon financial accounting also was investigated. Marlowe [3] emphasize the significance of carbon credit accounting intending to climate alter issues and give bits of knowledge into the operational instrument of carbon credit accounting whereas highlighting concerns approximately straightforwardness, unwavering quality, and comparability inside this field. Prakesh et al. [4] emphasized the significant part of carbon credit accounting as an imperative expedient for developing countries. They distinguished India as a key centre, recognizing India's potential to play a noteworthy part within the worldwide carbon credit market [5-10].

Objective

1. The objective of this paper is to review the recent studies and progress achieved in carbon financial accounting.

Advancements in Carbon Financial Accounting

Over the past decade a few critical advances that have been made in the carbon financial bookkeeping systems is stated below:

1. The foremost broadly recognized system is the Greenhouse Gas Protocol (GHGP), created by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD). GHGP gives rules for businesses to precisely degree and report their GHG outflows, which permits for important comparison and benchmarking.

2. Another striking advancement is the introduction of carbon offsetting components. These components empower organizations to contribute in ventures that diminish outflows

somewhere else, successfully compensating for their claim emanations. Carbon offsetting gives an opportunity for collaboration with neighborhood communities and partners.

Progress in Carbon Financial Accounting by Organizations

Improved reporting

Organizations are progressively unveiling point-by-point data related to their GHG outflows, counting Scope 3 outflows, which include roundabout outflows (e.g., supply chain and client utilization). More noteworthy straightforwardness empowers partners, such as speculators, clients, and controllers, to create educated choices based on a company's natural execution.

Carbon pricing

The selection of carbon estimating measures, such as carbon taxes or cap-and-trade frameworks, is picking up momentum universally. The usage of these measures places a monetary cost on carbon emissions, compelling organizations to create more precise carbon financial accounting practices. This drift incentivizes companies to decrease their emissions and contribute in renewable sources.

Technology-driven arrangements

The progression of innovation, especially advanced stages, and cloud-based frameworks has encouraged the collection, administration, and investigation of carbon bookkeeping information. With the assistance of artificial insights and machine learning, organizations can streamline the method of measuring outflows, distinguishing regions for advancement, and optimizing asset allotment for carbon decrease ventures.

Investor focus

Shareholders and investors are progressively assessing companies based on their natural, social, and administration (ESG) execution. Carbon financial accounting plays a pivotal part in forming these evaluations, because it provides a substantial means to assess a company's commitment to maintainability, hazard administration, and long-term esteem creation. As the demand for maintainable ventures develops, organizations that have strong carbon financial accounting practices are likely to attract more investors.

Conclusion

Carbon financial accounting may be an essential step towards building a feasible future for organizations. By measuring, uncovering, and overseeing their carbon emanations, companies can adjust their monetary objectives with environmental and social responsibility. With government support, collaborative endeavors, and increasing mindfulness, carbon financial accounting has the potential to convert businesses into catalysts for positive alter, ushering in a period of supportability and flexibility for the country and the planet.

Recommendations for India

By empowering the execution of standardized arrangements, India can open the potential of carbon credit accounting to pull in investments in renewable energy projects, advance economical hones, and foster environmental stewardship. Such initiatives can not only benefit the country financially but also contribute essentially to worldwide endeavors in relieving climate changes and advancing a greener and more sustainable future for all.

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