



The influence of environmental accounting disclosures on company performance: A meta-analytics review

¹Mary Therese L. Obias, ¹Angela C. Patoc & ²Emmanuel A. Onsay

Abstract

Environmental accounting is an emerging subject of interest globally that links accounting with environmental management, protection, and preservation. Since then, environmental accounting has become a prominent topic of research around the globe. In recent years, many research studies have linked environmental accounting to company performance but there has been no consensus regarding the influence of environmental accounting on company performance. This study objectively and empirically bridges this research gap by summarizing and analyzing the existing integrated literature about the influence of environmental accounting on company performance using a meta-analysis approach. The study established a fifteen-step procedure for this particular meta-analytic study. This study employed purposive sampling through the help of the pre-established eligibility criteria, 45 primary studies were selected as samples; R Studio software was used to conduct subgroup analysis and meta-regression analysis to analyze the data gathered. This study discovers that environmental accounting disclosure has a relatively weak positive significant influence on company performance based on the population of studies included in the meta-analysis. Further, it was found that publication year, and sample size moderate the influence of environmental accounting disclosure on the company performance, while industry type or sector and the study location indicate an insignificant effect on the link as the results of all moderating variable under study.

Keywords: *green accounting, environmental accounting disclosure, company performance, meta-analysis*

Article History:

Received: December 20, 2023

Accepted: February 6, 2024

Revised: January 12, 2024

Published online: February 8, 2024

Suggested Citation:

Obias, M.L., Patoc, A.C. & Onsay, E.A. (2024). The influence of environmental accounting disclosures on company performance: A meta-analytics review. *International Student Research Review*, 1(1), 57-72. <https://doi.org/10.53378/isrr.01246>

About the authors:

¹Student, Bachelor of Science in Accountancy. College of Business and Management, Partido State University, Philippines.

²Corresponding author. Director, Partido Institute of Economics. Partido State University, Philippines. Email: emmanuel.onsay@parsu.edu.ph



Introduction

In an era marked by growing awareness of some of the most serious environmental issues, such as climate change and global warming, and sustainable business practices, the function of corporations in addressing environmental concerns has come under careful scrutiny. Companies are now judged not only by their profitability but also by their overall impact on the environment. Environmental accounting is an emerging subject of interest globally that links accounting with environmental management, protection, and preservation. Since then, environmental accounting has become a prominent topic of research around the globe. In recent years, many research studies have linked environmental accounting to company performance since more and more companies from different sectors across the world are already implementing environmental accounting practices. However, among these studies, there has been no consensus regarding the influence of environmental accounting, also known as green accounting, on company performance. This is for the reason that the link between the two constructs is not yet well established as the existing empirical literature is infused with paradoxes and contradicting results. The inconsistent findings from the body of literature have given rise to a variety of, occasionally contradictory conclusions on environmental accounting and business performance. The inconclusive and lack of clarity in the current empirical literature research on the relationship between environmental accounting and performance of companies is what prompted this endeavor.

In light of this, the study wants to objectively and empirically bridge this research gap by summarizing and analyzing the existing integrated literature about the influence of environmental accounting on company performance across countries and sectors using a meta-analysis approach.

Methodology

The study employed meta-analysis, a quantitative research design, to rigorously examine and synthesize existing empirical evidence and provide a comprehensive and objective assessment of the quantitative data available in the literature. In addition, rather than selecting papers at random, this study employed purposive sampling through the help of the pre-established eligibility criteria; 45 primary studies were selected as samples. Generally speaking, the endeavor took a quantitative approach so that empirical data collected and

obtained could be carefully assessed. Besides that, statistical techniques such as meta-regression analysis and subgroup analysis were used upon this meta-analytic study. R Studio software was used to conduct subgroup analysis and meta-regression analysis to analyze the data gathered.

The study established a fifteen-step procedure for this particular meta-analytic study: (1) eligibility criteria; (2) literature search; (3) study selection; (4) data extraction/collection; (5) coding procedure; (6) statistical data analysis; (7) effect size pooling; (8) effect size analysis; (9) heterogeneity assessment; (10) influence analysis; (11) forest plotting; (12) publication bias evaluation ; (13) subgroup analysis; (14) meta-regression analysis; and (15) interpretation and reporting.

Findings

Across the forty-five (45) primary studies, the meta-analysis through the random-effects model analysis yielded a pooled effect size of 0.1551 with a total number of observations of 2,193. This analysis reveals and suggests a statistically significant average effect of environmental accounting disclosures (EAD) on company performance, as measured by the correlation ($r = 0.155$; $p < .0001$) across the studies included. However, Q-statistics demonstrates statistical significance ($Q = 0.0078$) indicating a substantial presence level of heterogeneity among the primary studies, suggesting notable differences in their findings on impact of EADs.

The studies were categorized based on their similarities in terms of the moderator variables. This grouping allowed for a more focused analysis of the moderating influences. The first group investigated how publication year could potentially influence the observed relationship between Environmental Accounting Disclosure (EAD) and company performance. Similar trends emerge with larger effect sizes in post-2019 studies (0.181) compared to smaller effect sizes in pre-2019 studies (0.121), which are respectively larger than and smaller than the global effect size. However, although post-2019 studies show a stronger relationship between EAD and company performance, the test for subgroup differences is non-significant ($p = 0.394$), suggesting the observed differences might be due to chance.

For the second group of studies, the type of industry also appears not to significantly influence the link between EAD and performance. The two industry sectors considered in

this study—environmentally sensitive (Mining and oil) and non-environmentally sensitive (others)—showed lower (0.113) and higher (0.171) effect sizes, respectively, compared to the overall effect size. Regarding the third group, study location as a moderator reveals that the developed and developing subgroups have larger effect sizes (0.222 and 0.156, respectively) than the overall effect size (0.155). However, the correlations between these study locations are also not statistically significant (p -value = 0.6150). The relationship between EAD and performance also appears unaffected by sample size in the last group. Studies with smaller sample sizes showed a slightly higher effect size (0.1881) compared to those with larger sample sizes (0.1507). However, the Q-statistic for between-group differences was not statistically significant (p -value = 0.6182).

The meta-regression analysis was then conducted to explore further the relationship between potential moderators and the effect sizes. Based on the main estimate for publication year (-0.1153), industry type (-0.0672), and study location (0.0281) with the p -value of (0.1143, 0.4879, 0.8487) respectively showed they are non-significant, means that the average impact of these factors appears similar across all groups. For the sample size (-0.1751; p -value = 0.0200), suggests that on average, larger sample sizes are associated with statistically significant but slightly lower outcome values. However, when interaction terms are taken into consideration, the random effects of the estimate exhibit substantial interaction with both sample size and publication year (β = 0.6789, 0.5804; p -value = 0.0064, 0.0175), respectively. This implies that the impact of the publication year and sample size on the outcome actually varies across different groups.

Conclusion

This study discovers that environmental accounting disclosure has a relatively weak positive significant influence on company performance based on the population of studies included in the meta-analysis. Further, it was found that publication year, and sample size moderate the influence of environmental accounting disclosure on the company performance, while industry type or sector and the study location indicate an insignificant effect on the link as the results of all moderating variables under study.

In this era of significant environmental activism, all companies, especially those in environmentally sensitive sectors, should prioritize environmental sustainability within the framework of green accounting initiatives. Companies should consider implementing

comprehensive environmental accounting disclosure practices, such as sustainability reports, integrated reporting, and other forms of environmental disclosure. Furthermore, governments and policymakers should consider introducing mandatory environmental disclosure requirements for companies and mandate environmental reporting in annual reports through legislation. For further potential investigation in this field, exploring various potential variables to gain a much deeper understanding of the distinctions of the connection between Environmental Accounting Disclosure (EAD) and company performance is recommended. This can entail checking out added moderators like firm size, type of disclosures, specific EAD practices, measures of EAD as well as performance, corporate governance, and time horizon. Further study is also expected to deal with more samples to better explore, explain, and look into the EAD-company performance link a lot more accurately and precisely.

References

- Adams, C. A. (2004). The ethical, social and environmental reporting-performance portrayal gap. *Accounting, Auditing & Accountability Journal*, 17(5), 731-757. <https://doi.org/10.1108/09513570410567791>
- Adediran, S. A., & Alade, S. O. (2013). The impact of environmental accounting on corporate performance in Nigeria. *European Journal of Business and Management*, 5(23), 141-151.
- Adams, C. A. (2004). The ethical, social and environmental reporting-performance portrayal gap. *Accounting, Auditing & Accountability Journal*, 17(5), 731-757. <https://doi.org/10.1108/09513570410567791>
- Albertini, E. (2013). Does environmental management improve financial performance? A meta-analytical review. *Organization & Environment*, 26(4), 431-457. <https://doi.org/10.1177/1086026613510301>
- Almaliki, N. (2020). Impact of green accounting on improving environmental costs and performance: An analytical study from an academic point of view. *International Journal of Engineering Technology Research & Management*, 4(3), 127-143.

- Alok, K. P., Nikhil C.S & Bhagaban D. (2018). Corporate environmental reporting; An emerging issue in the corporate world. *International Journal of Business and Management*, 3(12), 146-156.
- Al-Waeli, A. J., Khalid, A. A., Ismail, Z., & Idan, H. Z. (2021). The Relationship between environmental disclosure and financial performance of industrial companies with using a new theory: Literature Review. *Journal of Contemporary Issues in Business and Government*, 27(2).
- Baribefe, G. I. (2021). Environmental cost reporting and performance of Nigerian oil and gas downstream. *African Journal of Accounting and Financial Research*, 4(2), 26–54. <https://doi.org/10.52589/ajaftr/vqrp7g8>
- Bartelmus, P. & Seifert, E. K. (2018). *Green accounting*. Routledge
- Basalamah, A. S., & Jermias, J. (2005). Social and environmental reporting and auditing in indonesia maintaining organizational legitimacy? *Gadjah Mada International Journal of Business*, 7(1), 109-127. <https://doi.org/10.22146/gamaijb.5565>
- Baur, C. (2022). *Explainer: What is a forest plot?* www.researchsquare.com. <https://protocolexchange.researchsquare.com/blog/what-is-a-forest-plot>
- Borenstein, M., Hedges, L. V., Higgins, J. P., & Rothstein, H. R. (2009). *Introduction to meta-analysis*. New York: John Wiley & Sons
- Bouarar, A. C. (2022). The effect of green accounting adoption on companies' performance in developing economies: Literature review. *Journal of the New Economy*, 13, 842–856.
- Budiono S., & Dura, J. (2021). The effect of green accounting implementation on profitability in companies Compass Index 100. *International Journal of Educational Research & Social Sciences*, 2(6), 1526–1534. <https://doi.org/10.51601/ijersc.v2i6.216>
- Burks, R. (2019). *Environmental management for engineers, scientists, and managers*. CRC Press.

- Campbell Collaboration (2016). *Methodological expectations of Campbell Collaboration intervention reviews: Reporting standards*. The Campbell Collaboration. <https://doi.org/10.4073/cpg.2016.4>
- Campbell, J. L. (2007). Why would corporations behave in socially responsible ways? an institutional theory of corporate social responsibility. *Academy of Management Review*, 32(3), 946-967. <https://doi.org/10.5465/amr.2007.25275684>
- 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), 117–134.
- Cavlovic, T.A., Baker, K.H., Berrens, R.P., Gawande, K., (2000). A meta-analysis of environmental Kuznets curve studies. *Agricultural and Resource Economics Review*, 29(1), 32–42. <https://doi.org/10.1017/s1068280500001416>
- Chaturvedi, A. (2011). Analysis of long term financial strength of TATA steel and SAIL, *Proficient –An International Journal of Management*, 3(8), 48-53. <https://dx.doi.org/10.2139/ssrn.2875211>
- Chen, J. (2021, September 5). *Dividend per share (DPS)*. Investopedia. <https://www.investopedia.com/terms/d/dividend-per-share.asp>
- Cohen, J. (2013). *Statistical power analysis for the behavioral sciences*. Academic Press.
- Corey, D. M., Dunlap, W. P., & Burke, M. J. (1998). Averaging correlations: Expected values and bias in combined Pearson rs and Fisher's z transformations. *The Journal of General Psychology*, 125(3), 245–261. <https://doi.org/10.1080/00221309809595548>
- Cruz, M. A. A., Dela Peña, C., Mahinay, R. M., & Santiago, E. J. (2022). Impact of environment accounting disclosures on profitability and firm value of the petrochemical industry in the Philippines. *Proceedings of International Interdisciplinary Conference on Sustainable Development Goals (IICSDGs)*, 5(1), 126–135.

- David, R. J., Tolbert, P. S., & Boghossian, J. (2019). Institutional theory in organization studies. *Oxford Research Encyclopedia of Business and Management*. <https://doi.org/10.1093/acrefore/9780190224851.013.158>
- Deb, B. C., Saha, S., & Rahman, M. M. (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), 7225–7247.
- Debrezion, G., Pels, E., & Rietveld, P., (2007). The impact of railway stations on residential and commercial property value: A meta-analysis. *Journal of Real Estate Finance and Economics*, 35(2), 161–180. <https://doi.org/10.1007/s11146-007-9032-z>
- Deegan, C. M. (2013). Financial accounting theory/Craig Deegan. *Accounting Forum* 20(5), 63-73.
- Deegan, C., Rankin, M., & Tobin, J. (2002). An examination of the corporate social and environmental disclosures of BHP from 1983-1997: A test of legitimacy theory. *Accounting, Auditing & Accountability Journal*, 15(3), 312-343. <https://doi.org/10.1108/09513570210435861>
- DerSimonian, R., & Laird, N. (1986). Meta-analysis in clinical trials. *Controlled Clinical Trials*, 7(3), 177–188. [https://doi.org/10.1016/0197-2456\(86\)90046-2](https://doi.org/10.1016/0197-2456(86)90046-2)
- Doan, M. H., & Sassen, R. (2020). The relationship between environmental performance and environmental disclosure: A meta-analysis. *Journal of Industrial Ecology*, 24(5). <https://doi.org/10.1111/jiec.13002>
- Eckersley, R. (2004). *The green state: rethinking democracy and sovereignty*. Mit Press.
- Egbunike, A., & Okoro, G. (2018). Does green accounting matter to the profitability of firms? A canonical assessment. *Ekonomski Horizonti*, 20(1), 17–26. <https://doi.org/10.5937/ekonhor1801017E>
- Eisend, M. (2019) Morality effects and consumer responses to counterfeit and pirated products: A meta-analysis. *Journal of Business Ethics*, 154, 301–323. <https://doi.org/10.1007/s10551-016-3406-1>

- Eyo Bassey, B., Effiok, S., & Eton, O. (2013). The impact of environmental accounting and reporting on organizational performance of selected oil and gas companies in Niger Delta Region of Nigeria. *Research Journal of Finance and Accounting*, 4(3), 57-73. <https://core.ac.uk/download/pdf/234629442.pdf>
- Fisher, R. A. (1958). *Statistical methods for research workers* (13th ed.). Edinburgh, Scotland: Oliver & Boyd.
- Florax, R.J.G.M., Travisi, C.M., & Nijkamp, P., (2005). A meta-analysis of the willingness to pay for reductions in pesticide risk exposure. *European Review of Agricultural Economics*, 32, 441–467. <https://doi.org/10.1093/erae/jbi025>
- Fragkos, K. C., Tsagris, M., & Frangos, C. C. (2014). Publication Bias in Meta-Analysis: Confidence Intervals for Rosenthal's Fail-Safe Number. *International Scholarly Research Notices*, 2014, 1–17. <https://doi.org/10.1155/2014/825383>
- Freeman, R. E. (2010). *Strategic management: A stakeholder approach*. Cambridge University Press.
- Frooman, J., (1997). Socially irresponsible and illegal behavior and shareholder wealth: A meta-analysis of event studies. *Business and Society*, 36(3), 221–249. <https://doi.org/10.1177/000765039703600302>
- Gallardo-Vázquez, D., Barroso-Méndez, M., Pajuelo-Moreno, M., & Sánchez-Meca, J. (2019). Corporate social responsibility disclosure and performance: A meta-analytic approach. *Sustainability*, 11(4), 1115. <https://doi.org/10.3390/su11041115>
- Ghozali, I., & Chariri, A. (2007). *Theory of accounting*. Publishing Agency Undip: Semarang.
- Glass, Gene V. (1976). Primary, Secondary, and Meta-Analysis of Research. *Educational Researcher* 5 (10), 3–8. <https://doi.org/10.3102/0013189x005010003>
- Govindan, K., Rajeev, A., Padhi, S. S., & Pati, R. K. (2020). Supply chain sustainability and performance of firms: A meta-analysis of the literature. *Transportation Research Part*

- E: *Logistics and Transportation Review*, 137, 101923.
<https://doi.org/10.1016/j.tre.2020.101923>
- Gray, R.H., Kouhy, R., & Lavers, S. (1995a). Corporate social and environmental reporting: A review of the literature and a longitudinal study of United Kingdom disclosure. *Accounting, Auditing, & Accountability Journal*, 8(12), 47-54.
<https://doi.org/10.1108/09513579510146996>
- Grewal, A., Kataria, H., & Dhawan, I. (2016). Literature search for research planning and identification of research problems. *Indian Journal of Anaesthesia*, 60(9), 635–639.
<https://doi.org/10.4103/0019-5049.190618>
- Hanna, B., Xu, G., Wang, X., & Hossain, J. (2023). Blockchain-enabled humanitarian supply chain management: sustainability and responsibility. In *Blockchain in a Volatile-Uncertain-Complex-Ambiguous World*, 251–276. <https://doi.org/10.1016/b978-0-323-89963-5.00001-0>
- Harrer, M., Cuijpers, P., Furukawa, T.A., & Ebert, D.D. (2021). *Doing Meta-Analysis with R*. CRC Press.
- Hartikayanti, H., Trisyandi, R., & Saptono, E. (2016). Effect of corporate characteristics on environmental disclosure. *Indian Journal of Applied Business and Economic Research*, 14(10).
- Hawcroft, L. J., & Milfont, T. L. (2010). The use (and abuse) of the new environmental paradigm scale over the last 30 years: A meta-analysis. *Journal of Environmental Psychology*, 30(2), 143–158. <https://doi.org/10.1016/j.jenvp.2009.10.003>
- Hayes, A. (2023, July 5). *Return on capital employed (ROCE): Ratio, interpretation, and example*. Investopedia. <https://www.investopedia.com/terms/r/roce.asp>
- Higgins, J.P.T., & Green, S. (2011). *Cochrane handbook for systematic reviews of interventions*. Wiley-Blackwell.
- Higgins, J., & Thomas, J. (2019). *Cochrane handbook for systematic reviews of interventions*. (2nd ed.). Wiley-Blackwell.

- Horvathova, E. (2010). Does environmental performance affect financial performance? A meta-analysis. *Ecological Economics*, 70(1), 52–59. <https://doi.org/10.1016/j.ecolecon.2010.04.004>
- Hunter, J. E., & Schmidt, F. L. (1990). *Methods of meta-analysis: Correcting error and bias in research findings*. (1st ed.). Thousand Oaks, CA: Sage.
- Hunter, J. E., & Schmidt, F. L. (2004). *Methods of meta-analysis: Correcting error and bias in research findings*. (2nd ed.). Thousand Oaks, CA: Sage.
- Ibrahim, I. (2015). *Corporate environmental disclosure: A case from the Libyan construction industry*. Doctoral thesis, Liverpool John Moores University. <https://researchonline.ljmu.ac.uk/id/eprint/4354/>
- Igbekoyi, O. E., Solanke, F. T., Adeusi, S. A., Alade, M. E., & Agbaje, W. H. (2021). Environmental accounting disclosure and financial performance of listed multinational firms in Nigeria. *Global Journal of Management and Business Research*, 21(D2), 17–28.
- Iliemena, R. (2020). Environmental accounting practices and corporate performance: Study of listed oil and gas companies in Nigeria. *European Journal of Business and Management*, 12(22), 58-70. <https://doi.org/10.7176/EJBM/12-22-08>
- Iqbal, M., Prihat, S. T., Assih, & Rosidi. (2013). Effect of environmental accounting implementation and environmental performance and environmental information disclosure as mediation on company value. *International Journal of Business and Management Invention*, 2(10), 55–67.
- Ismagilova, E., Slade, E., Rana, N. P., & Dwivedi, Y. K. (2020). The effect of characteristics of source credibility on consumer behaviour: A meta-analysis. *Journal of Retailing and Consumer Services*, 53. <https://doi.org/10.1016/j.jretconser.2019.01.005>
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305-360. [https://doi.org/10.1016/0304-405X\(76\)90026-X](https://doi.org/10.1016/0304-405X(76)90026-X)

- Klassen, R. D. (2005). Environmental cost management: A new paradigm for business. *Earthscan Publications*, 293-322.
- Lalkhen, AG. (2008). Statistics V: Introduction to clinical trials and systematic reviews. *Continuing Education in Anaesthesia Critical Care & Pain*, 8(4), 143–146. <https://doi.org/10.1093/bjaceaccp/mkn023>
- Lodhia, S. (2001). Environmental accounting within the conventional accounting framework: A critique. *Semantic Scholar*. https://www.unisa.edu.au/SysSiteAssets/episerver-6-files/global/business/centres/cags/docs/apcea/apcea_2001_71_lodhia.pdf
- Lud, D. (2023). Impact assessment. *Springer EBooks*, 1921–1925. https://doi.org/10.1007/978-3-031-25984-5_169
- Magara, R., Aming'a, N. N., & Momanyi, E. (2015). Effect of environmental accounting on company financial performance in Kisii County. *British Journal of Economics, Management & Trade*, 10(1), 1-11. <https://doi.org/10.9734/BJEMT/2015/19909>
- Mbatuegwu, C. D., Lawal, S., & Oyinemi Elvis, E. (2022). Impact of environmental accounting disclosure on financial statements. *Worldwide Journal of Multidisciplinary Research and Development*, 8(1), 111–120. <https://doi.org/10.17605/OSF.IO/XK5D3>
- Memorandum Circular No. 04 s.2019. (2019, February 17). Sustainability reporting guidelines for publicly-listed companies. Securities and Exchange Commission. <https://www.sec.gov.ph/mc-2019/mc-no-04-s-2019-sustainability-reporting-guidelines-for-publicly-listed-companies/#gsc.tab=0>
- Moher, D., Liberati, A., Tetzlaff, J., Altman, D.G. (2009). Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. *PLoS Medicine*, 6(7). <https://doi.org/10.1371/journal.pmed.1000097>
- Nandini, E. S., Sudharani, R., & Dr. Suresh, N. (2020). A study on impact of environmental accounting on profitability of companies listed in Bombay stock exchange. *Bulletin Monumental*, 21(8).

- Nkwoji, N. (2021). Environmental accounting and profitability of selected quoted oil and gas companies in Nigeria (2012-2017). *Journal of Accounting and Financial Management*, 7(3), 22-39.
- Nor, N. M., Bahari, N. A. S., Adnan, N. A., Kamal, S. M. Q. A. S., & Ali, I. M. (2016). The effects of environmental disclosure on financial performance in Malaysia. *Procedia Economics and Finance*, 35, 117–126. [https://doi.org/10.1016/S2212-5671\(16\)00016-2](https://doi.org/10.1016/S2212-5671(16)00016-2)
- Perry, M., & Singh, S. (2011). Corporate environmental responsibility in Singapore and Malaysia: The potential and limits of voluntary initiatives. *Technology, Business and Society Programme Paper*, 3.
- Polycarp, S. U. (2019). Environmental accounting and financial performance of oil and gas companies in Nigeria. *Research Journal of Finance and Accounting*, 10(10), 192-202. <https://doi.org/10.7176/rjfa/10-10-21>
- Riyadh, H. A., Al-Shmam, M. A., Huang, H. H., Gunawan, B., & Alfaiza, S. A. (2020). The analysis of green accounting cost impact on corporations' financial performance. *International Journal of Energy Economics and Policy*, 10(6), 421–426. <https://doi.org/10.32479/ijeep.9238>
- Rosenthal, R. (1991). *Meta-analytic procedures for social research*. Newbury Park, CA: Sage.
- Rosenthal, R., & DiMatteo, M. R. (2001). Meta-Analysis: Recent developments in quantitative methods for literature reviews. *Annual Review of Psychology*, 52(1), 59–82. <https://doi.org/10.1146/annurev.psych.52.1.59>
- Sanni, M., & Kolawole, D. (2019). Influence of environmental accounting on the performance of pharmaceutical companies in Nigeria. *Entrepreneurial Journal of Management Sciences*, 6(1).

- Schneeweiss, S. (2006) Sensitivity analysis and external adjustment for unmeasured confounders in epidemiologic database studies of therapeutics. *Pharmacoepidemiol Drug Saf.*, 15(5):291–303. <https://doi.org/10.1002/pds.1200>
- Simşek, H., & Öztürk, G. (2021). Evaluation of the relationship between environmental accounting and business performance: The case of Istanbul province. *Green Finance*, 3(1), 46–58. <https://doi.org/10.3934/GF.2021004>
- Singhal, K., & Singhal, J. (2012). Opportunities for developing the science of operations and supply-chain management. *Journal of Operations Management*, 30(3), 245–252. <https://doi.org/10.1016/j.jom.2011.11.002>
- Solanke F.T., Igbekoyi O. E., Olaniyan N. O. Efuntade, A. O. and Nweze Godwin N (2021). Environmental accounting disclosure and financial performance of listed information and communication technology firms in Nigeria. *Fuoye Journal of Accounting and Management*, 4(1), 69-80.
- Solomon, P.J. (2020). Environmental disclosure and financial performance of listed oil and gas companies in Nigeria: a review on literature. *IOSR Journal of Business and Management*, 22(9), 58-68. <https://doi.org/10.9790/487X-2209035866>
- Stanley, T.D. (2001). Wheat from chaff: Meta-analysis as a quantitative literature review. *Journal of Economic Perspectives*, 15(3), 131–150. <https://doi.org/10.1257/jep.15.3.131>
- Stanley, T.D., Jarrell, S.B., (1989). Meta-regression analysis: a quantitative method of literature surveys. *Journal of Economic Surveys*, 3(2), 161–170. <https://doi.org/10.1111/J.1467-6419.1989.TB00064.X>
- Suchman, M. C. (1995). Managing legitimacy: Strategic and institutional approaches. *Academy of Management Review*, 20(3), 571-610. <https://doi.org/10.2307/258788>
- Sumiati, A., Susanti, S., Maulana, A., Indrawati, L., Puspitasari, D., & Indriani, R. (2022). Influence of green accounting and environmental performance on profitability.

- Advances in Economics, Business and Management Research*, 205, 145-151.
<https://doi.org/10.2991/aebmr.k.220107.027>
- Tacconelli, E. (2009). Systematic Reviews: CRD's Guidance for Undertaking Reviews in Healthcare. *The Lancet Infectious Diseases* 10(4), 226.
[https://doi.org/10.1016/S1473-3099\(10\)70065-7](https://doi.org/10.1016/S1473-3099(10)70065-7)
- Tate, W. L., Ellram, L. M., & Kirchoff, J. F. (2010). Corporate social responsibility reports: a thematic analysis related to supply chain management. *Journal of supply chain management*, 46(1), 19-44. <https://doi.org/10.1111/j.1745-493X.2009.03184.x>
- Tilling, M.V. (2004). *Refinements in legitimacy theory in social and environmental accounting*. School of Commerce, Flinders University.
- Tobin, J. (1969). A general equilibrium approach to monetary theory. *Journal of Money, Credit, and Banking*, 1(1), 15-29. <https://doi.org/10.2307/1991374>
- Trivedi, S. (2021). Green Accounting in India. *International Journal of Trend in Scientific Research and Development*, 5(6), 899-901.
- Vandna (2018). Green Accounting. *International Journal of Engineering Science and Computing*, 8(3), 16281-16283.
- Wahyuningrum, I. F. S., Amal, M. I., & Sularsih, S. (2021). The effect of environmental disclosure and performance on profitability in the companies listed on the stock exchange of Thailand (SET). *Jurnal Ilmu Lingkungan*, 19(1), 66–72.
<https://doi.org/10.14710/jil.19.1.66-72>
- Walsh, J. P. (2005). Book review essay: Taking stock of stakeholder management.
- Wolf, F. M. (1986). *Meta-analysis: Quantitative methods for research synthesis. Quantitative applications in the social sciences series*. Thousand Oaks, CA: Sage.
<https://doi.org/10.2307/3151396>

Wu, Z., & Jia, F. (2018). Toward a theory of supply chain fields—understanding the institutional process of supply chain localization. *Journal of Operations Management*, 58, 27-41. <https://doi.org/10.1016/j.jom.2018.03.002>

Zhang, Y., Weng, Q., & Zhu, N. (2018). The relationships between electronic banking adoption and its antecedents: A meta-analytic study of the role of national culture. *International Journal of Information Management*, 40, 76–87. <https://doi.org/10.1016/j.ijinfomgt.2018.01.015>