

# **BAB I**

## **INTRODUCTION**

In the digital era, technology has transformed the way we interact with both public and private services, including access to electricity services. PLN Mobile, the latest innovation from PT PLN (Persero), facilitates electricity bill payments, token purchases, meter number recording, power additions, complaints, token purchase monitoring, electricity usage tracking, bill and outage notifications, repair information, and electricity network maintenance monitoring [1]. With a growing user base, reviews of the PLN Mobile application encompass suggestions, strengths, weaknesses, and user experiences and Sentiment analysis aids in evaluating the application's quality based on their opinions.

Sentiment analysis is a machine learning technique that assesses human opinions on entities such as products, services, individuals, or topics through reviews and ratings [2]. Sentiment analysis can provide the necessary information for various purposes [3]. Sentiment analysis is also known as subjective analysis, categorizing text based on the revealed tendencies and direction of opinions into positive, neutral, and negative [4]. Positive indicates good quality, negative indicates shortcomings, and neutral is an unbiased evaluation. One machine learning technique for sentiment classification is Random Forest. Previous research titled "Sentiment Analysis of Hotel Customers in Purwokerto Using Random Forest and TF-IDF" [5] demonstrated that this method achieved accuracies of 87.23% and 87.01% without stemming. In another study [6], the use of Random Forest for classifying Dana application reviews resulted in precision, recall, F1-Score, and accuracy of 84% each. This study aims to analyze sentiment in PLN Mobile application reviews using TF-IDF and Random Forest methods, providing valuable insights for PLN Mobile to enhance their services based on user feedback.