Along with the development of technology, social media has become integral to everyday life, especially for sharing content like culinary reviews. Social media platform X (formerly Twitter) is often used for sharing culinary recommendations, but the abundance of information makes it difficult for users to find relevant suggestions. In order to improve rating prediction performance, this study suggests a recommendation system model that is more thoroughly created utilizing Content-Based Filtering (CBF) combined with Deep Convolutional Neural Network (CNN) and optimised with Particle Swarm Optimization (PSO). Data was collected from PergiKuliner and Twitter, totaling 2644 reviews and 200 cuisines. The preprocessing involved text processing, translation, and polarity assessment. Post-labeling, 7438 data were labeled with 0 and 1562 with 1. Label 0 means not recommended while label 1 means recommended. The imbalance is handled by applying the SMOTE method after observing that the fraction of data labeled 0 and 1 is 65.2%. CBF employed TF-IDF feature extraction and FastText word embedding, while Deep CNN handled classification. PSO optimisation was applied to enhance the accuracy of culinary rating predictions. The results showed an initial accuracy of 76.32% with the baseline Deep CNN model, which increased to 86.06% after Nadam optimisation with the best learning rate, and further reached 86.18% after PSO optimisation on dense units. The 9.86% accuracy improvement from the baseline model demonstrates the effectiveness of the combined methods.