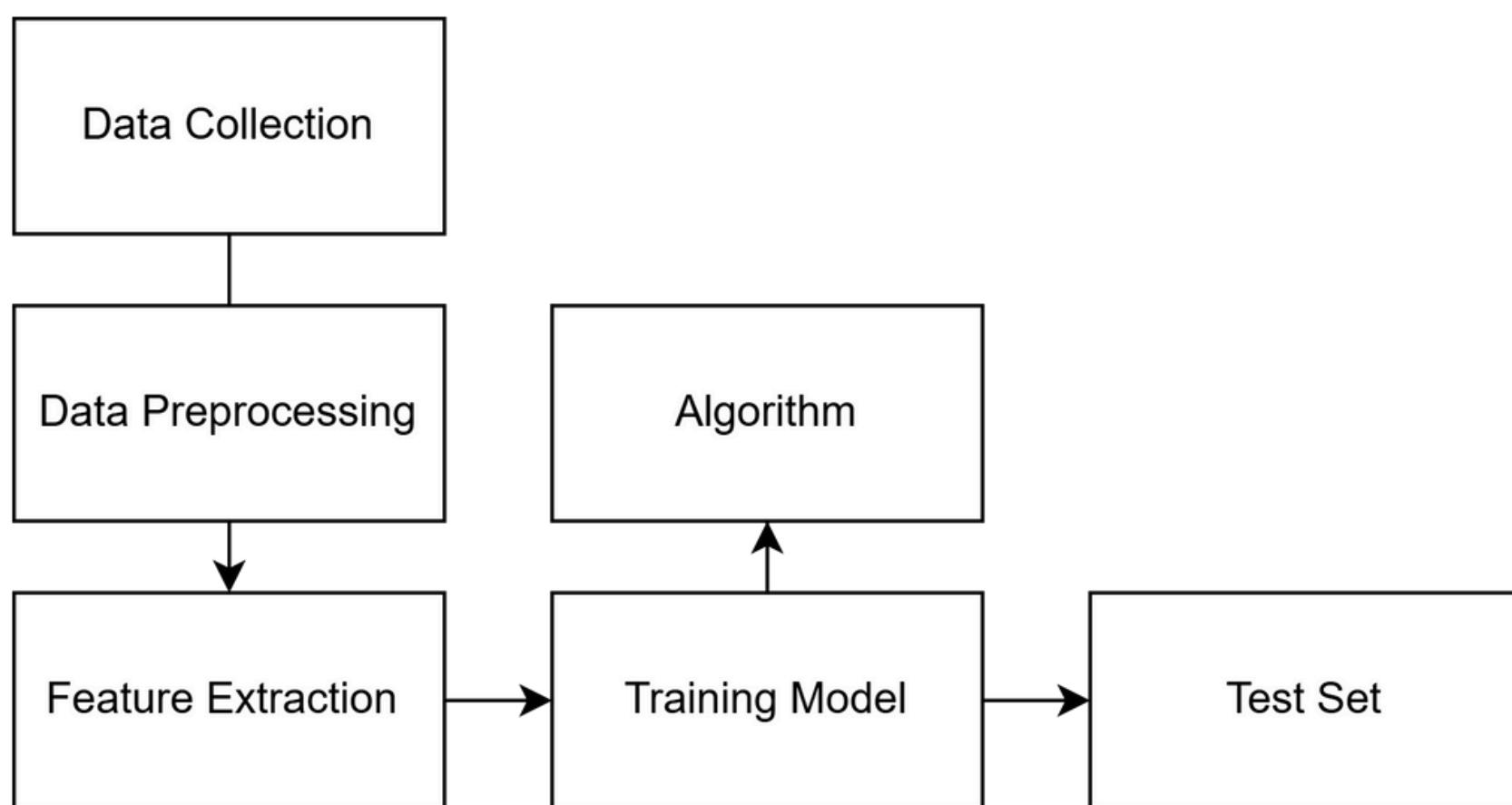


Sentiment Analysis

XL and Axis Users



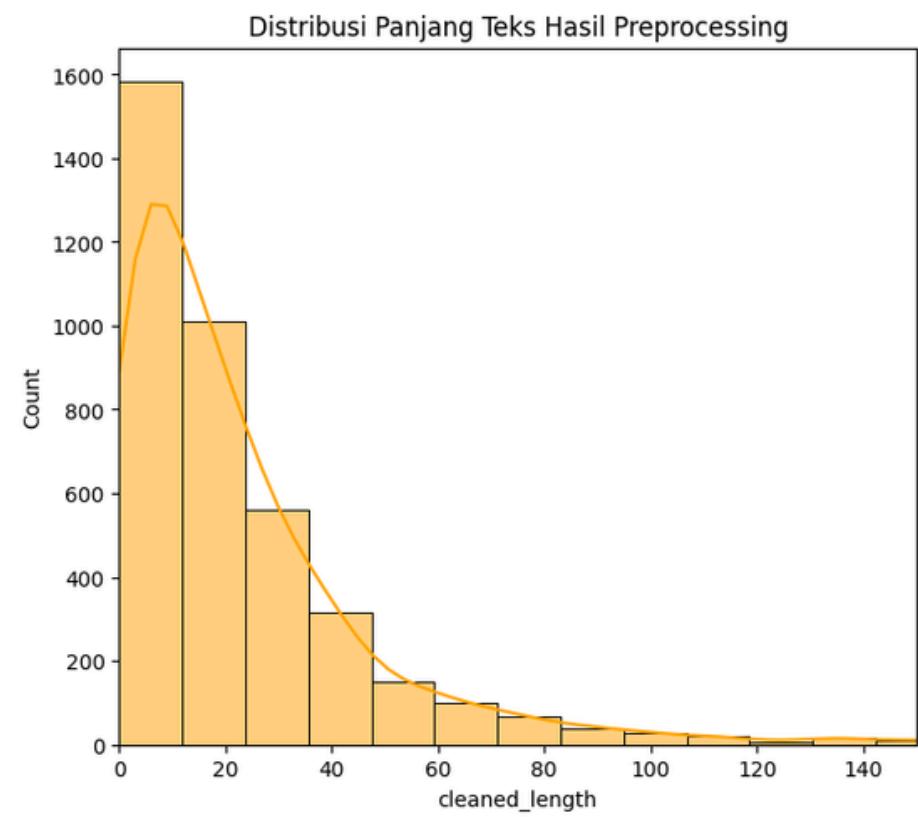
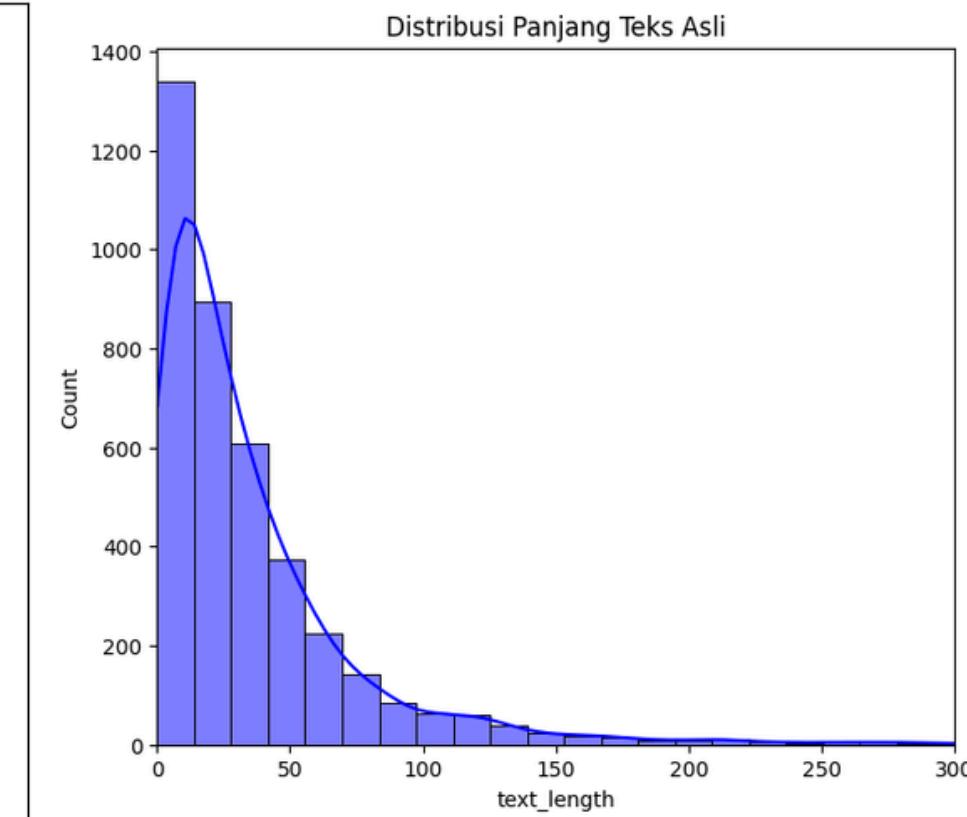
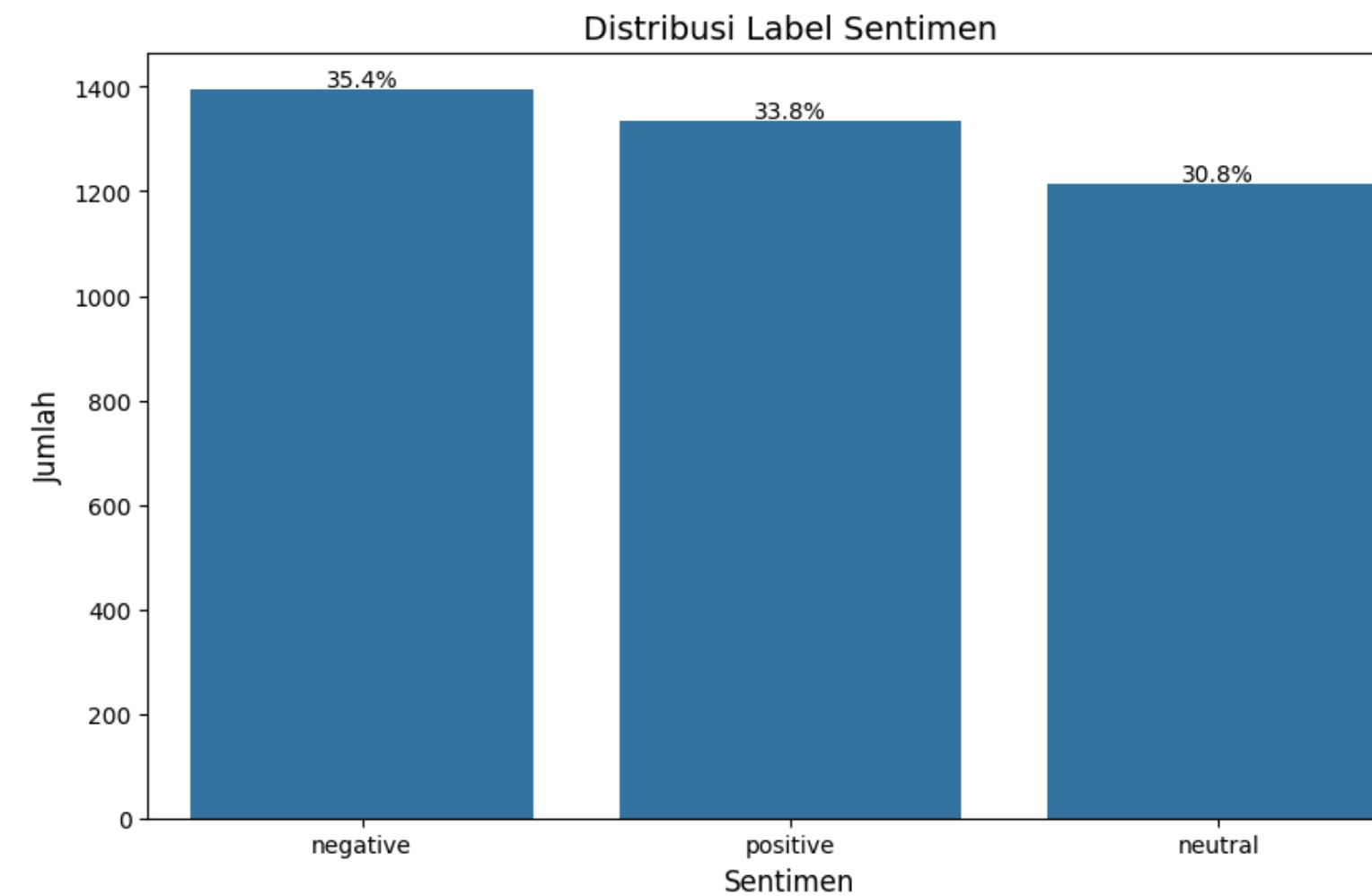
Introduction



Data Understanding

verbatim	label
Kurang aqurat.masak pakt intrnet masih 6 gb pagi masak siang hbs.padahal gak buat ngapa ngapain masa aktif pun masih 2 mingguan	negative
Bagaimana selalu gagal memasukan voucher terus buat apa voucher ini selalu gagal	negative
Enak exis sllu banyak bonus2...	positive
Mengapa jaringan AXIS kurang enak dipakai biasanya enak banget kalo dipakai	negative

Data Distribution

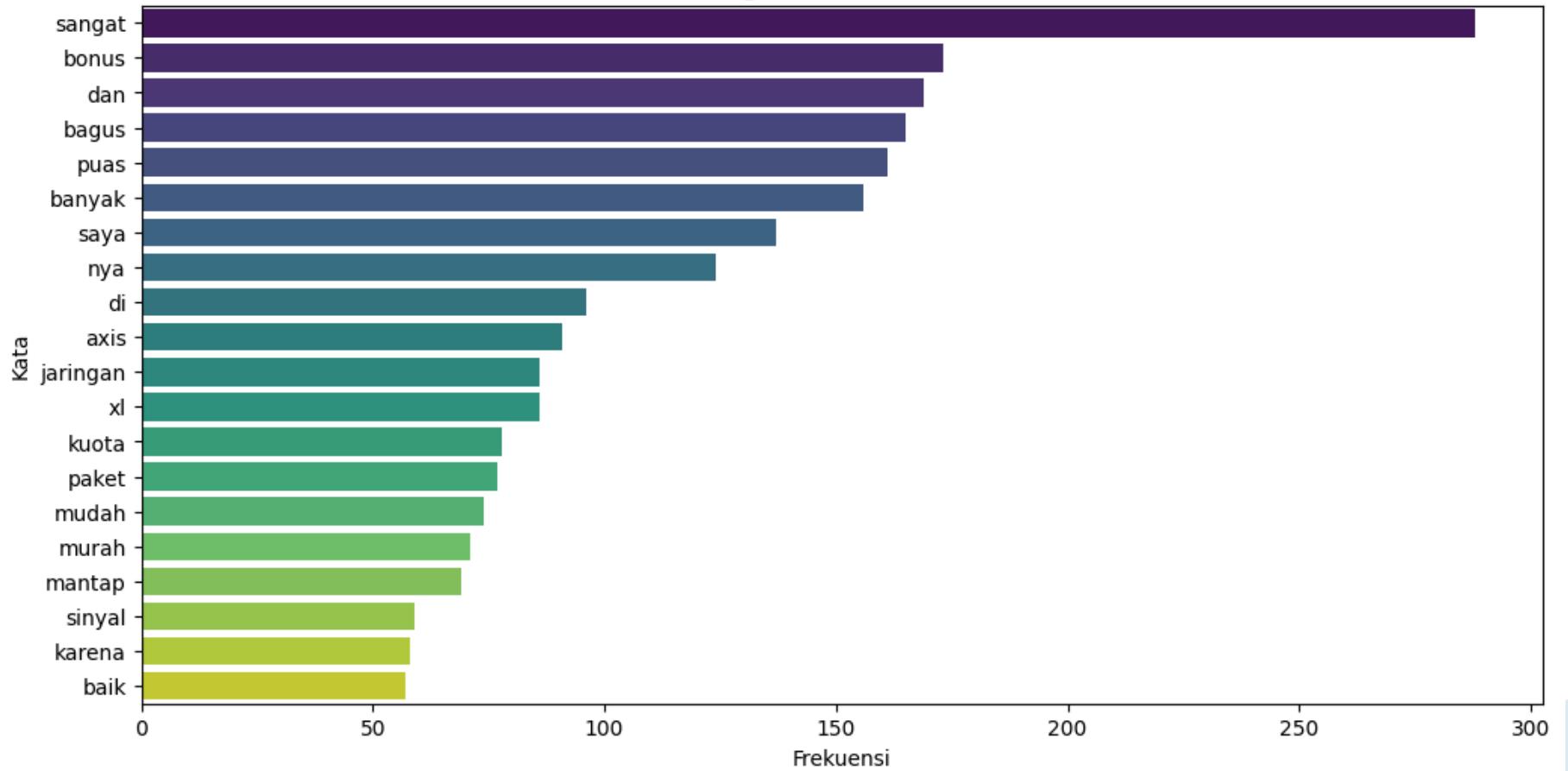


Most Common Words – Positive Sentiment

Kata Umum - Sentimen Positif

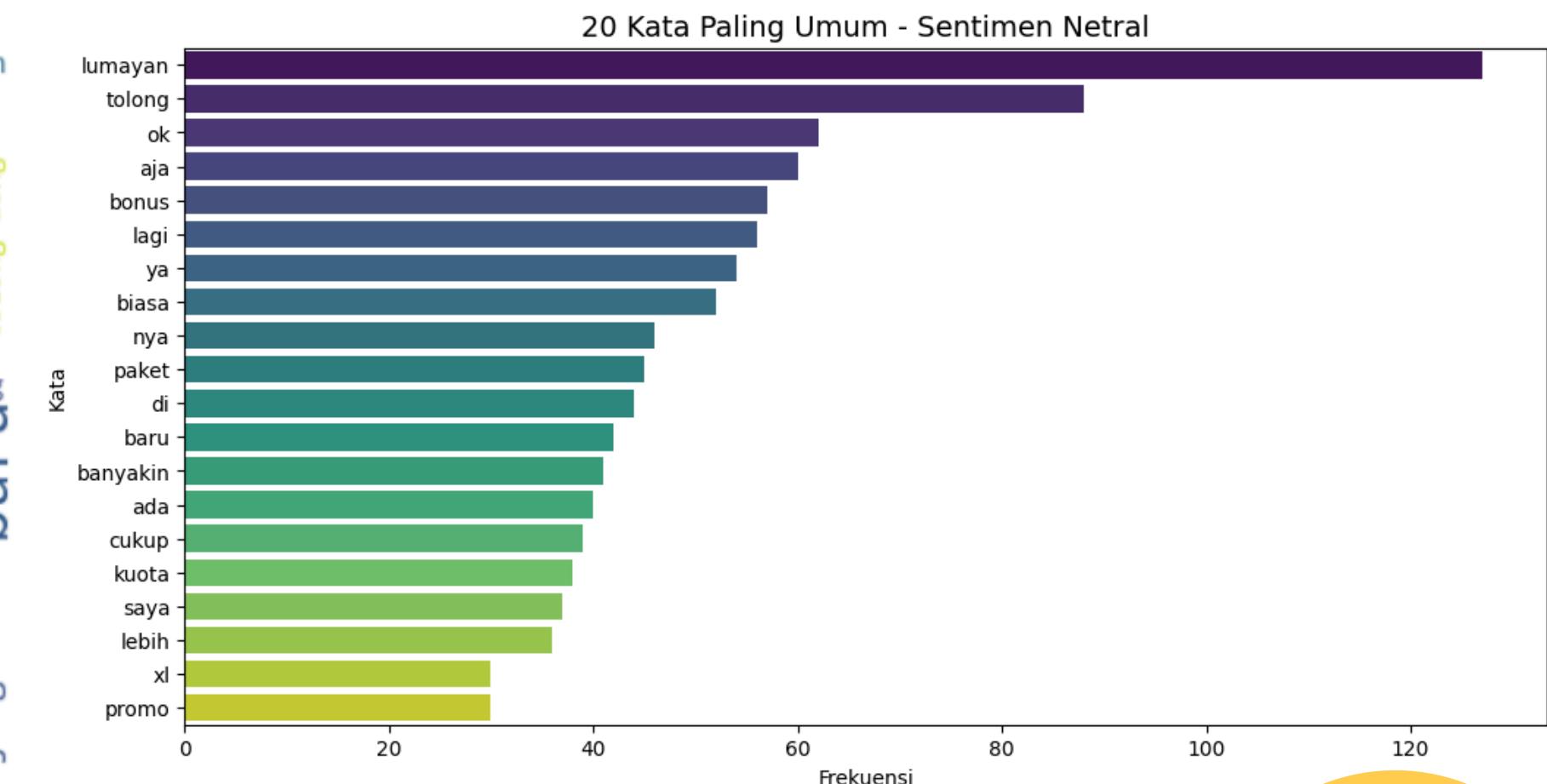
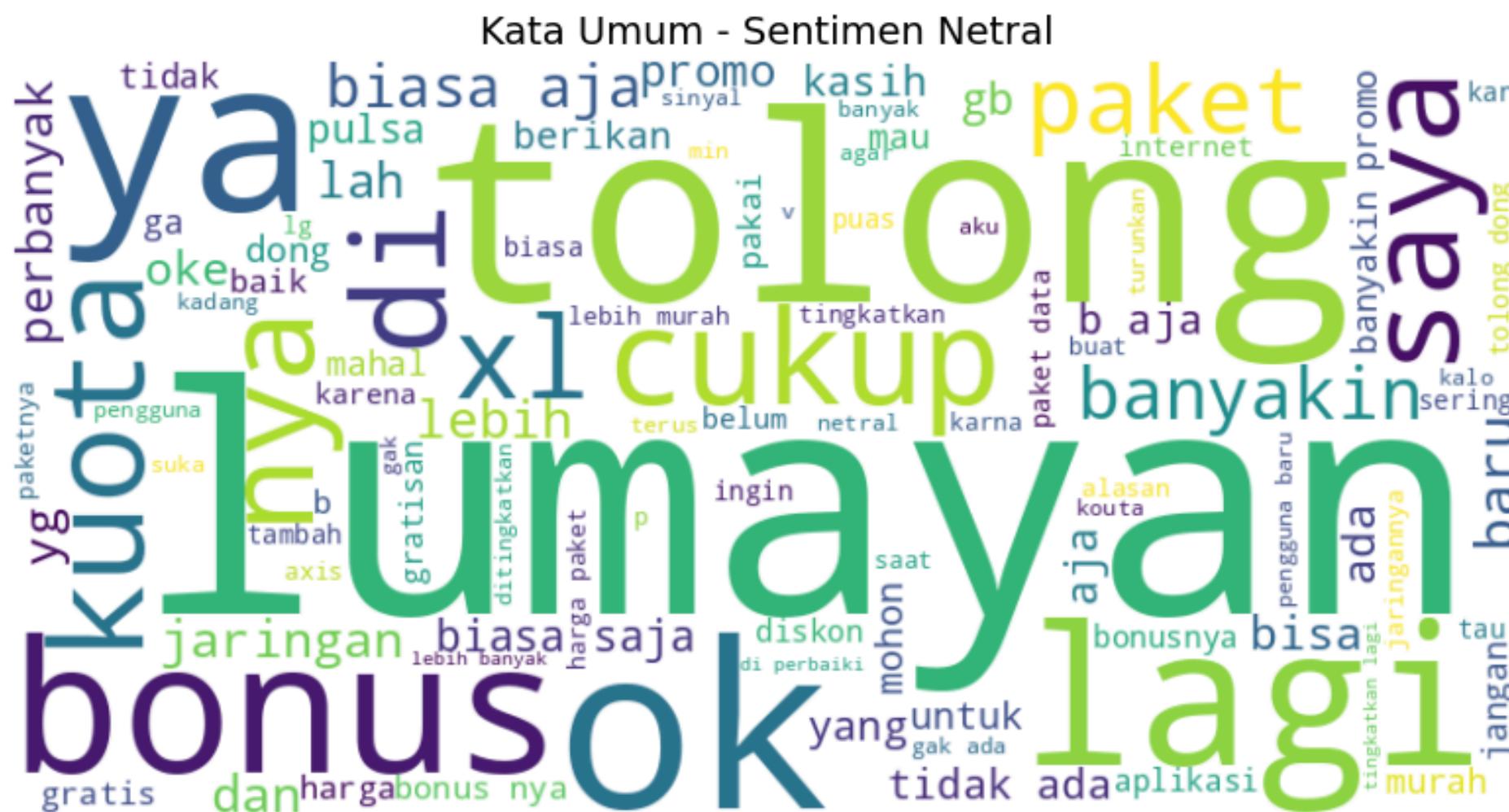


20 Kata Paling Umum - Sentimen Positif



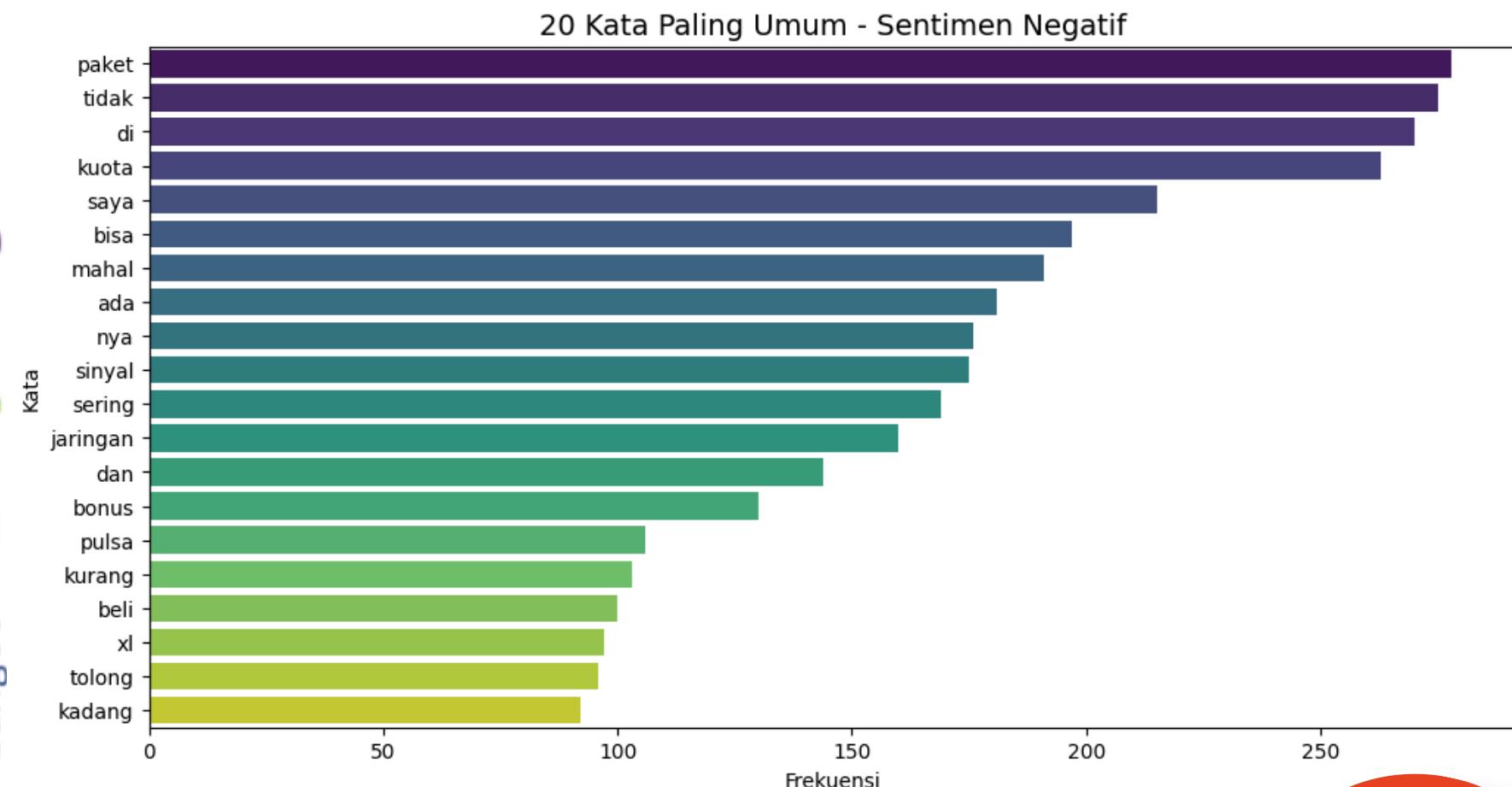
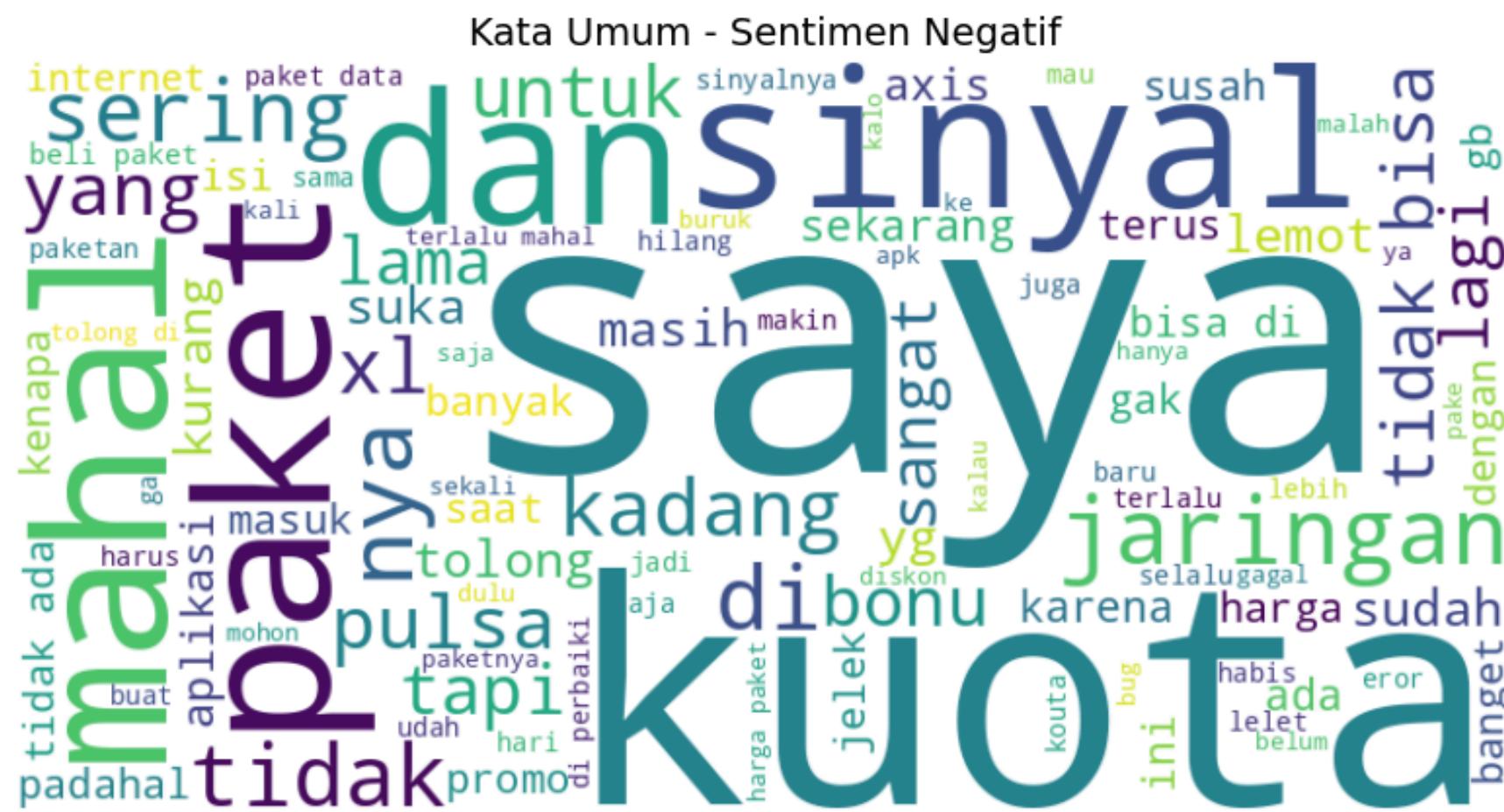
“sangat” “bonus” and “dan” is the top 3 most common word for positive sentiment

Most Common Words – Neutral Sentiment



“lumayan “tolong” and “ok” is the top 3 most common word for neutral sentiment

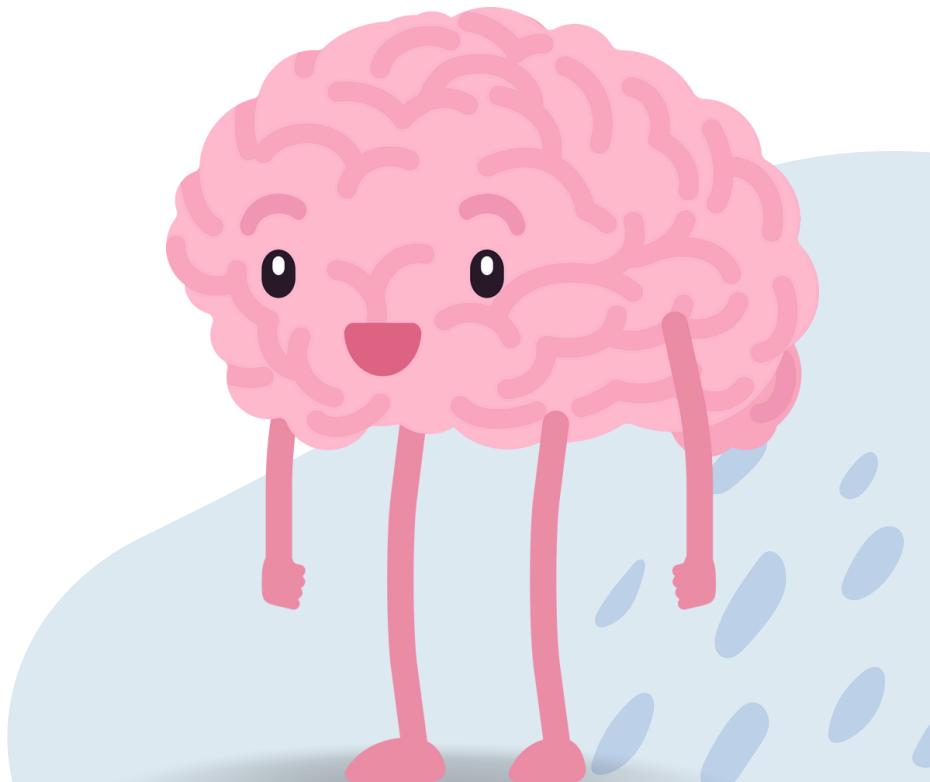
Most Common Words – Negative Sentiment



“paket” “tidak” and “di” is the top 3 most common word for positive sentiment

Model Methodology

- Data Preparation and Splitting
- Feature Extraction using TF-IDF
- Model Building and Training
- Model Evaluation and Comparison
- Visualization and Model Saving



Model Evaluation - Linear Regression

	Precision	Recall	F1	Support
Negative	80%	88%	84%	279
Neutral	78%	81%	79%	223
Positive	85%	74%	79%	267
Accuracy			81%	769
Macro Avg	81%	81%	81%	769
Weighted Avg	81%	81%	81%	769

Model Evaluation - SVM

	Precision	Recall	F1	Support
Negative	80%	86%	83%	279
Neutral	79%	82%	80%	223
Positive	84%	75%	79%	267
Accuracy			81%	769
Macro Avg	81%	81%	81%	769
Weighted Avg	81%	81%	81%	769

Recommendations

- Improve Network Quality
- Evaluate and Adjust Internet Packages
- Enhance Bonus and Promotion Programs
- Improve Customer Service

Thank you!