

Is big tech greenwashing?

[https://github.com/amandafbooth/BoothProphete_ENV872_EDA_
FinalProject](https://github.com/amandafbooth/BoothProphete_ENV872_EDA_FinalProject)

Amanda Booth and Ricky Prophete

Contents

1	Rationale and Research Questions	5
2	Dataset Information	6
2.1	Data Retrieval	6
3	Exploratory Analysis	7
4	Analysis	8
4.1	Question 1: <insert specific question here and add additional subsections for additional questions below, if needed>	8
4.2	Question 2:	8
5	Summary and Conclusions	9
6	References	10

List of Tables

2	Top 5 Companies by Highest Reporting Inconsistency Ratio	7
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List of Figures

1	Relationship between asset value and total energy consumption	9
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1 Rationale and Research Questions

2 Dataset Information

2.1 Data Retrieval

For this analysis, we used data analyzed in a *Nature Communications* study that took data from 2019 CDP reports. CDP, a carbon footprint registry for companies and municipalities, conducts an in-depth questionnaire that inquires about the details of what entities do and don't include in their carbon emissions reporting. The *Nature* study compared what technology companies published in their official company reports to what companies reported in CDP questionnaires and found technology companies often under reported emissions in official company reports. The data from nature came in the form of an Excel Workbook with many tabs. We converted three tabs into CSVs for analysis in R:

- Company information
- Emissions predictors
- Reporting inconsistencies

Table 1: Data Information

Detail	Description
Data Source	Nature Communications
Retrieved from	https://www.nature.com/articles/s41467-021-26349-x
Variables Used	Company, Sales, Profits, Assets, Market value, Company report,

CDP emissions, Emission reports deviation, Reporting inconsistency ratio, Total energy consumption Data Collection Year | 2019

3 Exploratory Analysis

Table 2: Top 5 Companies by Highest Reporting Inconsistency Ratio

Company	Inconsistency_ratio
Samsung SDI	0.9994994
SAP	0.9620065
Adobe	0.9005902
Salesforce.com	0.8326687
IBM	0.7553958

4 Analysis

4.1 Question 1: <insert specific question here and add additional subsections for additional questions below, if needed>

4.2 Question 2:

5 Summary and Conclusions

We did not find a statistically significant relationship between companies' reporting discrepancy ratios and variables that indicate size. As expected, we found a relationship between total energy consumption and size indicators. But surprisingly the indicator with the most confidence was value of assets.

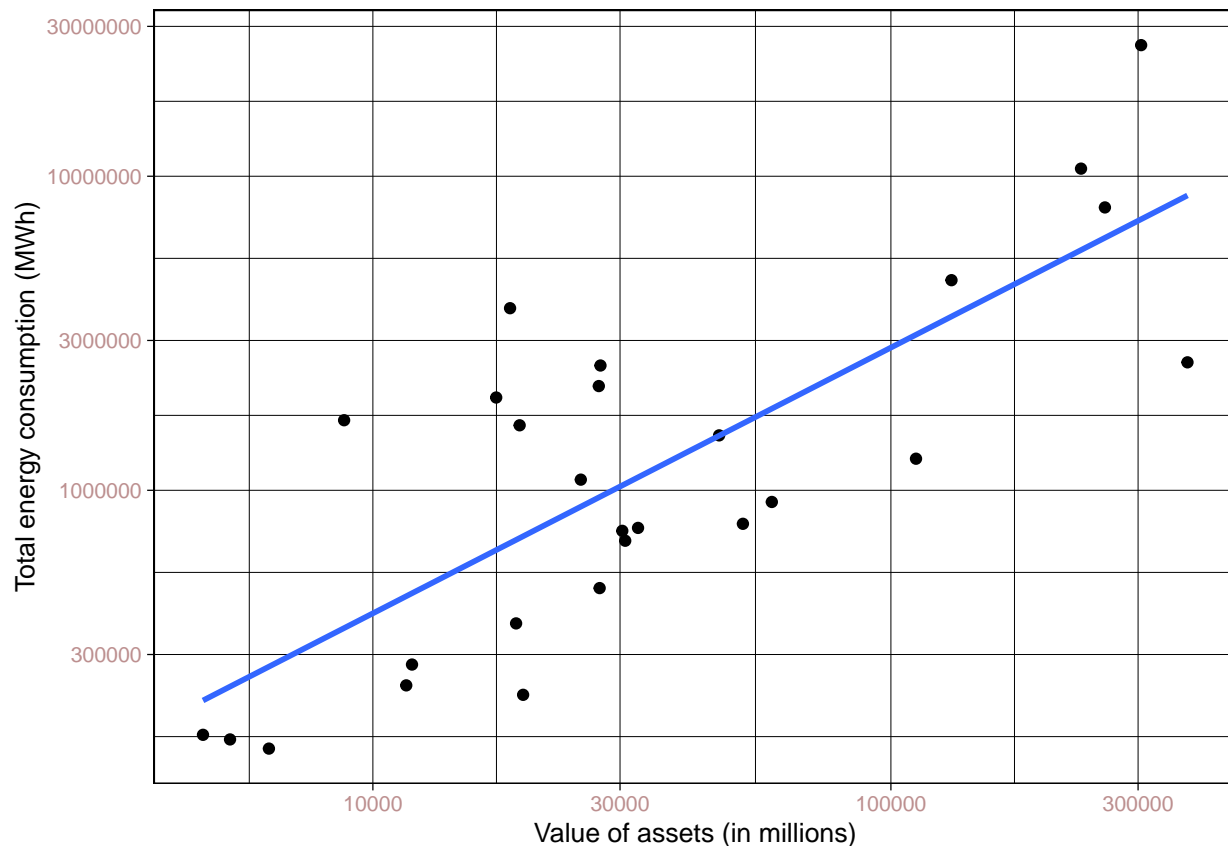


Figure 1: Relationship between asset value and total energy consumption

Our assumption that “big tech” would show more reporting discrepancies was not borne out in the data we analyzed. In future analyses on this topic, we would ideally have access to more CDP reports and more corporate reports in order to have a sample size that allows for more statistically accuracy.

6 References

Klaaßen, Lena, and Christian Stoll. “Harmonizing Corporate Carbon Footprints.” *Nature News*, Nature Publishing Group, 22 Oct. 2021, <https://www.nature.com/articles/s41467-021-26349-x>.