

IMPACT OF ENVIRONMENT ACCOUNTING DISCLOSURES ON PROFITABILITY AND FIRM VALUE OF PETROCHEMICAL INDUSTRY IN THE PHILIPPINES

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ABSTRAK

Environmental Accounting is an emerging subject of interest globally as a link between accounting and environmental management. This study aims to examine the impact of Environmental Accounting Disclosure (EAD) on the firm's profitability and firm value. The object used in this study was the thirty (30) publicly-listed chemical, mining and oil companies under the Petrochemical Industry in the Philippines which are considered as pollutant contributors. Causal-explanatory research was utilized. Financial and environmental data from years covering 2015-2019 were gathered from secondary sources specifically, Annual Reports and Annual Corporate Governance Reports of these companies. Environmental Accounting Disclosure (EAD) was measured using EAD Index. Profitability was measured through the use of Return on Assets, Return on Equity, Net Profit Margin and Debt to Equity Ratio whereas, firm value was measured by Tobin's Q. Furthermore, firm's size and age were used as moderating variables. This study concluded that it has no significant effect on either the profitability and firm value. Therefore, whether environmental information was disclosed, it would not affect the independent variables. However, when moderated by firm size, it gives a significant effect to the profitability. This implies that as the firm increases in size, EAD significantly impacts the profitability.

Keywords: *Environmental, Petrochemical, Profitability, Firm value, Profitability ratios, Firm age, Firm size*

INTRODUCTION

The Philippines has been a forerunner in passing environment and natural resources (ENR) policies and legislation. Through the years, the government has issued a plethora of laws and created institutions to manage, protect, and preserve the country's environment and natural resources, (World Bank, 2009).

Despite these laws being implemented, environmental crises such as air, water and land pollution, global warming, climate change, and other natural calamities continuous to impede the growth of the Filipinos with its harmful effect. In 2018, a study by the World Health Organization states that there were

45.3 air pollution-related deaths for

every 100,000 people in the Philippines. To highlight, the country ranked third having the most pollution-related deaths in the world, China came first with 81.5 pollution-related deaths and Mongolia's 48.8 deaths per 100,000 people that came second.

Needless to say, environmental issues have become the Philippines' major problem. Pollution of air, land and water through excessive deforestation, industrialization and overfilling landfills which emits Carbon Dioxide (CO₂), and adds to greenhouse gas emissions are all topmost causes of these environmental issues, (Lawson, 2019). Furthermore, companies which use up natural resources in its operation, like petrochemical industries, have been significant contributors to the depletion of the natural resources in the Philippines. Despite the fact that they are responsible for manufacturing most of the things we use for our daily lives, petrochemical industries contributed largely to issues regarding pollution. As defined by Gupta and Pathak (2020), a petrochemical industry is an industry branch that produces organic intermediate products such as refinery products, natural gas, plastic, rubber, fiber raw materials. In order for them to sustain their pollution, the environment suffers. Along with generating huge profit, they also produce huge amounts of waste such as masses of discarded plastic. These wastages, unfortunately, help contribute to vast increase of pollution.

With these facts, environmental accounting emerged as a tool linking accounting with environmental management. Chartered Global Management Accountant defined Environmental Management Accounting as the identification, collection, analysis and use of two types of information for internal decision making. The first is physical information on the use, flows and rates of energy, water and materials

(including wastes). The second is monetary information on environment-related costs, earnings and savings. With the help of EMA, the Philippines can address the issue of how it can contribute towards development of a sustainable environment through companies that are able to disclose environmental costs with their environmental accounting disclosures.

The impact of environmental accounting disclosure does not limit only with its stakeholders and other fundamental users of the financial reports. Potentially, it contributes to the firm value and profitability of the companies, specifically, petrochemical industries. Firm value as defined by Fernando in 2021, is a measure of a company's total value, often used as a more comprehensive alternative to equity market capitalization. This is also a popular metric used to value a company for a potential takeover. Profitability, on the other hand, arises when aggregate amount of revenue is greater than aggregate amount of expenses in a reporting period.

Certain study shows that there is no significance between the environmental accounting disclosures and the profitability and firm value. A study by Carandang and Ferrer in 2020, used auditor firm type, firm size, board size, number of years listed in the PSE, and location as moderating variables. Additionally, the study used the net profit margin and return on equity for profitability and Tobin's Q for firm value, as dependent variables. This concluded that environmental accounting disclosure in itself is not significant to any of the dependent variables. However, when moderated by location, it is significant to return on equity. Other moderating variables showed no significance on the company's profitability and firm value.

On the other hand, a study to examine how environmental accounting disclosures (measured by the environmental disclosure index) is related to financial performance

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(measured by ROCE, ROE, NPM and EPS) of selected food and beverages firms was conducted in Nigeria. This study of Ezeagba, Rachael, and Chiamaka in 2017 shows that companies with better environmental accounting disclosures had higher Earnings per Share and Return on Equity. This shows that there is a significant relationship between environmental accounting disclosures and earnings per share and return on equity of selected companies. However, it was a contrary in the study conducted by Egbunike & Okoro (2018) that gauged green accounting by means of the expenses of the community involvement and the amount spent on environmental protection, and profitability via return on equity and Tobin's Q. It was revealed that there was no significant relationship between green accounting and profitability measures among the non-consumer goods firms.

With the issue of firm values, study found an association between firm value with environmental information reporting or disclosure by companies. Environmental information disclosure indicates that the company is obedient to regulations. Company's awareness to environmental information disclosure becomes better. This result was based on the paper done by Mohammad Iqbal, et al. on 2013 which used primary data that collected using questionnaires as well as secondary data. Data were gathered from the population selected through purposive sampling. However, in contrary to the prior study, a paper that focused on chemical industries in Japan was able to determine that environmental costs negatively influenced Tobin's Q, a measure of firm value. Nuzula (2019) used 27 chemical companies listing in Japan Exchange Group (JPX) first section during 2013-2015 periods.

Through further assessment, the DENR is pushing for an honest-to-goodness natural resource and environmental accounting system to enable

the agency to come up with specific policies and programs consistent with the sustainable integrated area development approach. It is essential to develop control and preventive measures which are to be taken at the planning stages in these industries. With this, the research will be able to provide a better understanding and importance of environmental accounting.

In light of this, the study, as well as, the researchers want to find out the Impact of Environmental Accounting Disclosures of the Petrochemical Industry in the Philippines to its Profitability and Firm Value. In line with this are the moderating factors such as the firm size and age and measure the significance of these to the company's profitability and firm value.

METODE PENELITIAN

This chapter presented the detailed description of the research process. It provided the research design, techniques and method used and the justification for the use of this method, the population of the study and the research procedures and its data analysis which included the sources of data used and its statistical treatment.

This study utilized both causal and explanatory research design. It has the objective to evaluate the impact of environmental accounting disclosure to the companies under the Petrochemical industry in the Philippines with regards to their profitability and firm value while considering the firm size and age as moderators. The firm size was measured by its assets while the firm age was determined by the date of establishment, the moderating effect of these demographic factors were evaluated. Additionally, Environmental Accounting Disclosure (EAD) was measured through EAD Index. Firm Profitability was computed by profitability ratios such as ROA, ROE, DTE and Net profit margin ratio, and firm value was determined by Tobin's Q.

The study made use of secondary data generated from the annual financial statements of the publicly listed corporations under the Petrochemical industry of the Philippines that were downloaded from the company's website or Philippine Stock Exchange (PSE)'s website.

The population of the study were the publicly-listed corporations under the Petrochemical industry of the Philippines. Using the data available on the Philippine StockExchange (PSE)'s website, twenty (20) Mining companies and (4) Oil companies were listed under the Mining and Oil sector and six (6) companies engaged in Chemical processing fall into the Industrial sector. Presented on the table below were the lists of the companies.

HASIL PENELITIAN

Descriptive Statistics

Descriptive statistics, including, mean, median, minimum and maximum values, and standard deviation, were generated for each of the variables included in the model, as shown in the table below.

Table 8: Descriptive statistics

N= 106	Mean	Median	Min	Max	Standard Deviation
EAD Index	0.57	0.56	0.28	0.83	0.15
Return on Asset	0.03	0.02	-0.54	0.44	0.10
Return on Equity	0.04	0.03	-0.57	0.57	0.13
Net Profit Margin	-47.74	0.08	-3611.5	30.58	360.08
Debt-to-Equity Ratio	0.51	0.41	0.00	1.44	0.43
Tobin's Q	1.26	0.84	0.11	15.43	1.85
Size	48.41	46.00	8.00	116.00	26.96
Age	9.63	9.82	6.84	10.90	0.92

The table above displays the number of observations, data's characteristics of Environmental Accounting Disclosure, Financial Ratios (Return on Asset, Return on Equity, Net Profit Margin, and Debt to Equity), and Tobin's Q, along with the moderating variables, size, and age. Out of 150 observations obtained from the data gathered by the researchers, 44 were

dropped because their Total Revenue were 0 thus, giving a result on Net Profit Margin of 0.

Indicated in the table are the minimum and maximum values of the independent, moderating, and dependent variables. Environmental Accounting Disclosure Index is computed using the weighted disclosures using dichotomous variables, 0 for not disclosing the standard and 1 for disclosing the standard. The percentage of scores of each company was obtained using the environmental index checklist suggested in the study of Villiers and Staden (2006) and used in the study of Carandang and Ferrer (2020). Of the 18 scores, the highest obtained was 15, and the lowest was 0 (See Appendix). The Environmental Accounting Disclosures percentage mean is at 57%, which means that, on average, a company discloses 10 out of the 18 pieces of information in the disclosure checklist.

Moreover, Financial ratios such as Return on Assets (ROA), Return on Equity (ROE), Net Profit Margin (NPM), and Debt-to-Equity (DTE) has the following minimum and maximum values; ROA has -0.54 to 0.44, ROE has -0.57 to 0.57, NPM has -3611.5 to 30.58, and DTE has 0.00 to 1.44. Tobin's Q, on the other hand, which measures the firm value, ranges from 0.11 to a maximum value of 15.43.

Correlation between Variables

Correlation matrix shows the relationship of each variable. Presented below is the generated correlation matrix using SmartPLS.

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Table 9: Correlation matrix of variables

	AGE	DTE	EADAVE	NPM	ROA	ROE	SIZE	FIRMVALUE
AGE	1							
DTE	0.384	1						
EADAVE	-0.118	-0.005	1					
NPM	0.134	0.150	-0.137	1				
ROA	-0.015	-0.001	-0.206	0.273	1			
ROE	-0.080	-0.012	-0.179	0.221	0.972	1		
SIZE	0.295	0.197	0.106	0.192	0.250	0.266	1	
FIRMVALUE	-0.209	-0.127	0.007	-0.216	-0.021	0.056	-0.444	1

The table above provided the insights that the Environmental Accounting Disclosure, though its index, positively correlates to Firm Value. However, out of four Financial Ratios used, only the Debt-to-Equity ratio showed a positive correlation, leaving the three (Return on Asset, Return on Equity, and Net Profit Margin) to display a negative correlation.

Also, the table shows that the Firm's size and age, if correlated to dependent variables, showed different correlations. The Firm's size and age both showed a negative correlation to Firm Value. On the other hand, the Firm's size showed a positive correlation to all financial ratios, while the Firm's age only showed a positive correlation to two financial ratios, Debt-to-Equity and Net Profit Margin.

Result of Regressions

Regression analysis is a reliable method of estimating relationships between a dependent variable and one or more independent variables. The process of performing a regression allows us to confidently assess the strength of the relationship between variables and determine which factors matter most.

Table 10: Results of Simple Regression

Dependent Variable(s)	R Square	R Square Adjusted
Firm Value	.0.259	0.221
Profitability	0.496	0.470

The table above showed that the firm value has a negligible correlation with the

independent variable (EAD index) having a 0.221 correlation. However, profitability showed a low positive correlation with the independent variable with a 0.470 correlation. This signifies that profitability has a more significant impact on the Environmental Accounting Disclosure index.

Structural Equation Model Outcomes

The results of this analysis were obtained using SmartPLS; Structural Equation Modeling (SEM). The table below summarizes the findings, which was followed by subsections discussing the results based from the table

Table 11: Results of Direct Path Analysis

	Original Sample	Sample Mean	Standard	T Statistics	P Values
			Deviation		
Direct Effect (N= 106)					
EAD Index_ -> Profitability	-0.193	-0.209	0.125	1.541	0.123
EAD Index_ -> Firm Value	0.050	0.082	0.103	0.480	0.631

a. Direct Impact Examined

Three aspects were checked for Profitability (using Financial Ratios) and Firm Value to identify causality. The following factors were analyzed for profitability: the independent variable Environmental Accounting Disclosure (H_{01}), the moderating variables Firm Size (H_{03}), and Age (H_{05}). Thus, Environmental Accounting Disclosure (H_{02}), Firm Size (H_{04}), and Age (H_{06}) were also used to measure Firm Value. Shown in the table presented were the p-values and t-statistics of the following relationships tested. EAD Index to Profitability resulted in p-value of 0.123 and t-statistics of 1.541, while EAD Index to Firm Value resulted in p-value of 0.631 and t-statistics of 0.480. Accordingly, when the p-value is lower than 0.05(5%) it shows significance, while

for the t-statistics, it is more than 1.96 to show significance between the relationships.

1) EAD Index to Profitability

EAD Index disclosures showed that it has insignificant and negative impact on Firm’s profitability. Therefore, this research failed to reject hypothesis 1 (H_{01}). Relative to the research of Carandang and Ferrer (2020), the impact of IFRS disclosures on profitability measures like Return on Assets (ROA), and Return on Equity (ROE), as well as revenues, was analyzed. The findings revealed that there was no significant connection between the two. Multiple scholars (De Burgwal D. V., Viera R. J. O. , 2014; Hsuehen Hsu (2017), Okoro, Egbunike & A.P. (2018), and Godwin Emmanuel et al. (2019)) arrived at the same results using various disclosure checklists such as content analysis scorecard and environmental accounting disclosure.

2) EAD Index to Firm Value

EAD Index disclosure displayed an insignificant and positive impact on Firm Value. This research failed to reject H_{02} (p- value = 0.631). This result is the same with the result of researches conducted by Nila Firdausi Nuzula (2019) that showed environmental disclosure has no significance influence on the firm value. However, Yongliang Yang, et al. (2020) arrived at different result and concluded that environmental accounting disclosure exerts a significant relationship with the Firm Values.

b. The Moderating Effect Explained

Two moderating variables were tested, the moderating effect of Firm’s Size to Profitability (H_{03}) and to Firm Value (H_{04}) as well as the moderating effect of Firm’s Age to Profitability (H_{05}) and to Firm Value (H_{06}). The

following were tested at significant level of 5%.

Table 12: Results of Path Analysis with moderating variables

	Original Sample	Sample Mean	Standard Deviation	T Statistics	P Values
EAD > Size > Profitability	0.776	0.760	0.154	5.036	0.000
EAD > Size > Firm Value	0.321	0.140	0.439	0.731	0.465
EAD > Age > Profitability	0.186	0.178	0.132	1.416	0.157
EAD > Age > Firm Value	-0.060	-0.058	0.069	0.864	0.388

1) The moderating effect of firm’s size on EAD Index to Profitability

The result showed a p-value of 0.000 and t-statistics of 5.036, which means size does moderate the relationship of EAD Index and Firm’s Profitability. Therefore, the research succeeded to reject hypothesis 3 (H_{03}). This is consistent with the research conducted by Carandang and Ferrer (2020) which revealed that EAD and Profitability has significant relationship, however, once moderated by location. Menike, L. M. C. S. (2020), Patrick Egbunike (2017), and Che-Ahmad, A. et al (2015) also arrived at similar findings

2) The moderating effect of firm’s size on EAD Index to firm value

Based on the table presented above, it showed a p-value of 0.465 and t-statistics of 0.731, which means there is no significance, therefore, the research failed to reject H_{04} . The results showed that size has significant impact to firm value. However, the results also showed that size does not enhance the relationship of EAD to firm value, which has no significant impact. This is in contrary to the results measured by Carandang and Ferrer (2020) which showed that EAD and Firm Value has significant impact when moderated by size.

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3) The moderating effect of firm's age on EAD Index to Profitability

The moderating variable, firm's age to EAD Index and Profitability showed a p-value of 0.157 a t-statistics of 1.416. With this, the research rejects Hypothesis 5 (H₀₅). This shows that Environmental Accounting Disclosure on Firm's profitability has insignificant and positive relationship even when moderated by age

4) The moderating effect of firm's age on EAD Index to Firm Value

Firm's age moderation to EAD Index and Firm Value has no significant and negative impact. With p-value 0.388 and a t- statistics of 0.864, the research failed to reject hypothesis 6 (H₀₆), which was measured using Tobin's Q. With this result, the research concludes that Environmental Accounting Disclosure and Firm Value has no significant relationship even when moderated by age.

The table below shows the summarized results of hypothesis testing

Table 13: Results of Hypothesis testing

	Hypotheses	Results
H ₀₁	Environmental Accounting Disclosure to Firm Profitability	<i>Failed to reject the null</i>
H ₀₂	Environmental Accounting Disclosure to Firm Value	<i>Failed to reject the null</i>
H ₀₃	Environmental Accounting Disclosure to Firm Profitability as moderated by Size	<i>Reject the null</i>
H ₀₄	Environmental Accounting Disclosure to Firm Value as moderated by Size	<i>Failed to reject the null</i>
H ₀₅	Environmental Accounting Disclosure to Firm Profitability as moderated by Age	<i>Failed to reject the null</i>
H ₀₆	Environmental Accounting Disclosure to Firm Value as moderated by Age	<i>Failed to reject the null</i>

Overall Result and Business Implication

The pressure was expected by businesses, which was given by stakeholders because they demand complete and informative reports from companies engaged in Petrochemical industry, thus, they are to provide full disclosure of their environmental accounting. Plus, the added pressure resulted from the public and government's

negative perspectives regarding the actual destruction of the environment and its subsequent effects, especially on the local community where it operates.

The study's findings revealed that, in general, environmental accounting disclosure has no significant impact to firm's profitability and firm value. Either of the two models that were tested proved that environmental accounting disclosure resulted in insignificant relationships, hence company's compliance to disclose both environmental financial and non-financial information will not affect the firm's profitability and value. In spite of the results, the Securities and Exchange Commission highly encourages firms to fully disclose their environmental practices.

Further testing the relationship of variables revealed that EAD, when moderated by certain variable, specifically, the size of the business, environmental accounting shows significant relationship to firm's profitability at 5% confidence level (p-value = 0.000, with indicated positive correlation). On the other hand, maturity, as measured by firm's age, does not affect the relationship of environmental accounting disclosures to firm's profitability. These results suggest that larger companies who disclose environmental accounting have better profitability. Only the size of an establishment affects the profitability, thus, compared with the firm value, where size and maturity were not significant at any cost.

The company's appreciation of their responsibility to all and the value of environmental conservation are reflected in their annual reports, where this information is already provided by certain extends. Upon accomplishing the EAD Index, where an adopted checklist was used (Carandang and Ferrer, 2020; Villiers and Standen's Proposed Environmental Checklist), disclosure requirements

pertaining to both financial and non-financial information were part of the criteria. Thus, financial data on the financial statements relevant to the environmental activities of the companies became one of the subjects. For instance, the presence of environmental costs like rehabilitation expenses, registration fees, and other fees for the compliance and implementation of environmental rules and regulations proved that companies are allotting a portion of their revenue to compensate for the environmental damages caused by their operations. Also, non-financial quantitative data like tables and graphs illustrating how many percent of a particular mineral material they own, provide insights to the end users regarding the amounts of the natural resources they are able to extract from the environment. Furthermore, non-financial qualitative information was also reflected to some of the companies' annual reports particularly, the risks that they pose to the environment caused by their daily operations and the risks imposed by the unforeseeable natural occurrences that could cause damage to their operations. There are also companies that formulate their own environmental policies, values and objectives as a way to expressly communicate their willingness to abide to their environmental responsibilities and create a sustainable environment. These acts of environmental accounting disclosures are a way of recognizing transparency that humanizes the practice of extracting natural resources from the Earth, demonstrating that, while economic development is necessary, social and environmental obligation is equally so. As a result, whether it's bad or good news, the public has a right to hear, and every corporation has a duty to report all activities that their business does to harm the world.

CONCLUSION

This study explores the impact of

Environmental Accounting Disclosures on the firm value and profitability of petrochemical industries. These were moderated by the size and age of the firm. The environmental information disclosure includes environmental financial and non-financial information. Based on the results, the researchers were able to determine the relationship of the independent variable to its dependent variable. Moreover, the researchers were also able to examine the moderating effect of the firm's age and size on the impact of environmental accounting disclosure on firm value and profitability.

Environmental Accounting Disclosure on Firm Value

The researchers concluded, based on their examination and the results of data gathering, that Environmental Accounting Disclosures have no significant influence on Firm Value. It can be implied that although firms are able to disclose environmental information, it does not constitute an effect on the firm value. With these results, the size and age of the firm, as moderating variables, do not moderate the relationship of the independent variable to its dependent variable. Whether environmental accounting information be disclosed, will have the same level of firm value.

Environmental Accounting Disclosure on Firm Profitability

In analyzing the effect of Environmental Accounting Disclosure on Firm Profitability, the results revealed that there is an insignificant impact. Disclosure of environmental information does not support the level of firm profitability of the Petrochemical Industries. However, when moderated by firm size, it is significant on the profitability. It explains that as the firm becomes larger in size, it affects the independent variable. The other

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moderating variable, such as the firm age, has been proved to be insignificant.

DAFTAR PUSTAKA

- [1] Aboud, A. and Diab, A. (2018) "The Impact of Social, Environmental and Corporate Governance Disclosures on Firm Value: Evidence from Egypt. *Journal of Accounting in Emerging Economies*.
- [2] Adediran, S.A., Alade, S. O. (2013). "The Impact Of Environmental Accounting On Corporate Performance In Nigeria." *European Journal of Business and Management*, Vol.5, No.23, pp. 141-151
- [3] Agbiogwu A.A. et al (2016). "Impact of Environmental and Social Costs on Performance of Nigerian Manufacturing Companies." *International Journal of Economics and Finance*, Vol. 8, No. 9, pp. 173-180
- [4] Ahmad A. A. PhD., et al. (2017). ""Impact of Environmental Disclosure on Performance of Cement and Brewery Companies in Nigeria."" *Civil and Environmental Research*, Vol.9, No.10, 2017, pp. 40-46
- [5] Ahmad et al (2018). "Relationship between Environmental Accounting and non-financial Firms Performance: An Empirical Analysis of Selected Firms Listed in Pakistan Stock Exchange, Pakistan", *Advances in Social Sciences Research Journal – Vol.5, No.1*
- [6] Bhandari P. (2020). Population vs sample: what's the difference? Retrieved from: www.scribbr.com/methodology/population-vs-sample
- [7] Borad, S. (2018). Value of a Firm. Retrieved from *Finance Management*: <https://efinancemanagement.com/investment-decisions/value-of-a-firm>
- [8] Britannica, T. Editors of Encyclopedia (2020, February 28). Petrochemical. Retrieved from: Encyclopedia Britannica. <https://www.britannica.com/science/petrochemical>
- [9] Carandang J. & Ferrer R. (2020). Effect of Environmental Accounting on Financial Performance and Firm Value of Listed Mining and Oil Companies in the Philippines. *Asia-Pacific Social Science Review* 20(1) 2020, pp. 117–134
- [10] Carandang J. C., and Ferrer R. C. (2020). "Effect of Environmental Accounting on Financial Performance and Firm Value of Listed Mining and Oil Companies in the Philippines." *Asia-Pacific Social Science Review*, 20(1), 2020, pp. 117-134
- [11] Che-Ahmad, A. et al (2015). "Environmental Accounting and Firm Profitability in Nigeria: Do Firm-Specific Effects Matter?" *IUP Journal of Accounting Research & Audit Practices*, Vol. XIV, No. 1, pp. 43-54.
- [12] Chiamaka, U., Ezeagba, C. & Rachael, J. (2017). Environmental Accounting Disclosures and Financial Performance: A Study of selected Food and Beverage Companies in Nigeria (2006-2015). DOI: 10.6007/IJARBSS/v7-i9/3315
- [13] Chiu, C.L. , et al. (2020). "A study of environmental disclosures practices in Chinese energy industry". Chiu et al. *Asian Journal of Sustainability and Social Responsibility* (2020) 5:9 <https://doi.org/10.1186/s41180-020-00036-1>.
- [14] Deb et al (2020). "DOES GREEN ACCOUNTING PRACTICE AFFECT BANK PERFORMANCE? A STUDY ON LISTED BANKS

- OF DHAKA STOCK EXCHANGE IN BANGLADESH" PalArch's Journal of Archaeology of Egypt/Egyptology, 17 (9) (2020) East Asia & Pacific Region World Bank. (2009). The Philippines: Country Analysis: Retrieved from: <http://documents1.worldbank.org/curated/en/714621468295536219/pdf/516830E>
- [16] Egbunike, A.P. & Okoro, G. E. (2018)"Does Green Accounting Matter to the Profitability of Firms? A Canonical Assessment". Nnamdi Azikiwe University, Awka, Anambra State, Nigeria.
- [17] Fakoya M. B. & Lawal A. B. (2020). "Effect of Environmental Accounting on the Quality of Accounting Disclosures of Shipping Firms in Nigeria" Journal of Accounting and Management, ISSN: 2284 – 9459 JAM vol.10, no.1(2020)
- [18] Tze San, Ong, et al. (2015). "INFLUENCE OF SW0WHIT1EA0final0LS029Oct09.pdf
- [15] Echave, J. & Bhati, S. (2010) "Determinants of Social and Environmental Disclosures by Spanish Companies". GSMI Third Annual International Business Conference (pp. 55-68). Michigan, USA: Global Strategic Management Inc.
- ENVIRONMENTAL DISCLOSURES ON THE FINANCIAL PERFORMANCE OF PUBLIC LISTED MALAYSIAN MANUFACTURING COMPANIES." Asia-Pacific Management Accounting Journal, Volume 10 Issue 1, pp. 107-136
- [19] Vidhani J. & Prof. Shukla A. (2018). "GREEN REPORTING PRACTICES & PROFITABILITY FOR CORPORATE SUSTAINABILITY" Indian Journal of Accounting (IJA) 122 ISSN : 0972-1479 (Print) 2395-6127 (Online) Vol. 50