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# THE ROLE OF GREEN ACCOUNTING IN ACHIEVING CORPORATE SUSTAINABILITY IN DEVELOPING COUNTRIES; GREEN ACCOUNTING PRACTICE IN BANGLADESH

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**Abstract:** *This paper highlighted the importance of green accounting concepts, roles, practice, application and improvement to corporate identity and sustainability of companies in developing economies such as Bangladesh. The study revealed how green accounting improves environmental performance, control cost, and invest in safe technologies that help in decisions such as product mix, product retention, and product pricing. This study also highlighted the environmental, social and economic impact of business by incorporating both economic and environmental information in business decisions. This study adopted a questionnaire for data collection and the respondents were selected at random. The study also suggested design and emphasis of industry specific accounting framework in terms of green accounting, corporate sustainability and disclosures in order to achieve maximum implementation and practice.*

*This study is limited to selected Malaysian and Bangladeshi companies that included private sector, public sector, multinational companies, and entrepreneurs operating Dhaka, Narayanganj and Chittagong . This study adopted Kuala Lumpur as benchmark for information, which were collected to improve organizational performance with objective of maintaining proper environmental stands required to achieve corporate sustainability. The findings may not be applicable to countries with economic and industrial policies different from those considered in this study.*

**KEYWORDS:** *Green accounting, corporate sustainability, developing countries, accounting practice.*

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## I. Introduction

In the 21<sup>st</sup> century, green accounting is a precondition to keep natural resources safe in order to face the global challenges affecting the green environment (1). Every company's primary goal is to meet the demands of shareholders and prospective investors and protect the corporate, however the issues on green accounting are mostly ignored at the corporate level particularly, in Bangladesh (2). Green environment is getting noticed in Bangladesh but awareness of green accounting must be increased as it helps attain more sustainability goals and avoid unhealthy consequences to the environment. Corporate owners desire continuous profits through resource management and accumulation of wealth overtime, and in the process deviate from safe practices causing harm to society; for instance Readymade Garment Industry in Bangladesh is substantially contributing to Bangladesh economy however they are creating severe disasters and unable to sustain the green environment (3). These incidents require the need to adopt green accounting principles along with the basic requirements of natural environmental protection for achieving corporate sustainability in developing countries. The U.S. Bureau of Labor Statistics predicts employment of green accountants and auditors growth by 13% from 2012 to 2022 and this was said to be a career pathway for next generations graduates (4).

The sustainability Accounting Standards Board (incorporated in 2011) is currently developing industry specific accounting standards for sustainability for annual reports like a Form 10-K (A detailed summary of a company's business, risks and results) which is mandatory to file with U.S. Securities and Exchange Commission (SEC) for publicly traded companies. In this situation, green accountants are required to ensure that the necessary standards are well implemented and reported (5). The corporate sectors in developing countries are seldom aware of environmental protections but recently more corporations are opting for future opportunities that are substantially grounded on the overall welfare of natural environment. As a result, green accounting is a fresh concept which can focus on some fundamental factors such as; resource management, environmental effect of revenues and expenditure adjustments taking the deductions of environmental loss due to pollutions and depletion of natural resources into account for companies (6).

According to the International Climate Vulnerability Monitor Report gradual climate change throughout the globe, particularly, in developing countries like Bangladesh and India are adversely getting affected by the quality of life. For instance, the USA could lose 2% of its gross domestic product as a result of droughts and water shortages by 2030. Real accounting practice in corporate levels under Green accounting perspective was presented that garbage and waste form production and their definite damage to the eco-system are not accounted for even though green revolution enhanced food production, it also caused ecological damage due to imbalanced use of fertilizer. (7). This study also showed corporate decision makers do not consider that recent climate change due to treeless ecosystem and frequent earthquake in developing countries can be resolved by green accounting sustainability.

A study based on some selected textile companies in Bangladesh discussed how not only third world but first world countries are concerned about environmental factors (8). The findings of this study highlighted the harmful effect of environmental pollution as a great threat for Bangladesh. This was said to have resulted from the companies disobeying the world environmental protection Laws thus indicating that environmental issues are not considered in accounting systems though some efforts are undertaken for doing green accounting

practice with a view of taking corporate sustainability task. There are important implications of green accounting for corporate development and it is crucial for companies to keep the environment fit, safe and Sustainable (9). Green accounting considers the demand of corporate sustainability with a view of giving a greater attention to issues of production and practiced in developed countries such as the USA and UK; who have achieved a significant progress in both theory and practice regarding environment and evidenced in a number Environmental laws (10).

World business council for sustainable development mentioned that sustainable development is an activity for economic boom; and a profit directed firm should consider environmental, economic and social effects and satisfy beneficiaries. However, the process of sustainability to perform in development should test its attitudes and values (11). Tim Gearty, National director and editor in chief Becker President Education stated that; “ individuals who are visionaries and believe people and origination can and must make a difference are prime Candidates for this field. The professionals who make this commitment will realize that they and the work they are doing will have a positive impact on the human condition and environment for decades to come”. Not only corporate owners but also the present and prospective investors should be interested in corporate disclosures of greenhouse gas emissions, water and energy consumption, waste creation and recycling and renewable energy uses. This way, green accounting along with its corporate sustainability goals will not only have positive impact in developing countries but also have significant benefits for society via pollution reduction and public health preservation and it might generate a new point of focus to other countries around the globe.

### **1.1 Problem Statement**

Accelerating the task of corporate sustainability in developing countries is not only a problem but also a challenge for South East Asia and other developing countries and research on green accounting for corporate sustainability in these countries is critical however limited (12). The amount of experts in this field and in financial subjects in these countries needs to be supported with a planned budget and good decisions of policy makers however the number of experts in green accounting are minimal in Bangladesh making it a concern to have adequate expert opinion on the subject matter (13).

Although Yousuf (2015), in his study on green accounting in developing countries; stated that it is logically tough to examine companies from other countries. Many countries Jordan, U.A.E. face difficulties in working with performance levels which is an obstacle and requires needed observations to perform research tasks. All countries maintain four performance levels; environmental awareness, environmental involvement, environmental reporting and environmental audit (14). In Bangladesh, the same performance problems exist and it is quite difficult to get all corporate companies to do voluntary financial disclosures in terms of environmental protection issues. Logically, protection issues, co-operations of companies and approval of these issues by the government of Bangladesh will be needed to accelerate the research work on green accounting.

A survey of a group of polish companies taken 60 entities from 5 sector of industry which was reported before Management, Knowledge and Learning Conference in 2013, the practical problem was that organizations are prioritizing for profits leaving corporate responsibilities and social interest unattended (15). This problem was similarly identified in Malaysia as the reporting of sustainability practices

and steps are still not done. Whereas green GDP is a substantial factor not only in Malaysia but also in the whole World; which when related to sustainable development in current world environment focuses on a robust environment accounting system, which is a new concept that will take time to have active attention and participation in Malaysia and around the world (16). A related study introduced sustainability accounting, going beyond green accounting and its methods and procedures for practical application to achieve corporate sustainability (1). Consequently, the gap found here hopes to foster sustainability goals for green accounting and to create a career pathway for the next generation workforce. This study cannot ignore traditional accounting, hence the study intends to investigate how to combine traditional accounting and sustainable green accounting to match with corporate sustainability in developing countries for successful accomplishment of green environmental goals; which in turn requires modern research methods, evaluation, and overall research support.

### **1.2 Research Objectives**

To show the research framework, in line with the research background and research problems discussed earlier, this study hopes to achieve the following objectives:

- To determine the extent to which green accounting contribute to corporate sustainability in developing countries.
- To investigate the impact of the corporate sustainability on green accounting responsibility and the extent of its implementation and practice for developing countries.
- To determine the extent the extent to which users practicing green accounting and traditional accounting work with corporate long term success and continuity tasks in developing countries.

### **1.3 Research Questions**

- To what extent does green accounting contribute to corporate sustainability in developing countries?
- To what extent does corporate sustainability impacts on green accounting responsibility and what is the extent of its implementation in practice for developing countries ?
- To what extent does users practicing green accounting and traditional accounting work with corporate long term success and continuity tasks in developing countries?

## **II. Literature Review**

The literature review is presented in three sections. The first section deals with green accounting, followed by the review of literature on its implementation for corporate sustainability and relationship with organisational performance and the third section reviews the implication of green accounting on organisational performance for corporate sustainability in developing countries.

## 2.1 Green Accounting Development History

The term, green accounting, was first used by economist Peter Wood in the 1980's. The concept re-emerged as a new approach to reframe the conventional growth model and re-asses many of corporate sustainability efforts with a view of taking decision for companies growth and development in the long term. Green accounting is a type of accounting that attempts to factor environmental costs into the financial result of operations. This is an emerging aspect of accounting science that will influence the future of enterprises. The adoption of basic elements of green accounting will portray the role of environment in the economy as well as render easier the analysis of macroeconomic questions with the help of accounting information systems and thus, lead the economy to a viable path (17; 18).

Developing countries such as Jordan and U.A.E are still in their early stages as few of their Companies report their environmental performance however research discloses strong punishments including capital punishment for violating Law of Environment protection (19). They have shortage of graduates and skilled labors provided thereby defaulting the environmental responsibility; which is generally difficult to achieve in developing countries because there is a lack of proper and effective education and knowledge of accounting and financial subjects. A practical problem was found that companies whose operations were detrimental to health were not willing to shut down their plants though required by environmental protection to do so (20).

According to the World Bank report in 2013, on the progress of five nations; Botswana, Colombia, Costa Rica, Madagascar and the Philippines implementing its Wealth Accounting and Valuation of Ecosystem Services (WAVES) project. Their goal is to promote sustainable development by making sure the value of natural resources which is taken into account in the measure and plans for economic growth is voluntary under SEC (Securities and Exchange Commission) guidelines. Importantly, the voluntary task is essentially needed to be moderated with proper attention (8; 21). The fact is that due to difference in history, culture, language, economic, environmental and social conditions of these countries, sustainability and the quality of reporting is much better and mature in some of the developed countries as compared to developing countries (22).

Moreover, differences in management approach and commitment also make the adoption and development of green accounting challenging. Subsequently, many initiatives on sustainability which could not get any attention in developing countries yet, are already materialized in developed countries. Hence, the adoption and development of sustainability practices are a challenge in developing economies like Malaysian and Bangladesh (23).

Malaysian companies are also not consistent in perusing their efforts in adopting and reporting sustainability practices. A study of the 250 large companies listed on Bursa Malaysia revealed that sustainability has been improving for the last few years in the country. The study of Government linked Companies revealed that sustainability practices are still moderate in Malaysia (24; 25; 19; 26). In current times, as per the environmental point of view, real GDP (Gross Domestic Product) fails to consider depletion of natural resources and pollution damages. Green GDP gives value to the cost of environmental losses and therefore adjusts GDP to reflect the environmental costs. In developing countries with rapid economic growth like Malaysia, the linkage between environment and economics is very important. Since natural capital is recognized as an important economic asset that could have potential for long-term contribution to productivity and welfare, it is necessary to treat them very well (27).

Also, as Green GDP is still in the developing stage in the world, no country has substituted the traditional GDP with the Green GDP yet. Now, it is essential to establish a national and local database and develop a robust environmental accounting system for more accurate and comprehensive data collection and accounting (14). Companies have a key role in achieving the sustainability their present activities will play for the current and the future generations and as such, they are slowly starting to realize how to achieve corporate sustainability, and how to contribute to global sustainability. However, traditional accounting systems do not deal with accounting for social and environmental effects. For this reason, sustainability accounting, going beyond green accounting is urgently needed to emphasize and determine the method and procedures applicable in practical life so that decisions based on the information provided by sustainability accounting contribute to economic, social and environmental importance and also make it possible for companies to survive in the long term (28).

## **2.2 Green Accounting implementation for corporate sustainability**

The concept of green accounting with environment accounting as well as sustainability accounting has gotten attention in form of corporate sustainability or accounting for green environment or green revolt. Most scholars believe that companies can only have long term profitability if they do not ignore their impact on society and the environment and conversely the effects of society and the environment on the companies (19). This study further stated that the traditional accounting system puts no emphasis on organization's operation. However, an assessment of the relative importance of environment relative cost and cost drivers of different processes and product times can help an organization determine whether or not the cost allocation bases being used are appropriate for those cost (29).

U.A.E issued two laws to better protection and conservation of environment with both the short-term and long term negative effects. However, the laws imposed death sentences and fines ranging from DH 1 million to DH 10 million for violators (25). In Jordan, Law of Environment Protection (LEP) was issued in 1995 aimed at conserving the environment. Here the good news that their LEP, however, it does not require the publication of environment reports by companies and organizations nor does it compel them to appropriate part of their normal annual reports to disclose the impact of their operations on the environment. Above all, many organizations have voluntarily provided environment reports. It is clear that corporate sustainability depends not only on some stipulated obligations but also on the roles of financial accounting and accountants.

Corporate sustainability under green accounting perspective is supposed to claim only when the capital management is sustainable and only if the value of net investment is positive where depletion of natural resources and degradation of environment resources are included as negative (30). In the Contemporary World, a couple of researchers discussed some positive ways to work with environment accounting and sustainability report (4). Environment Performance plays a vital role in implementing green accounting activities with a view to sustaining development for corporate success. However, Environmental performance can have significant benefits to society through pollution reduction and public health preservation. In reality, it is clear that products, processes which are more compatible with environment can provide competitive advantages for corporate image and identity among customers.

### **2.3 Green Practices and organizational performance for corporate sustainability.**

In Bangladesh no unique model for green accounting has been developed . A few research studies were conducted on Bangladesh Corporations on Corporate Social disclosure (31). This researcher discovered CSR Practices in Bangladesh is greatly influenced by social, political, cultural, legal, economic and technological factors. As such, sustainability of companies depends on sustainability accounting for which emphasis should be given in order to achieve green accounting goals for companies (1). This study further highlighted that for sustainability to survive in the long term, there should be economic, social and environment contribution by stakeholders.

### **2.4 Relationship between Green Accounting and organizational Performance for corporate sustainability.**

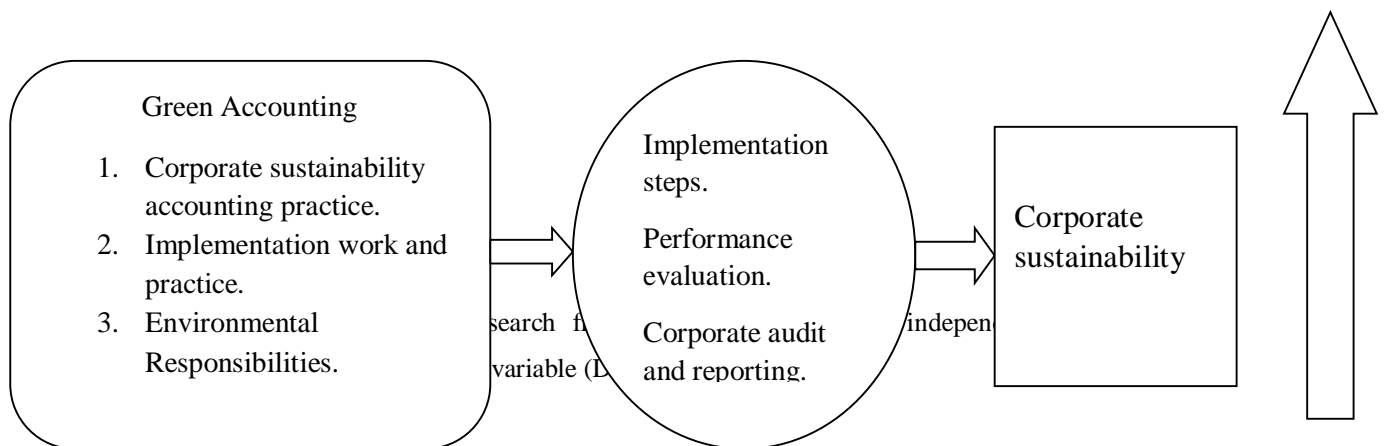
In no time, Green Indian states Trust (GIST) in 2003 unleashed a series of environmentally adjusted accounting under green accounting for Indian states Projects. Their results show the loss of the forest ecological services over three years ( 2001-2003) due to declining dense forests which was estimated at an astounding 1.1 percent of GDP. In this situation, organizations have positive roles not only for companies but also for their country as a whole with a motive to sustain development under green accounting perspective (9). Also Michael & Jones (2010,2015) developed a theoretical model that has eight premises emphasizing Industry and Environment is a new relationship. A related study in Bangladesh also discovered the absence of standard environment reporting framework for green accounting. This challenge created the negative impact to implement green accounting concepts (19). Logically, the literature highlighted the initiatives to modernize and improve the present ideas concepts, condition and disadvantages of environment accounting in corporate level.

Yousuf Jahamani (2015) in his previous studies mentioned all companies are require to report their environment performance by workshops, conferences and lectures. It can be asserted on the logical issue that the scholar has pointed out enough but fruitful actions for sustaining national and international commitment on environment issues that are major focus point without which no green steps for enhancing green revolution for green accounting and the successes of companies will remain only but on traditional accounting basis.

### **2.5 Theoretical Framework**

Thus, by incorporating the framework ideas and discussions earlier, the study develops a new structural Framework that incorporates of green accounting and implications on the overall corporate organizational performance (32).

**Figure 1: Research Framework**



### III. Research Methodology

This section will consider discussing the sample selection process, the operational measures of variables used in this study and statistical data used to evaluate the research question.

#### 3.1 Population and sample

The target population of this study is made up about 30 corporate decision makers of Bangladesh and Malaysia. The sample is determined by the table from sampling purposes by Saunders, et al., (2009). Thus, the units of analysis for the sample are green accounting for corporate sustainability selected through convenience sampling technique which fulfilled the selection criteria as below:

- The importance of green accounting for sustainability development in corporate levels developing countries.
- By location: This study chooses the area of Bangladesh and Malaysia due to the fact that Bangladesh is one of the biggest contributor of labor force at corporate levels in developing countries and some parts of Malaysia comprising Kuala Lumpur and its suburbs, and adjoining cities and towns in the state of Selangor. An alternative reference to this purpose would be Narayanganj and Dhaka, The EPZ (Export processing zone) and Kuala Lumpur Metropolitan Area or Greater Kuala Lumpur.
- By size of workforce: Dhaka, Narayanganj, Chittagong and Kuala Lumpur are homes to a large number of companies of neighboring Asian countries. The large organization or size of workforce of companies has been chosen for this study. The conurbation has a total population of over 4 million as of 2000, and is the heartland of corporate industry and commerce. In the most recent census, the number of companies of Dhaka, Narayanganj, Chittagong and Kuala Lumpur expanded to 1.5 million and in 2012, the companies in this areas is estimated to be 8 million. Most recent calculation in 2012 shows further increase in Dhaka, Narayanganj and Kuala Lumpur are home of multinational companies to roughly 5 million.



### 3.2 Data Collection and Measurement

The primary data for the study will be collected through a survey questionnaire. The 30 respondents will be selected at random from the list of top level management of companies acquired through the Directory . This study will carry out descriptive survey focusing on green accounting and corporate sustainability among the top management in the government sector in Dhaka, Bangladesh and Kuala Lumpur, Malaysia.

The questionnaires will require participants to provide their responses to statement relating to issues on green accounting using a Likert scale and open-ended questions asking respondents opinion. Data will be gathered with a variety of measures including a demographic questionnaire.

For this study, the instructions included in the questionnaires instructed participants to provide their understanding of green accounting and sustainability of companies. Participants were asked to provide opinions on corporate sustainability in terms of environmental protection, environmental involvement, with environmental reporting including the environmental performance of companies (2)and evaluation of environmental performance of companies.

A sample item from the green accounting performance subscale is : “ How confident are you that companies can fulfill the required standards effectively after a long and demanding need of corporate sustainability through green accounting perspective in developing countries ? ” A sample item from the issue of corporate sustainability depending on sustainability accounting with environmental accounting motto that go hand in hand with greening the environment of green accounting aspect.

“ How confident are you that you could fulfill all responsibilities despite going through highly competitive business and commercial age for developing countries ? ” The scale will be originally based on (33).

Questionnaire will be distributed by electronic mail (email) and postal mail or hand over by face to face. The survey questionnaire will be addressed to the person in charge of the top management level . However, it will be up to the organization to assign the most appropriate persons who have knowledge to answer the questionnaire. Where possible a site visit will be arranged to make sure the target respondent will be met and to conduct an interview session with key managers in charge or organization.

### 3.3 Data Analysis

Reliability and validity for the test will be conducted to ensure that questionnaire is reliable and valid. Reliability testing will be performed for each key area by calculating Cronbach’s Alpha for each construct. The latest version of SPSS 17.0 will be used (SPSS Inc., 2009). The analysis will include:

- Descriptive Statistics: Cross tabulation, frequencies, Descriptive, Explore, Descriptive Ratio Statistics
- Bivariate statistics: Means, t-test, ANOVA, correlation (bivariate, partial, distances), Nonparametric tests
- Prediction for numerical outcomes: Linear regression.

- Prediction for identifying groups: Factors analysis, cluster analysis (two-step, K-means, hierarchical), Discriminant.

For this study purpose, the significant level or probability level(p-level) will be set at 0.05 as acceptable level. The Pearson correlation will be calculated to evaluate the correlation between all the independent variables (IVs), intervening variables (IV) and dependent variables (DV) (34).

#### **IV. Conclusion**

This study is a reference for developing countries like Bangladesh and Malaysia to achieve changes in the traditional system of accounting and improve potential economic and social impacts of environment degradation with the adoption of green accounting. This considerations will help all concerned related to corporate sustainability by encouraging prioritizing green environmental issues which are practically needed for next generations.

This study therefore achieves the following outcomes;

- To foster economic growth and development; the generation of knowledge from the study is a contribution to the body of knowledge for corporate decision makers, governments of the respective countries and all other economies where similar circumstances exists.
- The interdisciplinary study significantly contribute towards enriching the boundary of existing knowledge in traditional accounting e, g. green accounting practice among the corporate sectors in developing countries.
- In addition, it will provide a base for future research in green accounting practice to help create awareness among people in the corporate sector for achieving long-term benefits for companies who are environmentally involved. This will also foster social interest and establish the contribution of developing countries towards global environmental commitment and protection for sustaining green global environment.

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