ABSTRACT

With the growing consumer interest in skincare products, particularly sunscreen, customer reviews on digital platforms have become a crucial source for understanding user perception and experience. The sunscreen product from the Skintific brand, widely marketed on e-commerce platforms, has drawn attention due to the abundance of online reviews. In this context, sentiment analysis offers strategic insights for companies to better comprehend market needs and develop more targeted products.

This study aims to analyze customer sentiment toward Skintific's sunscreen product based on reviews collected from the Female Daily website. The main focus lies in classifying the reviews into positive and negative categories and identifying frequently occurring keywords within each sentiment. The study also compares its methodology to previous research, highlighting its contribution as a micro-level and applied analysis centered on a single product.

The research employed web scraping to collect 736 user reviews, followed by text preprocessing. The data were analyzed using the Term Frequency-Inverse Document Frequency (TF-IDF) technique and classified using the Support Vector Machine (SVM) algorithm with four different kernel types. The linear kernel yielded the best performance, achieving 86% accuracy, 96.7% recall on positive sentiment, and an F1-score of 92%. The study also identified key themes in the reviews, such as ease of use, spray form, and reapplication convenience as advantages, while oiliness and skin irritation were noted as drawbacks.

Findings show that the majority of the reviews (595 out of 736) were positive, highlighting comfort, practicality, and compatibility with makeup. On the other hand, 141 negative reviews expressed dissatisfaction related to skin irritation, oiliness, and perceived ineffectiveness. These results demonstrate that sentiment analysis using machine learning can effectively capture consumer perceptions of a specific product and confirm the stability of SVM in handling smaller datasets.

This research contributes to consumer-centered marketing strategies by utilizing a data-driven approach. In addition to providing real-time insights into customer perceptions, the findings can inform brand communication strategies, product formulation evaluations, and the development of usage guidelines. Practical recommendations include developing automated sentiment monitoring systems and tailoring promotional strategies to specific skin types. Theoretically, this study encourages interdisciplinary approaches in future digital consumer behavior research.

Keywords: Marketing Strategy, Consumer Perception, Support Vector Machine, Sentiment Analysis, Customer Satisfaction.