

PROJECT REPORT
ON
SENTIMENT ANALYSIS OF BUSINESS REVIEWS

UNDERTAKEN AT
“D. G. Ruparel College of Arts, Science and Commerce”
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“FIELD PROJECT”
D. G. Ruparel College of Arts, Science and Commerce

GUIDED BY
Science & Technology Faculty

D. G. Ruparel College of Arts, Science and Commerce,
Year 2025-2026

DECLARATION

We hereby declare that this project report entitled "SENTIMENT ANALYSIS OF LOCAL BUSINESS REVIEW" Bonafide record of this project work carried out by Aditya Kadam, Ashwin Acharekar, Partik Mestry, Aarya Chunekar, Chinmay Mhatre during the academic year 2025-2026, in fulfilment of the requirements for the award of "Field Projects - S.Y. B.Sc. Computer Science of D. G. Ruparel College of Arts, Science and Commerce" This work has not been undertaken or submitted elsewhere in connection with any other academic course.

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At last, but not least, we are thankful to our Family and Friends for their moral support, Endurance, and encouragement during the course of the project.

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ABSTRACT

Online reviews and feedback play a big role in shaping how people view local businesses. They influence whether new customers choose to engage with a business or not. But reading and analyzing all this feedback manually is difficult and time-consuming. To solve this, our project “*Sentiment Analysis of Local Business Review*” focuses on automatically studying customer opinions and identifying whether they are positive, negative, or neutral.

We carried out this study on “Lost Stories Academy, A school of electronic music education.” To collect data, we used multiple methods: student surveys through Google Forms, online reviews from Google Maps, direct interviews with students and faculty, and by personally attending a few classes to observe the environment. The survey results were represented through charts for easy understanding, while all the collected responses and reviews were analyzed using Python to find the overall sentiment.

By combining survey data, online reviews, interviews, and real observations, we got a well-rounded picture of the academy’s strengths and areas for improvement. This project shows how sentiment analysis can help local businesses better understand customer needs, improve their services, and build stronger trust and reputation in the community.

KEYWORDS

Python, TextBlob, Sentiment, Reviews, Survey, Feedback

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INTRODUCTION

Understanding Sentiment Analysis

Sentiment analysis, also known as opinion mining, is a branch of Natural Language Processing (NLP) that focuses on identifying and classifying emotions, opinions, or attitudes expressed in text. It works by analyzing written data such as reviews, comments, or survey responses to determine whether the expressed sentiment is positive, negative, or neutral.

At its core, sentiment analysis uses computational techniques like text preprocessing, tokenization, feature extraction, and classification algorithms to make sense of unstructured data. Modern tools and libraries in Python, such as TextBlob, simplify this process and allow researchers to handle large volumes of feedback efficiently. Instead of manually reading hundreds of reviews, sentiment analysis provides a quick and systematic way to understand how people feel about a particular subject.

Importance of Sentiment Analysis

With the rise of digital communication, individuals and customers are constantly sharing their thoughts online. Be it through social media posts, online surveys, or customer reviews, this feedback forms a valuable source of information. However, this data is mostly unorganized and written in natural language, making it difficult to analyze without computational support. Sentiment analysis bridges this gap by converting qualitative opinions into measurable insights.

This technique is widely applied in areas such as product reviews, political campaigns, customer service, market research, and brand monitoring. Companies and organizations use sentiment analysis to track public opinion, identify trends, and make better business decisions.

Sentiment Analysis in Business Reviews

One of the most common applications of sentiment analysis is in analyzing business reviews. In today's competitive environment, local businesses heavily rely on customer opinions to attract new clients and improve their services. Platforms like Google Maps, and social media provide a space where customers freely express their satisfaction or dissatisfaction. These reviews often influence potential customers more strongly than advertisements.

For businesses, understanding these reviews is essential. Positive reviews help highlight strengths, while negative feedback points to areas that require improvement. However, when reviews number in the hundreds or thousands, manually sorting them becomes impractical. Sentiment analysis provides an efficient solution by automatically categorizing the overall mood of customer feedback. This allows businesses to gain a clear picture of their reputation, identify recurring issues, and make data-driven decisions to enhance their services.

In the context of our project, *"Sentiment Analysis of Local Business Review"*, we apply these techniques to evaluate a Lost Stories Academy, A school of electronic music education. By analyzing student surveys, online reviews, interviews, and classroom observations, we aim to present a comprehensive understanding of how people perceive the academy and how such insights can support continuous improvement.



figure 1 : Sentiment classification

OBJECTIVE OF THE STUDY

Objective of the Study

The main objectives of this project are:

- To analyze customer and student feedback for the Lost Stories Academy using sentiment analysis.
- To classify responses into positive, negative, and neutral categories for better understanding.
- To visualize survey responses through charts and diagrams for clear interpretation.
- To compare insights obtained from surveys, interviews, classroom observations, and online reviews.
- To demonstrate how sentiment analysis can help local businesses in decision-making and service improvement.

Need of the Study

This study is necessary because:

- Local businesses often lack structured methods to analyze customer feedback.
- Customer satisfaction strongly influences reputation and growth.
- Online reviews and surveys generate large amounts of unstructured text data.
- Manual analysis of feedback is time-consuming and may lead to bias.
- Automated sentiment analysis provides reliable insights for continuous improvement.

Scope of the Study

The scope of the study is defined as:

- Focused on one specific local business: a DJ & Music Production Academy.

- Covers multiple data sources including Google Form surveys, Google Maps reviews, faculty/student interviews, and classroom observations.
- Uses Python and NLP techniques for sentiment analysis.
- Limited to three categories of sentiment: positive, negative, and neutral.
- Provides a framework that can be extended to other businesses and industries.

Meaning of the Research

In the context of this project, research refers to:

- A systematic process of collecting, analyzing, and interpreting data.
- A way to transform unstructured feedback into meaningful insights.
- A scientific method to evaluate the reputation and performance of a local business.
A combination of qualitative (interviews, observations) and quantitative (surveys, reviews) approaches.
- A practical demonstration of applying sentiment analysis techniques in real-world scenarios.

Limitations of the Study

- The study is limited to one business and may not represent all industries.
- The sample size is relatively small compared to large-scale studies.
- Sentiment analysis tools may misinterpret sarcasm or mixed emotions in text.
- The study focuses only on three sentiment categories, excluding detailed emotion detection (e.g., joy, anger, fear).
- Findings are time-specific and may change as the business evolves or as more data becomes available.

RESEARCH METHODOLOGY

Type of the Research

- **Applied Research:** Since the study focuses on solving a real-world business problem.
- **Descriptive Research:** As it aims to describe customer opinions and categorize them.

Research Purpose

The purpose of this study is to apply sentiment analysis techniques to evaluate customer feedback for a local business, in this case, Lost Stories Academy. The study is designed with the following purposes:

- To understand how students and customers perceive the academy through their feedback.
- To identify whether the overall sentiment expressed in reviews is positive, negative, or neutral.
- To highlight the academy's strengths and areas where improvement is needed.
- To demonstrate the importance of analyzing feedback systematically rather than relying on assumptions.
- To explore how sentiment analysis can serve as a useful decision-making tool for local businesses.

Research Approach

- **Qualitative Approach**
 - Interviews with faculty and students.
 - Classroom observations to directly understand the environment.
 - Interpretation of descriptive comments from surveys and reviews.

- **Quantitative Approach**
 - Collection of structured survey responses using Google Forms.
 - Compilation of numerical ratings and frequency counts.
 - Use of sentiment analysis algorithms in Python to classify large sets of reviews.
- **Applied Research**
 - The project is practical in nature, aiming to solve a real-world problem of analyzing customer opinions.
- **Descriptive Research**
 - It seeks to describe the nature of feedback received, rather than testing a hypothesis or predicting future outcomes.

Research Strategy

Research strategy follows a mixed-method approach (qualitative + quantitative), uses both primary and secondary data, applies computational tools for analysis, and aims at generating practical insights for decision-making.

Data Collection Method

- **Primary Data:** Surveys through Google Forms, interviews with students and faculty, and classroom observations.
- **Secondary Data:** Online reviews collected from Google Maps.

Sample Design & Size

- **Students:** 25+ responses collected through Google Forms.
- **Faculty:** 5 interviews conducted.
- **Online Reviews:** 20+ reviews collected from Google Maps.
- **Observations:** 4 classroom sessions attended for qualitative insights.

Tools & Techniques of Analysis

- **Data Visualization:** Charts and graphs generated using Google Forms.
- **Sentiment Analysis:** Implemented in Python using NLP libraries (TextBlob).
- **Classification:** Reviews categorized into positive, negative, and neutral.
- **Interpretation:** Comparison across multiple data sources to identify patterns.

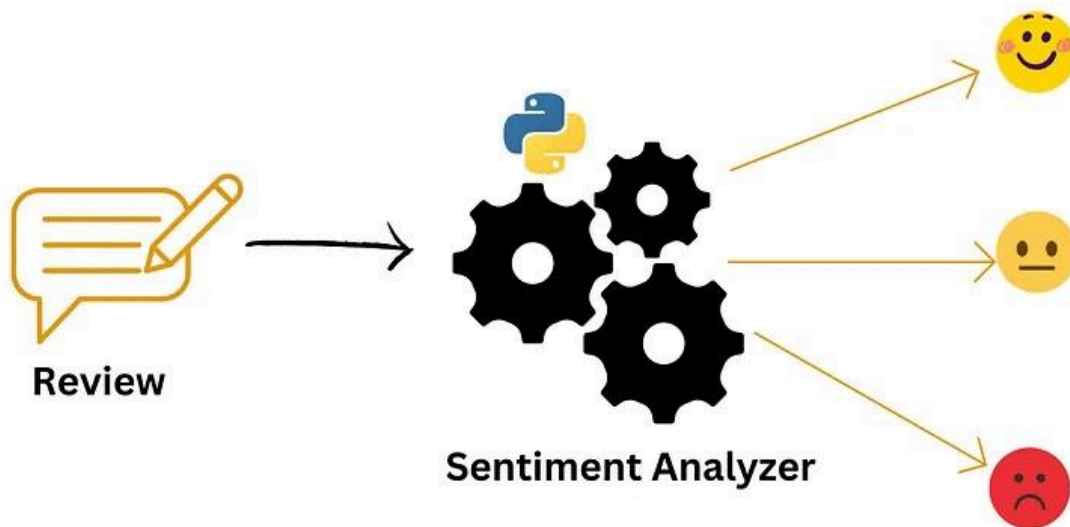


figure 2 : Sentiment Analyzer

ABOUT LOST STORIES ACADEMY

Who is Lost Stories?

Lost stories are a name synonymous to Dance Music in India and South Asia. Ranked #52 on DJ Mag 2016 and labelled the “Scene Starters” by DJ Mag, Rishab and Prayag began their journey in dance music in 2008 earlier producing Trance and Progressive House and garnering support from heavyweights like Tiesto, Armin van Buuren, BT, Markus Schulz etc. They then evolved their sound with their debut album – Music for the # Generation (Universal Music) in 2012 which was the no 3 Album on Top 100 Dance Albums iTunes Charts.



figure 3 : Lost Stories (Rishab & Prayag)

Ever since, they’ve had 3 #1 singles on iTunes and remixed by the likes of One Republic, Afrojack, Alan Walker with releases on Universal Music, Interscope Records, Sony Music and Spinnin’ Records.

Lost Stories are the biggest Dance Music exports with Performances at Tomorrowland (2015-2019), Global Citizen Festival, Mysteryland, New Horizons Festival, Electric Daisy Carnival, Sunburn, VH1 Supersonic etc.

They've done extensive club and local festivals tours in India, UAE, China, Europe, Mexico and multiple South Asian countries.

Lost Stories Academy, an initiative by Lost Stories has been a pioneer in electronic music education since 2015. Lost Stories are India's most renowned export from India to the world in the field of electronic music production. From representing India at world's largest festival, Tomorrowland for five times to working with world renowned artists such as KSHMR, Marshmello, U2, One Republic, Alan Walker, etc. They have steadily raised India's flag on world stages for over a decade.

What is Lost Stories Academy? :

Lost Stories Academy is a music production & DJ school based in Mumbai, India.

It's founded by Lost Stories, a well-known electronic music duo (Prayag Mehta and Rishab Joshi). They have been active since around 2008 and have had international recognition, including festival performances and collaborations/remixes with global artists.



figure 4 : Lost Stories Academy Logo

The Academy aims to teach not just the technical side of music production and DJ-ing, but also help students understand the music industry, business, marketing, how to build a career, etc.

Courses & Curriculum

They offer a continual spectrum of music-education offerings, from short modules to full immersive/residential programs. Key elements:

Course / Duration	What's Covered	Price / Sessions
Music Expert Course (6 months, offline)	All basics to advance of music production: Ableton Live, mixing & mastering, songwriting, sound design, etc. Includes live training, continuous feedback, artist promotion etc. (Lost Stories Academy)	~ ₹ 3,00,000; 72 live training sessions (Lost Stories Academy)
Music Prodigy Course (12 months, offline / residential)	A comprehensive program that also adds modules like music for films/TV, Bollywood music, sound engineering, artist/business skills, social media marketing, etc. residential version adds immersive elements. (Lost Stories Academy)	~ ₹ 5,50,000; 144 live sessions (Lost Stories Academy)
Short / Module-based Courses	Topics like: Ableton Live Basics/Advanced (2 months), Songwriting & Music Theory, Sound Design, Mixing & Mastering, “The Next Big DJ” (2 months) etc. (Lost Stories Academy)	
Online / Recorded Courses / Masterclasses	Options to learn online, recorded sessions, access to sample banks, etc. Some courses are self-paced or hybrid. (Lost Stories Academy)	

Teaching Styles, Facilities & Faculty :

The batch size is small. For in-studio/offline batches, typically up to 15 students. Students are required to carry a laptop & good headphones. LSA provides the DAW license (Ableton Live EDU Suite) in many courses.

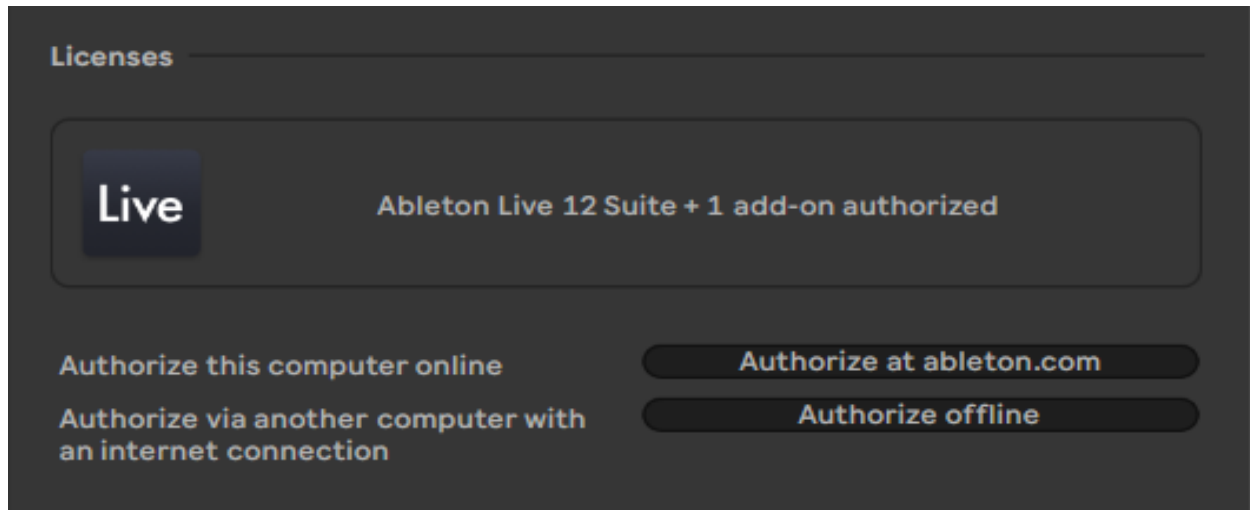


figure 5 : LSA provides Ableton Live EDU Suit's license

Instructors include industry professionals: senior faculty like Sanket Nirbhavane, Nikhil Pose, Vedant Singh, Prayag Mehta etc. These instructors bring experience from production, engineering, live shows etc.

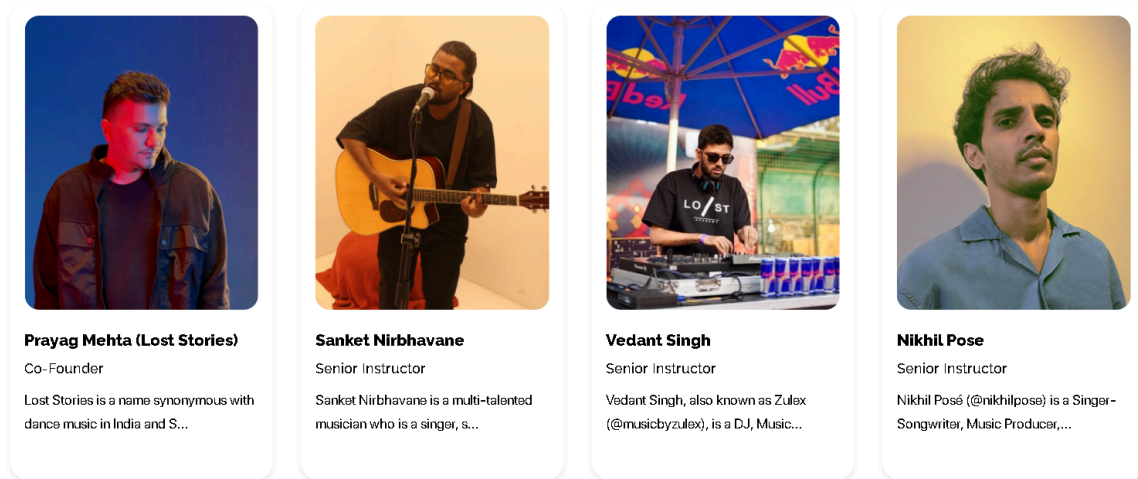


figure 6 : Industry Professionals Instructors

Student Experience & Alumni :

Alumni have achieved noticeable success, opening for big acts, winning remix competitions, large streamed music, working with big labels. For instance, one alumnus opened for Hardwell at Sunburn Goa; TroSK is among most streamed alumni; others joined industry roles. Students report that the teaching is thorough, supportive, hands-on. Many mention getting feedback, mentorship, learning not just tools but practical production mindset.



figure 7 : Studio session

The community & networking seems emphasized. Peer interaction, collaborative environments, opportunity to be exposed to the business side of music.

Strengths & What Makes It Attractive

Credibility & pedigree: The founders are well-known artists; the academy leverages their network.

Good environment & support: Small batches, mentorship, contact with faculty, feedback loops.



figure 8 : Mentorship by Professional Instructor

Options & flexibility: Short modules, full year courses, studio or online, residential etc.



figure 9 : Online sessions

Resources included: DAW licenses, content room, sample banks, etc.

WHY WE CHOOSE LOST STORIES ACADEMY FOR RESEARCH?

Pioneering Role in Indian Music Education

Lost Stories Academy is founded by Lost Stories, a globally recognized Indian DJ/producer duo. The academy “has been a pioneer in electronic music education since 2015 and explicitly positions itself as a leading DJ and music production school in India. This established reputation makes it an influential case study in music training.

Plentiful, Visible Feedback :

The Academy attracts hundreds of students, and online platforms aggregate extensive reviews. For example, JustDial reports 151 user reviews and even showcases student testimonials praising the faculty and learning experience. This wealth of publicly available learner feedback provides a rich dataset for sentiment analysis of student satisfaction.

Market Leadership & Unique Positioning :

In the context of Indian DJ/music schools, Lost Stories Academy is repeatedly described as a “leading” or “top” institute. Business listings note it as “one of the leading businesses in the Institutes For DJ” category in Mumbai and a “top player” in Mumbai’s DJ/music production training scene. Its prominence relative to other academies means insights from this Academy are likely representative of successful music schools in the creative education sector.

Valuable Insight into Quality & Decision Making :

Analyzing sentiment in the Academy's feedback can illuminate patterns of learner satisfaction and perceived education quality. Research shows that using student opinions in this way can help institutions "adjust and improve lectures, facilities, curriculum and make the quality of education better" Moreover, online reviews critically influence consumer choices for example, 93% of consumers report that reviews affect their purchasing decisions. By studying a prominent creative-education provider, the research can shed light on how learners judge quality and make enrollment decisions in the music/creative industries.

Lost Stories Academy is a leading music education institute in India with strong visibility, abundant student reviews, and a trusted reputation. We chose this academy for research because its prominence and rich feedback make it an ideal case to analyze student sentiment, education quality, and decision-making in creative learning.

STRATEGY OF SENTIMENT ANALYSIS OF BUSINESS REVIEW

The strategy for conducting sentiment analysis of business reviews in this study was carefully planned to ensure reliability and relevance. To begin with, we approached the Lost Stories Academy and explained the purpose of the research.



Aditya Kadam <adityakdm3251@gmail.com>

Request for Field Visit Opportunity at Lost Stories Academy

1 message

Aditya Kadam <adityakdm3251@gmail.com>
To: info@loststoriesacademy.com

Sun, Aug 31, 2025 at 4:16 PM

My name is Aditya Kadam, and I am currently pursuing my studies at D.G. Ruparel College of Arts, Science and Commerce, Mumbai. As part of my academic curriculum, I am required to complete a field visit project, and I have chosen the topic “Sentiment Analysis of Business Reviews.”

Given Lost Stories Academy’s reputation and expertise in the field of Music business and innovative learning, I believe your organization would provide valuable insights and exposure for my project. Through this visit, I aim to understand how real-world businesses perceive, analyze, and leverage customer feedback to improve services and decision-making.

I would be grateful if you could allow me to visit your academy at a convenient date and time, and if possible, interact with your team to gain practical knowledge related to my project. Please let me know if there are any formalities or procedures I should follow for the same.

Thank you for considering my request. I look forward to your positive response.

Warm regards,

Aditya Kadam

Contact number - [REDACTED]

Email id - adityakdm3251@gmail.com

figure 10 : Approaching LSA through email.

Following our initial communication via email, we entered into a Consent and Confidentiality Agreement with Lost Stories Academy to formally authorize the field research. For reference, we are also providing a clickable [Google Drive](#) link containing the original scanned images of the signed agreement.

After obtaining permission, we were allowed to conduct surveys, interviews, and even attend a few lectures to observe the environment directly. This step ensured that the study was carried out ethically and with full cooperation from the academy.

Before implementing the research, we defined key concepts. Sentiment analysis is a Natural Language Processing (NLP) technique that classifies text-based data into positive, negative, or neutral categories. Since the data collected from surveys, interviews, and reviews was largely textual, it was highly suitable for this kind of analysis. The presence of both primary data (from surveys, interviews, and classroom observations) and secondary data (from Google Maps reviews) made the study comprehensive.

The data collection process involved multiple methods. Surveys were conducted with more than 35 students and 4 faculty members using Google Forms. Additionally, interviews were carried out, including one detailed interview with a faculty member and five with students. However, the students later declined to release their interview responses for documentation. Along with this, a few classes were attended to gain firsthand insights into the teaching methods and learning environment. To balance internal data, online reviews from Google Maps were also included to capture public opinion.

Survey Questions :

How satisfied are you with the overall learning experience at Lost Stories Academy?

How would you rate the faculty/mentors' teaching style?

How would you rate the course content & curriculum relevance?

Do you feel the practical sessions & studio facilities meet your expectations?

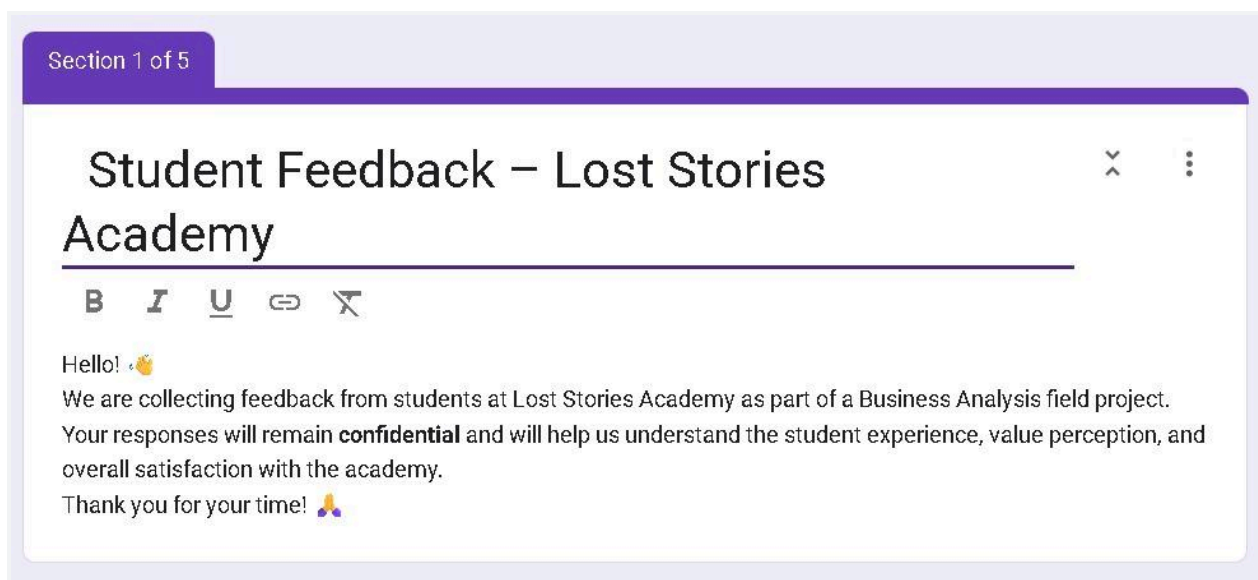
Which factors influenced your decision to choose Lost Stories Academy?

How do you rate their communication & support services (queries, doubts, assistance)?

Do you feel more career-ready after joining the academy?

Would you recommend Lost Stories Academy to others?

What improvements or suggestions would you like to see?



The image shows a screenshot of a survey form titled "Student Feedback – Lost Stories Academy". The form is displayed within a window that has a purple header bar labeled "Section 1 of 5". The title of the survey is "Student Feedback – Lost Stories Academy", with "Academy" on a new line. Below the title is a horizontal line, followed by a rich text editor toolbar containing icons for bold (B), italic (I), underline (U), link (chain icon), and unlink (chain icon with slash). The main text of the survey reads: "Hello! 🌟", "We are collecting feedback from students at Lost Stories Academy as part of a Business Analysis field project.", "Your responses will remain **confidential** and will help us understand the student experience, value perception, and overall satisfaction with the academy.", and "Thank you for your time! 🙏".

figure 11 : Survey Form for Lost Stories Academy



figure 12 : Faculty Interview



figure 13 : Lecture Observations

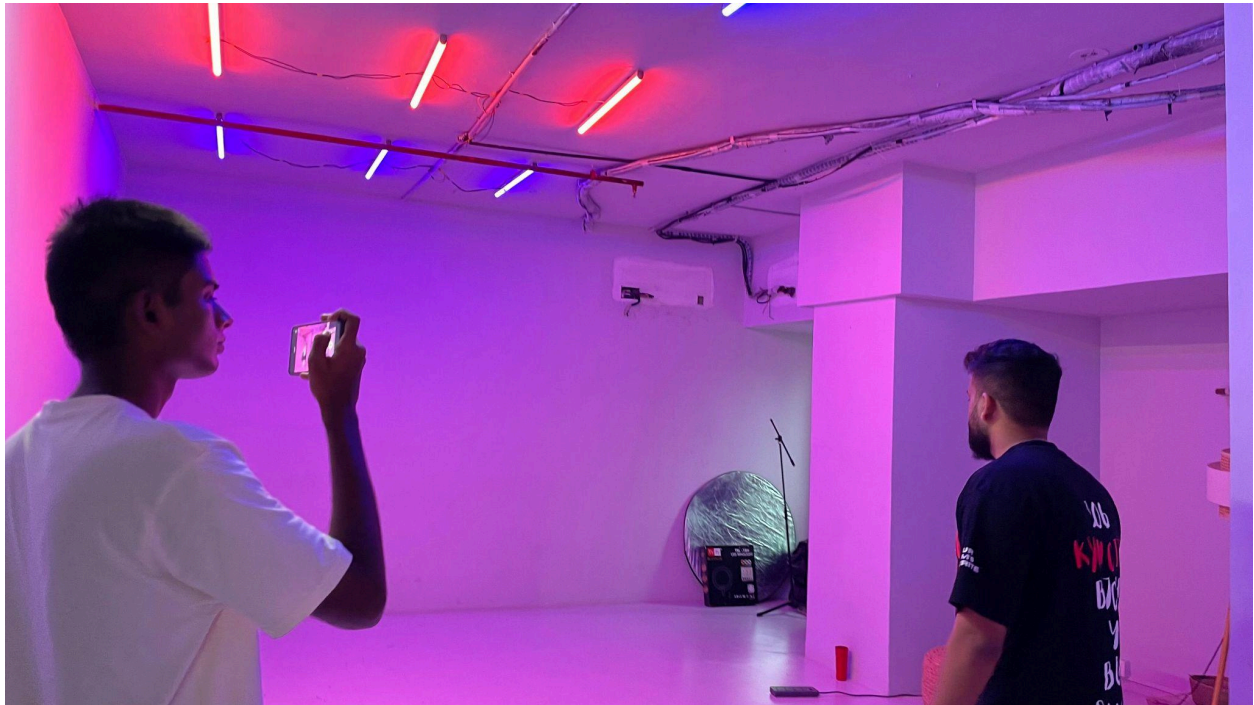


figure 14 : Academy Walkthrough

Once collected, the survey responses were represented in charts to give a quick overview of opinions. The interview notes and classroom observations added a qualitative dimension to the study. All text-based feedback from different sources was then compiled and processed in Python, where data cleaning and preprocessing were done to prepare it for analysis.

APPLICATION OF SENTIMENT ANALYSIS

RESEARCH ON THE DATASET

This chapter explains how sentiment analysis was applied to the dataset collected for the study. The process was divided into systematic steps, from data collection to final analysis and discussion.

Data Collection from Google Forms and Google Reviews

The data for this research was collected from two primary sources. The first source was **Google Form surveys** that were distributed among students and faculty members of the Lost Stories Academy. These surveys helped capture structured responses, including ratings, opinions, and feedback in descriptive form. In total, responses from more than 35 students and 4 faculty members were collected.

The second source was **Google Maps reviews**, where the academy's existing and former students had shared their experiences publicly. These reviews provided an external perspective beyond the internal survey. Together, the surveys and online reviews formed a comprehensive dataset suitable for sentiment analysis.

Data Description

The dataset comprised both **structured data** (numerical ratings from Google Forms) and **unstructured data** (text-based reviews and descriptive answers). The structured data provided measurable responses, whereas the unstructured data captured detailed emotions and experiences. This combination of qualitative and quantitative feedback made the dataset diverse and ideal for sentiment classification.

Tools Used for Analysis

The study made use of both online and computational tools.

- **Google Forms:** Used to collect responses and automatically generate charts for initial visualization.
- **Python Programming Language:** Used for sentiment analysis and advanced visualization.
- **Python Libraries** such as TextBlob, were employed for text preprocessing and sentiment classification.

Data Exploring and Transformation

Data exploration and transformation were carried out in two stages.

First Stage – Survey Visualization:

The responses collected through Google Forms were directly converted into visual charts and graphs using the built-in visualization feature of Google Forms. These visual representations gave a quick overview of how students and faculty viewed the academy, including ratings of facilities, teaching methods, and satisfaction levels.

Second Stage – Review Processing in Python:

The reviews collected from Google Maps were implemented into Python code. This code processed the text by cleaning it, removing unnecessary characters, and applying sentiment analysis algorithms. The processed results were then transformed into graphs and charts using Python libraries, making it easy to compare overall positive, negative, and neutral sentiments.

```

for business, texts in reviews.items():
    for text in texts:
        polarity = TextBlob(text).sentiment.polarity
        if polarity > 0.1:
            sentiment = "Positive"
        elif polarity < -0.1:
            sentiment = "Negative"
        else:
            sentiment = "Neutral"
        data.append([business, text, polarity, sentiment])

df = pd.DataFrame(data, columns=["Business", "Review", "Polarity", "Sentiment"])

df.to_csv("sentiment_analysis_results.csv", index=False)
print("✅ Results saved to sentiment_analysis_results.csv")

summary = df.groupby(["Business", "Sentiment"]).size().unstack(fill_value=0)
print("\n--- Sentiment Summary ---")
print(summary)

for business in reviews.keys():
    counts = df[df["Business"] == business]["Sentiment"].value_counts()
    plt.figure(figsize=(5, 5))
    plt.pie(counts, labels=counts.index, autopct="%1.1f%%", startangle=140)
    plt.title(f"Sentiment Distribution - {business}")
    plt.show()

plt.figure(figsize=(7, 5))
df["Sentiment"].value_counts().plot(kind="bar")
plt.title("Overall Sentiment Distribution")
plt.xlabel("Sentiment")
plt.ylabel("Number of Reviews")
plt.show()

```

figure 15 : Sentiment Analysis using Python

Data Representation

The representation of data plays a crucial role in making sentiment analysis results understandable and insightful. Once the data was processed and transformed, it was represented in different formats to ensure clarity, accessibility, and accuracy. In this study, data representation was carried out in two main ways:

(a) Representation of Survey Data (Google Forms)

The survey data collected through Google Forms was automatically converted into visual charts and graphs by the platform. These included bar charts, pie charts, and percentage distributions that provided a quick snapshot of how students and faculty members perceived different aspects of the academy. For example, satisfaction levels, quality of teaching, and facilities were displayed in clear percentage-based visuals. These charts gave an immediate overview without requiring further technical intervention.

How satisfied are you with the overall learning experience at Lost Stories Academy?

37 responses

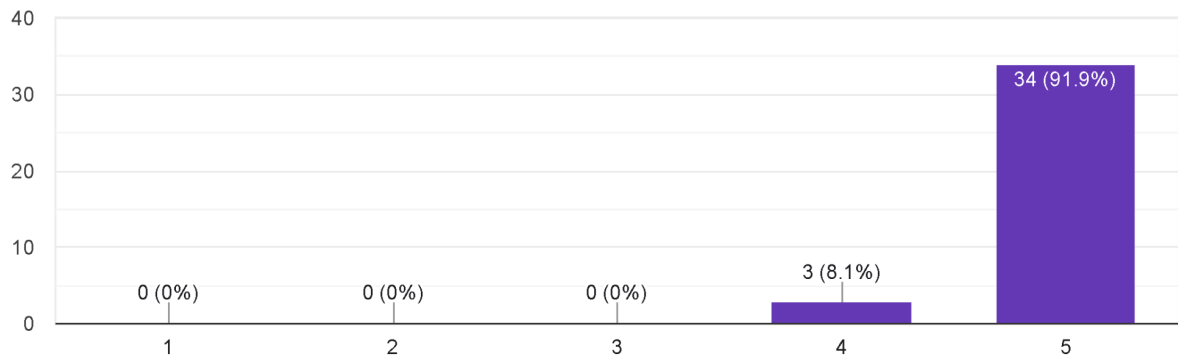


figure 16 : Survey Response Bar Graph - 1

How would you rate the faculty/mentors' teaching style?

37 responses

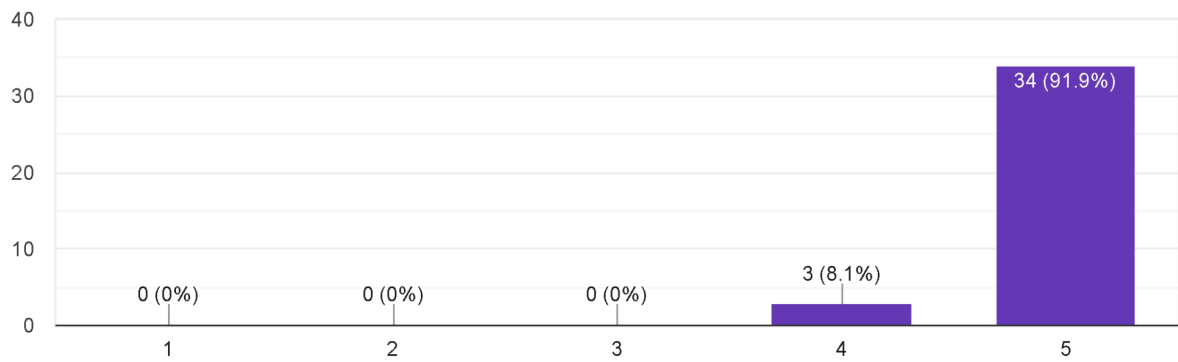


figure 17 : Survey Response Bar Graph - 2

How would you rate the course content & curriculum relevance?

37 responses

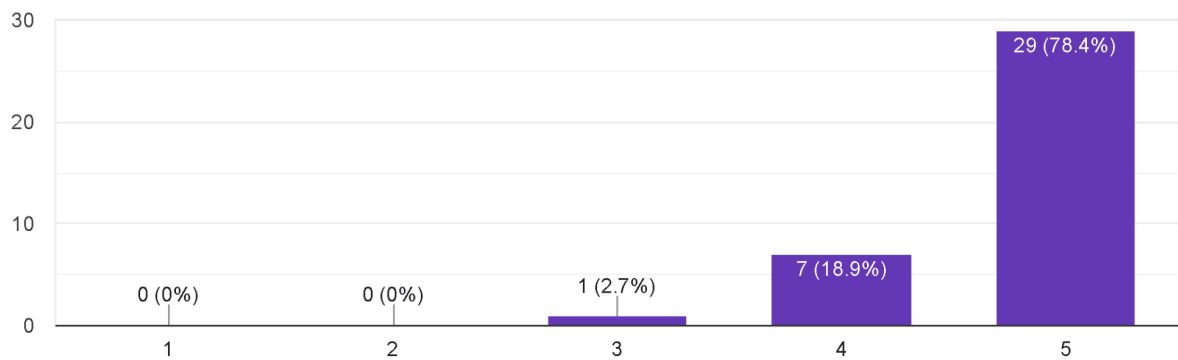


figure 18 : Survey Response Bar Graph - 3

Which factors influenced your decision to choose Lost Stories Academy?

37 responses

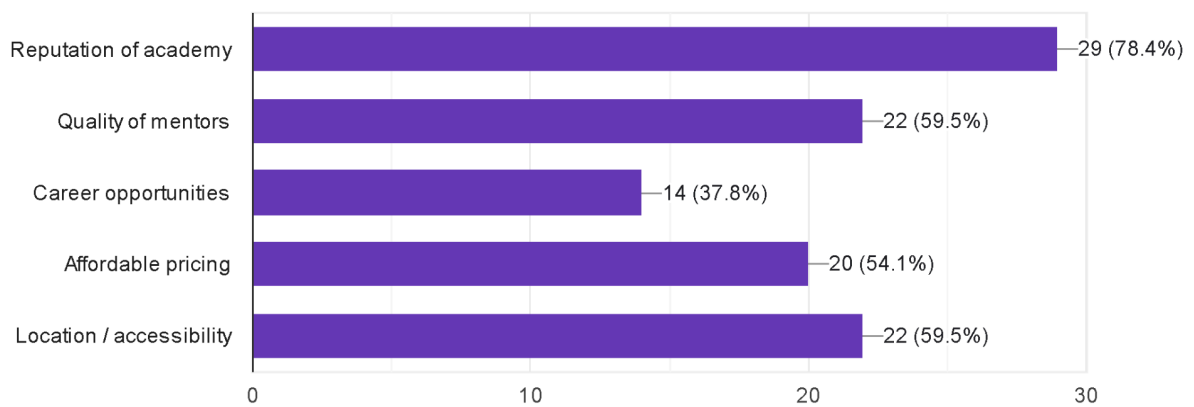


figure 19 : Survey Response Line Graph - 1

Do you feel the practical sessions & studio facilities meet your expectations?

37 responses

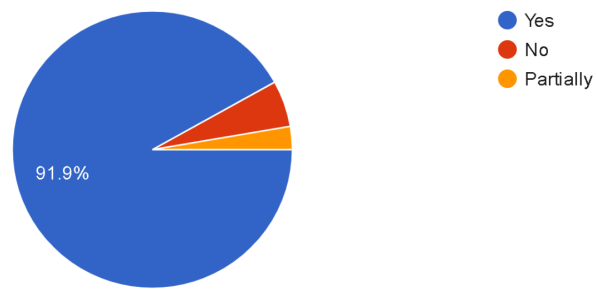


figure 20 : Survey Response Pie Chart - 1

Do you feel more career-ready after joining the academy?

37 responses

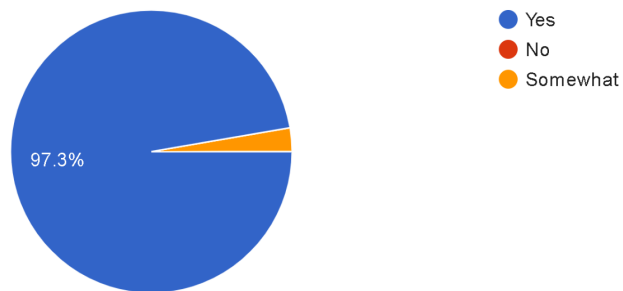


figure 21 : Survey Response Pie Chart - 2

Would you recommend Lost Stories Academy to others?

37 responses

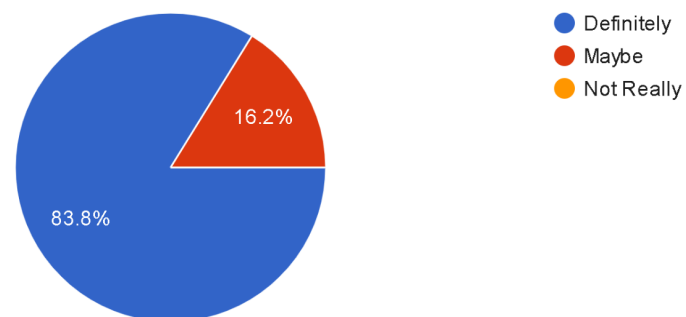


figure 22 : Survey Response Pie Chart - 3

(b) Representation of Review Data (Python Processed)

For the reviews collected from Google Maps, the representation process was more advanced. After cleaning and analyzing the reviews in Python, the results were visualized using libraries such as **Textblob**. Thus, allowed us to generate:

- **Sentiment Distribution Graphs** – showing proportions of positive, negative, and neutral reviews.
- **Bar Graphs & Histograms** – illustrating the intensity of positive or negative sentiments.

```
--- Sentiment Summary ---  
Sentiment      Neutral  Positive  
Business  
Lost Stories Academy      1      21
```

figure 23 : Sentiment Summary - Python

Sentiment Distribution - Lost Stories Academy

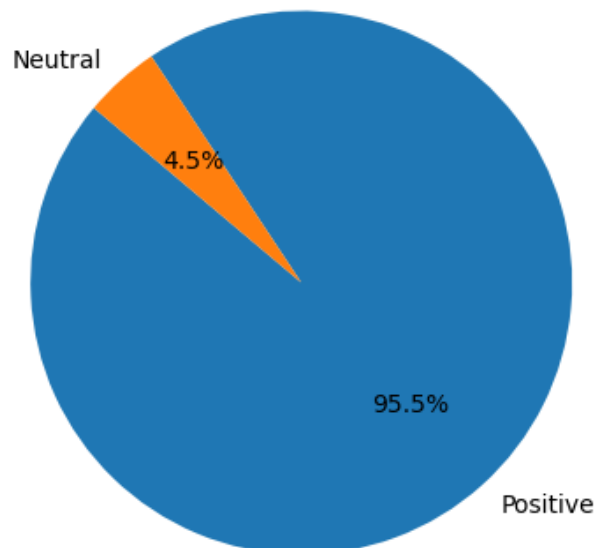


figure 24 : Sentiment Distribution - Pie Chart

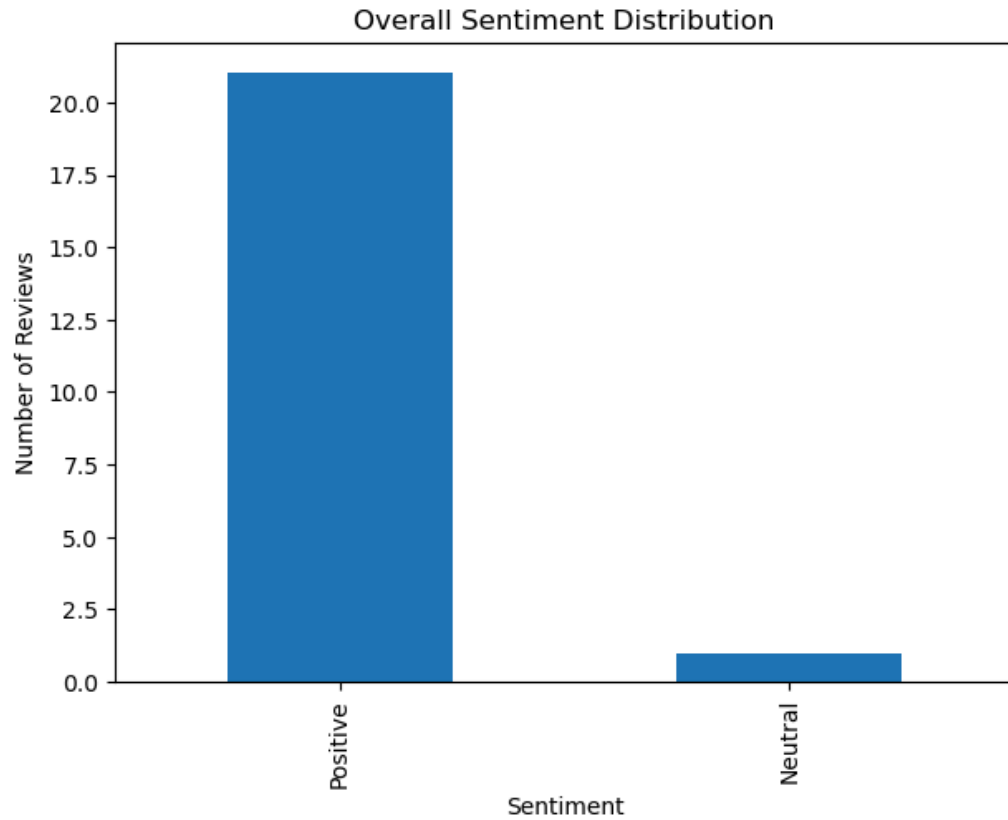


figure 25 : Sentiment Distribution - Bar Graph

Finally, sentiment analysis tools were applied to classify the collected reviews into positive, negative, and neutral categories. The results were compared with survey charts and observational findings to ensure consistency. Through this strategy, we were able to generate meaningful insights into how the academy is perceived and how sentiment analysis can guide improvements for local businesses.

CONCLUSION

Based on the charts you provided, the overall sentiment of students at the Lost Stories Academy is overwhelmingly **positive**. The majority of feedback falls into the "happy" category, with very few "sad" or "neutral" sentiments.

Positive Sentiments :

- **Overall Satisfaction:** The charts show a high level of satisfaction with the learning experience. The majority of students rated their experience as 5/5, indicating strong approval.
- **Quality of Education:** Students consistently rate the faculty/mentors and the course content as high quality. This suggests the academy's core offerings are highly valued.
- **Career Readiness:** A significant portion of students feel more career-ready after joining the academy, which is a strong positive indicator.
- **Recommendation:** The high percentage of students who would "definitely" recommend the academy to others demonstrates a powerful, positive word-of-mouth sentiment. This is one of the strongest indicators of student satisfaction.

Negative Sentiments :

- **Limited Negative Feedback:** The charts indicate very little "sad" sentiment. There were no low ratings (1-2 on a scale of 5) for any of the key satisfaction metrics.
- **Practical Sessions:** One area that showed a slightly less positive response was practical sessions and studio facilities, with a small percentage of students feeling only "partially" satisfied. This is a minor point of dissatisfaction but is the closest to a negative sentiment in the provided data.

Neutral Sentiments :

- **Infrequent Neutrality:** Neutral sentiments are also rare in the data. The "Maybe" response for recommending the academy is the primary example of a neutral stance. A very small number of students felt this way, suggesting they weren't strongly moved either way, but this group is a minority.

- **Unspecified Improvements:** The charts about suggestions for improvement show some students did not provide any feedback. This could be interpreted as a neutral sentiment, where they are neither ecstatic nor unhappy and therefore have no strong suggestions.

Analysis

The data overwhelmingly supports a **happy** sentiment among the student body. The academy is performing exceptionally well in key areas like teaching quality and overall student satisfaction. While there are a few opportunities for minor improvements, they do not detract from the highly positive overall sentiment.

Conclusion & Discussion

By comparing the survey charts with the sentiment graphs from Python and Google Forms, it was evident that automated sentiment analysis made the process far more efficient compared to the traditional manual reading of reviews. The Python-based approach not only saved time but also reduced human bias in interpreting the feedback. This demonstrated the strength of computational sentiment analysis in business applications.

Traditional methods of analyzing feedback require reading through each review and manually categorizing them, which is highly impractical for large datasets. In contrast, Python allowed the same task to be completed in seconds with higher accuracy. This comparison highlighted the practical advantages of adopting modern tools for business sentiment analysis.

Future Work

While this study successfully demonstrated the application of sentiment analysis on local business reviews, there are several directions for future improvements:

1. **Larger Dataset** – Collecting feedback from a wider audience, including alumni and prospective students, would provide more representative results.
2. **Multi-Platform Integration** – Expanding beyond Google Forms and Google Maps to include reviews from Instagram, YouTube comments, or other social platforms.
3. **Advanced Models** – Implementing deep learning models such as BERT or LSTM could enhance the accuracy of sentiment classification.
4. **Aspect-Based Sentiment Analysis** – Instead of classifying reviews only as positive, negative, or neutral, future work could focus on specific aspects like teaching quality, infrastructure, or course value.
5. **Real-Time Monitoring** – Developing a dashboard for real-time collection and analysis of reviews to help the academy continuously monitor feedback.

Limitations of the Study

Despite its usefulness, the study has certain limitations:

1. **Sample Size** – The survey was limited to around 35 students and 4 faculty members, which may not fully represent the entire student community.
2. **Bias in Responses** – Some responses might be influenced by personal experiences or expectations, leading to partial results.
3. **Exclusion of Interviews** – Although interviews were conducted, students did not consent to include them in the documentation, reducing qualitative depth.
4. **Tool Dependency** – The analysis relied mainly on Python libraries and Google Forms, which, while effective, may not be as powerful as advanced sentiment analysis platforms.
5. **Time Constraint** – The research was conducted within a short time frame, limiting the scope of data collection, analysis, and validation.

Recommendations

Based on the sentiment analysis and overall student feedback, the following recommendations can help the academy sustain and further enhance its positive reputation:

- 1. Maintain Teaching Excellence** – Continue focusing on the high-quality teaching standards that are the strongest pillar of student satisfaction. Faculty training and regular skill upgrades can help keep this strength consistent.
- 2. Encourage Continuous Feedback** – Implement a structured feedback system (quarterly surveys or anonymous digital forms) to track student sentiments in real-time and address concerns quickly.
- 3. Focus on Minor Improvements** – Although sentiments are largely positive, attention should be given to the small areas where students expressed scope for improvement, ensuring they do not become larger issues over time.
- 4. Strengthen Student–Faculty Engagement** – Since interviews highlighted valuable insights, creating regular open forums or Q&A sessions between students and faculty could enhance transparency and comfort.
- 5. Expand Outreach** – Positive sentiments should be utilized for promotional purposes. Encouraging satisfied students to share their experiences on public platforms can help attract new learners and strengthen the academy’s brand presence.

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