MDS681 - PROJECT (INDUSTRY PROJECT)

SYNOPSIS

InvestIQ

A DATA-DRIVEN APPROACH TO ENHANCING CUSTOMER EXPERIENCE: CSAT INSIGHTS

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In today's competitive business environment, customer satisfaction (CSAT) has emerged as a critical metric for evaluating the quality of services provided by organizations. It reflects the customers' perception of how well their expectations have been met, making it an essential factor in shaping business strategies, improving customer retention, and driving growth. Traditional methods of measuring CSAT rely heavily on numerical ratings, which often fail to capture the depth of customer emotions and feedback. To address this gap, this project adopts a data-driven approach that integrates mathematical models with advanced Natural Language Processing (NLP) techniques to derive meaningful insights from customer feedback.

This project aims to enhance the analysis of customer satisfaction scores (CSAT) through two distinct methodologies: a weighted average calculation method and sentiment analysis using NLP techniques. The first method focuses on the mathematical computation of CSAT scores by applying a weighted average to the first and last satisfaction ratings provided by customers. This approach helps in identifying trends and fluctuations in customer satisfaction over time, offering a quantitative evaluation of the support team's effectiveness in resolving customer issues.

The second method leverages NLP techniques to perform sentiment analysis on the textual feedback provided by customers. By utilizing the TextBlob model, the feedback is classified into positive, neutral, and negative sentiments. These classifications are then used to calculate sentiment-based CSAT scores for individual feedback entries and aggregate them to assess overall customer satisfaction across different timeframes. This dual-method approach not only quantifies satisfaction through numerical scores but also captures the emotional nuances embedded in customer feedback. The comparative analysis of these two methods will provide comprehensive insights into customer experiences, enabling organizations to make data-driven decisions for improving their service quality and customer support strategies.