

Helping Investors and Oil & Gas Companies Make Informed and Sustainable Decisions

An empirical study of the association between environmental and financial performance and strategic choices for Canadian oil and gas companies using the SASB Framework



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1. BACKGROUND

- Investors are demanding companies to disclose sustainability performance before making investment decisions^{1,2}
- Companies are therefore disclosing their environmental/social metrics & strategies against credible frameworks, such as SASB's^{3,4}
- SASB is investor-oriented and recommends companies to disclose information material to a company's financial and operational performance⁵
- Investors are now concerned with their returns in Canada's oil and gas industry due to the industry's high environmental risks and costs to mitigate them^{6,7}
- To uphold its economic contributions and attract investments, the industry must improve their strategies and collaboration with investors to ensure strong environmental performance and financial returns^{8,9}
- Current literature is inconclusive on the association between environmental and financial performance → Leaves *investors* unclear as to how investments in environmental initiatives impact financial returns
- Current literature does not identify specific strategic choices companies can make and how to implement them → Leaves *companies and managers* unclear as to how to build a business case and improve environmental performance while maintaining financial performance



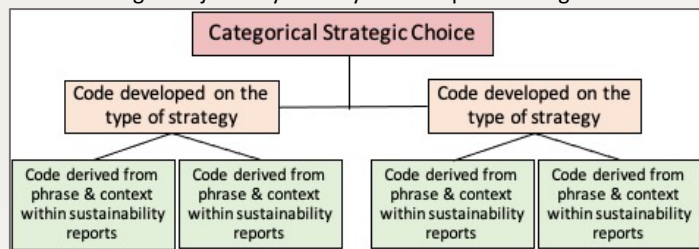
2. RESEARCH OBJECTIVES & QUESTIONS

The aim of the research is to address two questions:

- RQ1 → *Is there is any association between environmental and financial performance in the Canadian oil and gas industry?*
 RQ2 → *Are there are specific strategic choices companies can make to optimize environmental and financial performance for maximum return on investments?*

3. METHODOLOGY

- 1) Using SASB's *Exploration & Production* framework, quantitative and qualitative data was collected from 10 companies' sustainability reports against the environmental disclosure topics (GHG emissions, air quality, freshwater withdrawal, biodiversity/land)
- 2) The eco-efficiency score was calculated for each disclosure topic to standardize impact across the sample and financial ratios were calculated for each sample company (Net Profit Margin, Return on Equity, and Return on Assets)
- 3) Excel was used to calculate the correlation coefficient between the eco-efficiency score and financial ratios
- 4) Used inductive coding to objectively identify and compare strategies across companies:



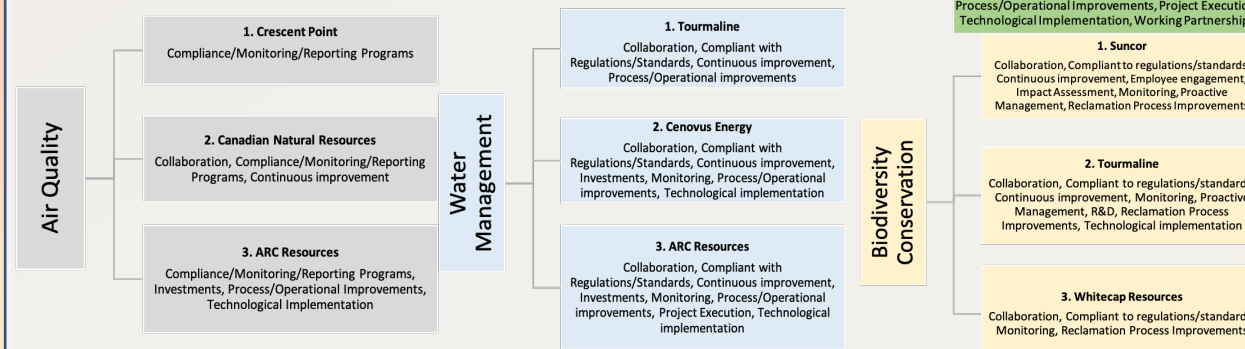
- 5) Benchmarked companies in the sample based on their eco-efficiency scores to find the top three (best) environmental performers, and identified their set of strategic choices for others in the industry to emulate¹⁰

4. RESULTS

4.1 Coefficient Correlation for the Disclosure Topics¹¹

Variable Relationship	Relationship Strength	
	Strong (>0.70)	Weak (0 - 0.49)
+		GHG emissions, Air Quality, Freshwater Withdrawal
0		
-		Trees planted, hectares of land reclaimed

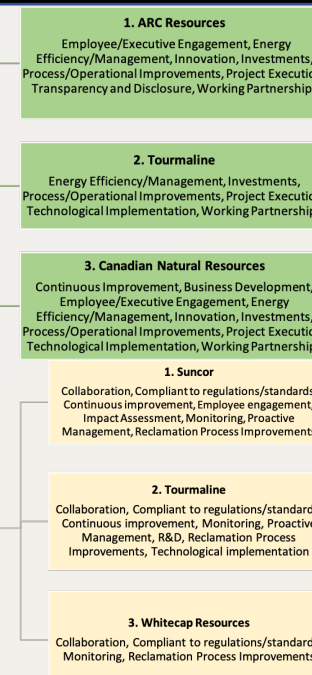
*Note: For GHG, Air, and Water → The lower the score the better the performance & For Trees planted and land reclaimed → the higher the score the better the performance



4.2 Strategic Choices of the Top 3 Companies

Top 3 companies for each disclosure topic are representative of all firm sizes (i.e. small, mid, & large-sized)¹²

GHG Emissions



5. KEY TAKEAWAYS

5.1 CONCLUSIONS & RECOMMENDATIONS: RQ1 → There is a negative but weak association; companies will experience a small decline in financial returns when making improvements to their environmental performance. An investor therefore, cannot make conclusions about financial performance based purely on environmental metrics; other factors are at play. It is recommended that investors continue to invest in environmental strategies. With other factors at play, they should also engage in dialogue to explore investment opportunities in other (non-environmental) strategies to maximize returns | **RQ2** → There are certain strategic choices crucial to implement to improve environmental performance. Companies should emulate the strategies of the company that best aligns with their organizational structure:

GHG Emissions	Good energy efficiency/management, investments, making process/operational improvements, executing pilot projects, participating in working partnerships + based on firm's structure, pick <i>ARC, Canadian Natural (CNRL), or Tourmaline</i>
Air Quality	Ensuring compliance to regulations and standards + based on firm's structure, pick <i>Crescent Point, ARC Resources, or CNRL</i>
Water	Collaborating for knowledge sharing, ensuring compliance, continually improving operations & management, making process/operational improvements + based on firm's structure, pick <i>Tourmaline, Cenovus Energy, or ARC Resources</i>
Biodiversity	Collaboration for research and knowledge sharing, ensuring compliance, monitoring land under reclamation, implementing process improvements to accelerate reclamation/optimally restore biodiversity + based on firm's structure, pick <i>Suncor, Tourmaline, or Whitecap Resources</i>

Most importantly, managers need to consider the *synergies* with other (non-environmental) strategies when implementing these sets of strategic choices¹³.

5.2 IMPLICATIONS: Helps investors make better decisions by providing a clear course of action ·Helps the industry mitigate environmental risks ·Helps managers build a business case for employing environmental strategies ·Useful to consulting firms by providing robust solutions for potential clients ·Advances field of corporate sustainability research

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