

## COVER LETTER

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Dear, Prof. Dr. Andi Adriansyah

I/We wish to submit an original research article entitled “**Enhancing Indonesian Customer Complaint Analysis: LDA Topic Modelling with BERT Embeddings**” for consideration by SINERGI.

We confirm that this work is original and has not been published elsewhere, nor is it currently under consideration for publication elsewhere. We promise not to withdraw this article after it has been processed by the Editorial Team. If there is a withdrawal, we are willing to pay a penalty of USD 150 (IDR 2000K) to the SINERGI Editorial Team.

In this paper, I/we report on / show that:

Field	:	Text mining, Business Intelligence
Topic	:	Indonesian Customer Complaint
Brief Background	:	Social media data can be mining for recommended system to know the best trends or pattern. The customers have freedom for asking the question about product, for telling their demands, convey their complaints through social media. By mining social media data, companies can gain valuable insights into customer preferences, opinions, and sentiments. This information can be utilized to improve products and services, tailor marketing strategies, and enhance overall customer satisfaction. Topic modelling is an text mining techniques that extracts the content from the raw and unlabelled data. The topics are generated with most frequently and likely occurring words. Latent Dirichlet Allocation is popular for topic modelling research cause flexible and adaptive. But, that method has issues with sparsity, performs poorly when documents in the short text and there is is no correlation between topics that actually important in text data. BERT is Bidirectional Encoder Representations from Transformer is designed to pre train deep bidirectional representations from

		unlabelled text.
Research Problem	:	Was BERT Embeddings could enhance LDA Topic Modelling algorithm in Indonesian Customer Complaint Analysis domains?
Overview of Method	:	LDA Topic Modelling with BERT Embeddings
Significant finding	:	The result of this research proof that Latent Dirichlet Allocation and BERT can be arrange the topic of Indonesian customer complaint. BERT-Base Multilingual Cased and LDA have the highest coherence score. And the combination between BERT-Base Multilingual Uncased and LDA have the highest silhouette score. BERT Multilingual are potential for improving the LDA method for Indonesian customer complaints topic modelling.

We have no conflicts of interest to disclose.

Thank you for your consideration of this manuscript.

Sincerely,



Mutiara Auliya Khadija, S.Kom, M.Eng

## AUTHORSHIP STATEMENT

I/We wish to submit an original research article entitled “[*title of article*]” for consideration by SINERGI.

All persons who meet authorship criteria are listed as authors, and all authors certify that they have participated sufficiently in work to take public responsibility for the content, including participation in the concept, design, analysis, writing, or revision of the manuscript.

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## POTENTIAL REVIEWERS

Please submit 3 (three) potential reviewers (*that have not listed in SINERGI*) to speed up the review process that competent for the topic and has a good reputation in that area.

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