

Applicant Reactions to Artificial Intelligence in the Selection Process

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Abstract

The use of advanced technology such as artificial intelligence (AI) in the selection process has become an increasingly popular practice within organizations. However, little research has examined how applicants react to these new procedures and how those reactions may affect outcomes such as perceptions of fairness, organizational attraction, and job pursuit intentions. Previous research has suggested that the use of technology in the selection process may lead to more negative outcomes when compared to using traditional selection procedures such as face-to-face interviewing. The purpose of this study is to examine applicant reactions to the use of advanced decision-making technologies in the selection process, such as artificial intelligence systems that make hiring decisions. Determining how applicants react to the use of technology in the selection process serves to help organizations better understand how these practices affect job seekers' perceptions of the organization. The results of this study may help organizations weigh the pros and cons of using computer information systems to select applicants instead of using a traditional selection procedure.

In today's fiercely competitive work environment, recruiting talented applicants is increasingly becoming a matter of survival for most organizations (Michaels, Handfield-Jones, & Axelrod, 2001). In recent years, there has been a growth in the use of technology in the recruitment and selection process, with 74% of large U.S. organizations using some form of electronic selection tool to help with the hiring process (Stone, Deadrick, Lukaszewski, & Johnson, 2015). Advanced technologies such as resume screening software and interview assessments by artificial intelligence (AI) software allow companies to process large numbers of applications and help recruiters save time and money (Zielinski, 2017). Despite this growing trend in the use of advanced technology in the selection process, little research has examined applicant reactions to these selection procedures.

There are various reasons for why companies should take special consideration of applicant perceptions of their selection procedures. For one, those perceptions can affect the applicants' attraction to the organization, job pursuit intentions, and impressions of the organization's justness (Schinkel, Vianen, & Dierendonck, 2013). All of these factors play into a company's ability to competitively recruit and select top talent and initiate relationships with employees that foster positive organizational culture (Smither, Millsap, Stoffey, & Pearlman, 1996). For example, research has demonstrated that there is a relationship between applicant reactions and applicant behavioral outcomes, such as referring a company to a friend (Bauer, Truxillo, Paronto, Weekley, & Campion, 2004). This suggests that it is important that organizations are aware of applicant reactions so that they can be better informed of the potential consequences of their selection procedures. Accordingly, given the seismic change stemming from an increased involvement of technology in selection decisions, the purpose of this study is

to examine applicant perceptions of the use of advanced technology in the selection process, such as artificial intelligence software that is capable of making hiring decisions.

Method

The proposed study will employ a between-subjects experimental design utilizing four groups with manipulations involving variations of the use of technology. Participants will be given vignettes describing job application scenarios. These scenarios will vary in who is making the selection decision (humans or AI software) and the outcome (positive or negative). All four vignettes start by submitting a resume for a job opening. On the first vignette, the resumes are examined by a human resources manager, who will evaluate the candidate and decide to invite them for an interview. Next, a supervisor interviews the candidate using a set of structured interview questions. The candidate's answers are rated by the supervisor during a face-to-face interview. The candidate is either offered the position or rejected. On the second vignette, the resumes are examined by an artificial intelligence software, which decides to proceed with the interview phase. Next, the candidate is sent a link, which starts a video interview session. In the interview, the candidate responds to a set of questions by speaking to a webcam. The candidate's answers are recorded and then rated by the artificial intelligence software. The candidate is either offered the position or rejected.

In this between-groups design, participants' perceptions of procedural justice, distributive justice, job pursuit intentions, organizational attraction, and litigation intentions will be examined and compared across conditions. Covariates such as participants' experience with computers, their ages, and their predicted level of self-efficacy on the selection procedure will also be examined as potential covariates.

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