Analysis of Ecommerce Platforms Sentiment

Team - 16

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Consumers in today's world place a great deal of importance on the practice of shopping online since it allows them to reduce the amount of time and effort required to acquire a product. Because of the enormous growth of e-commerce, gathering feedback from customers has become an increasingly important part of identifying their areas of interest and activity. The purpose of doing a sentiment analysis is to ascertain how customers feel about a certain product. This assists other consumers in making judgments about whether to purchase the goods. A recommender system that is built on this can offer recommendations to other consumers or show them things that are connected to what they are browsing for. In recent years, sentiment analysis has garnered a considerable deal of interest, as has text categorization based on customer testimonials. Textual reviews, star ratings, and emojis are the many forms that the reviews are presented (Zikang et al., 2020). The shops or service providers may more easily accomplish their goals with the aid of sentiment analysis, which is used to assess the massive amounts of data they collect. Opinion and characteristics based on the information provided on the product's characteristics. A vast quantity of material relating to a certain topic that may be found via social media. People express their thoughts and opinions on social media sites like Twitter, Facebook, and others. After purchasing or utilizing the product, the customer provides feedback about its usefulness. They uploaded a massive amount of information to a variety of different sites. The ability to interpret these reviews provides a huge competitive advantage for businesses, since it enables suppliers to make various judgments concerning the quality of the services or goods being offered. Additionally, the recommender system may be improved with the aid of these evaluations (Yang et al., 2020). We also give information on often purchased items or items that are frequently purchased together, and this is based on the reviews and purchases made by the customer.

Motivation

As the number of online platforms grows quickly, businesses are falling behind and are unable to maintain their competitive advantage over well-funded platforms like Amazon and others. Promoting the application of sentiment analysis is the major factor that propels the platforms that are now the most competitive. Additionally, the majority of the models developed in the earlier study mostly failed to adopt a hybrid technique of stochastic learning, necessitating the use of such a framework in the current study.

Goals and Objectives

The purpose of this study is to provide a system that will be built using a hybrid method that combines context-based engine functionality with stochastic learning. The framework that has been suggested will attempt to create a hybrid recommendation algorithm by combining the many algorithms that are now in use. It will boost performance by overcoming the disadvantages of standard recommendation systems. In addition, the customer sentiment analysis that was carried out for the purpose of this research is an essential instrument for any contemporary company because it enables the business to obtain insights that can be put into action, identify and resolve critical issues with reoccurring patterns that cause customers to feel dissatisfied, strengthen the aspects of a product or service that are responsible for customers' positive emotions, and make decisions that are more data-driven and efficient in general. On a more granular level, the purpose

of the customer sentiment analysis carried out on this platform is to provide users with the ability to enhance customer service and, as a result, customer experiences.

Significance

In this day and age of big data, an overwhelming amount of consumer product reviews have been published across various online social media platforms. Consequently, mining the sentiment of customers regarding items can yield significant business knowledge that can enhance the decision-making process of management. Therefore, with the help of the suggested framework for the model, sentiment analysis can be used to investigate a wide range of possibilities, such as the influence sale behavior as well as important brand strategies. Customer analytics, in addition to helping businesses better understand their clients' behaviors, enabling the business to shifts in their clients' requirements. In addition to this, it offers a method for determining which methods of acquiring new consumers and keeping existing ones are successful, as well as which methods are unsuccessful.

Features

The Amazon product reviews that are accessible online are the major source of information for this project. Amazon provides its users with an online option that allows them to review the company's products and services using a star-based scale after making a purchase through the marketplace. Customers also have the option to leave comments, which allow them to more explicitly describe what they took into consideration while assessing the goods. For the sake of this investigation, a data collection consisting of many of these product evaluations will be analyzed using sentiment analysis. The Amazon product reviews area of this website is where the data that will be used in this research will be acquired from. The dataset that was utilized for the research includes features include:

- ✓ reviews.title,
- ✓ brand,
- ✓ reviews.text,
- ✓ categories,
- ✓ primary categories,
- ✓ And the sentiment – contains negative and positive labels.

Visualization

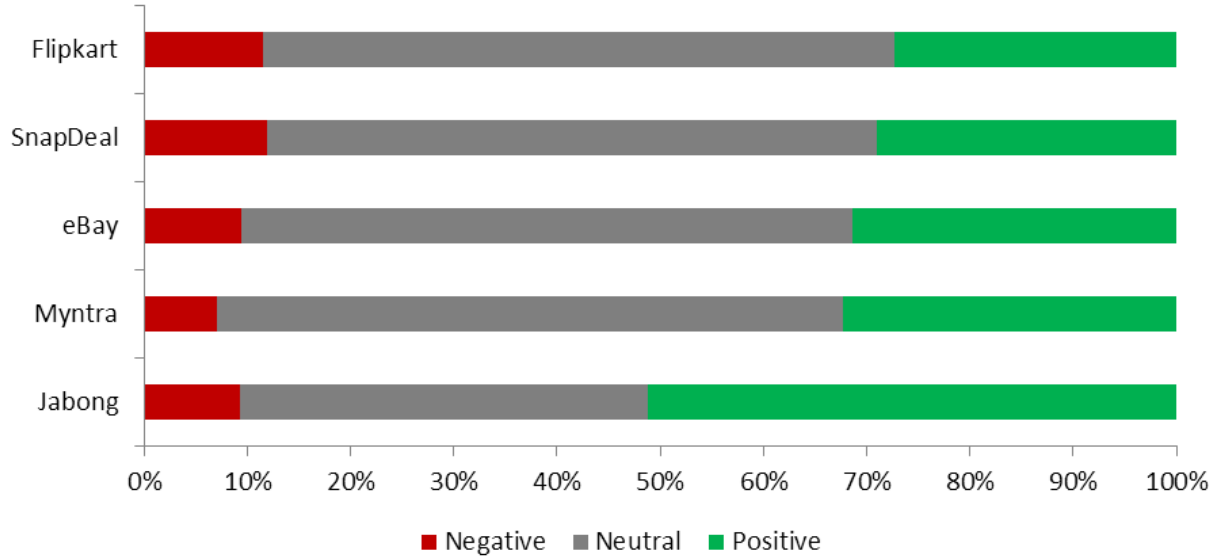

Fig: Sentimental Analysis of various E-Commerce websites

References

Yang, L., Li, Y., Wang, J., & Sherratt, R. S. (2020). Sentiment analysis for E-commerce product reviews in Chinese based on sentiment lexicon and deep learning. *IEEE access*, *8*, 23522-23530.

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