

ANALISIS DAN PERANCANGAN DASHBOARD PENGADUAN PENGGUNA PLN MOBILE BERBASIS CORPUS DOMAIN- SPESIFIK MENGGUNAKAN MODEL INDOBERT

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ABSTRAK

Ulasan pengguna PLN Mobile pada Google Play Store dan Platform X memiliki karakteristik bahasa yang beragam serta mengandung informasi penting terkait keluhan dan pengalaman pengguna terhadap layanan kelistrikan. Penelitian ini bertujuan untuk melakukan analisis pengaduan pengguna PLN Mobile serta merancang dashboard berbasis corpus domain-spesifik menggunakan model IndoBERT untuk mendukung proses pemantauan layanan. Data penelitian diperoleh dari Google Play Store dan Platform X dengan jumlah 388.070 ulasan pada periode 2020–2026. Metode penelitian menggunakan pendekatan Cross Industry Standard Process for Data Mining (CRISP-DM) yang terdiri dari business understanding, data understanding, data preparation, modeling, evaluation, dan deployment. Tahap preprocessing dilakukan melalui cleansing, case folding, filtering, normalization, spelling correction, dan tokenization untuk menghasilkan data yang siap dianalisis. Corpus domain-spesifik digunakan sebagai representasi konteks bahasa pengaduan PLN Mobile dalam penerapan model IndoBERT berbasis Named Entity Recognition (NER). Hasil evaluasi menunjukkan bahwa model IndoBERT memperoleh nilai micro-F1 sebesar 0,9938 pada skema tipe entitas dan 0,9935 pada skema subclass. Hasil analisis kemudian divisualisasikan dalam bentuk dashboard yang menyajikan distribusi keluhan, kategori permasalahan, tren pengaduan, dan informasi pendukung lainnya.

Kata kunci: Dashboard Pengaduan, IndoBERT, Korpus Domain-Spesifik, Named Entity Recognition, PLN Mobile.

ANALYSIS AND DESIGN OF A PLN MOBILE USER COMPLAINT DASHBOARD BASED ON A DOMAIN-SPECIFIC CORPUS USING THE INDOBERT MODEL

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ABSTRACT

User reviews of the PLN Mobile app on the Google Play Store and Platform X exhibit diverse linguistic characteristics and contain important information regarding user complaints and experiences with electricity services. This study aims to analyze PLN Mobile user complaints and design a domain-specific corpus-based dashboard using the IndoBERT model to support the service monitoring process. Research data was obtained from the Google Play Store and Platform X, comprising a total of 388,070 reviews from 2020 to 2026. The research methodology employed the Cross Industry Standard Process for Data Mining (CRISP-DM) approach, which consists of business understanding, data understanding, data preparation, modeling, evaluation, and deployment. The preprocessing stage involved data cleansing, case folding, filtering, normalization, spelling correction, and tokenization to produce data ready for analysis. A domain-specific corpus was used to represent the linguistic context of PLN Mobile complaints in the application of the IndoBERT model based on Named Entity Recognition (NER). Evaluation results show that the IndoBERT model achieved a micro-F1 score of 0.9938 for the entity-type schema and 0.9935 for the subclass schema. The analysis results were then visualized in a dashboard presenting the distribution of complaints, problem categories, complaint trends, and other supporting information.

Keywords: Complaint Dashboard, Domain-Specific Corpus, IndoBERT, Named Entity Recognition, PLN Mobile.