

Course: Corporate Communication and Public Relations

Lecture 9: Proper presentation of opinion through sentiment analysis and topic on social media

Lecturer: Protais NIYONSHIMA



Objectives

By the end of this lesson, learners will be able to:

1. Define well sentiment analysis.
2. Illustrate effectively the types of sentiment analysis.
3. Explain the impact of proper presentation of opinions through sentiment analysis in an organization.
4. Discuss clearly PR and crisis management in an organisation.

Introduction

Sentiment analysis, an approach to natural language processing, identifies the emotional tone behind a body of text. This is a popular way for organizations to determine and categorize opinions about a product, service or idea. Sentiment analysis involves the use of data mining, machine learning, artificial intelligence and computational linguistics to mine text for sentiment and subjective information such as whether it is expressing positive, negative or neutral feelings.

Sentiment analysis systems help organizations gather insights into real-time customer sentiment, customer experience and brand reputation. Generally, these tools use text analytics to analyze online sources such as emails, blog posts, online reviews, customer support tickets, news articles, survey responses, case studies, web chats, tweets, forums and comments.

Definition

Sentiment analysis is the process of analyzing digital text to determine if the emotional tone of the message is positive, negative, or neutral. Today, companies have large volumes of text data like emails, customer support chat transcripts, social media comments, and reviews.

Sentiment analysis is the computational study of opinions, sentiments and emotions expressed in text (Bing, 2010). Sentiment analysis has gained widespread acceptance in recent years, not just among researchers but also among businesses, governments, and organizations (Sánchez-Rada and Iglesias 2019).

Cont'

Sentiment analysis helps to gather and analyze people's opinions, thoughts, and impressions regarding various topics, products, subjects, and services.

People's opinions can be beneficial to corporations, governments, and individuals for collecting information and making decisions accordingly.

Sentiment analysis

Sentiment analysis, also known as opinion mining, is a natural language processing technique that involves determining the sentiment or emotional tone expressed in a piece of text, such as a sentence, paragraph, or document.

It is widely used in various applications, including social media monitoring, customer feedback analysis, product reviews, and market research.

Here's an overview of how sentiment analysis works and its key components:

1. Text input

Sentiment analysis starts with a piece of text as input. This text can be a tweet, a product review, a news article, or any other form of written content.

Cont'

2. Preprocessing

Before analyzing sentiment, the text data is often preprocessed to remove noise and make it suitable for analysis. This can include tasks like removing punctuation, lowercasing, and tokenization (breaking the text into individual words or phrases).

3. Sentiment Classification

- ❖ **Polarity:** Sentiment analysis typically classifies text into three main categories:
 - ✓ **Positive:** Expressing a positive sentiment, such as joy, satisfaction, or approval.
 - ✓ **Negative:** Conveying a negative sentiment, such as anger, disappointment, or disapproval.
 - ✓ **Neutral:** Showing neither a positive nor negative sentiment.
- ❖ **Intensity:** Some sentiment analysis systems also consider the intensity or strength of the sentiment, providing a nuanced view of the emotional tone.

Cont'

4. Methods for Sentiment Analysis:

- ❖ **Lexicon-based approaches:** These approaches use predefined sentiment lexicons or dictionaries that contain words and their associated sentiment scores (positive, negative, or neutral). The sentiment of a text is calculated based on the sentiment scores of the words it contains.
- ❖ **Machine learning-based approaches:** Machine learning models, such as support vector machines, Naïve Bayes, or deep learning models like recurrent neural networks and convolutional neural networks, are trained on labeled datasets to predict sentiment. These models can generalize from labeled examples to analyze sentiment in new, unlabeled text.

Cont'

5. Challenges in sentiment analysis

- ❖ **Sarcasm and irony:** Detecting sarcasm or irony can be challenging because the literal meaning of words may be opposite to the intended sentiment.
- ❖ **Context:** The meaning of words can change depending on the context in which they are used, making it essential to consider the surrounding text.
- ❖ **Ambiguity:** Some words may have multiple meanings and, consequently, different sentiment implications.
- ❖ **Multilingual analysis:** Sentiment analysis in multiple languages requires language-specific lexicons and models.

Cont'

6. Applications of sentiment analysis

- ❖ **Social media monitoring:** Brands and organizations use sentiment analysis to track public sentiment on social media platforms to assess their reputation and understand customer feedback.
- ❖ **Customer feedback analysis:** Sentiment analysis helps companies gain insights from customer reviews, surveys, and feedback, allowing them to make improvements.
- ❖ **Market research:** Businesses use sentiment analysis to evaluate market trends and understand consumer preferences.
- ❖ **Political analysis:** Sentiment analysis can be applied to analyze public sentiment about political figures, policies, and events.
- ❖ **News and media:** Media organizations can assess the sentiment of news articles to understand public reaction to news events.

Sentiment analysis is a valuable tool for automating the assessment of public sentiment, making it easier to extract insights from large volumes of textual data. It is continuously evolving with advancements in NLP and machine learning techniques.

Sentiment analysis application areas

Organisation/brand

- ✓ Know the organisation/brand reputation
- ✓ Know consumers opinion about a product
- ✓ Understand consumers needs, etc.

Individuals

- ✓ Made decision before buy something
- ✓ Know aggregate sentiment for a product review
- ✓ Find public opinion about a person, politician, etc.

Research studies

- ✓ Predict political results
- ✓ Citizen polls, etc.

Types of sentiment analysis

Sentiment analysis systems fall into several different categories, let us list some of them:

1. Fine-grained sentiment analysis

It breaks down sentiment indicators into more precise categories, such as very positive and very negative. This approach is similar to opinion ratings on a one to five star scale. This approach is therefore effective at grading customer satisfaction surveys.

2. Emotion detection analysis

It identifies emotions rather than positivity and negativity. Examples include happiness, frustration, shock, anger and sadness.

Cont'

3. Intent-based analysis

It recognizes motivations behind a text in addition to opinion. For example, an online comment expressing frustration about changing a battery may carry the intent of getting customer service to reach out to resolve the issue.

4. Aspect-based analysis

It examines the specific component being positively or negatively mentioned. For example, a customer might review a product saying the battery life was too short. The sentiment analysis system will note that the negative sentiment isn't about the product as a whole but about the battery life.

Topic on social media

Choosing a topic for social media largely depends on your interests, the platform you're using, and your target audience.

Here are several popular and engaging topics you can consider:

1. Current events and news

Share your thoughts on recent news, developments, and trending topics. You can provide your perspective on local or global events, politics, or other significant news.

2. Personal interests and hobbies

Talk about your passions and hobbies, whether it's cooking, traveling, photography, gaming, or any other interest. Share tips, experiences, and engage with like-minded individuals.

Cont'

3. Health and wellness


Discuss fitness routines, healthy eating, mental health tips, and overall wellness. Offer advice, motivational quotes, and personal stories to inspire your followers.

4. Lifestyle and fashion

Share your fashion sense, style inspiration, or discuss lifestyle trends, beauty tips, and product recommendations.

5. Travel and adventure

Post about your travels, share photos, and provide travel tips and destination recommendations. Engage with fellow travelers and adventure enthusiasts.



Cont'

6. Technology and gadgets

Discuss the latest tech gadgets, software, and tech trends. Share reviews, tips, and updates on the digital world.

7. Books and literature

If you're a book lover, share book reviews, recommendations, and engage in discussions about your favorite books or literary topics.

8. Environment and sustainability

Raise awareness about environmental issues, share eco-friendly practices, and discuss sustainability solutions.

Cont'

9. Personal development

Offer personal development and self-improvement advice, including time management, goal setting, and productivity tips.

10. Entertainment and pop culture

Discuss movies, TV shows, music, celebrities, and the latest pop culture trends. Create polls and discussions around entertainment events.

11. Food and cooking

Share recipes, cooking hacks, and food photography. Engage with fellow foodies and culinary enthusiasts.

12. Parenting and family

Share parenting tips, stories, and experiences.

Cont'

13. Education and learning

Discuss educational tips, e-learning platforms, and insights into different subjects. Help students and lifelong learners with their learning journey.

14. Motivational and inspirational content

Share motivational quotes, success stories, and personal experiences that can inspire and uplift followers.

15. Humor and memes

Share funny memes, jokes, and light-hearted content. Laughter is always appreciated on social media.

16. Local community

Promote local businesses, events, and initiatives in your community. Encourage support for small businesses and community involvement.

Cont'

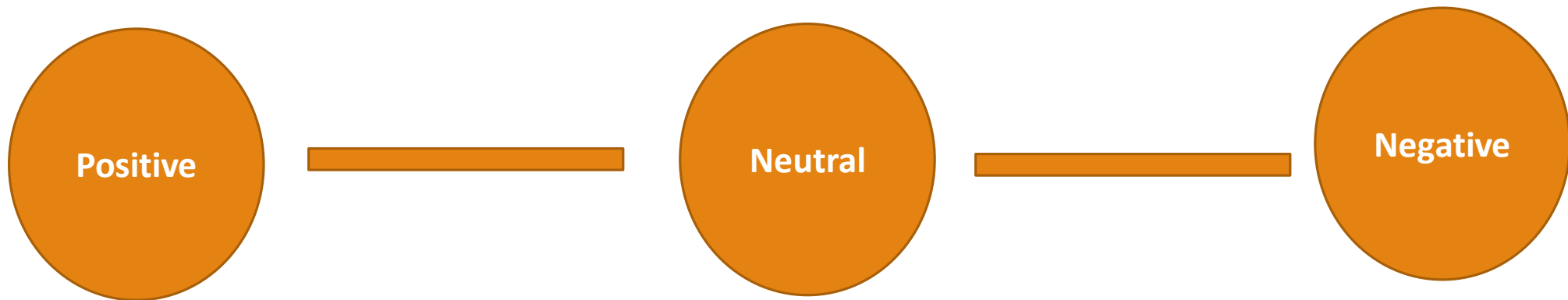
17. Causes and activism

Advocate for social or political causes that you're passionate about, and engage with others who share your interests.

Remember to tailor your content to your specific platform and audience. Additionally, staying authentic, engaging with your followers, and being consistent in your posts will help you build a loyal and active social media presence.

Presenting opinion through sentiment analysis

Sentiment analysis focuses on the polarity of a text (positive, negative, neutral) but it also goes beyond polarity to detect specific feelings and emotions (angry, happy, sad, etc), urgency (urgent, not urgent) and even intentions (interested v. not interested).



Cont'

Presenting an opinion through sentiment analysis and topic discussion on social media is an effective way to engage with your audience and convey one's thoughts clearly.

Here's a step-by-step guide on how to do it properly:

Choose the right platform: Select the social media platform that best suits your target audience and the nature of your opinion. For instance, Twitter is great for short, concise opinions, while Facebook or LinkedIn allow for longer, more detailed discussion.

Cont'

Identify the topic: Clearly define the topic or issue you want to discuss. Make sure it's something relevant, timely, and interesting to your audience.

Understand sentiment analysis: Familiarize yourself with sentiment analysis tools or techniques. Sentiment analysis helps you gauge the overall sentiment of a discussion, whether it's positive, negative, or neutral.

Express your opinion: Begin with a clear and concise statement of your opinion. Use straightforward language to ensure your point is easily understood.

Use hashtags or keywords to make your post discoverable by those interested in the topic.

Consider using first-person language ("I think," "I believe") to clearly express that this is your perspective.

Cont'

Support Your Opinion: Back your opinion with facts, statistics, or relevant sources to establish credibility. If you're using external sources, link to them in your post. Be open to counterarguments and ready to engage in constructive discussions.

Consider the Audience: Tailor your tone and style to the preferences of your audience. Are they looking for a formal, professional discussion or a more casual, conversational approach? Avoid using jargon or language that might alienate or confuse your audience.

Use Sentiment Analysis: If you're using sentiment analysis tools, share the sentiment score alongside your opinion. For example, "Sentiment analysis shows that 80% of responses to this topic are positive." Interpret the sentiment analysis results and explain how they align or differ from your opinion.

Cont'

Engage in Discussion: Respond to comments and engage in meaningful conversations. Be respectful, even with those who disagree. Use sentiment analysis to monitor the overall sentiment of the discussion as it evolves.

Stay Informed: Continuously update your knowledge on the topic and any new developments. Share relevant updates with your audience. Use sentiment analysis to track changes in public sentiment over time.

Measure Impact: After a reasonable time, evaluate the impact of your opinion and discussion. Did it generate engagement, change opinions, or influence the conversation? Use sentiment analysis to compare the initial sentiment with the final sentiment to see if there has been a shift.

Cont'

Reflect and Adjust: Learn from your experience and refine your approach in future discussions. Remember, online discussions can be emotionally charged, so it's crucial to maintain a respectful and constructive tone. Sentiment analysis tools can help you gauge the overall tone of the discussion and adjust your approach accordingly.

Whether you're discussing a controversial topic or sharing your thoughts on a light-hearted subject, clear and respectful communication is key to presenting your opinion effectively on social media.

Impact of proper presentation of opinions through sentiment analysis on an organization

The proper presentation of opinions through sentiment analysis can have a significant impact on an organization in various ways:

1. Brand reputation management

Organizations can use sentiment analysis to monitor public sentiment about their brand and products. Properly presenting positive opinions and addressing negative ones can help improve and maintain a positive brand reputation.

2. Customer feedback and improvement

Sentiment analysis allows organizations to gain valuable insights from customer feedback. By presenting customer opinions effectively, organizations can identify areas for improvement and make necessary changes to enhance products or services.

Cont'

3. Market research

Properly presented sentiment analysis can help organizations understand market trends, consumer preferences, and competitive landscapes. This information can guide strategic decisions and product development.

4. Crisis management

During a crisis or public relations issue, sentiment analysis can help organizations gauge public sentiment. Properly presenting responses and taking appropriate actions can mitigate the negative impact on the organization's reputation.

5. Product development

Organizations can use sentiment analysis to identify areas where their products excel or need improvement. This data can inform product development and innovation.

Cont'

6. Customer engagement

By engaging with customers who express opinions on social media and other platforms, organizations can build stronger relationships and loyalty. Responding to positive sentiments with gratitude and addressing negative sentiments with solutions can create a positive impression.

7. Competitive analysis

Helping organizations evaluate their competitors and understand how they are perceived by the public. This information can inform competitive strategies and positioning.

Cont'

8. Marketing and campaigns

Organizations can use sentiment analysis to fine-tune marketing strategies and campaigns. Proper presentation of opinions can lead to more effective marketing, targeting the right audience with messages that resonate.

9. Employee feedback

Sentiment analysis can also be applied internally to gauge employee satisfaction and sentiment. Properly presented feedback can help organizations create a positive work environment and increase employee engagement.

Cont'

10. Strategic decision-making:

Accurate sentiment analysis can provide data-driven insights for strategic decision-making. Organizations can use this information to adapt and refine their strategies, ensuring they align with the public's sentiment.

11. Investor relations

For publicly traded companies, sentiment analysis can be used to gauge investor sentiment and market sentiment. Proper presentation of this data can help maintain investor confidence and attract potential investors.

Cont'

12. Innovation and adaptation

Properly presented sentiment analysis can highlight emerging trends and changing consumer preferences, enabling organizations to innovate and adapt to evolving market dynamics.

In few, the proper presentation of opinions through sentiment analysis is a valuable tool for organizations to manage their reputation, engage with customers, make data-driven decisions, and adapt to market changes. When used effectively, sentiment analysis can have a positive impact on an organization's growth and success.

Challenges

Presenting opinions through sentiment analysis can be challenging due to several factors:

a) Ambiguity and context

Textual data often contains ambiguities and relies on context for understanding. Words or phrases can have multiple meanings, and the context in which they are used may change their sentiment. Sentiment analysis may struggle with nuances and subtleties in language.

b) Sarcasm and irony

Detecting sarcasm and irony in text can be difficult for sentiment analysis models, as the literal meaning of words may be opposite to the intended sentiment.

Cont'

c) Negation

Negation in text can reverse the sentiment of a statement. For instance, "not bad" may indicate a positive sentiment, but the presence of the word "not" can lead to misclassification.

d) Emojis and emoticons

Sentiment analysis models may not effectively handle emojis or emoticons, which are widely used to convey emotions in text. Understanding the sentiment behind these symbols can be a challenge.

e) Cultural and language differences

Sentiment analysis models may not perform equally well across different languages and cultures. Cultural nuances and linguistic variations can affect sentiment interpretation.

Cont'

f) Subjectivity and variability

Sentiment analysis is subjective, and opinions can vary widely among individuals. What one person considers positive, another might see as negative.

g) Data imbalance

Datasets used to train sentiment analysis models can be imbalanced, meaning they contain a disproportionate number of positive or negative examples. This can lead to biased models that may perform better on one sentiment than the other.

h) Domain-specific language

Sentiment analysis models trained on general data may struggle with domain-specific or industry-specific language. Understanding specialized vocabulary or jargon can be challenging.

Cont'

i) Length of text

Very short text, such as tweets, may lack sufficient context for sentiment analysis models to accurately determine sentiment. Longer texts provide more context but can be computationally challenging.

j) Lack of training data

Developing accurate sentiment analysis models often requires large, labeled datasets. For specific niches or languages, obtaining high-quality training data can be a challenge.

k) Handling mixed sentiments

Some pieces of text express mixed sentiments, making it challenging to determine an overall sentiment. Sentiment analysis models may need to identify and weigh different sentiments within the same text.

Cont'

l) Real-time analysis

Social media and online content change rapidly. Performing sentiment analysis in real time can be challenging, as models need to keep up with the constant influx of new data.

m) Ethical considerations

Ensuring that sentiment analysis does not lead to unfair biases or discrimination is an important challenge. Biases present in training data can propagate into models and affect decision-making.

To overcome these challenges, it's important to use well-constructed datasets, consider context, and often apply custom adaptations or rules to sentiment analysis models, especially when dealing with specialized or complex content. Continuous model training and refinement are also important to improve accuracy and adapt to evolving language trends and online communication styles.

Tips for proper presentation of opinion

Properly presenting your opinions through sentiment analysis and topics on social media can help you engage your audience effectively.

Here are some tips to ensure your content is engaging and well-received:

1. Know your audience

Understand your target audience, including their interests, preferences, and language style. Tailor your content to resonate with them.

2. Clear and concise messaging

Express your opinions and thoughts in a clear and concise manner. Avoid jargon and complex language when possible.

Cont'

- 3. Use proper grammar and spelling:** Typos and grammatical errors can detract from your message. Proofread your posts before publishing them.
- 4. Engage with visuals:** Incorporate eye-catching visuals such as images, infographics, and videos to make your content more appealing.
- 5. Use hashtags and keywords:** Utilize relevant hashtags and keywords to make your content discoverable to a wider audience.

Cont'

6. Stay informed

Keep yourself up to date on the topic you're discussing. Being well-informed enhances the credibility of your opinions.

7. Offer value

Provide informative, entertaining, or inspiring content that offers value to your audience. Share insights, tips, or solutions related to your topic.

8. Be authentic

Be yourself and express genuine opinions. Authenticity helps build trust and authenticity with your audience.



Cont'

9. Encourage engagement

Pose questions, invite discussions, and encourage your audience to share their opinions. Respond to comments and engage in meaningful conversations.

10. Use sentiment analysis

Incorporate sentiment analysis in your posts when discussing opinions and topics. Share the sentiment scores or analysis results to provide an objective perspective.

11. Respectful and constructive discussions

Maintain a respectful tone, especially when discussing controversial topics. Avoid personal attacks and focus on the issues at hand.

Cont'

12. Be consistent

Maintain a consistent posting schedule. Regular updates keep your audience engaged and informed.

13. Monitor analytics

Keep an eye on the analytics of your posts to see what resonates with your audience. Adjust your content strategy accordingly.

14. Diversify content types

Experiment with different content types, such as articles, polls, surveys, and live video. Diversifying your content keeps your audience engaged.

Cont'

15. Mobile optimization

Ensure your content is mobile-friendly, as many social media users access platforms via mobile devices.

16. Ethical considerations

Be mindful of ethical considerations, such as respecting privacy, avoiding hate speech, and ensuring that the data you use for sentiment analysis is obtained and used legally and ethically.

17. Stay positive

Even when discussing negative or controversial topics, try to maintain a positive and solution-oriented approach. Constructive criticism is often more persuasive than purely negative opinions.

Cont'

18. Share personal experiences

Share personal anecdotes and experiences related to the topic. People often connect with personal stories.

Remember that building a strong presence and effectively presenting opinions on social media takes time and effort. Be patient and adaptable, and be prepared to adjust your strategies based on feedback and changing trends in social media.

Public relations and crisis management

Public relations (PR) and crisis management are closely intertwined practices that aim to maintain and protect an organization's reputation, build positive relationships with stakeholders, and effectively navigate challenging situations.

Let us discuss public relations and crisis management in an organisation.

1. Public Relations

Public relations is a strategic communication discipline that focuses on managing organization's relationships and interactions with its various stakeholders, including customers, employees, investors, the media, the public, and government entities. PR encompasses a range of activities:

Media relations: Building and maintaining relationships with journalists and media outlets to secure positive media coverage and address negative stories.

Community engagement: Engaging with the local community and supporting social responsibility initiatives.

Cont'

Crisis communication: Developing plans and strategies for addressing crises and managing communication during these situations.

Content creation: Creating press releases, articles, blog posts, and other content to convey the organization's messages.

Event planning: Organizing events, press conferences, and other gatherings to promote the organization.

Cont'

Social Media Management: Managing the organization's social media presence and engaging with followers.

Stakeholder Communication: Communicating with various stakeholders, such as employees, customers, and investors, to keep them informed and engaged.

2. Crisis Management

Crisis management is a specific aspect of public relations that focuses on handling and mitigating unexpected and potentially damaging events that could harm an organization's reputation. Crisis management includes the following key elements:

Preparation: Developing a crisis management plan that outlines roles, responsibilities, and strategies for addressing various types of crises.

Identification: Recognizing potential crises early by monitoring social media, news outlets, and other sources for signs of trouble.

Cont'

Assessment: Evaluating the severity and impact of the crisis to determine the appropriate response.

Response: Implementing the crisis management plan, which may include addressing the issue, communicating with stakeholders, and taking corrective actions.

Communication: Keeping stakeholders informed and engaged during the crisis, including regular updates and clear, honest communication.

Cont'

Resolution: Working to resolve the crisis, often with the assistance of legal, PR, and other experts.

Recovery: Rebuilding the organization's reputation and relationships after the crisis has been managed.

Maintaining a positive corporate image after a crisis

Maintaining a positive corporate image after a crisis is essential for rebuilding trust and credibility with stakeholders.

Here are steps and strategies to help you manage and enhance your corporate image in the aftermath of a crisis:

Acknowledge and accept responsibility: Start by acknowledging the crisis and taking responsibility for any mistakes made. Admit any wrongdoing or areas where improvements are needed.

Open and honest communication: Maintain open and transparent communication with all stakeholders. Share regular updates on the crisis, what steps are being taken to address it, and how you plan to prevent similar issues in the future.

Cont'

Empathy and apology: Express empathy and apologize to those affected by the crisis. Showing genuine concern and regret can go a long way in rebuilding trust.

Review and assess: Conduct a thorough post-crisis review to identify the root causes, areas of improvement, and lessons learned. This review can guide future actions.

Implement corrective measures: Take swift and effective corrective actions to address the issues that led to the crisis. Implement new policies, procedures, and safeguards to prevent a recurrence.

Cont'

Engage with stakeholders: Actively engage with stakeholders, including customers, employees, investors, and the public, to gather their feedback, concerns, and suggestions. Listen and incorporate their input into your action plan.

Rebrand and reposition: If necessary, consider rebranding or repositioning your organization to signal a fresh start and a commitment to change. This can include a new mission statement, logo, or branding elements.

Highlight positive initiatives: Emphasize your organization's positive initiatives, contributions to the community, and corporate social responsibility efforts. Showcase the good work you're doing to offset negative perceptions.

Cont'

Crisis Response Plan: Develop and maintain a crisis response plan to be better prepared for future crises. This plan should include roles and responsibilities, communication protocols, and a strategy for handling various types of crises.

Media and Public Relations: Engage with the media and public relations experts to help control the narrative and ensure that accurate and positive information is disseminated.

Continuous Monitoring: Continuously monitor social media, news outlets, and other sources for mentions and discussions related to your organization. This allows you to address concerns and rumors promptly.

Cont'

Internal training: Train your staff and employees in crisis communication and response, so they are prepared to handle challenging situations effectively.

Celebrate milestones: Highlight milestones and achievements that show your organization's commitment to change and improvement. Celebrating these accomplishments can help rebuild confidence.

Third-party validation:

Seek endorsements or validation from third-party organizations, industry experts, or trusted authorities to vouch for your commitment to change and improvement.

Cont'

Patience and consistency: Rebuilding a corporate image takes time. Be patient and maintain consistency in your messaging and actions. Trust is earned gradually.

Solicit Feedback: Ask for feedback from your stakeholders on how your organization is doing in the post-crisis period. Use this feedback to make further improvements.

Maintaining a positive corporate image is an ongoing process. It requires genuine commitment to change, transparency, and consistent effort. By demonstrating your organization's dedication to learning from the crisis and improving, you can rebuild trust and credibility with stakeholders over time.

References

Bing L., (2012). Sentiment Analysis and Opinion Mining. Morgan & Claypool Publishers.

Sánchez-Rada J.F., Iglesias C.A., (2019). Social context in sentiment analysis: formal definition, overview of current trends and framework for comparison.

Thank you!