

Analyze customer reviews and improve customer satisfaction

- ***Customer reviews influence purchasing decisions:*** Customer reviews have a significant impact on purchasing decisions. Studies have shown that up to 90% of consumers read online reviews before making a purchase. Positive reviews can boost sales and attract new customers, while negative reviews can deter potential customers and damage the company's reputation.
- ***Customer reviews provide valuable feedback:*** Customer reviews provide businesses with valuable feedback about their products, services, and overall customer experience. This feedback can be used to identify areas for improvement and make changes that will lead to higher customer satisfaction.
- ***Customer reviews improve customer loyalty:*** Satisfied customers are more likely to become loyal customers who repeat their business and recommend the company to others. By analyzing customer reviews and addressing customer concerns, businesses can increase customer loyalty and reduce churn.
- ***Customer reviews build brand reputation:*** A strong brand reputation is essential for long-term success. Customer reviews contribute to the company's brand reputation, and positive reviews can help to build a positive image and attract new customers.
- ***Customer reviews identify potential problems:*** Customer reviews can also help businesses identify potential problems before they become major issues. By monitoring customer reviews, businesses can proactively address customer concerns and prevent negative word-of-mouth.

Questions

1. What are the highest/lowest-rated books?
2. Which authors have the most positive/negative reviews?
3. What are the most common customer complaints?
4. What are the trends in customer reviews over time?

Data warehouse design

Dimension Tables:

Table Name	Column Name	Data Type	Description
category	category_id	int	Primary key
	category_name	varchar(255)	Category's name
author	author_id	int	Primary key
	author_name	varchar(255)	Author's name
product	product_id	int	Primary key
	product_name	varchar(255)	Product's name
	category_id	int	Foreign key (category)
	author_id	int	Foreign key (author)
	quantity_sold	int	Total sold product
	rating_average	decimal(1,1)	Average rating
	review_count	int	Total review on product
customer	price	decimal(10,2)	Product's price
	customer_id	int	Primary key
	customer_name	varchar(255)	Customer's name
	seller_id	int	Primary key
seller	seller_name	varchar(255)	Seller's name
	date_id	int	Primary key
date	year	int	
	month	int	
	day	int	
	time_id	int	Primary key
time	hour	int	
	minute	int	
	second	int	

Fact Table:

Table Name	Column Name	Data Type	Description
review	review_id	int	Primary key

	product_id	int	Foreign key (product)
	customer_id	int	Foreign key (customer)
	date_id	int	Foreign key (date)
	time_id	int	Foreign key (time)
	rating	decimal(1,1)	Reviewer's rating
	thank_count	int	Total thank count on that review
	title	varchar(255)	Value in set ("Cực kỳ hài lòng", "Hài lòng", ...)
	content	varchar(max)	Review's content

Star schema

