# Sentiment Analysis Using Product Based Reviews

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**Abstract:** *Sentiment analysis is opinion mining in which it uses natural language processing and extracts the reviews in positive, negative and neutral categories. This helps users to identify the emotional tone behind the body of a text. Sentiment analysis computes the user opinion, attitudes towards the product, and the emotions to that product. Some machine learning techniques are used to identify the sentiment for the product. This model tests the reviews using various machine learning algorithms. Logistic regression algorithm has given the highest accuracy as compared to other algorithms.*

**Keywords:** Machine Learning, Sentiment Analysis, Logistic Regression

## REFERENCES

[1]. Huizhi Liang, Thomas Thorne "A Dynamic Bayesian Network Approach for Analysis topic-sentiment Evolution" IEEE Access Special Section on Advance Data Mining Methods For Social Computing, volume 8, March 2020.

[2]. Huyen Trang Phan, Dosam Hwang "Improving the Performance of sentiment analysis of Tweets Contaning Fuzzy Sentiments Using the feature Ensemble Model" IEEE Access, Volume 8, Feb 2020.

[3]. Sayyed Johar, Samara Mubeen "Sentiment Analysis on Large Scale Amazon Product Review" International Journal of Scientific Research in Computer Science and Engineering Volume8, Issue 1, pp 07-15, February 2020.

[4]. Li Yang, Jin Wang "Sentiment Analysis for E-Commerce Product Review based on Lexicon and Deep Learning" IEEE Access, Volume 8, Feb 2020.

[5]. Shihab Elbagir, Jing Yang "Twitter Sentiment Analysis Based on Ordinal Regression" IEEE Access, Volume 7, November 2019.

[6]. Alaa Noor, Mohrima Islam "Sentiment Analysis for Women's E-Commerce Review using Machine Learning Algorithms" IEEE, Volume 10, July 2019.

[7]. Fattesingh Rane, Akhil Naik "Online Product Review Classification" International Conference on Advance in Information Technology, 1-7281-3241, 2019.

[8]. V. Uma Devi, Dr.Vallinayagi V "Product Reviews Sentiment Analysis- A survey" Journal of Emerging Technology and Innovative Research (JETIR) Volume 6, Issue 2, February 2019.

[9]. Dipak R. Kawade, Dr. Kavita s. oza "Sentiment Analysis: Machine Learning Approach" International Journal of Engineering and Technology volume 9 No 3 June 2017.

[10]. Sobia Wassan, Xi Chen ,Tian Shen "Amazon product Sentiment Analysis using Machine Learning Techniques" Revista Argentina De ClinicaPsicologica , N.1, 695-703.

[11]. Xing Fang ,Justin Zhan "Sentiment Analysis Using Product Review Data" Journal of Big Data , December 2015.