

REVIEWER'S REPORT

Manuscript No.: **IJAR-53246**

Date: **11/08/2025**

Title : Impact of Model Size and Prompting Strategy on Zero- and Few-Shot Performance in Open-Source Language Models

Recommendation:

Accept as it is

Accept after minor revision (✓)

Accept after major revision

Do not accept (*Reasons below*)

Rating	Excel.	Good	Fair	Poor
Originality		✓		
Techn. Quality		✓		
Clarity		✓		
Significance		✓		

Reviewer Name:

Yuniana Cahyaningrum, S.Kom., M.Kom.

Date:

11/08/2025

Reviewer's Comment for Publication.

This paper aims to To comprehensively distinguish these effects, we evaluate a diverse range of instruction-tuned models, including Flan-T5 checkpoints (small, base, large), and recent architectures with extended context windows, across a substantial scaled evaluation that encompasses hundreds of articles and diverse NLP tasks. The paper describes Each model is subjected to multiple prompting regimes (zero-shot and few-shot with varying numbers of exemplars), while controlled input lengths and prompt phrasings are maintained. This allows it to find and classify vehicle damage from photos that users send. These research findings challenge conventional prompt engineering practices and provide practical, statistically supported recommendations for optimizing LLM deployment under real-world budget and resource limitations. With some improvements (especially clarification of sample size, statistical reporting, and language refinement), this work could make a valuable contribution to IJAR readers. Therefore, I recommend accepting it after minor revisions.

Detailed Reviewer's Report

Strengths

1. Relevant topic

The study aim to fill this critical gap by conducting a large-scale, systematic investigation into how model size and prompting strategy affect zero-and few-shot performance across a range of open-source LLMs..

2. Clear research aim

This research provides as a result, LLMs are not only reshaping the research landscape but are also increasingly being deployed in real-world applications, including customer support, legal reasoning, and educational tools.

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3. Sound instruments

The system uses open-source models are increasingly being adopted in academic and industry settings where transparency, reproducibility, and customization are critical. Yet, these models vary widely in their architecture, pre-training objectives, and context length capacity, making it unclear whether insights derived from studies on proprietary models or synthetic benchmarks transfer effectively.

4. Practical implications

This study explain hypothesize that few-shot prompting offers disproportionate gains for larger models, particularly when tasks are short and inputs are well within the model's context limits.

5. Ethical transparency

The system evaluated performance across two NLP tasks—Natural Language Inference (NLI) and Abstractive Summarization—focusing on how model size and prompting style interact and detailed prompts and inputs were carefully constructed to fit within each model's context window.

Weaknesses

1. Incomplete statistics

Statistics can be complete with supplemented and added units from the table to make them clearer.

2. Table and Graph

It would be better if the images in the graph could be explained and displayed in part of discussion.

3. Language polish

Minor grammar slips distract from the argument; a quick copy-edit would fix this.

4. Reference consistency

A few URLs are incomplete and year formats vary. Aligning all entries with APA 7 will enhance professionalism. The reference use must be up to date (Last 5 years). There are several references that are more than five years old.