



Sentiment Analysis: A Guide for Businesses to Gain Customer Insights and Drive Growth

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The use of sentiment analysis tools has exploded in recent years, with 54% of companies using technologies to analyse customer sentiment from reviews or social media.

According to research, companies that use tools to gauge their customers' feelings and understand their opinions saw a strong correlation with company revenue growth - so it's not surprising that sentiment analysis is perceived as a must-have tool for businesses.

But how do businesses leverage this technology to maximise these benefits? The choice between pre-built and custom sentiment analysis tools plays a crucial role in extracting the most valuable insights from your text data.

In this guide we'll explore how sentiment analysis can be utilised across various industries and discuss the pros and cons of prebuilt sentiment analysis models vs custom built sentiment analysis models.

Glossary

Sentiment analysis, also known as opinion mining, is a computational approach that uses natural language processing (NLP) and machine learning to extract emotional sentiment from text data. It involves techniques such as lexicon analysis (identifying positive and negative words) and statistical methods to classify text as positive, negative, or neutral.

Why use sentiment analysis in business?

Before we start comparing the pros and cons of prebuilt sentiment analysis models and custom built sentiment analysis models, let's take a moment to consider the main benefits of using these types of tools in the first place.

Benefit 1

Sentiment analysis unlocks a new layer of data insights for businesses that traditional metrics miss. It quantifies emotional context from existing text sources, whether it be customer reviews, social media posts, internal communication channels, or even survey responses.

Benefit 2

These data-driven insights support strategic decision-making. Imagine having the ability to quantify customer satisfaction with a new product feature based on social media sentiment, or identify emerging market trends by analysing online conversations. These insights inform choices about product development, marketing campaigns and resource allocation.

Benefit 3

Sentiment analysis allows you to identify negative customer sentiment early on so you can proactively address customer concerns before they escalate into bigger issues.

Benefit 4

Traditional surveys or focus groups are time-consuming and limited in scope - but sentiment analysis tools offer a scalable solution. By analysing huge amounts of customer data automatically, they give a more comprehensive understanding of customer sentiment across different demographics and regions.

Benefit 5

Some sentiment analysis tools offer API integration with other existing systems, such as CRM or marketing automation platforms, streamlining workflows and incorporating sentiment data into your overall strategy.

How does sentiment analysis work?

Natural Language Processing (NLP), Machine Learning, AI, deep learning, and big data analytics technology all work together within sentiment analysis.

Here's a breakdown of their key functions and benefits:

Technology	Key Function	Benefit
AI (Artificial Intelligence)	Provides the framework and tools for understanding emotions in text data.	Guides the sentiment analysis process.
NLP (Natural Language Processing) <ul style="list-style-type: none"> ■ Text Cleaning ■ Normalisation ■ Tokenisation ■ Part-of-speech Tagging 	Analyses the structure and meaning of text data. Prepares text data for analysis.	Enables comprehension of the language used. Improves data quality and understanding.
Machine Learning <ul style="list-style-type: none"> ■ Supervised Learning (SVM, Naive Bayes) ■ Unsupervised Learning 	Learns from pre-labeled data to train sentiment classification algorithms. Identifies patterns in text data associated with sentiment.	Enables automated sentiment classification. Improves accuracy and efficiency.
Deep Learning <ul style="list-style-type: none"> ■ High Accuracy ■ Automatic Feature Extraction ■ Nuance Detection 	Uses powerful neural networks to analyse complex text data and improve accuracy.	Captures nuances and handles large datasets effectively. Achieves high accuracy and reduces manual effort.
Big Data Analytics <ul style="list-style-type: none"> ■ Data Storage ■ Data Processing ■ Scalability 	Handles storage, retrieval, processing, and scalability of large text datasets.	Provides the foundation for working with vast amounts of data.

Now that we've recapped how sentiment analysis works and how businesses can use it to their advantage, it's time to turn our attention to implementation.

Choosing the right sentiment analysis tool for your business

Before deliberating between pre-built and custom sentiment analysis tools, the first step is to clearly define your business needs and priorities.

What type of sentiment data are you hoping to gain insight on? And which decision-making processes do you want those insights to influence?

When we work alongside organisations that are looking to utilise sentiment analysis tools, we spend time uncovering requirements.

Here are some key factors we ask businesses to consider:

1 What are your sentiment analysis complexity requirements?

Simply put, what level of nuance do you need? Is a basic sentiment classification of positive, negative or neutral enough? Or do you need a deeper understanding of emotions like frustration or joy?

2 What will the data sources be?

Sentiment analysis tools can analyse different types of text data. Everything from customer reviews, employee reviews, social media posts and surveys. These data sources all have different characteristics - for example differing levels of structure complexity, jargon usage or varying emotional nuances. This will help you to choose a sentiment analysis tool that is trained on similar data types and offers the features needed to extract the most valuable insights from your text data.

3 Are there any industry-specific requirements

The industry you're in will also determine the type of sentiment analysis tool you need. Industries that use a considerable amount of niche jargon (think medical or technical industries) are more likely to need custom-built sentiment tools. This is because pre-built models will be less accurate as they aren't trained to recognise the nuances of niche data.

4 How will you use the sentiment data?

Do you need features like topic modelling or aspect-based sentiment analysis to extract actionable insights?

Pre-built vs custom-built

Once you have a firm grasp of your requirements, you can move on to selecting the right tool type: pre-built or custom-built.

There are advantages and disadvantages associated with each option - let's take a look at how they compare.

The pros and cons of pre-built sentiment analysis tools

Pre-built sentiment analysis tools are a convenient and user-friendly way for businesses to gain quick insights from their text data. They are ideal for basic sentiment classification tasks and often come with features like scalability and vendor support.

However, they might lack customisation capabilities for specific industries or complex analysis needs. Data security concerns can also arise if storing sensitive data on third-party servers.

Pros

- Pre-built tools have a shorter setup time, so you can start to analyse your data more quickly.
- Subscription fees are usually lower than the upfront investment you need for custom development.
- User-friendly interfaces and pre-trained models lessen the need for extensive technical expertise.
- Many tools offer cloud-based solutions that can scale automatically to accommodate growing data volumes.
- Maintenance and updates will be handled by the vendor, taking the pressure off your development team.

Cons

- AI models and features might not be tailored to your specific industry or domain language. They will struggle to understand technical jargon or sarcasm in software reviews.
- Storing sensitive data on third-party servers might throw up security and privacy issues.
- Switching to a different tool could be tricky and require data migration.
- You'll have less control over the underlying algorithms, meaning you may not fully understand how they classify sentiment data.
- Integrating with existing systems (CRM, marketing automation) might require additional development work.

The pros and cons of custom-built sentiment analysis tools

Custom sentiment analysis tools are highly customisable solutions built from scratch. With complete control over the algorithms and data, they can be tailored to your specific industry language and complex analysis needs. Custom development does require upfront investment and, in time, resources and technical expertise.

Pros

- You can tailor a custom tool to your business needs, including industry-specific language and sentiment analysis requirements. This is particularly valuable for technical fields, legal documents or social media analysis in niche markets.
- You will maintain complete control over your data and can deploy the tool on-premise for enhanced security.
- The tool can be customised and scaled to meet your evolving business needs.
- Custom development allows for easier integration with your existing technology stack.
- You have control over the algorithms and can understand how sentiment is classified, giving you more reasoning behind the sentiment analysis.

Cons

- Custom development requires a skilled team and upfront investment in development and data collection.
- Maintaining and updating a custom tool will be an ongoing responsibility for your team.
- Developing and maintaining a custom tool needs in-house expertise in NLP, machine learning and data science.

By carefully considering these factors, you can make an informed decision on whether a pre-built sentiment analysis tool offers the efficiency and cost-effectiveness your business needs. Or, if a custom-built solution is necessary for deeper control and industry-specific insights.

If you're considering sentiment analysis tools for your organisation but you need support, we can help. As a leading Software Development consultancy, we have the experience and expertise you need to select or build accurate and effective solutions for your business needs.

Get in touch with the team today and let's discuss your AI sentiment analysis requirements.

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