

ABSTRACT

Indonesia's oil palm regulatory system is still based on multi-level governance. As a result, a large number of legal documents have accumulated, and their contents often overlap. This condition makes it difficult for people to understand regulatory documents as a whole, so a summary of their substance is needed. However, summarizing these documents manually takes a lot of time and requires great effort from legal experts. To address this problem, this study applies extractive text summarization to Indonesian oil palm regulatory documents using a Large Language Model (LLM). The extractive approach was chosen because the summary is created by taking verbatim quotations from the source text, which is more suitable for the legal domain that requires accurate interpretation in line with legal structure and terminology. This study proposes and compares twelve prompting strategies for the extractive text summarization of Indonesian oil palm regulatory documents using two Large Language Models (LLMs), namely GPT-5.4-mini and LLaMA 3.1:8b. The twelve strategies are combinations of three shot types (Zero-Shot, One-Shot, Few-Shot) and four prompt approaches (General, Domain-Only, Persona-Only, *Domain-Persona*). The *Domain-Persona* approach integrates the C.S.T. Kansil legal norm framework, which consists of four pillars, namely Legal Subject, Legal Object, the Relationship of Rights and Obligations, and Sanction, as explicit domain knowledge in the prompt. The experiment was carried out on 154 regulatory documents from the JDIH database and evaluated using BLEU, ROUGE-L, METEOR, and BERTScore-F1 as the main metric. The results show that GPT-5.4-mini consistently outperforms LLaMA 3.1:8b. Among the twelve prompting strategies tested, the One-Shot *Domain-Persona* strategy achieved the best performance based on the pure average of the BLEU (0.1116), ROUGE-L (0.2562), and BERTScore-F1 (0.7284) metrics. Therefore, the optimal configuration is the GPT model with the One-Shot *Domain-Persona* strategy. In addition, adding a legal expert *persona* and domain knowledge can improve the quality of the summaries produced by the LLM.

Keywords: BERTScore-F1, BLEU, extractive summarization, Large Language Model, METEOR, oil palm regulation, prompt *engineering*, ROUGE-L