

ABSTRACT

The study establishes utilizing the Big Five Personality framework and a Personality Measurement Platform (PMP) for personality analysis. Moreover, Customer Complaint Ontology (CCOntology) framework implements a Naive Bayes machine learning methodology to evaluate and scrutinize customer complaints. The algorithm works by calculating the probability of each complaint category. This association is measured in percentages, enabling the identification of specific personality traits related to customer complaints through identifying complaint characteristics and areas of concern. The study has found that individuals with neurotic personality traits who encounter customer complaints are often associated with problem categories such as Non-Contract, Privacy, and Contract and are more likely to express strong emotional dissatisfaction with a product or service. Linking customer complaints with their corresponding personalities can be an incredibly effective and innovative strategy for personalized customer service businesses in anticipating their needs and providing tailored recommendations that can improve the likelihood of customers making purchases. This approach involves educating employees on the importance of actively listening to customers, asking relevant questions, and anticipating their needs, ensuring that businesses can enhance customer satisfaction while building a loyal customer base.

Keywords—Big Five Personality, Customer Complaint Ontology (CCOntology), Naive Bayes, Personality Measurement Platform, Personalized Customer Service