

Chapter 6

Chatbot Service

Quality in Banking: Analysis of Customer Satisfaction

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ABSTRACT

One of the most visible applications of AI in customer service is the rapid adoption of AI-powered chatbots. This study examines the quality of chatbot services in the banking sector and their influence on customer satisfaction. Using a quantitative design, data were collected from 210 respondents through structured questionnaires. Key variables—functionality, convenience, security, assurance, enjoyment, design, and customization—were analysed statistically to evaluate their impact. Results indicate that chatbot service quality has a significant effect on customer satisfaction, with functionality, customization, security, and convenience as the strongest predictors. Accurate and timely responses were highlighted as critical in enhancing customer experience. Practically, the findings guide banks to enhance

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chatbot customization, security, and functionality to boost satisfaction and loyalty, thus achieving a competitive edge in digital banking. This research also adds to the limited literature, offering a framework for future AI-based customer service.

INTRODUCTION

In today's modern digital age, the rapid pace of technological innovation has brought about a profound transformation in the way businesses function and deliver services, especially within the service-oriented industries. With continuous advancements in digital tools, automation, and artificial intelligence, organizations are rethinking their traditional business models and adopting smarter approaches to remain competitive in a dynamic environment. Among the most groundbreaking developments in recent years is the increasing incorporation of artificial intelligence (AI) into multiple facets of customer service. AI has enabled businesses to elevate the quality of customer interactions, simplify complex processes, and streamline overall service delivery to ensure faster and more effective results.

One of the most visible and impactful applications of AI within customer service is the rapid rise of AI-powered chatbots. These intelligent virtual assistants have moved beyond being optional add-ons and are now considered essential components of modern customer support frameworks. Unlike conventional systems that often require significant human intervention, AI chatbots are capable of autonomously managing a wide range of tasks—ranging from responding to basic customer queries and resolving frequently asked questions to providing instant assistance and guiding users through routine transactions. Their ability to respond within seconds not only saves valuable time for both customers and service providers but also increases the overall efficiency of service operations.

This global shift toward AI-driven customer support is especially prominent in the banking and financial services sector, where customer demands for speed, security, and convenience are at their peak. Banks and financial institutions are increasingly deploying chatbots to deliver 24/7 support, enabling customers to access assistance at any time of the day without waiting in long queues or depending solely on human representatives. These chatbots are designed to provide real-time answers to customer inquiries, simplify day-to-day banking activities such as balance checks, fund transfers, and bill payments, as well as effectively address repetitive queries that often consume large amounts of staff time. According to research such as Eren (2021), the adoption of AI chatbots in banking not only enhances customer satisfaction but also reduces the operational workload on employees, minimizes costs associated with human resources, and significantly improves the overall efficiency of banking operations. Ultimately, the integration of AI in this sector reflects a larger

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