


# Chapter 20

## Generative AI and Intelligent Processing of Customer Oppositions: Prospecting for Research Trends

**Ikram Ed-Daakouri**


 <https://orcid.org/0009-0001-8207-5502>

*Laremf Laboratory, National School of Business and Management, Sidi Mohamed Ben Abdellah University, Morocco*

**Mustapha Elhissoufi**

*Laremf Laboratory, National School of Business and Management, Sidi Mohamed Ben Abdellah University, Morocco*

**Lhoussaine Alla**

 <https://orcid.org/0000-0002-7238-1792>

*Laremf Laboratory, National School of Applied Sciences, Sidi Mohamed Ben Abdellah University, Morocco*

### ABSTRACT

*Generative Artificial Intelligence is transforming customer objection management by enabling personalized, real-time, and adaptive interactions. This chapter examines the role of generative AI in addressing objections through predictive modeling, leveraging historical data, and sentiment analysis to enhance response relevance and customer satisfaction. Ethical considerations, including transparency, bias reduction, and human oversight, are discussed to ensure responsible AI implementation. A proposed framework integrates AI's adaptability with hybrid human-AI collaboration, highlighting its effectiveness in managing complex or sensitive objections. Comparative case studies reveal generative AI's strengths in scalability and adaptability across industries, while also addressing its limitations in high-context scenarios. The chapter concludes with managerial insights, emphasizing ethical AI practices, industry-specific customizations, and predictive analytics as key to balancing automation with human-centric approaches for trust and effectiveness in customer interactions.*

DOI: 10.4018/979-8-3693-8332-2.ch020

## INTRODUCTION

Generative Artificial Intelligence (AI) has emerged as a transformative technology, revolutionizing multiple facets of customer service, particularly in managing objections. Traditionally, addressing customer objections required human agents skilled in empathy, contextual interpretation, and problem-solving. However, generative AI embodied by models like OpenAI's GPT-3 and GPT-4, as well as other large language models (LLMs) offers new methods to automatically process and respond to customer objections in real-time, while maintaining personalization and context-awareness (Brown et al., 2020; Rane, 2023). The capabilities of generative AI, which include producing human-like responses, understanding nuanced queries, and adapting to diverse interaction scenarios, have redefined expectations for customer service efficiency and effectiveness (Ma, 2023).

The growing reliance on AI in customer interactions aligns with broader digital transformation trends across industries. Business environments today face heightened consumer expectations for immediate, personalized service. Customers increasingly prefer digital interfaces often via chatbots or virtual assistants for quick responses and resolutions. Research indicates that these generative systems do not only reduce operational costs but also improve response times and customer satisfaction when implemented effectively (Gill & Kaur, 2023). However, integrating AI into sensitive areas such as customer objection handling poses significant challenges, particularly in achieving the depth of personalization and empathy typically associated with human agents (Lins dos Santos, 2023).

While generative AI has shown promise in recommendation systems and basic customer inquiries, there remains a gap in its application to complex customer objections. According to Villaseñor (2023), current generative models excel at delivering scripted, predictable responses but often struggle with objections that require contextual understanding and emotional sensitivity. This limitation is evident when handling objections that involve dissatisfaction, frustration, or nuanced feedback, where poorly calibrated responses can escalate issues rather than resolve them. In this context, there is a critical need to explore how generative AI can be adapted to not only recognize objection types but also respond in a way that is both accurate and emotionally appropriate (Orchard & Tasiemski, 2023).

Moreover, ethical considerations in the deployment of generative AI are paramount, especially given its direct impact on customer trust. Issues of transparency, accountability, and bias have surfaced as AI systems increasingly shape customer interactions. Research by de la Durantaye (2023) and Grossman, Grimm, and Brown (2023) highlight the ethical risks involved in generative AI, particularly regarding transparency in AI-driven decision-making. Bias in training data and algorithmic processing can lead to inequitable outcomes, potentially harming customer relationships and trust if not managed adequately. For instance, a lack of transparency in how responses are generated can make customers feel as though their concerns are dismissed or inadequately addressed by “automated” systems, rather than real agents (Carugati, 2023).

In light of these challenges, this chapter examines the potential of generative AI in enhancing customer objection handling, aiming to balance efficiency with a customer-centric approach. We address several key questions: How can generative AI be adapted to provide more nuanced and personalized responses to objections? What are the limitations and biases inherent in these systems, and how can they be mitigated to foster customer trust? What role does ethical transparency play in maintaining effective AI-driven customer service? By delving into these questions, this chapter seeks to contribute to the growing discourse on AI in customer service, focusing on practical and ethical considerations for objection management.

26 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

[www.igi-global.com/chapter/generative-ai-and-intelligent-processing-of-customer-oppositions/382781](http://www.igi-global.com/chapter/generative-ai-and-intelligent-processing-of-customer-oppositions/382781)

## Related Content

---

### Robotics Community Experiences: Leveraging Informal Design and Learning Experiences to Motivate Urban Youth in STEM

Kimberley Gomez, Debra Bernstein, Jolene Zywica, Emily Hamner, Ung-Sang Lee and Jahneille Cunningham (2016). *Human-Computer Interaction: Concepts, Methodologies, Tools, and Applications* (pp. 120-147).

[www.irma-international.org/chapter/robotics-community-experiences/139033](http://www.irma-international.org/chapter/robotics-community-experiences/139033)

### Chances for and Limitations of Brain-Computer Interface use in Elderly People

Emilia Mikoajewska, Dariusz Mikoajewski, Tomasz Komendziski, Joanna Dreszer-Drogorób, Monika Lewandowska and Tomasz Wolak (2016). *Human-Computer Interaction: Concepts, Methodologies, Tools, and Applications* (pp. 1723-1734).

[www.irma-international.org/chapter/chances-for-and-limitations-of-brain-computer-interface-use-in-elderly-people/139115](http://www.irma-international.org/chapter/chances-for-and-limitations-of-brain-computer-interface-use-in-elderly-people/139115)

### The Gender Dimension of Digital Folklore

Maria Gasouka and Zoi Arvanitidou (2022). *The Digital Folklore of Cyberculture and Digital Humanities* (pp. 13-20).

[www.irma-international.org/chapter/the-gender-dimension-of-digital-folklore/307083](http://www.irma-international.org/chapter/the-gender-dimension-of-digital-folklore/307083)

### Applications of Brain-Computer Interfaces in Automated Financial Services

Sultonali Mekhmonov, Nitin Kulshrestha, Keerthi Shetty, Abdullah Abed Hussein, Jasim Ahmed Jasim and Prakruthi N. Udupa (2025). *Concepts and Applications of Brain-Computer Interfaces* (pp. 197-210).

[www.irma-international.org/chapter/applications-of-brain-computer-interfaces-in-automated-financial-services/380330](http://www.irma-international.org/chapter/applications-of-brain-computer-interfaces-in-automated-financial-services/380330)

### Future of Work in Creative Industries

Avya Singh Chirana and Pratibha Giri (2026). *Redefining Global Creative Sectors Through AI and Human Augmentation* (pp. 153-194).

[www.irma-international.org/chapter/future-of-work-in-creative-industries/401218](http://www.irma-international.org/chapter/future-of-work-in-creative-industries/401218)