Chapter 10
Adoption Factors of AI Tools in the Recruitment Process Using UTAUT Model

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ABSTRACT

This study examines the adoption of Artificial Intelligence (AI) tools in talent acquisition and their impact on recruitment efficiency within the organizational context. Using the Unified Theory of Acceptance and Use of Technology (UTAUT) model, the research identifies key factors—Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions, and Perceived Risk—that influence Behavioral Intent to adopt AI tools. Insights gained highlight the importance of perceived utility, ease of use, and organizational support in driving AI adoption, while addressing potential barriers such as perceived risks and social influence.

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INTRODUCTION

Artificial Intelligence (AI) is reshaping industries globally, including the field of human resources (HR), where it is redefining recruitment processes. In today's competitive business environment, organizations increasingly rely on AI tools to enhance efficiency, improve decision-making, and deliver better outcomes in talent acquisition. This study examines the adoption factors influencing the use of AI tools in recruitment processes, employing the Unified Theory of Acceptance and Use of Technology (UTAUT) model as its theoretical framework.AI, a concept that emerged in the mid-20th century (McCarthy et al., 1955) and (Turing, 1950), has evolved into a critical enabler of innovation across industries (Russell and Norvig, 2021). Its applications in recruitment, such as resume screening, candidate matching, and predictive analytics, are transforming traditional hiring practices (Bersin, 2019). These technologies promise to reduce bias, improve efficiency, and enable data-driven decision-making in hiring. However, their adoption is influenced by various organizational, technological, and individual factors, presenting both opportunities and challenges.

This research aims to identify the key factors affecting the adoption of AI tools in recruitment processes. Using the UTAUT model, it explores constructs such as Performance Expectancy, Effort Expectancy, Social Influence, and Facilitating Conditions. Data collected from HR professionals, recruiters, and industry experts forms the basis of this study. Secondary data sources, including reports from NASSCOM, SHRM, and Deloitte, further contextualize the findings. The focus on AI in recruitment is driven by its potential to address critical challenges in talent acquisition, such as improving efficiency in sourcing candidates, enhancing diversity, and enabling better talent predictions. By analysing these factors within a real-world context, specifically through a case study on ABC Consultants, this research seeks to contribute to the understanding of AI adoption in recruitment. Ultimately, the study offers recommendations for organizations, HR practitioners, and policymakers to optimize the use of AI tools in recruitment. It aims to bridge the gap between technological innovation and practical implementation, ensuring that AI enhances recruitment processes while addressing potential challenges in adoption.

THEORETICAL BACKGROUND

Building effective talent acquisition strategies requires a solid understanding of the factors influencing candidate selection and employee retention. This section delves into two prominent theories that provide valuable insights into these aspects: Human Capital Theory and Social Network Theory. Both theories offer a complementary