

Chapter 5

Applications of New Technology in Operations and Supply Chain Management: Chatbots as Recruiters and Customer Service

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ABSTRACT

This chapter provides a comprehensive overview of the literature on the application of chatbots in customer service and recruiting, emphasizing the function of chatbots in improving customer service. As a tool for streamlining hiring procedures and automating customer service encounters, chatbots have grown in popularity in recent years. The literature review indicates that chatbots significantly impact the recruitment process, such as improved efficiency, increased candidate engagement, and reduced workload for HR personnel. Chatbots have proven effective in improving customer service interactions, with benefits including increased customer satisfaction, reduced wait times, and improved customer engagement. However, the review also highlights several challenges that must be addressed to realize the potential of chatbots in these areas fully. These challenges include issues related to user acceptance and perceptions of chatbot technology and concerns about privacy and data security. Therefore, this study provides recommendations for addressing these challenges.

1. INTRODUCTION

Businesses have found chatbots to be a useful tool for speeding up their hiring and customer support processes. Chatbots are artificial intelligence (AI) programs that mimic human conversations with customers through messaging services, websites, or mobile apps. They can provide real-time support,

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answer inquiries, and even screen job candidates' resumes, schedule interviews, and provide feedback (Adamopoulou & Moussiades, 2020).

Chatbots are particularly useful in customer service because they provide quick and efficient responses to queries, which customers expect. They can also personalize interactions by analyzing customer data and tailoring responses to individual preferences, improving the overall customer experience. In the context of employment, chatbots can automate tedious processes such as evaluating resumes and arranging interviews, allowing recruiters to focus on higher-level tasks like interviewing and assessing candidates, leading to more efficient and effective hiring decisions (Misischia et al., 2022).

While chatbots have the potential to revolutionize how businesses communicate with customers and job prospects, there are also potential downsides. For instance, chatbots may collect sensitive personal data from customers or job candidates, and there is a potential for algorithmic bias. In complex or sensitive situations, there may also be concerns about the quality of interactions with chatbots. Additionally, the use of chatbots may raise ethical concerns about data privacy and potential algorithmic bias (Adamopoulou & Moussiades, 2020).

This paper aims to examine the use of chatbots in customer service and recruitment, with a focus on the latter. We will explore the benefits and limitations of chatbots and consider best practices for implementing them. We will also address potential ethical considerations and discuss future developments in this field. Ultimately, this paper seeks to provide an overview of chatbot technology's current state and its applications in the recruitment and customer service.

2. LITERATURE REVIEW

Chatbots have become more prevalent lately, particularly in the employment and customer service sectors. In this literature review, we will examine the existing research on the use of chatbots in different fields, focusing on their effectiveness in enhancing customer service and speeding up the hiring process. Chatbots are proficient in customer service, particularly in the e-commerce, banking, and hospitality industries. Accenture's study shows that chatbots could address 80% of customer inquiries, providing a cost-effective and efficient solution for businesses (Dimitriadis, 2020). Likewise, a study by Juniper Research discovered that incorporating chatbots in customer service could save businesses up to \$8 billion per year by 2022.

Chatbots' effectiveness in customer service may be attributed in part to their capacity to respond to inquiries from clients in a timely and precise manner. Chatbots can handle a high volume of inquiries simultaneously, eliminating the need for customers to wait in long queues or be transferred to different departments. Additionally, chatbots can be programmed to learn from previous interactions and improve their responses over time.

Recruitment Chatbots have also been used as a recruitment tool, particularly in industries with high levels of turnover, such as hospitality and retail. Chatbots may pre-screen candidates, give information about the business and its culture, and respond to frequently asked inquiries regarding job openings. By focusing on the most qualified candidates, recruiters can save time and resources. According to a study by Allegis Group, 58% of applicants prefer interacting with chatbots during recruitment. Younger candidates were especially inclined to use technology for communication with potential employers, as they were more at ease with it. Additionally, chatbots can provide a more personalized experience for candidates, allowing them to ask questions and receive feedback in real-time (Hungerbuehler et al., 2021).

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