

# CUSTOMER FEEDBACK ANALYSIS

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# INTRODUCTION

- There is a major issue in the customer-centric regarding effective management and analysis of consumer input. The amount of relevant data from customer interactions is a significant potential for products enhancement. This collection of consumer feedback has significant implications for improving customer satisfaction, loyalty, and overall corporate performance.
- Our aim is to help businesses advance by developing a more thorough understanding of customer opinions and encouraging data-driven decision-making.

# TARGET CUSTOMERS

- The primary customers for this tool are businesses across various sectors - retail, hospitality, e-commerce, and services - that rely on customer feedback for improving their products and services. Additionally, marketing agencies and customer experience management teams can use this tool to refine their strategies.

# BENEFITS FOR CUSTOMERS



**Enhanced Customer Insight:** Automated analysis of customer feedback provides deeper insights into customer preferences and pain points.



**Improved Response Time:** The tool allows businesses to quickly identify and respond to customer feedback, enhancing customer satisfaction.



**Data-Driven Decision Making:** Businesses can make informed decisions based on comprehensive analysis of customer sentiments and trends.



**Competitive Advantage:** By staying on top of customer feedback, businesses can adapt faster to market changes and customer needs, giving them an edge over competitors.

# BIG DATA

- Customer feedback analysis is closely related to big data. Big data technologies and techniques are often employed to process, analyze, and derive insights from large volumes of customer feedback data.
- Volume of Data: Customer feedback generates a vast amount of unstructured data, including text from surveys, reviews, social media, and other sources. Big data technologies are designed to handle and process large volumes of data efficiently.
- Variety of Data: Customer feedback comes in various forms, such as text, audio, video, and numerical ratings. Big data solutions, including tools like Hadoop and Spark, can handle diverse data types and extract valuable information from them.

# BIG DATA

- Sentiment Analysis: Sentiment analysis is a common aspect of customer feedback analysis. Big data tools enable sentiment analysis algorithms to process large datasets quickly and identify the sentiment behind customer comments, helping businesses understand customer emotions and opinions.
- Predictive Analytics: Big data allows for predictive analytics, enabling businesses to anticipate future customer behavior based on historical feedback data. This can aid in proactive decision-making and strategy development.

# THE 5 V'S OF BIG DATA

- Volume: Big data technologies are designed to handle massive amounts of data efficiently, ensuring that all customer feedback can be processed and analyzed.
- Velocity: Big data solutions enable businesses to analyze feedback in real-time or near-real-time, allowing for quick responses and decision-making.
- Variety: Big data technologies, such as Hadoop and Spark, are capable of handling diverse data formats and extracting meaningful insights from them.

# THE 5 V'S OF BIG DATA

- Veracity: Big data analytics tools, including advanced machine learning algorithms, can help manage and analyze data with varying levels of accuracy and reliability, improving the overall veracity of insights derived from customer feedback.
- Value: The ultimate goal of customer feedback analysis is to derive actionable insights that create value for the business. By leveraging big data technologies, businesses can extract valuable information from large volumes of customer feedback, leading to improved decision-making, enhanced customer experiences, and ultimately, increased value for the organization.

# SYSTEM REQUIREMENTS

Data to be Stored and Captured:

- Feedback Text Data: Customer comments, reviews, and feedback in text format.
- Metadata: Date, time, source of feedback (e.g., social media, review site), and customer demographics (if available).
- Analysis Results: Sentiment scores, categorized feedback (positive, negative, neutral), and key themes or topics identified.

# CONCEPTUAL ER DIAGRAM

- Entities include
- Customer, Feedback Sources, Report, Sentiment Analysis
- Attributes include
- Customer: CustomerID, Demographics
- Feedbacksources: SourceID, SourceType(ex: Twitter or any websites)
- Report: ReportType, ReportID

# RELATIONSHIPS

- Customer Feedback may be associated with Customer.
- Report is generated from Sentiment Analysis and it summarizes Customer Feedback.
- Sentiment Analysis To customer

# DATA-TYPES

Text strings (for feedback and comments)

Numeric (for sentiment scores and ratings)

Categorical (for feedback categories and source identification)

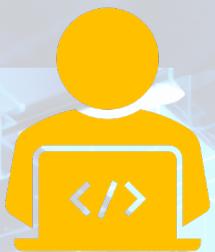
# DATA ENTRY AND CAPTURE



Automated Web Scraping: For collecting data from social media and review sites.



API Integration: To pull data from various online platforms.



Manual Entry: For feedback received directly (e.g., via email or on company websites).

# MOCK DATASET

Midnighters Committee  
The Amazon Staff Lists  
Responses

300

3000

Spotted Items  
Recently Viewed

8149

Comments

Customer Rating and Review  
Quiz Score

6610

Reviews

Each row corresponds to a customer review and includes the following:

	asin	helpful	Rating	reviewText	reviewTime	reviewerID	reviewerName	summary	unixReviewTime
0	0528881469	[0, 0]	5	We got this GPS for my husband who is an (OTR)...	06 2, 2013	AO94DHGC771SJ	amazdnu	Gotta have GPS!	1370131200
1	0528881469	[12, 15]	1	I'm a professional OTR truck driver, and I bou...	11 25, 2010	AMO214LNFC EI4	Amazon Customer	Very Disappointed	1290643200
2	0528881469	[43, 45]	3	Well, what can I say. I've had this unit in m...	09 9, 2010	A3N7T0DY83Y4IG	C. A. Freeman	1st impression	1283990400
3	0528881469	[9, 10]	2	Not going to write a long review, even thought...	11 24, 2010	A1H8PY3QHMQQA0	Dave M. Shaw "mack dave"	Great grafics, POOR GPS	1290556800
4	0528881469	[0, 0]	1	I've had mine for a year and here's what we go...	09 29, 2011	A24EV6RXELQZ63	Wayne Smith	Major issues, only excuses for support	1317254400

# REPORTS AND ANALYTICS

- Sentiment Analysis Report: Showing the distribution of sentiments across different feedback.
- Feedback Summary: Highlighting key themes, most discussed topics, and general customer sentiment trends.
- Periodic Trend Analysis: Changes in customer feedback trends over time

# PROJECT RISKS



Data Privacy and Security Risks: Ensuring the confidentiality and security of customer data, especially when dealing with personal information.



Accuracy of Sentiment Analysis: The risk of inaccuracies in NLP and sentiment analysis which could lead to misleading conclusions.



Data Integration Challenges: Difficulties in integrating and standardizing data from diverse sources.



User Adoption: Ensuring that the tool is user-friendly and meets the needs of the target audience.



Technological Obsolescence: The risk that the technology becomes outdated due to rapid advancements in AI and NLP.

# STRATEGIES FOR MITIGATION

- Mitigation strategies for these risks include rigorous data security protocols, continuous updates and improvements in the NLP algorithms, effective user training and support, and staying abreast of technological advancements. Regular monitoring and feedback mechanisms will also help in promptly addressing any issues that arise.

# CONCLUSION

- Companies depend on the Customer Feedback Analysis Tool to understand and respond to their customers' requirements and preferences. It converts raw consumer input into meaningful insights, allowing for data-driven choices and strategy development. This technology improves customer happiness by allowing for faster and more efficient replies to feedback, and it gives firms a competitive advantage by keeping them up to date on market trends and client feelings. It has a huge influence across several industries, supporting a customer-centric approach and continual improvement in goods and services.

A soft-focus photograph of a large outdoor gathering, likely a festival or rally. In the foreground, many people are seen from behind, their hands raised in the air, some holding small flags. The background features a traditional building with intricate architectural details and trees with autumn-colored leaves.

**THANK YOU!!**