



Bachelor Thesis

A competition analysis along the hydrogen value chain

The German government views hydrogen as a key element in its future energy system. Analogously, enterprises position themselves to take benefit of the expected hydrogen value chain ranging from the hydrogen production, over storing, and distributing, to its actual consumption (Schlund et al., 2022). These enterprises engage in building up a structure for a persistent hydrogen supply. However, so far it is unclear how big the value share of each segment within the value chain will be and which margins companies in these segments may gain. An analysis of the associated markets and their structure could illuminate the field in which these enterprises act.

The aim of this bachelor thesis is to comprehensively identify the value chain of hydrogen provision and to describe the structure of the associated markets. The analysis includes mapping out the value chain, segment associated markets, describe their properties, e.g., potential for product differentiation, entry barriers, or market power potential, and to assess where in the value chain the highest margins may be allocated.

Key tasks and objectives of the thesis

- Identifying and mapping out of the entire value chain associated with the supply of hydrogen
- Segmentation of the markets associated with the value chain
- Analysis of the associated markets

Your profile

- Economics major, best with a focus on energy
- Analytical thinking and the ability to carry out independent scientific work

Literature

- Schlund, David, Simon Schulte, and Tobias Sprenger. "The who's who of a hydrogen market ramp-up: A stakeholder analysis for Germany." *Renewable and Sustainable Energy Reviews* 154 (2022): 111810.
- Alsaba, Wisam, Saad Ali Al-Sobhi, and Muhammad Abdul Qyyum. "Recent advancements in the hydrogen value chain: Opportunities, challenges, and the way Forward–Middle East perspectives." *International Journal of Hydrogen Energy* (2023).
- Gilbert, Christopher L. "Value chain analysis and market power in commodity processing with application to the cocoa and coffee sectors." *Commodity market review 2007* (2008): 5.

Contact



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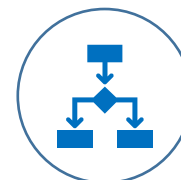
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Topics



- Hydrogen
- Market structures

Methods



- Literature review
 - Value chain analysis
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