

DEVELOPMENT OF ARTIFICIAL INTELLIGENCE TECHNOLOGY ACCEPTANCE MODEL IN THE RECRUITMENT AND SELECTION PROCESS BY RECRUITERS

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Occupational accidents still occur frequently and continue to increase even though many regulations/standards/directives have been issued. The number of accidents and deaths in the industry continues to increase. In this study, 30 occupational accidents in process industries between 2011 and 2021 were examined. This study proposes a customized Human Factor Analysis and Classification System for Process Industry to accommodate occupational accident investigation in the process industry. Development was made to the initial HFACS by adding a new level of external factors. The Preconditions for unsafe acts level was modified with 3 different divisions from the initial HFACS of environmental factors, team management, and individual factors. With this customized HFACS, 155 factors were identified through the analysis of 30 workplace accidents in Process. Supervision was the most common factor, at 22%, highlighting inadequate supervision.

Keywords: Recruitment and Selection, Artificial Intelligence, Acceptance Model, Human Resource Management System

INTRODUCTION

Human resources (HR) are very important to maintain sustainable competitive advantage in business (1), so it is important for organizations to have quality human resources obtained through recruitment and selection processes (2). Based on the Jobstreet Indonesia survey in August 2022, there was a balance between 39,842 job vacancies and 560,994 active applicants. It was recorded that 57% of applicants thought that recruiters were not alert in responding to job applications because the high number of applicants made it difficult for recruiters to attract and select candidates who best suited the company's needs (3,4). In addition, the recruitment and selection process is often influenced by subjective assessments, where the recruiter's attitude towards applicants can influence the applicant's decision to join the organization. A meta-analysis study from PNAS shows that discrimination in the hiring process has been going on for decades, with discussions of unconscious biases such as the halo effect, recency bias, similarity-attraction bias, confirmation bias, contrast, and discrimination (5).

The HR recruitment and selection processes continue to be impeded by the utilization of traditional approaches and suboptimal technology (6). Traditional methods are often time-consuming and face various obstacles. Similar to other aspects of business, the speed and accuracy are crucial in the HR recruitment and selection process. Emerging technologies, such as artificial intelligence (AI), have the potential to accelerate these processes (7). The implementation of AI can decrease the time, cost, and effort required for recruitment and selection, aiding companies in adapting to a dynamic environmental landscape (8). The role of recruiters in the recruitment and selection process is very important because recruiters are directly involved in the entire recruitment and selection process (6,9). The combination of technology and human elements can improve the efficiency of HR recruitment and selection. However, the success of technology adoption by employees, including recruiters, depends on factors that influence acceptance and utilization (1,10)

Recruiters encounter difficulties in embracing AI technology due to apprehensions regarding the displacement of human workers and potential job loss. The utilization of AI in recruitment and selection lacks sufficient research from the standpoint of HR professionals, encompassing recruiters (6). The acceptance of AI in recruitment and selection by recruiters is influenced by various factors, such as limited knowledge, resistance to change, and unease with novel technology. Hence, it is imperative to consider the organizational context to ensure the effective adoption of AI by employees (10). Despite these concerns, AI is anticipated to augment recruiter efficiency and empower them to concentrate on strategic and human-centric responsibilities (11).

The UTAUT model takes into account a variety of factors, including performance expectations, effort expectations, and facilitating conditions, all of which have a direct impact on intentions to use technology. Previous research has demonstrated the success of this model in explaining technology use intentions (6,10). In addition, this research will also examine factors related to trust in artificial intelligence (AI) among recruiters and analyze individual attitudes towards the intention to utilize AI in recruitment and selection (12,13). Therefore, the aim of this research is to identify the factors that influence the acceptance of AI technology by recruiters and develop the UTAUT model in the acceptance of AI technology in the recruitment and selection process by recruiters.

MAIN RESULTS

This research employed a quantitative approach, gathering data from 90 recruiters in the Jabodetabek and Bandung areas via a questionnaire comprising 25 indicators that measure seven research variables. The collected data was then analyzed using PLS-SEM, with the aid of the SmartPLS software. This research resulted in the development of a UTAUT model that uses previous models, namely Cao et al. (2021), Chatterjee et al. (2021), and Islam et al. (2022). The model development in this study used variables in the UTAUT model, namely performance expectancy, effort expectancy, social influence, and facilitating conditions as independent variables, and adapted from the UTAUT model, namely the dependent variable, intention to use AI. Two variables from previous studies were used in the model development, namely trust as an independent variable from Cao et al. (2021) and attitude as a mediating variable from Chatterjee et al. (2021) in the context of AI technology acceptance in the recruitment and selection process. The conceptual model of the research can be seen in Figure 1.

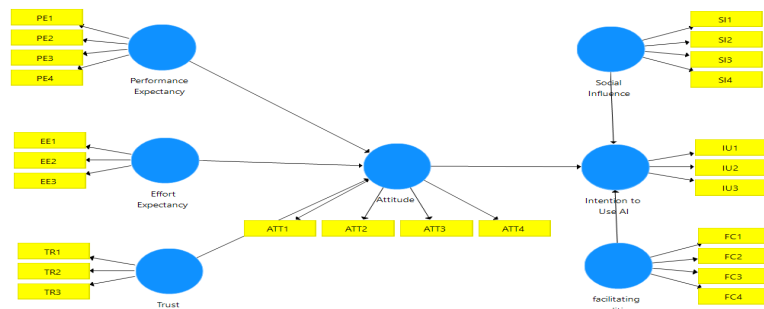


Figure 1. Research Conceptual Model.

The study formed a relationship between each variable, namely performance expectancy, effort expectancy, social influence, facilitating conditions, trust, attitude, and intention to use AI. The relationship formed six hypotheses and resulted in the finding that performance expectations have a positive and significant relationship with attitude, trust has a positive and significant relationship with attitude, social influence has a positive and significant relationship with intention to use AI, and finally, the mediating variable has a positive and significant relationship with intention to use AI. However, no positive influence was found from the effort expectancy variable on attitude and the facilitating conditions variable on intention to use AI.

CONCLUSION

The research findings reveal that performance expectations and trust affect recruiter attitudes. Additionally, attitudes and social influence directly impact recruiters' intentions to use AI in the recruitment and selection process. The research findings indicate that the development of the UTAUT model can offer a more comprehensive explanation of the factors that influence recruiters' acceptance of artificial intelligence (AI) technology. This research contributes both conceptually and empirically to the growing body of literature on artificial intelligence (AI) technology acceptance in the recruitment and selection process.

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