



Personalized Financial Services through NLP and AI-Driven Innovations in FinTech

Rahul Kumar Ghosh (Brainware University, Kolkata, India), Meghdoot Ghosh (Post Graduate Institute of Hospital Administration, Peerless Hospital Campus, Kolkata, India), Debaleena Roy (Aston University, Birmingham, UK), Bijoy Gupta (Dr. B. C. Roy Engineering College, Durgapur, India), Sanjukta Chakraborty (Seacom Skills University, Birbhum, India), Abhijit Biswas (Globsyn Business School), and Mahuya Basu (Globsyn Business School, Kolkata, India)

Source Title: *Intersecting Natural Language Processing and FinTech Innovations in Service Marketing*

Copyright: © 2025 | Pages: 50

DOI: 10.4018/979-8-3693-9944-6.ch019

OnDemand: **\$37.50**

(Individual Chapters)

Available

Current Special Offers

Buy Instant Access to This Chapter

Qty: 1 **\$37.50**

Add to Cart

Available. Instant access upon order completion.

Share

Recommend to Librarian

Recommend to Colleague

Fair Use Policy



Free Content

Sample PDF

Abstract

Individualized financial services are becoming more prevalent in the rapidly changing FinTech environment because to attract & retain clients alike. The effect of NLP & AI-driven solutions is profound in how financial institutions interact with their customers. This chapter examines how NLP & AI are changing personalized service delivery within the FinTech industry. It looks at real-world applications that highlight customer communications through NLP-driven chatbots, virtual assistants, & recommendation engines meant for providing tailored investment strategies, financial advice on an individual basis or assistance. Together, data privacy, algorithmic bias, or regulatory compliance remain among the toughest challenges faced by the systems hence this chapter provides insights into how financial institutions can utilize them morally without contravening any laws in place. On one hand, it examines opportunities associated with AI-based personalization in FinTech while exploring its inherent risks thus giving a clear picture of future customer engagement in financial services.

Chapter Preview

Intersecting Natural Language Processing and FinTech Innovations in Service Marketing

Arjun J Nair
St. Lawrence College, Canada

Sridhar Manohar
Chitkara Business School, Chitkara University, India


Yam B. Limbu
Montclair State University, USA

Bruce A. Huhmann
Virginia Commonwealth University, USA


Chapter 19

Personalized Financial Services through NLP and AI-Driven Innovations in FinTech


Rahul Kumar Ghosh

 <https://orcid.org/0000-0002-1814-2133>
Brainware University, Kolkata, India


Meghdoot Ghosh

 <https://orcid.org/0009-0009-6952-4009>
*Post Graduate Institute of Hospital
Administration, Peerless Hospital Campus,
Kolkata, India*


Debaleena Roy

 <https://orcid.org/0000-0002-4268-3423>
Aston University, Birmingham, UK


Bijoy Gupta

 <https://orcid.org/0000-0002-0349-5788>
*Dr. B. C. Roy Engineering College, Durgapur,
India*


Sanjukta Chakraborty

 <https://orcid.org/0009-0001-5477-2044>
Seacom Skills University, Birbhum, India

Abhijit Biswas

 <https://orcid.org/0009-0009-4413-7619>
Globsyn Business School

Mahuya Basu

 <https://orcid.org/0000-0002-1834-9628>
Globsyn Business School, Kolkata, India

ABSTRACT

Individualized financial services are becoming more prevalent in the rapidly changing FinTech environment because to attract & retain clients alike. The effect of NLP & AI-driven solutions is profound in how financial institutions interact with their customers. This chapter examines how NLP & AI are changing personalized service delivery within the FinTech industry. It looks at real-world applications that highlight customer communications through NLP-driven chatbots, virtual assistants, & recommendation engines meant for providing tailored investment strategies, financial advice on an individual basis or assistance. Together, data privacy, algorithmic bias, or regulatory compliance remain among the toughest challenges faced by the systems hence this chapter provides insights into how financial institutions can utilize them morally without contravening any laws in place. On one hand, it examines opportunities associated with AI-based personalization in FinTech while exploring its inherent risks thus giving a clear picture of future customer engagement in financial services.

DOI: 10.4018/979-8-3693-9944-6.ch019