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Impact of Green Accounting on Company Value: Evidence from the Nigerian Companies

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Abstract

This paper is to determine the impact of green accounting on company value in case of Nigerian Companies**.** The researcher opted for quantitative method of research design and collected primary data. The researcher had used Smart PLS for obtaining the data results. The analysis technique used was Confirmatory factor analysis, Discriminant validity and Path assessment. Survey questionnaire was used to collect the data. Large sample size as used to obtain accurate results. Findings revealed that the P values of all 5 hypothesis were less than 0.05 which means that there is significant relation between all the variables. Limitations are geographical area that is restricted, the sample size and the number of variables

Keywords

Environmental financial accounting, ecological accounting, environmental cost accounting, environmental management accounting and natural resource accounting, company value, green accounting

1. Introduction

Over the years, the influence of environmental factors on company's decision-making process have significantly increased. This has led towards forcing the organizations to minimize their environmental costs, incorporate different factors of environment in their decisions related to strategic management and look to tap into different areas to effectively deal with increasing competition situation (Tanc & Gokoglan, 2015). In recent years, the growing significance of environmental factors in the strategic decision-making process is justified by the increasing commitment of businesses towards the concept of social responsibility, as the need for adding the component of social responsibility while recognizing different environmental factors have become crucial for businesses to survive in the market. In this regard, the concept of green accounting has gained huge prominence in the corporate world, which refers to keeping the record of all the impact that arises from the way organizations make use of environmental resources, which can be either negative or positive. The growing concern regarding the disclosure of green accounting information has been widely observed among different multinational corporations, particularly the companies operating in manufacturing industry ensures that their suppliers disclose green accounting information before carrying out the transactions. Therefore, it is quite evident that green accounting has become a normal trend in the corporate world.

The key idea of green accounting is to make environmental expenses as a part of company's operational cost; thus, companies are required to rethink about their product design to manage the existing profits, meet green accounting rules or improve overall environmental performance of the company (Magablih, 2017). In this regard, the concept of new product design should meet all the important environment related requirements on production and product development. Fulfilling the environmental responsibilities has emerge as one of the most important areas of social responsibility, and the concept of green accounting is widely supported as the most crucial element of corporate social responsibility (CSR). The increasing complexities originating from environmental issues trigger answers from all aspects of businesses, which also includes accounting. The concept of environmental accounting which also viewed as green accounting emerged in 80s and 90s when environment responsibility of organizations came to the forefront, as focus of the companies was shifted from combating pollution and environmental damages effected by large organizations to prevention. Hence, all these aspects make the major contribution towards the development of green accounting concept.

The topic of green accounting has been extensively discussed in previous literature (Medinaceli et al., 2017; Lakom, 2017); however, in the context of developing countries like Nigeria, there is found to be a lack of evidence in the existing literature regarding how green accounting can influence the company value. Hence, the key aim of this study is to determine the influence of green accounting on the companies operating in Nigeria.

2. Literature Review

The significance of green accounting has been well acknowledged in the previous studies. According to Hendratno (2016), the idea of environmental accounting or green accounting is to obtain the sustainable development, pursuing efficient and effective environmental conversational activities, and managing a favorable association with the society as whole. The notion of green accounting is commonly viewed as a form of accounting that add environmental costs into the financial operation results. In accordance with the study of Solanki (2016), green accounting is for any benefits and costs that arises from any modifications to company's offerings and processes, in which the change also involves a significant change in the environmental influence. As per the same study, the type of accounting procedure follows in green accounting enables the organizations to determine the environmental conservation cost in the normal course of business, realize the advantages achieved from such activities, and offer the best probable means of quantitative evaluation in physical units or monetary value, and also support the communication of its outcomes. Similarly, the study carried out by Agarwal & Agarwal (2018), argues that green accounting promises to help the organization in developing more effective and proactive environmental planning through the reduction of environmental cost, which eventually enhance the overall profitability of the organizations.

According to Adediran & Alade (2013), the production activities carried out by different organizations have led towards environmental degradation and resources depletion. The same study also argues that production activities also led towards the ozone layer depletion, thus it has also caused the imbalance in the overall environmental system in Nigeria. Therefore, the growing concern regarding resources depletion, environmental degradation, and economic activities sustainability has made green reporting and accounting an important area of interest among different businesses (Bartelmus, 2009). In this regard, most of the organizations have increases their focus towards reporting the effects of consumption and production on environment in their financial statements, as many stakeholders and investors demand such information from the company. As mentioned in the study of Ma & Ma (2019), investors force the companies to disclose their environmental performance, thus the implementation of green reporting has become crucial for companies operating in different industries. Hence, the implementation of green reporting can make a positive influence on the company's value. The study carried out by Egbunike & Okoro (2018), identifies the significant impact of green accounting on company's value, as it can raise the stock prices, and earning per share values of the company.

In order to gain the better understanding green accounting concept, it is vital to identify the different factors and types of green reporting that can influence financial performance of the company. The study conducted by Ochotorena

(2017), outlines five different forms of green reporting that can make the positive impact on company value, which includes environmental financial accounting, environmental cost accounting, ecological accounting, environmental management accounting, and natural resource accounting. Environmental financial accounting deals with the true disclosure of environmental performance in financial statements at the end of the period (Fuzi et al., 2019). This involves environmental dimensions in operation's published sheets. On the other hand, environmental management accounting refers to the management of economic and environmental performance of the company through establishing and implementing the most suitable environment related accounting practices and systems (Latan et al., 2018). Generally, the environmental management accounting generally includes life-cycle costing, assessments, benefits, and strategic planning for environment management. According to Zeng et al., (2019), environmental cost accounting emphasized on environmental cost in order to reach the comprehensive cost accounting, identifying, evaluating and allocating conventional costs, social costs and environmental costs to products, activities, processes, or budgets.

The notion of ecological accounting deals with the preparing accounts on the basis of physical data only. This type of accounting is normally used to develop the plans of asset management at the local administrative level (Zhou et al., 2016). This plan offers an appropriate method to assess life cycle and condition of any of the specific asset. On the other hand, natural resource accounting deals with the inclusion of the different environmental aspects into the national account system. In this regard, companies emphasized on natural assets, weakening in its quality to obtain an indicator of environmentally adjusted economic like environmental gross national income (Serrat, 2016).

3. Theoretical Framework

In accordance with legitimacy theory, organizations are not just required to consider the rights of stakeholders, but they are also responsible for fulfilling the basic rights of general public Hummel & Schlick (2016). The legitimacy theory holds the view that there is a social contract among the local community and the organization, which implies that community will only the organization to carry out its operations if they are able meet their expectations. In this regard, a failure to meet the basic requirements and expectations of society can imposed sanctions in the form of limitation of resources, legal restrictions, or claims damage by people (Dube & Maroun, 2017). Hence, it is vital for companies to pay close attention towards fulfilling the expectations of society, and ensure the proper implementation of green accounting.

4. Conceptual Framework

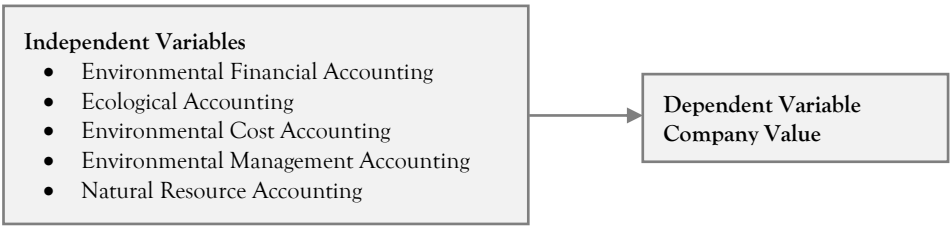

Figure 1: Conceptual framework

H1: There is a significant impact of environmental financial accounting on company value.
H2: There is a significant impact of ecological accounting on company value.
H3: There is a significant impact of environmental cost accounting on company value.
H4: There is a significant impact of environmental management accounting on company value.
H5: There is a significant impact of natural resource accounting on company value.

5. Methodology

The researcher has opted for quantitative method of research design for this study along with primary method of data. The Likert scale was used to design the survey questions and based on each variable of the study, the questionnaire was completed. The researcher intended to determine the impact of green accounting on company value therefore, green accounting was sub-divided into five different variables that are: environmental financial accounting, ecological accounting, environmental cost accounting, environmental management accounting and natural resource accounting. The researcher had used Smart PLS for obtaining the data results. The analysis technique used was Confirmatory factor analysis, Discriminant validity and Path assessment.

6. Results

6.1. Confirmatory factor analysis

In order to analyse the data and find the relationship between the variables, it is necessary to know whether the constructs used are reliable and valid or not. Hence, for this reason, confirmatory factor analysis is carried out that comprises of different measures that help in finding the reliability. There are four measures used in this study: Outer loadings, Composite reliability, Cronbach alpha and AVE (Average variance extracted).

Table 1: Confirmatory factor analysis

	Outer loadings	Cronbach Alpha	Composite Reliability	AVE
CV1	0.891	0.888	0.931	0.817
CV2	0.935			
CV3	0.885			
EA1	0.902	0.882	0.927	0.809
EA2	0.927			
EA3	0.869			
ECA1	0.906	0.897	0.936	0.829
ECA2	0.924			
ECA3	0.901			
EFA1	0.726	0.797	0.882	0.715
EFA2	0.926			
EFA3	0.873			
EMA1	0.845	0.856	0.906	0.763
EMA2	0.925			
EMA3	0.849			
NRA1	0.903	0.901	0.938	0.834
NRA2	0.933			
NRA3	0.904			

To begin with, the table 1 above shows outer leading as the first measure of analysis for reliability. Mustapha et al., (2019) revealed in their study that outer loadings show the reliability of the indicator variables. The standard values of outer loadings should be above 0.70 in order to validate it as highly reliable. All the constructs shown above has values exceeding 0.70 which means all constructs are reliable for further testing.

Next is Cronbach alpha which is also a measure of internal consistency of the scale used and hence, is appropriate for finding the reliability. It needs to be higher than 0.70 for higher reliability. As the table 1 above shows that all the values of Cronbach Alpha are above 0.70 therefore, they have high internal consistency. Another important value for consideration is composite reliability. Since, Cronbach Alpha cannot show too accurate results therefore, composite reliability is used. It also shows the internal consistency. The values above show that composite reliability of all constructs are above 0.70 which indicate that they are highly consistent. Lastly, Average Variance extracted or AVE is the last measure of variance in the indicators. Serafini et. al (2016) highlighted in their study that lower value of AVE indicate that variance is lower than the overall error variance. As the table 1 above clearly shows that all variance are due to the indicators being used.

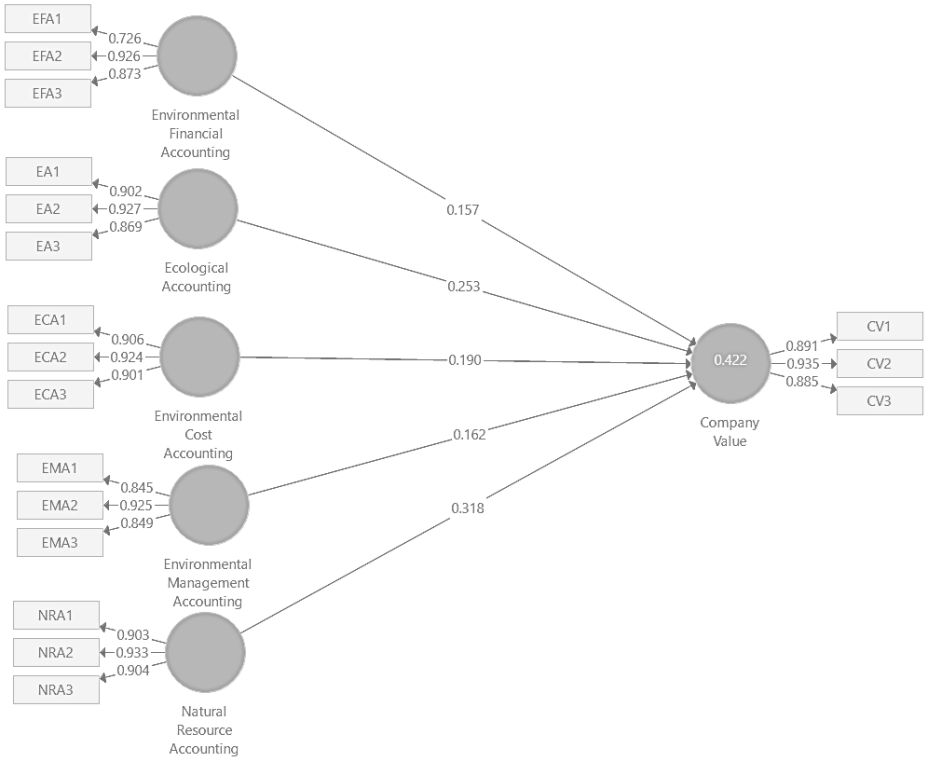

Figure 2: Full Model

6.2. Discriminant Validity

For the purpose of finding whether the measures of the model are similar or related to each other or not, discriminant validity is used. Though discriminant validity can be tested through different ways but in the following paper, HTMT ratio or Heterotrait-Monotrait Ratio is used. This can be useful in examining the relatedness between the variables.

Table 2: HTMT Ratio

	Company Value	Ecological Accounting	Environmental Cost Accounting	Environmental Financial Accounting	Environmental Management Accounting	Natural Resource Accounting
Company Value						
Ecological Accounting	0.606					
Environmental Cost Accounting	0.525	0.770				
Environmental Financial Accounting	0.470	0.704	0.640			
Environmental Management Accounting	0.206	0.574	0.625	0.673		
Natural Resource	0.581	0.507	0.389	0.319	0.122	

Based on the results of table 2 above, it is evident that all the values obtained are less than 0.90 which means that variables are not related with each other. This also shows that the variables are valid and are not associated with each other. This indicates that the researcher can move on with further hypothesis testing and determining the relationship between variables.

6.3. Path Assessment

In the section below, the proposed SEM model is analysed. The analysis can be done with the help of R square and adjusted R square. The results are shown below in the table 3.

Table 3: Goodness of fit

	R Square	R Square Adjusted
Company Value	0.422	0.412

The table above shows that since both the values of R square and adjusted R square are aligned therefore, the researcher can predict the variance that occurs in the dependent variable due to independent variable.

Table 4: Path Coefficients

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Ecological Accounting -> Company Value	0.252	0.248	0.078	3.245	0.001
Environmental Cost Accounting -> Company Value	0.189	0.186	0.075	2.530	0.011
Environmental Financial Accounting -> Company Value	0.157	0.156	0.059	2.646	0.008
Environmental Management Accounting -> Company Value	0.163	0.154	0.058	2.806	0.005
Natural Resource Accounting -> Company Value	0.320	0.322	0.064	4.997	0.000

Based on the values that are shown above in the table, the paths are shown by the help of the P values that also show their significance. All the independent variables are mentioned above along with their relation with company value. The company value is dependent variable. The P values should be less than the desired value of 0.05 in order to validate it as significant whereas, any value above 0.05 is

considered to be insignificant. The table 4 above clearly show that all paths have significant relationship with company value in case of Nigerian companies.

6.4. Hypothesis Assessment

Based on the table shown below, the hypothesis results can be evaluated. The purpose of finding the hypothesis results is to find out whether there is any relationship between the independent and dependent variables or not.

Table 5: Hypothesis Summary

Hypothesis	Accept/Reject	P-Value
H1: There is a significant impact of environmental financial accounting on company value	Accept	0.001
H2: There is a significant impact of ecological accounting on company value	Accept	0.011
H3: There is a significant impact of environmental cost accounting on company value	Accept	0.008
H4: There is a significant impact of environmental management accounting on company value	Accept	0.005
H5: There is a significant impact of natural resource accounting on company value	Accept	0.000

As shown above in table 5, the P values should be less than 0.05 in order to validate them as significant whereas any value exceeding it is considered as insignificant. The hypothesis was related to whether there is any significant impact of environmental financial accounting, ecological accounting, environmental cost accounting, environmental management accounting and natural resource accounting on company value or not. The P values of all 5 hypothesis were less than 0.05 which means that there is significant relation between all the variables.

7. Discussion

Based on the results obtained above and the findings of this study, it can be validated that there is significant relation between green accounting and company value in case of Indonesia. In the Indonesian market, the green environment trends are increasing and the country is trying to integrate more such practices through which green practices can be increased. The significant relationship between environmental financial accounting, ecological accounting, environmental cost accounting, environmental management accounting and natural resource accounting on company value show that further work can be done in this domain in order to enhance overall company value.

8. Conclusion

In order to conclude the above article, it can be stated that the independent variables used in this study are environmental financial accounting, ecological

accounting, environmental cost accounting, environmental management accounting and natural resource accounting which has strong association with company value. However, the limitations of this article are geographical area that is restricted, the sample size and the number of variables. The study could be improved through more comparative analysis with other countries.

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