ANALYZING COMMENTS ON SOCIAL MEDIA TO IDENTIFY COMPLAINTS

Today, companies are turning to social media, review websites and feedback platforms to monitor customer satisfaction and understand public perceptions of their products and services. Comments and reviews on platforms such as Facebook, Twitter, Google Reviews and Trustpilot have become essential sources of information, allowing organizations to identify strengths and areas for improvement.

However, with the exponential growth in internet usage and digital interaction, the number of comments and feedback generated daily has increased significantly. Large companies can receive thousands of comments per day, which makes manual analysis and extraction of relevant conclusions in a timely manner unfeasible. This high volume of data presents several challenges, namely:

1. **Difficulty in manually sorting comments** – Reading and interpreting thousands of messages to distinguish compliments from complaints is a slow and inefficient process.

2. **Lack of structured categorization** – Comments are often presented in free text format, without a defined structure, making it difficult to organize and identify similar complaints.

3. **Delay in identifying critical problems** – A serious complaint can go unnoticed for a long period, leading to delays in resolving the problem and a negative impact on the company's reputation.

4. **Subjectivity and** inconsistency in analysis – Human interpretation can vary from person to person, resulting in an inconsistent ranking of customer opinions.

5. **Difficulty in** extracting patterns and trends – Without a structured method analysis, it can be challenging to identify which are the most recurring complaints over time.

To overcome these challenges, the application of sentiment analysis and data mining techniques allows the automatic processing of large volumes of comments and the identification of relevant patterns. Through the automatic extraction of keywords and
By classifying the feelings expressed by customers, companies can make faster and more strategic decisions, continually improving the consumer experience and strengthening their competitiveness in the market.

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CHALLENGE

An online business that sells products over the internet recently received hundreds of comments from its customers on a review platform.
These reviews were left by consumers who purchased products or used the company's services and who subsequently wanted to share their experience. These comments reflect a diversity of opinions, and may range from praise for the service provided to criticism of certain aspects of the purchasing and customer service process.

Among the positive comments are those that highlight the efficiency of the service, the speed of delivery, the quality of the products and the good experience with customer support. These testimonials are important for the company, as they help to consolidate its reputation and reinforce the trust of future customers. However, in addition to the praise, there are also several complaints registered, which address problems such as delays in delivery of orders, difficulties in contacting customer support, products that do not meet expectations or defects in items received.

Due to the high number of comments received, it becomes a challenge for the company to manually analyze each one of them and quickly identify the main issues raised by customers. The inability to efficiently process this volume of feedback may result in a delayed response to recurring problems, affecting consumer satisfaction and, consequently, the company's image.

The purpose of this study **is to help the company identify and classify comments,** separating them into two main categories: **positive comments** and **negative comments.** In addition, the aim is to analyze the patterns of complaints, grouping them into topics such as logistics problems, customer service failures or dissatisfaction with product quality. From this analysis, it will be possible to obtain valuable insights that will allow the company to improve its services, adjust internal processes and, ideally, reduce the number of future complaints.

By understanding what the main customer complaints are and which aspects of the service are most valued, the company can make informed decisions to improve the customer experience and optimize its service and delivery strategy.

An online business recently received hundreds of reviews from its customers on a review platform. Some reviews praise the service, while others contain complaints about different aspects, such as late deliveries, problems with customer service or product quality.

TASKS TO BE PERFORMED

Students will be challenged to analyze a set of customer comments regarding an online commerce service and, from this analysis, extract information that is relevant to the company. The approach adopted will allow them to understand how customer opinions can be transformed into useful data for the continuous improvement of services. To do this, they must follow the following steps:

1. Read and analyze a set of customer reviews

Students will receive a list of real or simulated comments taken from social networks, review platforms or customer feedback sections of an online store. The first task **is to read the comments carefully** to understand their content, identifying the positive and negative aspects reported by consumers.

Initial reading will allow you to understand:

- Whether there is an overall positive or negative tone to the comments.

- Which aspects are most mentioned by customers (e.g. delivery, service, product quality).

- If there are common patterns among different customers, such as recurring complaints.

2. Identify words and expressions associated with praise and complaints

After reading the comments, students should identify **keywords** that indicate the nature of the feedback left by customers. To make this task easier, they can create two separate lists:

Examples of common words and expressions in positive comments:

- "Fast","efficient","excellent service","loved it","good quality","very satisfied","I recommend".

- Comments that express gratitude, such as "thanks for the support", "responded" quickly".

Examples of common words and expressions in negative comments:

- "It took a long time", "terrible", "I didn't like it", "poor service", "I don't recommend it", "defective product".

• Words that indicate frustration, such as "I will never buy here again", "very disappointed", "unbearable".

Identifying these expressions will help students classify comments objectively.

3. Classify each comment as positive or negative based on its content

Based on the identified keywords, students must **assign a classification to each comment.** This classification can be done manually, separating the comments into two categories:

1. **Positive comments** – when the customer expresses satisfaction with the shopping experience or the quality of the service.

2. **Negative comments** – when the customer shows dissatisfaction and reports problems in their experience.

To ensure fair and consistent grading, students can discuss the most ambiguous cases and define common criteria for assigning a correct grade.

Classification example:

ID Comment	Classification
1 "The service was excellent and very fast!"	Positive
2 "Terrible service! I waited over an hour to be served."	Negative
3 "The order arrived on time and the product was exactly as expected."	Positive
4 "The product arrived defective and they did not provide a solution."	Negative

4. Group the most frequent complaints and identify patterns in negative feedback

After classifying the comments, students should **analyze the negative feedback and identify the most common complaints.** To do this, they can group **the negative comments by common themes,** such as:

• **Delivery problems** ÿ Delays, lost orders, damaged products duringtransportation.

• **Customer service** ÿ Slow responses, lack of problem-solving, rude service.

• **Product quality** ÿ Product different from expected, defects, does not correspond
  to the description.

• **Payment problems** ÿ Difficulties in making payments, undue charges, delayed refunds.

Grouping complaints allows you **to understand the biggest problems faced by** customers and prioritize areas that need improvement.

5. Discuss how the company can use this analysis to improve customer satisfaction.

After identifying the main problems, students **should reflect on the impact that** these complaints can have on the company's reputation and discuss how the company can use this analysis to improve its customer satisfaction.

Discussion Questions:

• How can the company respond more quickly to dissatisfied customers?

• What measures could reduce the number of complaints about delivery delays?

• How can customer service be improved based on complaints
  identified?

• What changes can be made to the quality of products to avoid negative evaluations?
  negative?

The objective of this stage is for students to realize the importance of data analysis in business decision-making.

6. Provide recommendations to optimize customer service and reduce complaints

Based on the analysis carried out, students must prepare a set of practical **recommendations** for the company, which can help minimize complaints and improve customer experience.

Examples of recommendations:

• **Improved delivery:** Implementation of automatic notifications about order status and
  reinforcement of logistics.

- **More efficient customer support:** Reduction in average response time, training of the support team and implementation of an automated chat for simple questions.

- **Improved product quality:** More rigorous inspection of products before shipping and creation of a more accessible return policy.

- **Ease of payments:** More payment options and greater transparency in the refund policy.

Recommendations **must be realistic and feasible,** taking into account the company's challenges.