

ABSTRAK

Pelayanan transportasi publik yang optimal menjadi kunci dalam meningkatkan kepuasan pengguna. Bus Trans Jatim sebagai salah satu layanan transportasi di Jawa Timur menerima banyak ulasan dari pengguna di media sosial seperti YouTube, Twitter, dan Instagram, yang mencerminkan pengalaman perjalanan mereka. Analisis manual sulit dilakukan karena volume data yang besar. Penelitian ini bertujuan untuk mengidentifikasi topik pembahasan publik mengenai layanan Bus Trans Jatim menggunakan *Topic Modeling* berbasis *Latent Dirichlet Allocation (LDA)* sehingga dapat memahami topik layanan yang perlu diperbaiki. Metodologi meliputi pengumpulan 2.992 komentar dari berbagai platform, dilanjutkan preprocessing teks berupa *case folding*, *cleaning*, *normalisasi*, *tokenisasi*, *stopword removal*, dan *stemming*. Model LDA diterapkan untuk mengelompokkan ulasan ke dalam topik dominan. Hasil analisis menunjukkan lima topik utama: harga (*lima_ribu*, *limabelas_ribu*, *duaribu_limaratus*, *harga*, *murah*), fasilitas (*disabilitas*, *kursi*, *aplikasi_ajaib*, *luxury*), pelayanan (*layanan*, *standaroperasionalprosedur*, *pramugara_ramah*), rute (*halte_bukitkayuputih*, *halte_sidayu*, *terminal_bangkalan*, *halte_benjeng*), dan keamanan (*aman*, *sopir_ugal*). Model terbaik diperoleh dengan parameter $\alpha = 0,3$ dan $\beta = 0,03$, menggunakan 150 iterasi, menghasilkan *Coherence Score* sebesar 0,6755, yang menunjukkan topik yang jelas, kohesif, dan mudah diinterpretasikan. Berdasarkan hasil pemodelan LDA ini, model mampu mengekstrak struktur kata yang representatif dan relevan untuk memahami pengalaman pengguna serta topik layanan Bus Trans Jatim yang perlu ditingkatkan. Hasil ini dapat menjadi dasar rekomendasi perbaikan layanan oleh pengelola Bus Trans Jatim guna meningkatkan kepuasan pengguna secara keseluruhan.

Kata Kunci : *Topic Modeling*, *Latent Dirichlet Allocation*, Bus Trans Jatim, *Text Mining*.

ABSTRACT

Optimal public transportation services are key to increasing user satisfaction. Trans Jatim Bus, as one of the transportation services in East Java, receives numerous reviews from users on social media platforms such as YouTube, Twitter, and Instagram, reflecting their travel experiences. Manual analysis is difficult due to the large volume of data. This study aims to identify public discussion topics regarding Trans Jatim Bus services using Latent Dirichlet Allocation (LDA)-based Topic Modeling to understand service topics that need improvement. The methodology includes collecting 2,992 comments from various platforms, followed by text preprocessing in the form of case folding, cleaning, normalization, tokenization, stopword removal, and stemming. The LDA model is applied to group reviews into dominant topics. The analysis results show five main topics: price (five thousand, fifteen thousand, two thousand five hundred, price, cheap), facilities (disability, seat, magic_application, luxury), service (service, standard operating procedure, friendly_steward), route (bukitkayuputih_stop, sidayu_stop, bangkalan_terminal, benjeng_stop), and security (safe, reckless_driver). The best model was obtained with parameters $\alpha = 0.3$ and $\beta = 0.03$, using 150 iterations, resulting in a Coherence Score of 0.6755, which indicates a clear, cohesive, and easy-to-interpret topic. Based on the results of this LDA modeling, the model is able to extract representative and relevant word structures to understand user experience and Trans Jatim Bus service topics that need to be improved. These results can be the basis for service improvement recommendations by Trans Jatim Bus managers to increase overall user satisfaction.

Keywords : Topic Modeling, Latent Dirichlet Allocation, Trans Jatim Bus, Text Mining.