



GOVERNMENT POLICIES ON BUILDING ENERGY EFFICIENCY: INDONESIA CASE

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ABSTRACT

The "market barrier" refers to when consumers and businesses did not take advantage of cost-effective energy efficiency savings in the energy efficiency industry. According to government policy, these market failures resulted from information and risk-related issues in energy efficiency. Through substantial leading on a single ESCO case study issue, we illustrated the findings, regulatory analyses, and in-depth interviews and developed recommendations for Building Energy Efficiency (BEE) measures in Indonesia. The study investigated the case study and was performed between March 2020 and April 2021. The author used Natural Language Processing to extract sentiment and emotions from respondents. The NLP found that "building regulations," "energy hierarchy," "Long-term savings," and "Indonesian government" were positive sentiments. The scores were 0.230, 0.730, 0.410 and 0.230 respectively, with relevance scores between 0.647 to 0.584. 25.64% and 28.40% were the highest emotion of "FEAR" for building regulation and Indonesian government policies in the emotion keyword analysis. The finding showed that even though the sentiments were positive, the respondents worried about the future of the policies. The policies were characterized by a lack of financial incentives and strictly limited funding options. Then, poor coordination policy among regulations and laws impeded any BEE promotion efforts. The interplay of feedback mechanisms from markets that included the market, innovation, and policy cycle was also necessary. The results could provide a reference for the government to improve the quality of policies.

Keywords: *Natural Language Processing; Building Energy Efficiency; Market Barriers; Government Policy; ESCO*