2020

A Meta-Analysis of E-Recruitment Applicant Experience, Perception, and Behavior

Diem J. Mooney
Walden University

Walden University

College of Social and Behavioral Sciences

This is to certify that the doctoral dissertation by

Diem J. Mooney

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

Review Committee
Dr. Jason Etchegaray, Committee Chairperson, Psychology Faculty
Dr. Allen Bellamy, Committee Member, Psychology Faculty
Dr. John Schmidt, University Reviewer, Psychology Faculty

Chief Academic Officer and Provost
Sue Subocz, Ph.D.

Walden University
2020

Abstract

A Meta-Analysis of E-Recruitment Applicant Experience, Perception, and Behavior

by

Diem J. Mooney

MS, Walden University, 2018

BA, Saint Leo University, 2016

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Industrial Organizational Psychology

Walden University

May 2020

Abstract

E-recruitment, an Internet-based approach for recruitment, has been shown to be an efficient method for organizations to reach a target candidate population. However, challenges with recruitment websites have resulted in high rates of job seekers abandoning an online application before completion. A quantitative meta-analytic review of literature from 2009 to 2019 was conducted to determine the relationship between applicant user experience (UX) when interacting with an organization's e-recruitment website, applicant perceptions of the hiring organization, and applicant behaviors related to pursuing employment. The review initially considered 105 candidate articles, of which 41 were consider after applying initial inclusions criteria. After the final review, the meta-analysis subsequently included 8 articles (N = 3448) to investigate the relationship between applicant UX and applicant perception and including 6 articles (N = 1274) to investigate the relationship between applicant UX and applicant behavior. The results revealed that the weighted average effect size for applicant perception was $r^* = 0.441$ ($SE = 0.019$), with a significant z score ($z = 7.565$, $p < .05$). The weighted average effect size for applicant behavior was $r^* = 0.413$ ($SE = 0.215$), with a significant z score ($z = 1.993$, $p < .05$). For both applicant perception and applicant behavior, the correlation between effect sizes across studies was medium to large and statistically significant. Implications for positive social change include reductions in recruitment related costs, improvements to employer branding, increases in job seekers finding employment, and improvements in the overall candidate experience.

A Meta-Analysis of E-Recruitment Applicant Experience, Perception and Behavior

by

Diem J. Mooney

MS, Walden University, 2018

BA, Saint Leo University, 2016

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Industrial & Organizational Psychology

Walden University

May 2020

Table of Contents

List of Tables

List of Figures

Chapter 1: Introduction to the Study

Background

Regardless of the effectiveness of an organization's employee retention strategy, top talent can and will leave, making it critical that companies stay vigilant in their recruitment efforts (Porter, 2011). Because of the hypercompetitive and ever-changing nature of organizations, attracting and retaining top talent is arguably one of the most essential resources (Lee, 2005). Recruitment is a practice conducted by organizations, often human resource (HR) departments, with the primary intention of identifying and attracting qualified candidates for open job positions (Barber, 1998). Before Internet-based recruitment strategies, recruiting was an iterative process in which hiring teams relied on physical copies of documents. The process was labor-intensive, requiring applicants to fill out paper job applications, take pre-employment screenings onsite, and sign physical offer letters (Lee, 2005). Recruiting drastically changed with the introduction of electronic recruitment, or *e-recruitment*, techniques (Barber, 2006; Kaur, 2015).

E-recruitment is the process by which personnel selection is managed using electronic resources with the first reference of the term appearing in articles in the mid-1980s (Kaur, 2015). E-recruiting can appear in the form of organizational websites or commercial online job boards. According to Barber (2006), technological advances in electronic communication have allowed organizations to become more sophisticated in their interactions with job seekers, granting them access to top candidates 24/7 through online job boards and corporate websites. Specifically, the growth of the Internet in

general directly impacted the rise of e-recruitment strategies (Bartman, 2000). Thus, e-recruiting has experienced a major growth spurt since the late 1990s (Lee, 2005).

E-recruitment has evolved over the years due to the incorporation of online applicant tracking systems (ATSs), multimedia tools, and self-learning, artificially intelligent computer systems (Esch, Black, & Ferolie, 2019). HR departments report reduced costs per hire, a wider reach when attracting candidates, enhanced applicant filtration tools, and reduced time to fill open positions (Ramaabaanu & Saranya, 2014). E-recruiting provides an opportunity for organizations to develop an employer brand that appeals to specific demographics. In an attempt to find more efficient methods of attracting and selecting qualified candidates during a time when competition for top talent is fierce, many organizations have adopted e-approaches, applying Internet-based strategies to their recruitment processes (Kerrin & Kettley, 2003). However, some organizations have adopted e-recruitment practices without fully understanding their benefits and limitations (Kerrin & Kettley, 2003).

Problems have been identified with the use of e-recruitment as the primary personnel selection strategy (Ramaabaanu & Saranya, 2014; Sturman, 2007). Contrary to the positive aspect of attracting top talent from all over, organizations can be flooded with resumes from applicants, both qualified and unqualified (Ramaabaanu & Saranya, 2014). To manage this obstacle, e-recruiting relies heavily on ATSs that use keyword searches. Ramaabaanu and Saranya (2014) identified challenges with inflated resume keywords due to applicants filling their resumes with specific terms to stand out in the system. Thus, recruiters may overestimate the qualifications of an applicant.

Challenges have also been identified from the perspective of the candidates (Ramaabaanu & Saranya, 2014). One of the most significant complaints by job seekers regarding e-recruitment has been that the process is impersonal (Bondarouk & Ruel, 2009; Ramaabaanu & Saranya, 2014). Another issue candidates face is applying for an outdated, already-filled job posting (Ramaabaanu & Saranya, 2014). Had candidates known the role was already filled, they would not have applied. Ramaabaanu and Saranya (2014) also reported that candidates have complained of technical difficulties while attempting to complete online applications. Lastly, receiving no response from an organization after completing an online application has caused applicants to be frustrated with the process (Bondarouk & Ruel, 2009). Langer, Konig, and Fitili (2017) recommended more research be conducted to investigate candidate experiences on the use of technology during the selection process.

According to Palmer (2019), employers need to stand out in order to attract the best candidates. Thus, accounting for the wave of research investigating user experience (UX) factors that impact applicant perception of organizational appeal. UX is the result of a user's internal state, aspects of the design system, and the context in which the interaction between technology and user occurs (Hassenzahl & Tractinsky, 2006). Organizations are hoping to understand the relationship between applicants' experience with e-recruitment and their perception and intention to pursue employment (Khan, Awang, & Ghouri, 2013).

Organizations have prioritized being attractive to top talent as the job market continues to remain competitive (Joseph, Sahu, & Khan, 2014). Due to the scarcity of

qualified candidates in many fields, organizations have become creative in their efforts to attract and retain talent (Joseph et al., 2014). Tsai and Yang (2010) defined organizational attractiveness as the willingness of a job candidate to accept an offer of employment and continue the job with the hiring organization. Organizational attractiveness can have a significant effect on candidate and employee engagement (Slatten, Lien, & Svenkerud, 2019).

Organizational culture assists in defining the underlying or unspoken reason an organization and its people are the way they are based on foundational values, ideologies, and assumptions (Ostroff, Kinicki, & Muhammad, 2012). An organization's culture can be illustrated through its company website. E-recruitment provides an opportunity for employers to establish a brand (Ramaabaanu & Saranya, 2014). Online job ads can be used to broadcast an image to potential applicants that clearly communicates the organization's values (Ramaabaanu & Saranya, 2014).

Organizations should strive to have a fair personnel selection process because the perception of procedural justice can impact candidates' attitudes toward the company and their intention to pursue employment there (Thielsch, Traumer, & Pytlik, 2012). Factors, such as ethnicity and language proficiency, have been shown to affect applicants' perceptions of fairness (Hiemstra, Derous, Serlie, & Born, 2012). E-recruitment strategies provide organizations with the ability to provide feedback to candidates. Receiving feedback is a significant factor in the perception of fairness of the e-recruiting process (Thielsch et al., 2012).

Problem Statement

Organizations are increasingly using websites to communicate job-related information to candidates (Allen, Biggane, Pitts, Otondo, & Scotter, 2012). The significant growth in e-recruitment activities comes as no surprise as the benefits associated with the approach are considerable (Sylva & Mol, 2009). Organizations began using the Internet as a recruiting tool by advertising open positions on online bulletin board services where potential applicants would contact the employer (Bondarouk & Ruel, 2009). E-recruitment transformed into a way for job seekers to apply directly online through an organization's recruitment website.

Internet-based recruitment techniques can be used to provide greater variety and quantity of job-related information to potential candidates at a lower cost to the organizations compared to other, more traditional communication strategies (Braddy, Meade, & Kroustalis, 2008). According to Anad and Chitra (2016), the ability to communicate in real time over the Internet is an advantage that has increased the adoption of e-recruitment strategies by HR professionals. Organizations that use Internet-based recruitment strategies have a competitive advantage because e-recruitment can result in better and faster recruiting (Anad & Chitra, 2016).

Both active and passive candidates generally prefer online job applications over traditional application methods (Anad & Chitra, 2016). E-recruitment is attractive to job seekers because it saves time and money, provides near instantaneous transmission of information, and allows for applications to be completed practically anywhere at any time (Anad & Chitra, 2016; Zielinski, 2016). But, despite the conveniences of online job

applications, organizations have reported that many job seekers abandon the application before completion (Zielinski, 2016). High rates of application abandonment can result in the loss of top talent, negatively impact the employer's brand, and increase recruitment costs (Sylva & Mol, 2009; Zielinski, 2016).

Due to the critical need for hiring qualified candidates, research on recruitment-related topics has continued to increase (Breaugh & Stark, 2000). Studies have been conducted investigating the relationship of UX with usability and applicant preferences when interacting with new technological approaches to recruitment (Allen, 2013; Anderson, 2003; Sylva, 2009). Researchers have identified UX factors such as content, navigation, and layout as determinants of an applicant's evaluation of a recruitment website. Research suggests that job seekers' attitudes and behaviors, including the intention to pursue employment, are influenced by the website's design and system features (Cober, Brown, Keeping, & Levy, 2004).

Despite countless studies identifying factors that may impact applicant perception and behavior when interacting with an organization's website, an issue with webform abandonment remains (Zielinski, 2016). More research investigating the influence that UX has on job seekers' perceptions of the online job application is needed (Giumetti, 2009; Sylva, 2009). The current meta-analysis investigated e-recruitment from the perspective of applicant UX to gain a better understanding of factors associated with an applicant's perception of the hiring organization and behavior related to pursuing employment. By analyzing the relationship through a quantitative meta-analysis of effect sizes, the study attempted to address an existing gap in current literature on this topic.

The findings of the study add to the available knowledge and understanding of UX professionals and hiring teams to support their efforts in attracting top talent for open positions.

Purpose of the Study

The intent of this study was to examine the relationship between applicant UX when interacting with an organization's e-recruitment website and applicant perceptions of the hiring organization and behaviors related to pursuing employment. The objective of the study is to determine if significant relationships exist between applicant UX and applicant perception and behavior by aggregating the findings of relevant quantitative research. If there is a significant correlation between applicant UX and applicant perception and behavior, it may supply the insight needed to establish and implement more effective e-recruitment strategies. More successful e-recruitment practices could lead to a decrease in online application abandonment and time to fill open positions and an improved employer brand.

Theoretical Framework

The foundation for the current study was developed with three theories: (a) signaling theory, (b) theory of planned behavior, and (c) technology acceptance model (TAM). A meta-analysis was the appropriate approach for the requirements of this study. It served as a strong framework for the three theories. A meta-analysis provides the opportunity to quantify the efficacy of interventions regardless of the wide range of theories and various approaches used to examine applicant perception of organizations' e-recruitment strategies.

Signaling theory aligns with the current study because it is useful when describing behaviors of multiple parties having to access different information (Connelly, Certo, Ireland, & Reutzel, 2011). Signaling theory was developed originally for research in economics investigating the role of information possessed by buyer and seller and has been adopted to explain the engagement between job applicants and hiring organizations (Rynes & Miller, 1983; Spence, 1973, 1974). Signaling theory is often used to understand how information, or signals, from the recruiting organization may influence applicant attraction (Celani & Singh, 2011). In this case, one party, the organization, must decide how to communicate information regarding the open position through its recruitment website and the other party, the job seeker, must determine how to interpret and respond to the information provided by the organization.

According to Ajzen's (1991) theory of planned behavior, an individual's behavior is significantly influenced by the strength of their intention to perform the behavior or not. Ajzen broke down intentions into three constructs: (a) attitude, (b) subjective norm, and (c) perceived behavioral control. Ajzen described each construct's relationship with behavior: attitude reflect favorable or unfavorable emotions about performing the behavior, subjective norm reflects the perception of social influences and forces in performing the behavior, and perceived behavioral control reflects limitations in performing the behavior. Theory of planned behavior has been used to study various phenomena related to recruitment and applicant behavior such as job search (Griepentrog, Harold, Holtz, Klimoski, & Marsh, 2012). The current study explored applicant behavior in context with online application abandonment.

Davis (1989) developed TAM to provide a valid measure of predicting end-user acceptance and/or adoption of new technologies. The model predicts acceptance based on the technology's perceived ease of use (PEOU) by the user (Davis, 1989). PEOU refers to the degree to which a user perceives a system would be "free of effort" (Davis, 1989, p. 320). Monavarian, Kashi, and Ramin-mehr (2010) adapted TAM to determine what factors impact a job seeker's behavioral intention in engaging with a recruitment website. Figure 1 presents a modification of the adapted TAM.

In the adaptation, PEOU of the organization's e-recruitment website serves as the independent variable used to capture the applicant's UX while interacting with the interface. PEOU encompasses UX attributes usability, user-friendliness, accessibility, and navigation. Applicant perception of the organization and behavioral intention to pursue employment serve as the dependent variables of applicant UX. Applicant perception includes organizational justice, organizational culture, and organizational attractiveness. Behavioral intention consists of online application completion. This model was used to classify and examine the studies in this meta-analysis.

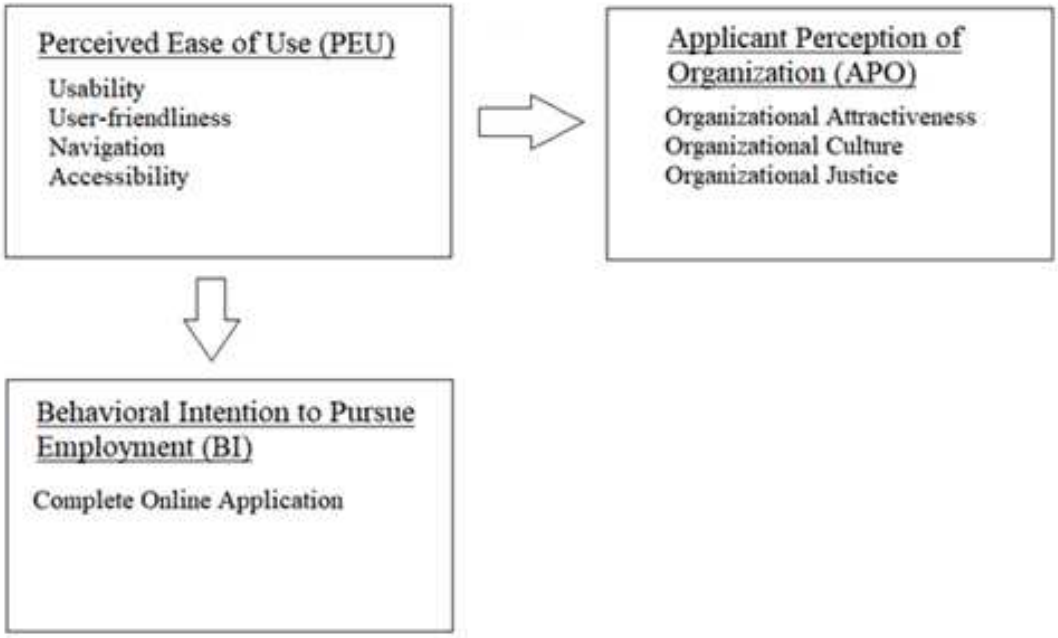

Figure 1. Technology acceptance model adapted for e-recruitment. Adapted from A. Monavarian, K. Kashi, and H. Ramin-mehr, "Applying Technology Acceptance Model to E-recruitment Context," Ecommerce Conference, January 1, 2010, France.

Research Questions and Hypotheses

The main independent variable of interest in this study was applicant UX when interacting with an organization's e-recruitment website. The key dependent variables of interest are applicant perception of the hiring organization and behavior related to pursuing employment. For the purpose of this study, a set of research questions and hypotheses were constructed to determine the strength and direction of the correlation between each tested variable. A meta-analytical approach provided a foundation of understanding of the study's purpose through the use of statistical analysis. The research questions and respective hypotheses are:

RQ1: Based on the meta-analysis of selected research from the available literature on the relationship between applicant UX and perception of an organization's e-recruitment website, is there a significant multistudy estimated effect size?

$H_0$1: There is no significant multistudy estimated effect size for the relationship between applicant UX and perception of an organization's e-recruitment website.

H_a1: There is a significant multistudy estimated effect size for the relationship between applicant UX and perception of an organization's e-recruitment website.

RQ2: Based on the meta-analysis of selected research from the available literature on the relationship between applicant UX and behaviors when interacting with an organization's e-recruitment website, is there a significant multistudy estimated effect size?

$H_0$2: There is no significant multistudy estimated effect size for the relationship between applicant UX and behaviors when interacting with an organization's e-recruitment website.

H_a2: There is a significant multistudy estimated effect size for the relationship between applicant UX and behaviors when interacting with an organization's e-recruitment website.

Nature of the Study

The study is a quantitative meta-analytic review of existing research on predictors of applicant perception and behavior when interacting with e-recruitment approaches. An extensive literature search was conducted to identify relevant published and unpublished studies between 2009 and 2019. The quality and relevance of the identified studies were

examined to determine if they met the predetermined selection criteria. Studies that met the minimum acceptance criteria were tabulated and examined for effect size and quality. Statistical methods were utilized to conduct a subgroup analysis in addition to a combined summary effect.

A meta-analytic review was chosen as the appropriate approach to address a gap in literature on applicant perceptions and behavior when engaging with organizational e-recruitment websites; a meta-analysis is an effective approach to merge findings of related independent studies for further assessment, quantification, and review (Crombie & Davies, 2009). A meta-analysis was an appropriate design for examining existing literature to determine the relationship between applicant UX when interacting with an organization's e-recruitment website and applicant perception of the hiring organization and behavior related to pursuing employment. Research on predictors of applicant perception and behavioral intentions has progressed, but to date a comprehensive systematic review of applicant UX has not been conducted since that of Giumetti and Brown (2009) over 10 years ago.

A single study has a significant chance of Type 2 errors, failing to detect a true effect (Lieberman & Cunningham, 2009). The advantage of a meta-analysis is the ability to detect effect when a single study may not have met the significance threshold. According to Lakens (2013), effect sizes are the most significant outcome of empirical studies. By combining well-conducted primary studies, the statistical power increases and smaller effect sizes can be detected due to an increase in overall sample size (Garg, Hackman, & Tonelli, 2008).

A meta-analysis was selected over a narrative review for this study. A narrative review is generally more descriptive, not including a systematic search of existing literature (Uman, 2011). The narrative approach is appropriate when concentrating on subsets of studies in a specific chosen area based on availability; however, it can be impacted by selection bias. A systematic review involves formulating a detailed search strategy in order to reduce selection biases, identifying, appraising, and synthesizing any relevant study that meets the predetermined selection criteria. The approach involves a meta-analytic component that incorporates the use of statistical techniques to synthesize the data from selected studies into one quantitative summary effect size (Uman, 2011). Rather than traditional hypothesis testing that provides information regarding statistical significance, meta-analyses are used to investigate effect sizes to measure the strength of the relationship between variables which provides information on the magnitude of the effect (Uman, 2011).

Definition of Terms

The current study incorporates relevant human-computer interaction, industrial organizational (I/O) psychology, and UX terminology and concepts that have been operationalized throughout the study. This section contains definitions for key terms used in this research:

Accessibility: Users' ability to use a system, but not the extent to which they can attain goals (Interaction Design Foundation, 2019). Accessibility considers any limitations users may face and accommodations that may be required to make the system usable for those who may have disabilities or face situational barriers.

Applicant behavior: The web-based actions taken by job seekers while looking for employment, such as searching for open positions, applying for jobs, and communicating with the hiring organization (Borstorff et al., 2005). For the purposes of this study, applicant behavior will refer to applicants' intentions to pursue employment through the completion of the online job application or withdrawal from the recruitment process.

Applicant perception: Job seekers' perspectives on an employer based on their interaction with the organization's web-based recruitment procedures (Sylva & Mol, 2009). For the purposes of this study, perception refers to applicants' perceptions of organizational attractiveness, organizational justice, and organizational culture.

Applicant user experience (UX): The users' interactions with, and reaction to, the organization's recruitment website (Petrie & Bevan, 2009). For the purposes of this study, UX encompasses the following UX attributes: (a) usability, (b) user-friendliness, (c) navigation, and (d) accessibility.

Effect size: The value that illustrates the magnitude of the treatment effect that is expected to be observed within the population under investigation (Borenstein, Hedges, Higgins, & Rothstein, 2009).

E-recruitment: Internet-based recruitment procedures allowing job seekers to review an organization's job postings online and apply (Sylva & Mol, 2009); includes all activities related to attracting and selected qualified candidates through the use of the Internet, encompassing processes such as application screening, virtual interviews, and communicating offers (Tyagi, 2016). For the purposes of this dissertation, e-recruitment

focuses on the initial online application process and will not go beyond engagement with a recruitment website while filling out the application. This includes accessing the organization's recruitment website, reviewing content, navigating to the job application, and submitting application for an open position (Sylva & Mol, 2009).

Meta-analysis: A research design that quantitatively synthesizes the findings of multiple studies based on a systematic review (DeGeest & Schmidt, 2011). The process estimates the amount of between study variability of effect sizes that is due to sampling errors, measurement errors, and limitations in the range of the observed values.

Navigation: The user's ability to search within a website to find desired information or complete a desired task and move from page to page as necessary (Allen et al., 2013). For the purposes of this study, navigation extends to wayfinding and user flow.

Organizational attractiveness: The degree to which an individual job seeker perceives an organization as a good place to work (Williams, 2019). Attractiveness refers to the job seeker's general desirability to work for the hiring organization.

Organizational culture: The beliefs and values demonstrated by an organization through content and visuals on its career sites to communicate organizational cultural attributes to job seekers (Tsai, 2011).

Organizational justice: An applicant's perception of fairness based on interaction with the organization's recruitment website, information provisions on selection criteria before selection, perceived job relatedness, and interpersonal treatment (Sylva, 2009; Lievens, 2003; Gilliland, 1993).

Usability: The measure of ease of use and how pleasant organizational website features are to use (Norman & Nielsen, 2019).

User-friendliness: The user's perception of the system's utility and overall website attractiveness (Sylva & Mol, 2009). The extent to which users feel the online application process within an e-recruitment website was a convenient way of completing a job application.

Website attractiveness: The attractiveness of an organization's recruitment website interface based on aesthetic design, general arousal, employer identity and brand, and perceived utility alignment with job seekers' functional requirements (Sutcliffe, 2001).

Assumptions

When conducting a meta-analysis, researchers make certain inherent assumptions regarding the study. In a quantitative study, assumptions related to the characteristics of the data include correlation trends, distribution, and variable type. In the current meta-analytic review, several assumptions were made.

An organization's recruitment website is the first point of contact for a job seeker (Maurer & Cook, 2011). The organization, at this beginning stage in an applicant's job search, will try to persuade the job seeker to apply to the open position while the job seeker will try to find a small pool of organizations to apply to. The studies used identical, or comparable, sample characteristics and methodological approaches. Therefore, the studies could be meaningfully compared through a meta-analytic review to

investigate UX correlates of applicant perception and behavior when interacting with an organization's recruitment website.

Another assumption was that the studies included were methodologically sound. Studies that illustrated design misalignment or faults were excluded from the meta-analysis. Articles were gathered from peer-reviewed journals. Though this reduces the issues related to methodological soundness of research, it does not eliminate the concern completely.

The various studies included in the meta-analytic review were randomly dispersed around the true value. Statistical pooling can reduce errors associated with estimating the true value (Charlton, 1996). Theoretically, errors found in a direction in a portion of the studies in the analysis should be balanced out by errors found in the opposite direction in other studies.

Finally, an assumption that this meta-analytic review appropriately synthesized the included research studies through coding while the original features from the studies remain. The foundational aspects of the articles included in a meta-analysis must be maintained to ensure the phenomenon under investigation is accurately identified and measured across multiple studies (Levasseur, 2004).

Scope and Delimitations

In this study, a quantitative synthesis approach was used to collect and analyze the data from the primary research studies. Studies that were included into the meta-analytic review investigated factors that may influence applicant perception and behavior when or after interacting with an organization's recruitment website. The analysis involved

categorization based on the degree to which each study's design and sample characteristics provided generalizable information regarding the effects of UX factors on applicant perceptions and behaviors when interacting with an organization's recruitment website. This framework was based on the contention that an organization's recruitment website served as the first point of contact for the job seeker (Maurer & Cook, 2011).

A meta-analytic review was chosen as the appropriate research design for the current study for two main reasons. First, there is a significant gap in literature between 2009 and 2019, where individual studies on e-recruitment were conducted, but no broader systematic review of the impact user experience interacting with the organization's recruitment website has on an applicant's perception and behavior occurred. Additionally, a meta-analytic and systematic review is considered one of the best research designs for fields that are rapidly growing and developing (Crombie & Davies, 2009). The design allows researchers to compile all relevant findings on a topic and draw conclusions based on the consensus, or lack thereof, of evidence (McKeon, Medina, & Hertel, 2006). Depending on the sample size, an independent study could have low statistical power. But a larger sample size, accomplished through synthesizing multiple studies, can potentially improve the statistical power. According to Cohen (1992), greater sample sizes can increase the chance that the null hypothesis can be proven false.

A meta-analysis was an appropriate method to assess, quantify, and review e-recruitment literature to determine if a systematic merging of the findings demonstrates a significant relationship between applicant UX and their perception and behavior. Meta-analytic reviews are often chosen as research designs for studies in the field of I/O

psychology (Richardson, 2014). Meta-analyses have provided I/O psychologists interested in investigating personnel selection with the ability to make assertions about the predictive capabilities and economical values of commonly used selection approaches and strategies (Richardson, 2014).

Meta-analysis research has been used in studies presented in courts to support I/O psychology related issues (Le, Oh, Shaffer, & Schmidt, 2007). In the past 5 years, there have been numerous studies conducted using meta-analysis as the research design to investigate I/O psychology related phenomena: (a) the relationship between individual assessments and job performance (Morris, Daisley, Wheeler, & Boyer, 2015); (b) the use of structured behavioral interviews as an approach for ensuring equal employment opportunities for women (Alonso, Moscoso, & Salgado, 2017); (c) the relationship between traditional selection assessments and workplace performance (Rojon, McDowall, & Saunders, 2015); (d) abusive supervision in the workplace (Mackey, Frieder, Brees, & Martinko, 2015); and (e) effects of cognitive ability and motivation on performance (van Iddekinge, Aguinis, Mackey, & DeOrtentiis, 2017). In the past 5 years, meta-analyses have also been used frequently to synthesize findings related to the field of UX: (a) an analysis of empirical studies of UX (Bargas-Avila & Hornbek, 2011); (b) review of empirical mobile usability studies (Coursaris & Kim, 2011); (c) review of estimates of the impact of technical barriers to trade (Li & Beghin, 2017); and (d) using learnability to refocus cognitive load design (Fujita & Selamat, 2019).

The current study was limited to organizational e-recruitment websites in its investigation of applicant UX and its effect on applicant perception and behavior. A

considerable amount of research has been conducted on implementing virtual interviewing as a part of an organization's e-recruiting strategy. The literature could potentially provide valuable information regarding the impact that applicant UX has on applicant perception and behavior. Despite this, the findings from those studies were excluded from the current study to improve internal validity. This study focused on applicant UX when interacting with an organization's e-recruitment website during the initial application phase.

Limitations

The current study had several limitations. Though attempts were made to obtain unpublished studies, the meta-analysis included only published studies. Therefore, results may have been impacted by publication bias. Only literature available in English was reviewed and included. Finally, Donaldson and Grant-Vallone (2002) pointed out that when research relies on self-reported interview or survey question responses, data may be impacted by participants misunderstanding the questions, intentionally providing a false or dishonest response, or choosing to respond in a way they felt aligned with social norms or expectations. Thus, original studies included in the sample for the current review may reflect this limitation.

Significance

This research contributes to a relatively new field of study concerning the use of Internet-based approaches by organizations to attract top talent for open positions. Research related to e-recruitment is at an infancy level (Nabi, Ghous, & Rahimiaghdam, 2017). Researchers have concluded that more research is needed on the topic. As stated

previously, Giumetti and Brown (2009) published the most current meta-analysis of organization career website attractiveness. They analyzed 12 samples (N = 3367) with 15 different effect sizes from studies conducted between 2003 and 2008 and identified aesthetics and usability as correlates of applicant's perception of website attractiveness. Although the results of the study suggest a relationship between UX and applicant perception of website attractiveness, further examination into the relationship between UX and applicant perception is needed (Giumetti & Brown, 2009).

To contribute to literature, the current meta-analysis investigated applicant perception of organizational attractiveness, organizational justice, and organizational culture. In addition, the current study seeks to examine predictors of application completion. The findings will add to the literature regarding e-recruitment strategies by synthesizing data across multiple studies. In the past decade, countless studies have been conducted exploring applicants' attitudes and behaviors related to e-recruitment. By combing the studies, effect size can be evaluated to determine the size of associations between UX attributes and applicant perception and behavior.

With today's e-recruitment systems, high rates of job seekers stop in the middle of applying for jobs online due to application length, navigation complexity, and error frequency (Zielinski, 2016). A further investigation into a user's experience may provide insight into what factors significantly impact applicants' perceptions of an organization's recruitment website. The current study has implications for positive social change because organizations that focus on designing a more user-friendly online application process can increase the number of candidates who can and are willing to successfully

apply for open positions. This can help reduce recruitment related costs, lower unemployment rates, and improve overall job seeker experiences.

Summary and Transition

Chapter 1 included an introduction to the study topic: e-recruitment. Background information was provided on organizational recruitment practices and the migration from more traditional personnel selection strategies to e-recruitment. The background section identified and described different aspects of applicant perception, summarizing three main concepts: (a) organizational attractiveness, (b) organizational justice, and (c) organizational culture.

The subsequent sections of Chapter 1 included the problem statement, purpose, and nature of the study, discussing the study's intention to investigate the relationship between applicant experience and their perception and behavior when engaging with an organization's e-recruitment website. The theoretical framework section outlined the three theories the study is developed on: (a) signaling theory, (b) theory of planned behavior, and (c) organizational justice theory. The chapter continued by addressing the study's significance, research questions, definition of terms, and assumptions. Finally, potential limitations within the study were identified.

Chapter 2 will further describe the need for additional investigation into this topic and the variables involved in greater depth. A literature review will be presented of the evolution of recruitment practices into modern day e-recruitment. The literature review identifies concepts within e-recruitment and theoretical frameworks that align with the current inquiry. The literature review supported the possible relationships between

usability of an organization's recruitment website and applicant perception and behaviors.

Chapter 3 outlines the current study's research design to address the research questions posed. The meta-analytic review will be discussed, addressing advantages, disadvantages, and application in the current study. The chapter describes the data collection and statistical analysis approach. Additionally, the inclusion criteria process will be defined. Chapter 4 presents the results of the data analysis, comprised of information on the study characteristics and the results of both the hypothesis and exploratory analyses. Chapter 5 provides a summarization of the finding and discusses the limitations of the study, describing recommendations for future research and reviewing implications for positive social change.

Chapter 2: Literature Review

Introduction

literature examined was UX factors that impact job seeker perception and behavior when interacting with an organization's recruitment website. A need exists to better understand cognitively how job seekers engage with organizational e-recruitment websites as the interaction significantly impacts on their perceptions of the organization and intentions to pursue employment (Birgelen, Wetzels, & van Dolen, 2008; Braddy et al., 2008; Khan et al., 2013; Sylva & Mol, 2009). A survey conducted by CareerBuilder (2017) revealed that the majority of candidates believe they can tell what it would be like to work for a company based on the organization's recruitment website (45% agreeing and 11% strongly agreeing). With the increasing demand to attract top talent, organizations have given applicant experience more attention, reevaluating career and recruitment sites to better suit the needs and expectations of potential job candidates (Lee, 2005).

The purposes of the literature review were to discover important UX variables relevant to e-recruitment, identify relationships between key concepts and practices related to e-recruitment, rationalize the significance of candidate experience in the recruitment process, and relate existing theories to applications and practices related to e-recruitment. The current literature review outlined the evolution of e-recruitment and the factors that impact applicant perception and behavior when interacting with an organization's recruitment website. The review discussed trends in e-recruitment and the development of Internet-based strategies for personnel selection. It turned to UX

principles and ideologies, which guided this meta-analysis and its relationship to positive outcomes. The literature review also includes information regarding meta-analytic reviews: history, advantages, disadvantages, and uses. Lastly, this study is placed in the context of UX research. The review explains the importance of a meta-analytic review to examine the UX factors that significantly correlate with desirable applicant perception of a hiring organization and behavior related to pursuing employment, stemming from gaps identified in the existing research.

To examine the topics surrounding e-recruitment and factors that influence applicant UX, a subset of literature was selected based on relevance to the following questions:

- How has organizational recruitment practices evolved from non-Internet-based recruiting to e-recruiting?
- What processes and systems are involved in e-recruiting?
- What factors have been identified as significant influencers of a job seeker's overall UX interacting with organizations' recruitment websites?
- What factors have been identified as significant influencers of job seekers' perceptions of a hiring organization?
- What factors have been identified as significant influencers of job seekers' behaviors and intentions to pursue employment with a hiring organization?

By answering these questions through a literature review, a deeper understanding regarding the history of e-recruitment and UX factors that existing research has identified as having significant relationships with applicant perceptions and behaviors.

Literature Search Strategy

Due to the interdisciplinary nature of the research on e-recruitment, a broad set of databases were searched, focusing on psychology, computer science, and HR management sources. The literature search served two purposes: (a) review existing relevant literature, and (b) identify candidate studies to include in the current meta-analysis. The literature search included both published and unpublished articles, conference papers, publicly available survey results, and white papers. Selected literature and articles that concentrated on UX principles and e-recruitment was described.

The keywords searched were *usability, candidate experience, user interface, employer branding, interface aesthetics, applicant perception, intuitiveness, website attractiveness, user experience (UX), candidate satisfaction, user satisfaction, e-recruitment, recruitment website, organizational justice, organizational attractiveness, Internet-based recruiting, job seeker perceptions, efficiency,* and *fairness*. Databases searched included PsychINFO, PsychARTICLES, Computers & Applied Sciences Complete, Expanding Academic ASAP, Emerald Insight, ScienceDirect Subject Collections – Computer Science, ScienceDirect Subject Collections – Psychology, and ScienceDirect Subject Collections – Social Sciences. Additionally, bibliographies and reference sections of applicable studies were reviewed to find possible studies to add. To gather unpublished or in-press research, a search was conducted a search using the Society for Industrial and Organizational Psychology (SIOP) and the Academy of Management annual conference programs using the keyword search terms listed above. Twenty-three researchers in this field were contacted to request unpublished studies

relevant to the current meta-analysis. Searches were conducted on various dates throughout the research process to ensure the most current and relevant articles were included in the study.

Literature Review

Personnel Selection and Recruitment

HR management involves directing people through the processes of recruitment, personnel selection, training, performance reviews, rewards and recognition, and professional development (Pullin & Fastenau, 1998). Petrovic-Lazarevic (2001) described the personnel selection process following recruitment in six steps: (a) application completion, (b) interview, (c) pre-employment testing, (d) background check, (e) preliminary selection, and (f) final hiring decision. More recently, Kalugina and Shvydun (2014) introduced a personnel selection model (see Figure 1). In their description of the personnel selection process, Kalugina and Shvydun start at the stage in which management must define the minimum qualifications of the desired candidate. Following the identification of job requirements is selecting assessment methods used in the hiring process. After assessments, a short list of candidates is created. Finally, hiring decisions are made. Based on this workflow, Kalugina and Shvydun developed a model designed to automate some stages of the process, assist in defining job requirements, and streamline the hiring decision process.

Kalugina and Shvydun's (2014) model breaks down the personnel selection process into four key stages: (a) data sourcing, (b) data conversion, (c) hiring process decisions, and (d) fit analysis. In the first stage, data are collected from various data

sources, including an organization's e-recruitment websites, staffing agency databases, professional social media accounts, and different media sources. In stage two, all data are converted into the same format and stored in a central database. Stage three involves identifying job requirements and pre-employment testing procedures to be used in the selection process. Finally, stage four is when employers determine if a candidate satisfies the job requirements and a candidate determines if an employer satisfies their criteria. Based on this model, recruitment takes place in stage one during data collection. Thus, an organization's e-recruitment website serves as a data source within the selection process.

Multidimensional View of E-Recruitment

Before investigating factors that impact applicant perception and behavior when interacting with organizations' recruitment websites, it is appropriate to first examine the evolution of recruitment practices. Barber (1998) defined the practice of recruitment as the actions taken by an organization with the intention of identifying and attracting potential talent. Lee (2005) broke recruitment processes down into two categories: traditional recruiting and e-recruiting. Lee described the traditional recruiting process as determining hiring needs, submitting a job requisition for approval, posting the job, applicants submitting their applications, hiring teams screening the applications, interviewing candidates, and offering candidates jobs. This process was heavily reliant on physical copies of documents to complete the iterative phases. Computers were added as tools in the recruitment process before e-recruitment came about (Lee, 2005). In the traditional recruitment process, computer software packages were unable to communicate

with one another, and consequently, the quality and quantity of applications received remained unchanged (Lee, 2005).

The human communication revolution significantly changed traditional recruiting and job search processes, with the introduction of e-recruitment shifting computer application within the personnel selection process to another level (Joyce, 2016). E-recruiting involves determining hiring needs, submitting a job requisition, approving the job requisition using an online database system, posting the job online, applicants searching the job online, submitting their applications directly into an applicant database, hiring teams screening the applications using an online applicant tracking system, interviewing candidates in person or online, and offering candidates jobs using an applicant tracking system and electronic signature (Lee, 2005). According to Singh and Finn (2003), increased usage of e-recruitment strategies has a significant impact on all aspects of organizational recruitment functions, including organizational structure, people, procedures, and forms.

Online visibility. Building an employer brand online is an influential trend in e-recruitment (Allden & Harris, 2013). Chartered Institute of Personnel and Development (CIPD, 2012) stated that an employer brand is how an organization differentiates itself from other organizations in the labor market, giving it a competitive advantage or disadvantage when attracting and retaining talent. The brand reflects the organization's reputation to current and potential employees, illustrating its values, policies, and people-management strategies (CIPD, 2012). A strong, positive employer brand lets job seekers

know that the organization is a good place to work. This brand can be broadcasted directly on an organization's recruitment website.

Allden and Harris (2013) attempted to examine the effect that the Internet has on organizational recruitment systems in the hopes of determining how online networks can be used for efficient e-recruitment strategies. Their findings showed that organizations understood the advantages of e-recruitment, specifically regarding its effects on candidate experience and employer branding. However, the majority of organizations were not applying best practices. This could explain why only 50% of participants believed that their e-recruiting endeavors were meeting organizational goals, despite thinking that e-recruitment provided a competitive advantage (Allden & Harris, 2013).

Braddy, Meade, and Kroustalis (2008) investigated whether an organization's recruitment website impacts applicants' opinions about the organization. Their results indicate that applicant perceptions of employer image, favorability, and attractiveness were influenced by reviewing the organization's recruitment website. Regardless of the applicant's familiarity with the organization, the organization's recruitment website had similar influences on the applicant's impression of the organization (Braddy et al., 2008).

Joyce (2016) found that job seekers have become increasingly concerned about their online presence due to the rise in e-recruitment practices by employers. Therefore, personal and professional online reputation management are believed an important part of the job search experience. Nikolaou (2014) asserted that both active and passive job seekers create and maintain online professional profiles because they believe hiring

professionals with job openings in the job seeker's desired field will be more attracted to them.

Time to hire. According to Deloitte (2015), the average cost of attracting and hiring a new employee is around $4,000. This is almost three times the cost of training an employee. Thus, organizations are becoming more strategic in recruitment strategies, employer branding, sourcing, and evaluating candidate experience. Health care organizations reported the highest increase in spending, demonstrating a positive relationship with the increased need for highly qualified candidates with specialized training.

Many organizations today associate speed of hire with being less expensive, resulting in lower overall recruitment costs (Joyce, 2016). Novo Group (2014) found that 53% of organizations rated time to hire, or time to fill, as being the most important recruiting performance metric. Quality of hire was only rated as the most important recruiting performance metric by 25% of organizations. This finding revealed a focus on speed of hire over quality. According to Joyce (2016), most recruiters spend a single minute reviewing an applicant's resume before deciding to move forward or not, skimming the document for job titles, past employer names, and highest level of education.

In a study conducted by GlassDoor (2015), it was determined that the amount of time needed to hire a new employee had actually dramatically increased in recent years. Joyce (2016) argued that the use of e-recruitment and other technological advances are both the problem and cure to the increase in time-to-hire. However, GlassDoor (2015)

contributed the increase in time-to-hire to organizations lengthening the job interview process. The introduction of mandatory panel interviews, skills tests, extensive background screenings, and requiring candidate presentations were all found to have statistically significant relationships with time-to-hire (GlassDoor, 2015). Demographic characteristics of the candidate such as age, gender, and highest level of education were found to have 0 statistical effect on the time-to-hire. A study conducted by Gopalia (2012) found that e-recruitment and selection practices were effective in reducing recruitment expenses and time-to-hire, assisting in providing the organization with a competitive advantage in attracting qualified candidates.

Applicant tracking systems. To decrease the application screening time, resulting in an improved time-to-hire average, most hiring teams use ATSs to collect and evaluate resumes and applications submitted through the organization's recruitment website (Joyce, 2016). Joyce found that majority of organizations with a workforce of more than 50 employees adopt an ATS, despite the known and unknown limitations of the system at accurately screening candidates and the lack of trained employees who are comfortable using the ATS. A survey conducted by Career Builder (2017) revealed that 78% of employers who use an ATS believe that recruitment technology makes identifying top talent much easier. However, it also showed 50% of employers across all organization sizes do not utilize an ATS, with 68% of organizations with less than 500 employees not implementing ATS as a part of their e-recruitment strategy. Career Builder argued that ATS play a significant role in candidate experience, serving critically in two stages of the hiring process: action and engagement. Candidates reported having the most

frustration and negative experience in these specific stages. Organizations that have adopted an ATS reported placing more focus on both the hiring team's and candidate's experience (Career Builder, 2017).

Kuncel, Ones, and Klieger (2014) asserted that algorithms are more valuable than human instinct in the hiring process. Through an analysis of 17 studies, the researchers were able to determine that an equation performed better than human decisions for applicant evaluations by at least 25%. The effect was found to be consistent across a large number of candidates irrespective of the position level: front line, middle management, and C-suite. Kuncel, et al claimed that humans are distracted by marginally relevant factors and use information inconsistently with 85-97% of hiring professionals relying on some degree of instinct, intuition, or mental synthesis of information to make hiring decisions. ATS have the ability to reduce biases and human error when added to an organization's e-recruitment strategy (Kuncel, et al).

Effectiveness of e-recruitment. Manju (2017) established criteria for defining the effectiveness of e-recruiting processes. A metric to measuring the effectiveness of e-recruitment is calculating the return on investment (ROI), comparing the cost and risks involved with the strategy. Due to globalization, e-Recruitment policies must be proactive and adaptable to constant labor market changes. Consideration must be given to both unemployment and turnover rate to accurately evaluate effectiveness (Manju). Lastly, an evaluation of ethical factors such as discrimination should be conducted when assessing the overall effectiveness of e-recruitment. Manju concluded that e-recruitment

is an effective and important recruitment strategy in terms of managing the hiring process, providing benefits in both cost and efficiency.

Khan, Awang, and Ghouri (2016) analyzed the connection between the use of e-recruiting resources by organizations and applicants' perceptions and intentions to pursue employment. They suggested that the overall effectiveness of the e-recruitment strategy was dependent upon the use of advertisement and salary. The two factors were found to be significant motivators for job seekers to become interested in the job posting (Khan et al., 2016). Gopalia (2012) investigated the overall effectiveness of using e-recruitment strategies to recruit and select candidates for open positions within an organization. Using an exploratory, theory developing approach, the research determined that e-recruitment was effective in regard to reducing recruitment and selection related costs. Another study assessing the effectiveness of e-recruitment conducted by Sultana and Sultana (2017), concentrating on perceived advantages, preferences for various media, and improvements in different stages of the recruitment process. Their analysis of perceived advantages revealed that e-recruitment was effective in terms of recruitment related costs, speed, reducing workload, accessibility, screening candidates, meeting requirements, reaching larger pools of potential candidates, increasing organizational performance, and attracting passive job seekers.

Lievens and Harris (2003) studied the use of Internet-based strategies by organizations for the recruitment and testing of applicants. They investigated how job seekers perceive and use the Internet as a recruitment source and which e-recruitment source led to attracting more qualified candidates. Lievens and Harris concluded that

there is a lack of theory in existing research on Internet-based testing and recruitment. However, limitations existed in the review due to e-recruitment being such an emerging field that experienced significant changes even while the review was being conducted (Lievens & Harris).

Applying Theories to E-Recruitment

When studying the effects of an organization's recruitment website on candidates' perceptions of the hiring organization, it is critical that psychological processes used by the candidate when viewing and interacting with the website are considered (Braddy, Meade, & Kroustalis, 2008). Studies have been conducted to test the validity of, build models around, and understand human behavior using several theories related to e-recruitment (Braddy et al., 2008; Lin, 2010; Song et al, 2006; Schreurs et al, 2009; Griepentrog et al, 2012; Lievens & Harris, 2003; Bustaman & Tambi, 2018; Ployhart & Ryan, 1997). To understand how applicant perceptions and behaviors relate to an organization's recruitment website, it is posited signaling theory, planned behavior theory, and TAM offer insight into their relationship.

Signaling theory. Signaling theory offers a foundation for understanding why an organization's recruitment website may influence an applicant's perception of the hiring organization (Braddy et al, 2008). According to Braddy et al, the signaling theory states that when the individual does not have all of the information and feels unsure of what position to take on the matter, he or she will generally draw conclusions based on cues from the information that has been provided. The theory indicates that the data made available to the candidate will guide his or her perception of the hiring organization

(Braddy et al). Therefore, factors that may not have a direct association with a position or organization can become cues to the candidate for what it may be like to work for the hiring organization (Rynes, Bretz, & Gerhart, 1991). Rynes et al found that a lack of information about the hiring organization caused the candidate to draw conclusions based on peripheral cues gathered from the organization's recruitment website. Consistent with the signaling theory, candidates interpreted a variety of job search related experiences as being representative of broader organizational characteristics and culture (Rynes et al).

Theory of planned behavior. The theory of planned behavior has been used to explain and predict behavior across various settings (Ajzen, 1991). Lin (2010) used a theory of planned behavior-based model to try and understand job seeker behavior when engaging with e-recruitment practices. The study attempted to use theory of planned behavior to create a model for identifying determinants of job seeker intentions to use websites to search for jobs online because theory of planned behavior collects data on social and behavioral control factors (Lin, 2010; Mathieson, 1991). According to Brown, Cober, Kane, and Levy (2006), both social and behavioral controls are significant factors in developing an understanding of candidate behavior.

Song, Wanberg, Niu, and Xie (2006) used a theory of planned behavior-based model to analyze job-search intentions. Their revealed that candidates' job search attitude was a positive correlate of job-search intentions. Similarly, Millar and Shevlin (2003) adopted the theory of planned behavior framework to analyze factors that impact job information-seeking behaviors by school students. Their study found that candidate attitudes and previous behaviors strongly influenced his or her job-search intentions.

Schreurs, Derous, Hooft, and Proost (2009) investigated the validity of using theory of planned behavior as an explanatory tool for understanding the connection between pretest selection expectations and job pursuit behavior. Their results showed that job pursuit attitudes mediated the correlation between job pursuit intentions and selection expectations. However, the study was unable to support the behavioral link between intentions and applicants withdrawing from the recruitment process. Griepentrog et al. (2012) attempted to use theory of planned behavior to predict applicant withdrawal from an organization's recruitment process. Their findings of the study revealed that applicants with higher behavioral pursuit intentions were not as likely to withdraw from the recruitment process.

Technology acceptance model. TAM is one of the most influential models in the information technology and computer science fields (Monavarian, Kashi, & Ramin-mehr, 2010). Adapted as an extension of Ajzen and Fishbein's Theory of Planned Behavior, Davis (1989) developed TAM to provide a valid measure of predicting end-user acceptance and/or adoption of new technologies. When evaluating technological systems such as websites, software, or applications, many measures are subjective, making their correlation to system adoption and usage difficult to determine. To address this growing concern, Davis (1989) validated two scales for measuring perceived ease of use and perceived usefulness. The model predicted that user acceptance of technology is based on the technology's PEOU and perceived *PU* by the user (Davis, 1989). PEOU refers to the degree to which a user perceives that a system would be "free of effort" (Davis, 1989, p.

320). *PU* refers to the degree to which the user perceives that a system would "enhance his or her job performance" (Davis, 1989, p. 320).

According to Davis (1989), users generally only engage with a system to the extent that it helps them perform their job better. And even after the user determines that a system may be useful, an evaluation of how easy or difficult the system is to use is conducted. The evaluation considers if the benefits associated with improved performance through the adoption of the system outweighs the effort of using the system (Davis, 1989). Calisir and Calisir (2004) used PU and PEOU to measure the usability of an enterprise resource planning system. Despite the significant amount of money and efforts poured into the development of enterprise resource planning systems across organizations, data revealed low user adoption. The study found that perceived usefulness and perceived ease of use were determinants of satisfaction with the enterprise resource planning system (Calisir & Calisir, 2004).

When assessing a user's experience during their engagement with a system, PEOU is generally measured (Quesenbery, 2000). Often, when evaluating a system's interface, terms such as usability, ease of use, and user-friendliness are used interchangeably (Quesenbery, 2000). Thus, oversimplifying interface design. In a PEOU evaluation, metrics should be considered including, but not limited to usability, self-efficacy, and learnability.

Monavarian et al. (2010) adapted TAM to determine what factors impact a job seeker's behavioral intention to pursue employment while engaging with an e-recruitment website. The study investigated the relationship among perceived usefulness, perceived

ease of use, and a job seeker's behavioral intentions to use an organization's e-recruitment website to pursue employment. The study found that both PU and PEOU were predictors of job seekers' behavioral intentions, revealing the effectiveness of adopting e-recruitment strategies to attract top talent.

Kashi and Zheng (2013) used TAM and signaling theory to investigate factors that impact job seekers' behavioral intentions to apply for jobs online and their perception of the organization's attractiveness. The study found that PU had a significant impact on behavioral intentions, but PEOU did not (Kashi & Zheng, 2013). It also concluded that the job seeker's interaction with the e-recruitment website did influence their perception of the organization.

Kumar and Priyanka (2014) studied the adoption of e-recruitment strategies by undergraduate students using TAM. The main purpose of the study was to better understand factors that impact user acceptance of an organization's e-recruitment process, examining the relationships among perceived usefulness, perceived ease of use, attitude, and behavioral intentions of the job seeker. The study found that PEOU had a strong effect on the job seeker's PU, attitude, and behavioral intentions (Kumar & Priyanka, 2014). The study concluded that the ability to use the system easily was critical to user acceptance, but the researchers recommended further investigating the relationship by extending the model to include more specific variables such as trust (Kumar & Priyanka, 2014).

Chen, Yi-ming, and Bao-jian (2009) investigated the factors that determine the adoption of e-recruitment systems by job seekers. The study incorporates TAM and

additional measures including subjective norm, perceived risk, perceived expenses, and job pressure to examine the relationship between a job seeker's interaction with the e-recruitment website and behavioral intention. Based on Chen et al. (2009) model, subjective norm, perceived risk, job pressure, perceived usefulness, and perceived ease of use all impacted job seekers' behavioral intentions. The study concludes that perceived ease of use strongly influences perceived usefulness, thus, more research is needed on PEOU.

Applicant Experience

CareerBuilder (2017) conducted a survey examining candidate experience throughout the recruitment and onboarding process, identifying factors that positively and negatively impact experience and candidate perception of the organization. The study found that an organization's recruitment website can affect a candidate's experience. The results of CareerBuilder's survey found that 89% of active job seekers believe that an organization's recruitment website is a significant resource for obtaining crucial information about the open position and organization as a whole. 33% of employers applied to one of their own job postings to gain a better understanding of the experience from the perspective of a candidate. Of those employers, 46% reported that their e-recruitment process was very good. However, only 32% of actual job candidates rated their experience applying for a job online as very good (CareerBuilder).

McCarthy, Bauer, Truxillo, Campion, Iddekinge, & Campion (2018) argue that focusing on producing high-quality candidate experiences makes an organization more likely to attract, engage, and recruit qualified job seekers for open positions. In reviewing

the literature related to applicant reactions to personnel selection procedures, they found that job seekers that reported having a negative experience with the recruitment process also reported low levels of organizational attractiveness, lower intentions to pursue employment, and less likely to accept a job offer. McCarthy et al. (2018) suggest interventions that signal transparency, respect, and reassurance to improve the overall candidate experience.

Miles and McCamey (2018) presented a model illustrating the interaction between job seekers and organizations as they proceed through the recruitment process, which contributes to candidate experience. They contend that a relationship exists between candidate experience and employer branding. The study concludes that improving candidate experience can result in a strengthened relationship between investors and customers, increase in candidates referring others to apply to the organization, and considering other open positions within the organization during future job searches (Miles & McCamey, 2018). McCarthy, Bauer, Truxillo, Anderson, Costa, and Ahmed (2017) reviewed applicant reactions to recruitment selection procedures. Their findings indicated that the understanding of applicant reaction has increased. But the researchers argued that focusing on producing high-quality candidate experiences makes an organization more likely to attract, engage, and recruit qualified job seekers for open positions.

Usability. According to Braddy, Meade, and Kroustalis (2008), website usability refers to the user's perception of ease in accessing desired information and completing desired tasks. Nielsen (2012) reiterates the definition, defining usability as the ease of use

of a system in which the user is able to interact easily with in order to achieve a goal. Studies have found that usability significantly predicts an applicant's perception of an organization (Braddy Thompson, Wuensch, & Grossnickle, 2003; Cober, Brown, Levy, Cober, & Keeping, 2003). Cober et al (2003) found that positive perceptions of usability had associations with participants' increased tendencies to pursue a position with the hiring organization. In addition, they determined candidates were more willing to recommend the potential employer to their family and friends. Research has also determined that the functionality and usability of an organization's recruitment website are important to candidates (Allen, Mahto, & Otondo, 2007; Cober et al., 2004).

Pfieffelmann, Wagner, and Libkuman, (2010) investigated job seeker attraction to a hiring organization, examining applicant perception on website usability, person-organization fit, and organizational attraction. Key variables including occupational preferences, size of organization, location of organization, and internet experience were used as controls (Pfieffelmann, et al, 2010). Their study found that for female job seekers, perceptions of web site usability and person–organizational fit were positively related to organizational attraction. person-organization fit was found to mediate the relationship between usability and organizational attraction. However, similar findings were not found for male job seekers (Pfieffelmann, et al, 2010).

To access the attractiveness of a web interface, usability was measured. The usability of an organization's recruitment website is a significant metric for examining the interface's quality (Agarwal & Venkatesh, 2002). However, more recent studies have explored multiple constructs of attractiveness to include aesthetics and design features

(Hart, 2015). Website usability can also be measured by analyzing interface characteristics such as user-friendliness, navigation, accessibility, and learnability (Nielsen, 2012). Naumann, Wechsung, and Hurtienne (2009) describe intuitiveness as being measured by examining success rate, error rate, and learning progress. However, the intuitiveness of a website can be hard to assess due to user's knowledge of the system or specific application is a significant factor that can impact his or her perception of system intuitiveness.

User-friendliness. Sinar, Reynolds, and Paquet (2003) examined the impact that perception of speed and user-friendliness of the organization's recruitment website had on a candidate's overall perception of the organization after the candidates completed the recruitment process with the hiring organization. Their findings uncovered that both speed and user-friendliness had a moderate, positive relationship with a candidate's image evaluation of the hiring organization. Sylva and Mol (2009) examined the perceptions of job seekers on internet-based recruitment procedures. To address a gap in understanding of applicant reactions to Internet-based recruiting and selection processes, their study investigated features of an organization's recruitment website that influenced applicant satisfaction with the online application system. The results proved that perceived efficiency and user-friendliness were the most significant determinants of applicant satisfaction (Sylva & Mol, 2009).

Navigation. Musaa, Junaini, and Bujang (2006) established two criteria for measuring the usability of organization recruitment website: navigation and page layout. Navigation included the search engine (the effectiveness of keyword searches, length of

the pages), the amount of content on the interface, hyperlinks (the location of the links on the page and the accuracy of the link to move the applicant to the desired location), and the use of breadcrumbs to help guide the user throughout the system. Page layout included the use of colors and images, consistency, and website attractiveness. The findings revealed that both navigation and page layout were significant determinants of an applicant's perception of an effective e-recruitment website (Musaa et al)

Braddy et al. (2003) investigated navigation and its relationship to applicant's perception of the organization's recruitment website. Their study found that the applicant's perception of the ease of navigating an organization's recruitment website to get to a job advertisement was associated with positive feelings about the hiring organization. Moghaddam, Rezaei, and Amin (2015) analyzed the effect of factors including ease of navigation on a candidate's perception of the organization's recruitment website and behavioral intentions to pursue employment. Their study found that ease of navigation did not impact a candidate's behavioral intentions.

Accessibility. Kuppusamy and Ganesan (2016) found that website usability, the accessibility of the Internet, and the accessibility of information were contributing factors of effective e-recruitment, thus, recommending that organizations focus on both the usability and accessibility of their e-recruitment website. In addition to abiding by regulations outlined in the Americans with Disabilities Act or state laws on organization recruitment website accessibility, employers benefit from having an accessible career website as it allows for the recruitment of top talent with disabilities (Smith, 2018). The U.S. General Services Administration (2017) promote the use of accessible e-recruiting

strategies when attracting top talent as the practice has been found to positively influence employment, retention, and career advancement for disabled individuals. Erickson (2002) described how e-recruitment could stand as a barrier to job seekers based on their type of disability, identifying specific challenges users may face. He discussed that for the visually impaired, unlabeled graphics, undescribed videos, or poorly marked tables were identified. For the hearing impaired, lack of captioning for audio and proliferated text without visual signposts were identified. For the physically impaired, a lack of single-switch support for navigation and menu commands was identified. And finally, for the cognitively or neurologically impaired, a lack of consistent navigational structure, complex presentation or language, and flickering page designs were identified (Erickson).

Jackson-Sanborn, Odess-Harnish, and Warren (2001) examined the accessibility of 50-100 frequently visited websites based on six categories: job, international, college, clothes, government, and overall most-visited. Using an automatic website accessibility evaluation tool, they found that most categories, including job websites, performed poorly with only 6% of sites passing the user check levels. For 31 e-recruitment websites, the study expanded its investigation beyond an automated evaluation of the homepage and examined the accessibility of the search function and job application. Jackson-Sanborn et al also found that though the homepage of e-recruitment websites were accessible, the search page and application often were not, creating a significant barrier in the process for disabled individuals.

Lazar, Olalere, and Wentz (2012) examined the accessibility of online job applications specifically for blind job seekers. They found that many organization

recruitment websites are inaccessible for applicants with disabilities which prevents qualified candidates from being able to apply for open positions using online applications. Their study proved that blind job seekers were unable to complete online applications without frequent intervention from a non-blind individual, with only 28% being successful without assistance (Lazar, et al, 2012).

Applicant Perception

Allen, Biggane, Pitts, Otondo, and Scotter (2013) conducted research on job seekers in order to investigate the population's perceptions and attention, both visual and verbal, to organizations online interfaces during the applicant generation phase of the recruitment process. Their research attempted to better understand how applicants react to organizational recruitment web sites. The survey results suggested that interface design, content, and communication features were determinants of applicant attraction (Allen, et al, 2013).

Braddy, Meade, and Kroustalis (2008) sought out to test the assumption that recruitment web sites impact the job seekers' opinions about the recruiting organizations using a pre-test and post-test design. Their findings showed that perceptions of favorability, image of the employer, and organizational attraction were influenced by applicants reviewing the organization's recruitment website. An increase in favorability was reported when the hiring organization maintained an easy to navigate and visually appealing recruitment website (Braddy et al., 2008). Birgelen, Wetzels, and Dolen (2008) attempted to fill the gap in literature through an investigation of how potential job seekers' evaluations of content and web form related attributes impact the overall

effectiveness of the website. Their results revealed that an applicant's perception of an organization's recruitment website is differentially affected by the applicant's evaluation of the website's content and forms.

Allen, Biggane, Pitts, Otondo, and Scotter (2013) conducted research on job seekers in order to investigate the population's perceptions and attention, both visual and verbal, to organizations online interfaces during the applicant generation phase of the recruitment process, attempting to better understand how applicants react to organizational recruitment web sites. Their verbal protocol analysis indicated that job seekers concentrated more on content than the overall design of the recruitment website. However, web design, content, and communication features were all found to be related to applicants' perceptions of website attractiveness. The researchers found that applicant perception of design demonstrated the most incremental variance in website evaluation. Applicant perception of communication features demonstrated the most incremental variance in attitude towards the hiring organization as well as the applicant intentions to pursue employment (Allen et al).

Selden and Orenstein (2011) analyzed the usability and content of organizational recruitment websites to measure the government's ability to attract job seekers to apply for federal positions, finding a correlation between website content and organizational attraction. In addition, the research moved beyond previous studies that focus on intentions by correlating web site quality with behaviors or government recruiting and hiring outcomes by revealing that the government's recruitment website's usability was correlated with more applications per job. Selden and Orenstein found that governments

with more usable recruitment websites obtained significantly more job applications per job openings. In addition, they showed that governments with better quality website content had lower new hire voluntary turnover while controlling for other factors that could have impacted hiring.

Organizational justice. Searle (2003) discussed the implications of implementing Internet-based recruitment tactics on applicant's perception of organizational justice. The study questioned the transparency of the e-recruitment process and how it influenced procedural and distributive justice. The increased use of e-recruitment demands further examination of procedural and distributive justice connotations associated with the Internet-based practice. Thielsch, Traumer, and Pytlik (2012) studied applicant perception of procedural fairness in the context of e-recruitment revealing that applicants' expectations of fairness throughout the e-recruiting process were lower than the perception of the importance of five procedural fairness concepts: transparency, participation, job information, feedback, and objectivity. They showed feedback was critical to perceptions of fairness during the online job application process. Also, applicants viewed offline recruitment procedures to be fairer than online recruitment procedures despite reporting a positive experience with online applications when used in the past (Thielsch et al).

Lievens, de Corte, and Brysse (2003) studied whether the provision of information about the reliability and validity of selection procedures affects applicants' fairness perceptions. examining the perception of fairness if eight different selection processes by comparing the responses of candidates that were provided information about

the validity and reliability of selection procedures versus candidates that were provided no information. The results revealed that providing information on selection did not have a significant effect on perception of fairness (Lievens et al). However, candidate belief in selection tests demonstrated a significant effect. Candidates who reported high on test belief gave higher fairness ratings compared to candidates who reported low on test beliefs.

Organizational attractiveness. Williamson, Lepak, and King (2003) investigated the process that organizational recruitment website effects a job seekers desire to pursue employment. They examined the relationship among organizational recruitment website orientation, usability, job seeker expectation of technology, and organizational attractiveness. Williamson et al found that the website's orientation and outcome expectancy impacted organizational attractiveness through the applicant's perception of usability.

Ehrhart, Mayer, and Ziegert (2012) investigated the relationship among work-life balance, website usability, and organizational attractiveness to attract Millennial job seekers finding that applicant perception of work-life balance and recruitment website usability served as determinants of perceptions of organizational attractiveness when controlling for perceptions of other characteristics of the organization. Priyadarshini, Kumar, and Jha (2017) investigated applicant perception of organizational attraction through use of social media as an e-recruitment strategy. The themes that emerged from the qualitative focus groups were ease of information, navigational usability, user-friendliness, person-job fit, person-organization fit, reliability, timeliness, positive and

cost-effective marketing, value creation for the employers, and privacy concerns. Priyadarshini et al's (2007) findings showed that job seekers reported positive perceptions of organizational attractiveness for employers who created and maintained social media accounts.

Organizational culture. Unlike traditional recruitment media that limited organizations to only communicating job opening related information, e-recruitment websites allow for the marketing of both the vacant position and organizational characteristics like company culture (Braddy, Meade, & Kroustalis, 2006). Braddy et al attempted to identify factors within an organization's recruitment website that impacted a job seeker's perception of organizational culture. Their findings revealed that website design features, content related to organizational policies, specific references to dimensions of the organization's culture, and other relevant website content served as significant factors in the job seeker perception of organizational culture. E-recruitment websites with specific references made to culture dimensions through content was identified by candidates as having the most significant impact on an applicant's perceptions of organizational culture (Braddy et al).

Braddy, Meade, Michael, and Fleenor (2009) conducted a study that investigated the impact that content features within an organizations' recruitment websites had on applicants' perceptions of organizational culture attributes. Their investigation found that job seekers with weaker cultural preferences developed less desirable person-organization fit perceptions. On the other hand, job seekers with stronger cultural preferences developed more desirable person-organization fit perceptions (Braddy, et al).

Thus, those who had stronger person-organization fit perceptions reported having stronger organizational attraction.

Applicant Behavior

Applicant behavior can happen across numerous contexts by different populations and demographics of job seekers looking for employment opportunities using online job searches (Boswell, Swider, & Zimmerman, 2012). Common reasons for individuals to take part in job-seeking behaviors include trying to find their first job, employment after losing or leaving previous organization, or employment opportunities despite being employed (Boswell, et al). Khan, Awang, and Ghouri (2013) investigated the relationship between the use of e-recruiting resources by organizations and applicants' perceptions and intentions to pursue employment. Their study confirmed that an Internet-based job search was the most commonly used job search approach compared to other recruitment resources. They also found that the e-recruiting resources, in addition to the job seeker's perception of the significance of the job, impacted the applicant's intention to pursue the position (Khan et al., 2013).

Borstorff, Marker, and Bennett (2007) investigated the perceptions and behaviors of potential applicants regarding the utilization of the internet as a recruiting tool. Their study specifically analyzed differences in perceptions and behaviors of job seekers among different demographics. Borstorff, et al's findings revealed that citizens felt more comfortable with e-recruitment and used organization recruitment websites for job searches more frequently compared to non-citizens. They found a significant different for race given minorities applied to online job positing more often than white job seekers.

Also, older job seekers and with more work experience applied more frequently than younger, less experienced individuals. No differences in e-recruitment related perceptions and behaviors based on gender (Borstorff, et al).

Maurer and Cook (2011) conducted a review, from a job marketing perspective, of theory-based studies that investigated effects of e-recruitment on applicant attitude and behavior. Their study attempted to understand and lessen the phenomenon plaguing some organizations who have adopted the use of a recruitment websites. They found hiring teams reported large numbers of applications are being completed by underqualified candidates. According to Zielinski (2016), the assumption was that qualified candidates would be dedicated enough to fill out applications, with 50% of employers believing that long applications filter out the bad candidates. However, Zielinski (2016) argues that qualified candidates are less likely to jump through hoops and complete steps included in the e-recruitment process. Through an analysis differentiating a job seeker's perceived attraction to the organization and behavioral intentions caused by that perception, Maurer and Cook (2011) found that applicant attraction to an organization is strongly associated with his or her job search behavior.

Zielinski (2016) suggested that online application abandonment is negatively impacting the recruitment industry with more than half of applicants quitting the webform before completion. He found that content and the length of the job description impacted whether the job seeker completed the job application or not. The length of the job application is emphasized on mobile devices such as cell phones and tablets, specifically when responsive design is not adopted to make the web forms more effective

on the smaller screens, resulting in candidates abandoning the application (Zielinski, 2016). Schmit and Ryan (1997) stated that theories for candidates withdraw from the recruitment and selection process are underdeveloped.

Mauer and Cook (2011) asserted that research is lacking in understanding of the effects of applicant perception on actual job application behavior. Birgelen, Wetzels, and Dolen (2008) attempted to fill the gap in literature through an investigation of how potential job seekers' evaluations of content and web form related attributes impact the overall effectiveness of the organization's recruitment website. They found that the website's content and web forms differentially affected applicants' attitudes toward the organization.

Meta-Analyses on E-Recruitment

With the growth of published research findings, a need for a process to quantitively review existing literature and synthesizing results arose (O'Rourke, 2007). A well-executed meta-analysis can be an effective source of information for researchers, practitioners, and policy makers (Walker, Hernandez, & Kattan, 2008). The main objective of a meta-analysis is to summarize the findings of multiple studies, overcome small sample sizes of an individual study, assess the variances in the results of different studies, increase validity of estimated effect sizes, analyze effects of different subsets, determine the need for future research, and develop new hypotheses for future investigations (Walker et al, 2008).

The statistical analysis technique has been found to be an appropriate approach for synthesizing quantitative findings to aid in policy management, making the approach

ideal for investigating organizations' e-recruitment strategies (Aguinis, Gottfredson, & Wright, 2010). According to Breaugh and Starke (2000), over the past several decades, the amount of research conducted on recruitment has continued to increase. Despite the number of studies being conducted, they concluded that there are still countless questions that remain. In an attempt to address this rising concern, several reviews have been conducted over the years to better understand organizational recruitment practices and job seekers' perceptions and behaviors.

Giumetti and Brown (2009) meta-analyzed the effects of aesthetics and usability of recruitment websites on applicant's attraction to an organization. Their research included 12 independent studies (N=3367), excluding nonempirical studies and articles that fell outside of the study's scope. Giumetti and Brown's usability criteria included navigation and ease of use. For aesthetics, the criteria included aesthetic features, perceived attractiveness, experienced website quality, and personableness. Their findings showed that both usability and aesthetics significantly correlate with applicant attraction.

Maurer and Cook (2011) conducted a review, from a job marketing perspective, of theory-based studies that investigated effects of e-recruitment on applicant attitude and behavior. To conduct the review, they included research related to theoretical components of the realistic job review, Elaboration Likelihood Model, signaling theory, and person-organization fit. The study concluded that an increase in the external validity studies related to e-recruitment is needed by conducting research with actual job seekers. Also, there is a gap in understanding regarding existing theories in the context of e-recruiting. The study continues by concluding that research supports that applicant

attraction has a significant relationship with search behavior (Maurer & Cook). Finally, despite the increase in theory-based studies on website effect on users, the researchers recommend that future studies be conducted on website source effects on the base rate of a job applicant pool.

Summary and Transition

The literature review discussed research that concentrated on e-recruitment practices, tools, and strategies. The current "War for Talent" has caused organizations to become more competitive in their approaches to identify, attract, and select qualified candidates for open positions. While onboarding top talent is the primary goals, organizations are also considering the bottom line. A critical objective in an organization's personnel selection process is to increase applicant pools while decreasing recruitment related costs and time-to-hire. This has resulted in organizations and HR professionals to become more innovative in their recruitment approaches as they fight to attract top while reducing costs.

In examining the current literature on e-recruitment, the key message is that the adoption and implementation of e-recruitment practices go beyond posting an open position online. There are many dimensions of e-recruitment that impact the effective of the approach. A successful e-recruiting process includes the ability to attract qualified talent, select the best candidates based on valid, reliable criteria, and track progress for reporting. But a key component of e-recruitment is the interaction between the job seeker and the organization's recruitment website (Kerrin & Kettley, 2003).

Numerous studies since 2000 have investigated e-recruiting strategies adopted by organizations to improve recruitment outcomes. The studies were broken down primarily based on their focus on applicant perception versus applicant behavior. However, many studies attempted to investigate both perception and behavior to provide a full view of the candidate's experience engaging with an organization's recruitment website. Applicant perception was broken down into three categories: fairness, organizational attractiveness, and organizational culture.

Searle (2003) concluded that transparency in the e-recruiting process is critical as it influences applicants' perceptions of organizational justice. This may require more research on distributive and procedural justice to better improve the fairness and perception of fairness by job seekers. Thielsch, Traumer, and Pytlik (2012) attempt to better understand applicant perception of procedural justice throughout the e-recruiting process. Feedback was revealed to be a critical factor regarding if applicants perceived the e-recruiting process to be fair or not.

Organizational attractiveness was found to be a significant indicator of job seekers intentions to pursue employment. Williamson, Lepak, and King (2003) found that website orientation and outcome expectancy influenced applicants' perceptions of organizational attractiveness through perception of usability. Ehrhart, Mayer, and Ziegert (2012) further investigating the relationship between usability and organizational attractiveness. The research found that the organization's recruitment website usability correlated with organizational attraction to Millennial applicants.

Recruitment websites provide organizations with an opportunity to develop a desirable employer brand that can be used to increase applicant attraction. Braddy, Meade, and Kroustalis (2006) found that website design features, organizational policy content, and specific references to the organization's culture impacted applicant perception of organizational culture. Braddy et al. (2009) found that job seekers with a strong cultural preference developed desirable PO fit perceptions.

Applicant behavior encompass intentions to pursue employment with the hiring organizations after interacting with the recruitment website. Applicant behaviors include any actions taken when trying to find employment. Zielinski (2016) indicated that online application abandonment has negatively impacted recruitment, revealing that nearly half of applicants do not complete the job application. Khan, Awang, and Ghouri (2013) found that e-recruiting resources and significance of the open position effect the applicant's intention to pursue employment. Borstorff, Marker, and Bennett (2007) found that applicant behavior differs based on demographics, showing that race and citizenship effected the frequency in which job seekers would search for jobs online.

Chapter 3 outlines the current study's research design to address the research questions posed. The meta-analytic review was examined, addressing its advantages, disadvantages, and application in the current study. The chapter describes the data collection and statistical analysis approach. Additionally, the inclusion criteria process was defined. Chapter 4 presents the results of the data analysis. It is comprised of information on the study characteristics and the results of both the hypothesis and exploratory analyses. Chapter 5 provides a summarization of the finding and discusses

the limitations of the study, describing recommendations for future research. Lastly, it reviews the implications for positive social change.

Chapter 3: Research Method

Introduction

The purpose of this study was to collect recent literature related to applicant UX when interacting with an organization's e-recruitment website to determine if a relationship exists between the independent variable applicant UX and dependent variables applicant perception and behavior. The research design selected for the current study was a quantitative meta-analytic review. A meta-analysis is an effective approach to merge findings of related independent studies for further assessment, quantification, and review (Crombie & Davies, 2009). This makes it an appropriate design for determining the relationship between an applicant's UX and their perception and behavior. Chapter 3 discussed the history, advantages, disadvantages, and rationale for the use of a meta-analytic review. The chapter also discussed the literature selection criteria for the current meta-analysis, the process for data collection, and the use of statistical software for data analysis. Finally, ethical considerations were discussed.

Research Design and Rationale

Meta-Analysis

A meta-analytic review is a statistical approach that combines the research findings of several independent studies (Crombie & Davies, 2009). Rather than collecting and analyzing new data from research subjects, a meta-analysis is used to review individual studies as the subject. Despite the variance in research subject, a meta-analysis follows a similar chronological process as original studies. In addition, the power analysis for a meta-analysis can be conducted either retrospectively or prospectively the same as a

statistical power analysis performed in original studies (Valentine, Pigott, & Rothstein, 2010). Lastly, a meta-analytic review follows a similar process of that of an original study, including developing one or more research questions, collecting data based on inclusion and exclusion criteria, and analyzing the data.

History of the meta-analytic review. By the mid-20th century, the volume of research had exponentially increased (O'Rourke, 2007). Due to increases in research being conducted, a need for a process of synthesizing results arose. Social scientists and statisticians decided to develop a method of analysis to quantitatively summarize data from similar studies. According to Garvey and Griffith (1971), researchers were overloaded with scientific information to the point that it was difficult to keep track and assimilate all the findings being produced. Glass (1976) created the term *meta-analysis* to refer to the process of statistically analyzing large collections of analyses results from original studies to combine and integrate findings. Though the design was used occasionally by medical researchers, meta-analyses did not become more popular until the 1970s (O'Rourke, 2007).

Considered one of the earliest meta-analyses conducted, Pearson (1904) used the research design to investigate the effectiveness of a vaccine against typhoid. Calculating the tetrachoric correlation between the variables and averaging the results, Pearson was able to determine the mean value of the coefficients across multiple studies. Another influential study in meta-analyses was conducted by Elwood et al. (1974), who investigated aspirin's effect on the reduction of heart attacks. Their findings suggested that aspirin could provide benefits regarding heart attack reduction, but statistically, the

conclusions were not strongly supported. To strengthen the obtained findings, Elwood (2004) conducted a meta-analysis of the findings of the study and additional trials that had been performed, thus proving, with greater statistical strength, that aspirin could be used to reduce the occurrence of heart attacks. From the publication of Elwood et al.'s (1974) study, clinicians and researchers were encouraged to conduct meta-analyses, reviewing randomized trials systematically and merging estimates of the effects of treatments (Yusuf, Peto, Lewis, Collins, & Sleight, 1985).

Researchers have continued to use meta-analyses to examine the clinical effectiveness of various interventions in health care (Crombie & Davies, 2009). In many medical journals today, it is common to find several trials in which researchers have tried to answer research questions regarding clinical effectiveness. Meta-analyses have enabled the health care field to investigate these trials and provide a precise estimate of treatment effect (Crombie & Davies, 2009).

Advantages. Meta-analyses provide several benefits to researchers when used under the right circumstances and conditions. Crombie and Davies (2009) identified precision and reduction in biases as some key advantages for the research design. First, meta-analyses provide precision in the estimation of effect sizes because the accuracy of estimating the size of the effect is highly dependent on the sample size. Second, meta-analyses merge the findings of several independent studies, increasing the sample size and power to detect a smaller effect. And, finally, meta-analyses address biases associated with narrative reviews. A meta-analysis allows researchers the opportunity to statistically merge and critically evaluate the results of comparable studies to increase

statistical power and improve the estimates of effect, making it superior to narrative reports for systematic reviews (Fagard, Staessen, & Thijs, 1996).

In narrative reviews, only a portion of relevant studies are included, with more favorable literature being added more frequently compared to literature with results that are not desirable or found no statistically significant differences (Fagard et al., 1996). An informal, unsystematic synthesis could be affected by subjectivity. A systematic, more objective meta-analytic review can surmount these obstacles and offer a synthesis that is less impacted by bias (Fagard et al., 1996).

Disadvantages. Although meta-analyses have increasingly been used to evaluate the large collection of studies constantly being conducted, a deeper examination into the design is needed to ensure it is an appropriate review to address research questions (Crombie & Davies, 2009). Walker, Hernandez, and Kattan (2008) discussed the many limitations of a meta-analytic review to assist researchers in examining the merits of the design and its findings. Specifically, the authors discussed four critical issues in the meta-analysis design process: selection of studies to be included in the review, heterogeneity of the findings, and the availability of information.

The findings and conclusions drawn from a meta-analysis are directly influenced by the studies included in the review (Walker et al., 2008). The first stage in the selection process is through a literature search, identifying potential studies. The second stage is defining selection criteria to include or exclude from the list of studies. During these stages, biases can impact the results of the final list, including (a) publication bias, caused by the occurrence of selective publication in which studies with positive results are

published in journals more often than those that do not; (b) search bias, wherein the researchers use certain keywords and search engines over others; and (c) selection bias, the researcher may eliminate studies from the list based on a subjective review of its relevance to the topic of the meta-analysis. Small violations of systematic rules and occurrences of biases in the selection process of a meta-analysis can lead to misleading research results (Walker et al., 2008).

According to Sedgwick (2015) the heterogeneity of a meta-analysis refers to the degree to which the individual studies' findings are different. Some disparities in the studies' findings are caused by inherent variances. But as heterogeneity increases, the rationale behind combining the results becomes more challenging. If studies included in the meta-analysis have effects that fall on opposite ends of the reference line, it signifies that the studies have high heterogeneity (Walker et al., 2008). This contradiction can cause the findings and conclusions of the meta-analysis to be compromised.

Many research reports only include summaries of the results (Walker et al., 2008). The details of the findings may include standard deviations, odds ratios, relative risks, means, and proportions. Thus, the lack of access to findings data can be a severe limitation on the kind of analysis that can be conducted and conclusions that can be drawn in a meta-analysis (Walker et al., 2008).

Research Questions and Hypotheses

Research questions formulated the objectives of the current meta-analysis. The research questions investigated in the study are as follows:

RQ1: Based on the meta-analysis of selected research from the available literature on the relationship between applicant UX and perception of an organization's e-recruitment website, is there a significant multistudy estimated effect size?

$H_0$1: There is no significant multistudy estimated effect size for the relationship between applicant UX and perception of an organization's e-recruitment website.

H_a1: There is a significant multistudy estimated effect size for the relationship between applicant UX and perception of an organization's e-recruitment website.

RQ2: Based on the meta-analysis of selected research from the available literature on the relationship between applicant UX and behaviors when interacting with an organization's e-recruitment website, is there a significant multistudy estimated effect size?

$H_0$2: There is no significant multistudy estimated effect size for the relationship between applicant UX and behaviors when interacting with an organization's e-recruitment website.

H_a2: There is a significant multistudy estimated effect size for the relationship between applicant UX and behaviors when interacting with an organization's e-recruitment website.

The current study adapted the TAM in e-Recruitment context developed by Monavarian et al. (2010) which was used to determine factors that influenced job seekers' behavioral intentions when interacting with an organization's e-recruitment website. The current model focused on the impact of PEOU on both job seeker behavioral intentions and perceptions of the hiring organization in the context of e-

recruitment applicant UX. Measures for PEOU were usability, accessibility, user-friendliness, and navigation. Measures for applicant perception included organizational justice, organizational culture, and organizational attractiveness. Lastly, the measure for behavioral intention was online application completion. RQ1 examined the relationship between PEOU, used to assess applicant UX, and an applicant's perception of the hiring organization. RQ2 examined the relationship between PEOU, used to assess applicant UX, and the applicant's behavioral intention to pursue employment with the hiring organization. The remaining TAM components fell outside of the scope of the current study.

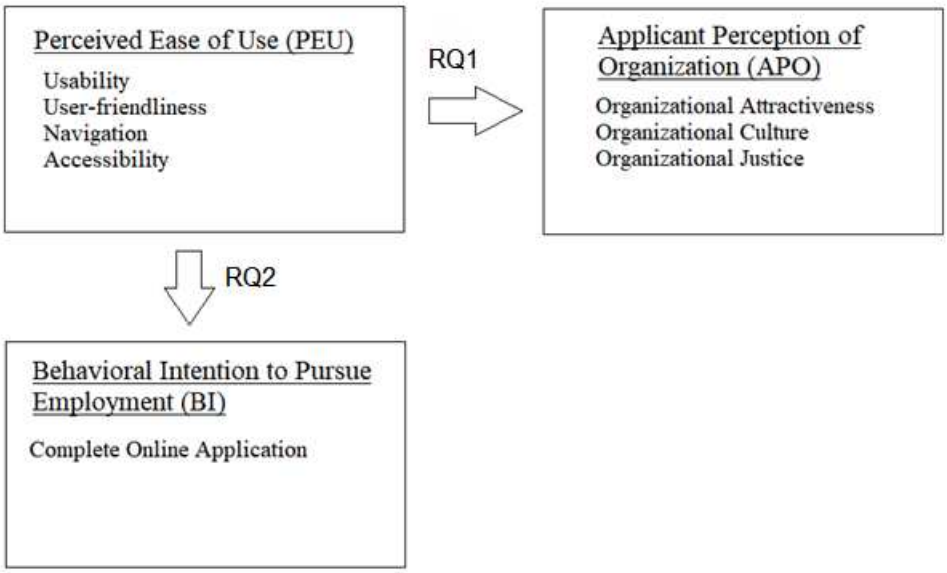

Figure 2. Research questions in relation to TAM adapted for e-recruitment. Adapted from A. Monavarian, K. Kashi, and H. Ramin-mehr, 2010, "Applying Technology Acceptance Model to E-recruitment Context," Ecommerce Conference, January 1, 2010, France.

Methodology

Data Collection

Meta-analyses supply researchers with the ability to identify the variances and means that underlie population effects (Walker et al, 2008). For the current study, a meta-analytic review allowed for a deeper understanding of the variability in effects across different e-recruitment usability studies. The synthesis provided a summary estimate of the effect size of the individual studies, examining the heterogeneity between the findings. The effect size is the standardized measure of the observed effect's magnitude (Cheung, Ho, Lim, & Mak, 2012). Through the inclusion of relevant, credible studies and the effective coding and conversion of data into appropriate effect sizes, the current study was able to answer the research questions asking if relationships between the independent

variable applicant UX when engaging with an organization's e-recruitment website and the dependent variables applicant perception and behavior exist.

A systematic literature search strategy was conducted as described in Chapter 2. Literature searches were conducted on various instances throughout the research process to verify the most current literature were included in the review. During a literature search using an online journal database, the search will likely yield thousands of results of studies that have been published (Richardson, 2014). To decrease the effect of publication bias, and obtain a more representative sample, attempts were made to gather unpublished studies. To do so, messages were sent out via email and LinkedIn to twenty-three researchers in the field who have investigated e-Recruitment through the lens of UX requesting that they provide unpublished findings. Additionally, a Research Gate account was created to receive email notifications of new and recommended articles that were reviewed to determine their relevance to the current study.

Subject studies that were found to meet inclusion criteria for the current study were recorded in a meta-analytic spreadsheet using Excel. According to Berman and Parker (2002), it is critical that data be documented in a formal way to record all relevant information appropriately. A funnel plot was used to evaluate literature based on the clustering and symmetry of the studies (Rothstein, Sutton, & Borenstein, 2005).

Internal validity was considered throughout the research process as it directly impacted the overall validity of the meta-analysis (Richardson, 2014). According to Sathian, Sreedharan, Ahmad, Joy, Baboo, Dixit, and Devkota (2009), the validity of a meta-analysis can never be greater than the validity of the original studies is includes in

its review. According to Card (2012), significant factors in an effective coding process is replicability, reliability, and transparency. It is important that future researchers are able to understand the coding system and, in theory, be able to reach the same conclusions as well. To ensure objectivity and consistency in coding, a coding manual was developed (see Appendix B). To measure validity and reliability, the coding process was repeated using a test-retest procedure for reliability and a systematic examination was conducted for validity. The coding sheets and manual used in the study was based on published examples (Littell et al, 2008; Lipsey & Wilson, 2001). The subject studies in the current meta-analysis were coded only by the investigator (Diem J. Mooney).

Data Analysis

Hypothesis testing. The research questions were address through testing the associated hypotheses. The hypotheses in the current study relate to relationships between the independent variable, applicant UX encompassed usability, accessibility, user-friendliness, and navigation, and the dependent variables. Applicant perception included organizational culture, justice, and attractiveness. Applicant behavior entailed intentions to pursue employment and application completion. The Pearson product-moment correlation coefficient (*r*), an effect size measurement often used in meta-analyses, was adopted to report on the connections and covariations among the variables (Lipsey & Wilson, 2001). Correlation coefficients are commonly reported statistics in studies. Thus, used in meta-analyses as the measure can be found easily identified in subject studies. For the current study, the variables under investigation were continuous variables. Therefore, the *r* statistic was an applicable effect size statistic (Rosenthal, 1994). The

variables may be operationalized differently across independent studies. But the *r* statistic is a standard index that can be utilized in raw form despite the various operationalization of variables (Lipsey & Wilson, 2001).

To appropriately use the *r* statistic as an effect size in a meta-analytic review, it must be converted to the Fisher's *z* scale and odds ratios should be converted by taking the natural logarithm (Rosenthal, 1994; Borenstein, 2009; Lipsey & Wilson, 2001). To calculate mean effect, the effect sizes were weighted by their inverse variance weight. Then, after data was converted, data was examined for outliers. However, if the study supports the computation of extreme effect sizes, that particular outlier remained included in the analysis (Borenstein, 2009). A *Q* statistic was calculated to ensure the data met homogeneity expectations.

Random effect model. There are two main approaches to analyzing data in a meta-analysis: random effect and fixed effect (Walker, Hernandez, & Kattan, 2008). The random-effect model assumes that the treatment effect is not consistent among the studies. Thus, the goal being to find the average effect across all of the studies. All effect sizes are represented in the summary estimate (Borenstein, Hedges, Higgins, & Rothstein, 2009). While the fixed-effect model assumes that the treatment effect is consistent among the studies. However, the effect is unknown. Therefore, the goal is to estimate the effect with more precision than the effects found in the original studies. Though the random-effect model is often preferable, both models have pros and cons. When the effect is large, both models yield similar results. But, when the effect is small

or when heterogeneity is high, the meta-analysis findings is highly dependent on the model selected.

The current study used the random-effects analysis model as variances among measurements will provide information regarding the larger population. In contrast, variances identified using the fixed-effects model only provide inferences about the specific subject pool from which the sample was drawn from (Borenstein et al., 2009). There was no reason to assume homogeneity among the effect sizes of the independent subject studies. According to Lipsey and Wilson (2001), when studies included in the meta-analysis represent a diverse population within a common effect size, the more appropriate method to use is the random effect model. Borenstein et al. (2009). The random effect model balances sampling error and random variability within undetermined origins that are assumed to exist among various populations in the studies included in the meta-analysis. In the personnel selection and e-Recruitment literature, there is no reason to assume that there was an underlying true effect size. In addition, the populations investigated in the original studies were diverse as the populations pertain to active and potential job seekers. Thus, the random effect model was most appropriate to use in this study.

Exploratory Analysis

Due to the heterogeneity of effect sizes, a post-hoc analysis was useful in increasing the understanding variables that account for the variations. According to Lipsey and Wilson (2009), if the random variation components in effect size is substantial in comparison to the sampling error, this may indicate a systematic variance

across the studies that have not been identified in existing literature. Thus, reviewing the variables coded for significant differences and clustering studies based on similarities will allow for future research to conduct studies grouped by the identified categories, determining if homogeneity of effect sizes exist.

Computer software. Data was pulled from published and unpublished studies. Then, for analysis, the data was entered into Statistical Package for the Social Sciences (SPSS) for Windows. SPSS is a statistical analysis software program that is used to simplify complicated quantitative analyses, often used in behavioral science fields (IBM, 2010; Landau & Everitt, 2003). SPSS is an effective tool to conduct statistical analyses for meta-analyses and has been selected for usage in numerous studies. For example, Dierckx, Heijnen, van den Broek, and Birkenhager (2012) used SPSS for Windows during their meta-analytic review investigating the efficacy of electroconvulsive therapy in bipolar versus unipolar major depression. Another study that used SPSS was conducted by Hazell, Hayward, Cavanagh, and Strauss (2016) to perform a systematic review and meta-analysis on low intensity CBT for psychosis.

Sample Size

The sample for the current study consists of a list of independent studies (see Appendix A). The populations and settings of these articles were analyzed and reported in Chapter 4. Initial estimates on the number of studies to be included in the current meta-analysis were 10-15. This estimation was based on a meta-analysis conducted by Giumetti and Brown (2009). The current study covered a 10-year period, from 2009 to 2019 and anticipated the inclusion of a similar number of studies in the meta-analysis.

There was no direct human subject, confidential, or protected research data available in the current study. All data analyzed was published and presented final results provided by the authors. Because of the nature of publicly available data and complete lack of human subjects, there was no apparent ethical concerns about participants in this study.

Inclusion Criteria

A significant threat to the validity of a meta-analysis is the 'apples and oranges' concerns as it effects the external and construct validity of the study (Richardson, 2014). Meta-analyses can include studies that manipulate variables in various manners and investigate various subject populations. To reduce the effects of apples-and-oranges study comparisons, a meta-analysis should narrow its research domain by determining the most appropriate group of relevant studies to include in the review. The issue can be resolved by adopting a specific inclusion and exclusion criteria during data collection (Sharpe, 1997). The current meta-analysis investigated the relationships between applicant UX when interacting with an organization's e-recruitment website and applicant perception and behavior. In Chapter 2, a gap in literature was identified as no meta-analytic review had been conducted on the relationship between 2009 and 2019. Seven data attributes were used as inclusion criteria based on their relevance to the current study:

1. At least one independent variable has to be a form of UX (usability, navigation, user-friendliness, or accessibility) and at least one dependent variable has to be organizational attractiveness OR

2. At least one independent variable has to be a form of UX (usability, navigation, user-friendliness, or accessibility) and at least one dependent variable has to be organizational justice OR
3. At least one independent variable has to be a form of UX (usability, navigation, user-friendliness, or accessibility) and at least one dependent variable has to be organizational culture OR
4. At least one independent variable has to be a form of UX (usability, navigation, user-friendliness, or accessibility) and at least one dependent variable has to be intentions to pursue employment OR
5. At least one independent variable has to be a form of UX (usability, navigation, user-friendliness, or accessibility) and at least one dependent variable has to be application completion or withdrawal.
6. The samples in all studies are independent. If more than one study referenced the same sample, only one will be included.
7. Effect size statistics or other relevant data such as standard deviations and means must be included in results to allow for calculations and conversions to the r statistic.

If studies met Criteria 1-6, but is missing Criteria 7, two attempts were made to reach out to the authors, if contact information was provided, to gather the information required for inclusion in the current study. Abiding by the inclusion criteria systematically allowed for a comprehensive, consistent review of existing literature, ensuring all eligible studies were included. Inclusion criteria and percentages of subject

studies that were excluded from the current study was documented and reported in Chapter 4. According to Ellis (2010), excluding studies with weaker quality can negatively impact the meta-analysis as it establishes reviewer bias. Reviewer bias is a type of scientific censorship that disregards the facts that all studies have faults and weaknesses. The more data that is analyzed, the more accurate the meta-analysis results will be (Ellis, 2010).

Ethical Statement

Based on a review of The American Psychological Association's (APA) *Ethical Principles of Psychologists and Code of Conduct* (2010), many of the principles outlined did not apply to the current study. The general principles that did apply to meta-analytic reviews include integrity and responsibility. More specifically, in meta-analysis studies, ethical considerations must be given to the reporting of research findings as to not fabricate the data and results. Errors in the data, once identified, must be corrected. In addition, caution must be given to ensure plagiarism is avoided and all sources are properly recognized and cited. Lastly, findings should not be censored or withheld from those who wish to review and validate the results. The current study did not include any ethical implications concerning storage, access, confidentiality, or protection of data due to the information used in the meta-analysis being gathered from studies that have already been made public. However, Walden University requires students to submit an application through the Institutional Review Board (IRB) for approval for meta-analyses. Therefore, IRB approval was received (02-21-20-0507146).

Summary and Transition

Chapter 3 discussed the methodology selected for the current study, a quantitative meta-analytic review of both published and unpublished quantitative studies that investigated the relationships between applicant UX and applicant perception and behavior. The chapter began by reviewing the history, advantages, and disadvantages of the methodology. The research questions and hypotheses are then outlined. The random effect model was discussed as being appropriate to use to analyze the study's results. Chapter 3 continued by describing the data collection and analysis approaches for this study, reviewing the potential procedures for literature selection and an examination of effect. Inclusion criteria were described. Finally, ethical considerations were provided.

Chapter 4 presents the results of the data analysis. It is comprised of information on the study characteristics and the results of both the hypothesis and exploratory analyses. The study characteristics include a review of the articles that were included or excluded from the meta-analysis as well as the instruments used in each of the included studies. The hypothesis analysis reviews the results of the tests ran for Research Question 1 and 2. The exploratory analysis outlines the findings of the post-hoc analyses conducted for subsets of included studies. Chapter 5 provides a summarization of the finding and discusses the limitations of the study, describing recommendations for future research. Lastly, it reviews the implications for positive social change.

Chapter 4: Results

Introduction

In a meta-analysis, studies meeting inclusion criteria serve as the unit of analysis. The individual participants included in each independent study were combined and make up the meta-analysis sample. Thus, recruitment and response rates were not considerations for meta-analytic reviews. The current study intentionally did not include restrictions on population or demographics to be as inclusive as possible. The results of the current meta-analytic review of applicant UX and applicant perception and behavior will be presented in this chapter. The purpose of the current study was to examine the relationship between applicant UX when interacting with an organization's e-recruitment website and applicant perception of the hiring organization and behavior related to pursuing employment, determining if a significant multistudy estimated effect size existed among studies conducted between 2009 and 2019.

Literature Search Results

The literature searches were conducted on November 21, 2019; December 20, 2019; February 21, 2020; and February 25, 2020. The keywords searched were *usability, candidate experience, website attractiveness, user experience (UX), candidate experience, e-recruitment,* and *recruitment website,* in the databases PsychINFO, PsychARTICLES, Computers & Applied Sciences Complete, Expanding Academic ASAP, Emerald Insight, ScienceDirect Subject Collections – Computer Science, ScienceDirect Subject Collections – Psychology, and ScienceDirect Subject Collections – Social Sciences. Additionally, bibliographies and reference sections of applicable studies

were reviewed to find possible studies to add. The publication date range for each search was 2009 to 2019.

To gather unpublished or in-press research, a search was conducted using SIOP and the Academy of Management annual conference programs using the keyword search terms listed above. No articles from SIOP or the Academy of Management annual conference programs were considered for the current study. In addition, two articles recommended through a Research Gate account were examined to determine if they met the inclusion criteria. Both articles were also found in the PsychINFO database as well. Lastly, 23 researchers via LinkedIn, who authored related articles to request unpublished studies relevant to the current meta-analysis. As of March 11, 2019, eight researchers responded on LinkedIn to the inquiry. None of the researchers provided unpublished articles to be considered for the study. Table 1 presents the results of the literature review broken down by date range searched, databases searched, search terms used, and the total number of reviewed abstracts by search term.

Table 1

Literature Review Results Covering 2009-2019

Databases	Search terms	Abstracts
PsychINFO	Usability and e-recruitment	34
PsychARTICLES	Candidate experience and recruitment	5
Computers & Applied Sciences Complete	Recruitment website and candidate experience	27
Expanding Academic ASAP	E-recruitment and website attractiveness	1
Emerald Insight	Organizational attractiveness and e-recruitment	3
ScienceDirect Subject Collections – Computer Science	E-recruitment and user experience	7
ScienceDirect Subject Collections – Psychology	Website attractiveness and candidate experience	16
ScienceDirect Subject Collections – Social Sciences	Recruitment website and usability	12
	Total:	105

Studies in which researchers reported findings using multivariate regressions, structural equation modeling, discriminant analyses, factor analyses, or other multivariate approaches were not considered, as effect size calculations for these statistical techniques are challenging and do not provide appropriate representation of the study's results in a meta-analysis (Lipsey & Wilson, 2001). After an initial review, 41 studies were identified as candidates to include in this meta-analysis. To be compared, applicant experience had to have been measured on a continuous scale. Each selected study must have met the inclusion criteria and possessed enough data to calculate standardized mean differences and effect sizes.

Intrarater Reliability

As discussed in Chapter 3, when reviewing data collection procedures, coding was used during the study selection process. Study IDs were assigned to each study and a

pilot coding session was conducted. The following day, a second coding session was conducted. The agreement rate for the pilot and second round coding sessions was 100%. Despite the high agreement rate, several updates were made to the coding manual to facilitate a more efficient data collection process. For example, there was an apparent need to document the journals that the studies were published in in addition to the database where the study was found. This data attribute was then added to the coding manual.

Study Characteristics

A review was conducted on February 25, 2020, to further analyze the 41 candidate studies for inclusion into the current meta-analysis. The studies were coded based on a coding manual (see Appendix B). After further review and coding, 13 candidate studies were included in the meta-analysis: eight studies for Research Question 1 and six studies for Research Question 2, with one study used for both research questions. Each study was assigned a Study ID. *A* represents studies in Research Question 1, and *B* represents studies in Research Question 2. Several study characteristics were documented (see Table 2): authors, journal, independent variable, dependent variable, sample size, response rate, and data source.

Table 2

Study Characteristics

ID	Authors and year	Journal	Independent variable	Dependent variable	E	Response rate	Data source
A4	Ehrhart et al., 2012	*European Journal of Work and Organizational Psychology*	Usability	Organizational attraction	493	–	Survey
A9	Pfieffelmann et al., 2010	*International Journal of Selection and Assessment*	Usability	Organizational attraction	120	86.95	Survey
A12	Sylva & Mol, 2009	*International Journal of Selection and Assessment*	User friendliness	Organizational justice	1325	24	Questionnaire
A15	Teoh et al., 2013	*Asian Academy of Management Journal*	User friendliness	Organizational attraction	250	83.33	Questionnaire
A17	De Geode et al., 2011	*International Journal of Selection and Assessment*	Usability	Organizational attraction	80	–	Survey
A19	RoyChowdhury & Srimannarayana, 2013	*Management and Labour Studies*	User friendliness	Organizational justice	133	55.4	Questionnaire
A25	Howardson & Behrend, 2014	*Computers in Human Behavior*	Usability	Organizational attraction	354	–	Survey
A26	Chen et al., 2012	*International Journal of Human Resource Management*	Usability	Organizational attraction	332	–	Questionnaire
B1	Allen et al., 2013	*Journal of Business and Psychology*	Usability	Intention to pursue employment	26	100	Eye Tracking
B7	Moghaddam et al., 2015	*Journal for Global Business Advancement*	Navigation	Intention to pursue employment	232	–	Questionnaire
B10	Selden & Orenstein, 2011	*International Journal of Selection and Assessment*	Usability	Job application completion	42	84	Survey
B14	Kashi & Zheng, 2013	*International Journal of Selection and Assessment*	Usability	Intention to pursue employment	332	78.85	Questionnaire
B16	Brahmana & Brahmana, 2013	*Asian Journal of Business and Management*	Usability	Intention to pursue employment	281	–	Survey
AB1	Banerjee & Gupta, 2019	*Australian Journal of Information Systems*	User friendliness	Organizational attraction; intention to pursue employment	361	–	Survey

Research Question 1: Applicant Perception

A total of 3,448 participants in the eight included studies comprise the sample size for addressing RQ1: Based on the meta-analysis of selected research from the available literature on the relationship between applicant UX and their perception of an organization's e-recruitment website, is there a significant multistudy estimated effect size? The individual studies' variables, sample sizes, response rates, and data sources are displayed in Table 2. The included studies were all published journal articles. Years of publication ranged from 2009 to 2019. Fifty-six percent of the samples used in the subject studies included undergraduate, graduate, and postgraduate students as participants. The other 44% of the studies recruited job seekers for their samples. Thirty-three percent of the studies were conducted in the United States. Other countries were Malaysia, India, the Netherlands, Taiwan, Australia, and the United Kingdom. Data in 100% of the studies were self-reported through questionnaires and surveys.

Research Question 2: Applicant Behavior

A total of 1,274 participants in the six included studies comprise the sample size for addressing RQ2: Based on the meta-analysis of selected research from the available literature on the relationship between applicant UX and their behaviors when interacting with an organization's e-recruitment website, is there a significant multistudy estimated effect size? The individual studies' variables, sample sizes, response rates, and data sources are displayed in Table 2. The included studies were all published journal articles. Years of publication ranged from 2011 to 2019. Half (50%) of the subject studies recruited undergraduate and graduate students to participate in their studies. The

remaining subject studies included job seekers in their samples. Half (50%) of the studies were conducted in the United States. Other countries included were Malaysia, Iran, and Australia. Data in 83% of the studies were self-reported through questionnaires and surveys; 17% included data from an eye-tracking evaluation.

Excluded Candidate Studies

Of the initial 41 candidate studies identified, several in both RQ1 and RQ2 did not meet enough of the inclusion criteria to be included during the final round of selection. 28 studies were excluded due to being unsuitable for comparison or were found to be missing data. Reasons for exclusion included: five studies for not providing effect or data to calculate, one study for being a duplicate sample, 15 studies for not including an applicant experience measure, six studies for having applicant experience measures that were not close enough for comparison, and one study for not having applicant perception or behavior variable. The breakdown for exclusion for each research question is reported in Table 3.

Table 3

Number of Candidate Studies Excluded by Reason

	Duplicate sample	Applicant UX not measured	Perception or behavior variables not measured	Applicant experience not equivalent	Insufficient data for effect size
RQ1	1	8	1	4	2
RQ2	0	7	0	2	3

Examples of excluded studies are as follows: Awang (2013), Kuppusamy and Ganesan (2016), Allen et al. (2013), and Madera (2012). The studies by Awang (2013) and Allen et al. (2013) were excluded because the applicant UX measures were not close

enough to the current meta-analysis for comparison. The study conducted by Madera (2012) did not include an applicant UX measure at all. Kuppusamy and Ganesan (2016) examined applicant UX but did not include applicant perception or behavior variables.

Instrumentation

Applicant Perception

The studies included in Research Question 1 used both published and original instruments to measure applicant perception. Applicant perception included organizational justice, attraction, and culture variables. De Goede et al. (2013) adopted cultural perspective attributes from the Organizational Culture Profile (O'Reilly et al., 1991). Ehrhart et al. (2012) used the Elaboration Likelihood model as a framework to evaluate organizational attractiveness and measured the variable with test items adapted from Turban and Keon (1993). Banerjee and Gupta (2019), RoyChowdhury and Srimannarayana (2013), Howardson and Behrend (2014), and Pfieffelmann et al. (2010) developed an instrument based on Highhouse, Lievens, and Sinar (2003) to measure organizational justice and attractiveness. Sylva and Mol (2009) used items from Lieven et al. (2003) and Steiner and Gilliland (1996) to measure organizational justice perceptions. Teoh et al. (2013) modified items from Birgelen et al. (2008) to measure organizational attractiveness. Chen et al. (2012) used the 9-item scale from Hu et al. (2007) to measure organizational attractiveness.

Applicant Behavior

The studies included in Research Question 2 used both published and original instruments to measure applicant behavior. Applicant behavior included intentions to

pursue employment with the hiring organization and application completion. Brahmana and Brahmana (2013) and Kashi and Zheng (2013) developed instruments based on the Theory of TAM (Davis, 1989). The dimensions of the model include Perceived Ease of Use which aligns with usability and Intentions to Use which aligns with behaviors and intentions related to pursuing employment with the hiring organization. Moghaddam et al. (2015) adopted five items from previous studies (Zhou, 2012; Revels et al., 2010; Shin et al., 2013) to measure behavioral intentions. To assess attraction, Allen et al. (2013) examined changes in pupil diameter between fixation while the participant was engaging with the recruitment website. Selden and Orenstein (2011) used Weller et al. (2009) to measure application completion. Banerjee and Gupta (2019) used a scale developed by van Birgelen, Wetzels, and van Dolen (2008) to measure intention to pursue employment.

Applicant Experience

Among the included studies, different instruments were utilized to measure applicant experience. As discussed in Chapter 2, applicant experience includes UX metrics usability, navigation, user-friendliness, and accessibility. In Research Question 1, studies used the following instruments to measure applicant experience: perceived usability was measured based on an instrument developed by Cober et al. (2003) and Cober et al. (2004). In Research Question 2, studies used the following instruments to measure applicant experience: Theory of TAM for usability, test items from Shin et al. (2013) for ease of navigation, and user-friendliness measures from Sinar et al. (2003) and Birgelen et al. (2008). The use of varying instruments to measure applicant experience is a notable limitation to the current meta-analysis. Though this limitation is discussed in

Chapter 5 as a potential area for future research, combining the studies is still applicable due to the similarity in the studies underline frameworks.

Test of Heterogeneity

The heterogeneity of effect for the studies hypotheses were tested using the *Q* statistic. It was assumed that there would be heterogeneity of effects since there was no evidence in research to suggest homogeneity. To test this assumption, *Q* statistics was used to determine if a fixed or random model would be most appropriate for the current study. For Research Question 1, the *Q* statistic was 76.331, $p < .05$. For Research Question 2, the *Q* statistic was 272.664, $p < .05$. Both values showed high significance, suggesting a heterogenous distribution of effects according to Lipsey and Wilson (2001). Therefore, a random effect model was used for both hypotheses.

Results

Two research questions were investigated in the current study. Research Question 1 asks, based on the meta-analysis of selected research from the available literature on the relationship between applicant UX and their perception of an organization's e-recruitment website, is there a significant multistudy estimated effect size? With the null hypothesis being that there is no significant multistudy estimated effect size for the relationship between applicant UX and their perception of an organization's e-recruitment website. Research Question 2 asks, based on the meta-analysis of selected research from the available literature on the relationship between applicant UX and their behaviors when interacting with an organization's e-recruitment website, is there a significant multistudy estimated effect size? With the null hypothesis being that there is

no significant multistudy estimated effect size for the relationship between applicant UX and their behaviors when interacting with an organization's e-recruitment website.

Research Question 1: Applicant Perception

Reported findings for each included independent study for Research Question 1 was summarized. Table 5 presents the correlation coefficient, sample size, mean, standard deviation, standard effect, and Fischer's z for each study. It also identifies the specific measure used in the study to investigate the relationship between applicant UX and their perception of the hiring organization.

Table 4

Summary of Applicant Perception Articles Used for Analysis

ID	Authors	Dependent variable	r	N	M	SD	SE	Fischer's (z)
A4	Ehrhart et al., 2012	Organizational attraction	.24	493	4.89	1.25	.043	.245
A9	Pfieffelmann et al., 2010	Organizational attraction	.16	120	4.40	1.46	.09	.161
A12	Sylva & Mol, 2009	Organizational justice	.47	1325	4.99	1.27	.021	.510
A15	Teoh et al., 2013	Organizational attraction	.648	250	4.34	.99	.037	.772
A17	De Geode et al., 2011	Organizational attraction	.58	80	2.95	1.07	.076	.662
A25	Howardson & Behrend, 2014	Organizational attraction	.56	354	4.57	1.23	.037	.633
A26	Chen et al., 2012	Organizational attraction	.42	332	4.09	0.65	.045	.448
AB1	Banerjee & Gupta, 2019	Organizational attraction	.356	361	3.79	.91	.046	.372

Figure 3 presents the forest plot of distribution for the studies included in the synthesis for Research Question 1. Based on the results, it was determined that there were no outliers that needed to be removed from the synthesis. Therefore, all eight studies were included in the analysis for Research Question 1.

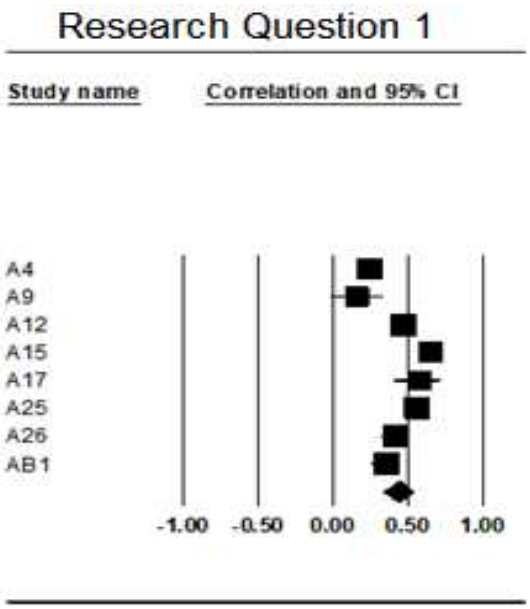

Figure 3. Research Question 1 study correlations and 95% confidence interval.

In accordance with the Lipsey and Wilson approach for random effects models, the weighted average effect size for Research Question 1, applicant experience and applicant perception, as presented in Table 6 was r^*=0.441 (SE=0.019), with a significant z score (z = 7.565, p <.05). According to Cohen (1988), this is a 'medium to large' effect as 0.3 is defined as a medium effect while 0.5 is defined as being a large effect for correlations.

Table 5

Effect of Applicant Experience on Applicant Perception

	r*	LL-UL	p value	z value
RQ 1	0.441	0.337-0.535	0.001	7.565

Note. Where r* is the weighted synthesized correlation, LL and UL are the lower and upper limits of 95% confidence interval; direct reports are the set of studies where all averaged subscale values were removed and only directly reported correlations are included.

Research Question 2: Applicant Behavior

Reported findings for each included independent study for Research Question 2 was summarized. Table 7 presents the correlation coefficient, sample size, mean, standard deviation, standard effect, and Fischer's z for each study. It also identifies the specific measure used in the study to investigate the relationship between applicant UX and their behavior related to pursuing employment with the hiring organization.

Table 6

Summary of Applicant Behavior Articles Used for Analysis

ID	Authors	Dependent variable	r	N	M	SD	SE	Fischer's (z)
B1	Allen et al., 2013	Intention to pursue employment	.22	26	–	–	.198	.224
B7	Moghaddam et al., 2015	Intention to pursue employment	.048	232	–	.071	.066	.048
B10	Selden & Orenstein, 2011	Job application completion	.40	42	21.23	16.99	.135	.424
B14	Kashi & Zheng, 2013	Intention to pursue employment	.36	332	2.91	.97	.048	.377
B16	Brahmana & Brahmana, 2013	Intention to pursue employment	.264	281	–	–	.003	.270
AB1	Banerjee & Gupta, 2019	Intention to pursue employment	.851	361	3.47	1.05	.015	1.26

Figure 4 presents the forest plot of distribution for the studies included in the synthesis for Research Question 2. Based on the results, it was determined that there were no outliers that needed to be removed from the synthesis. Therefore, all six studies were included in the analysis for Research Question 2.

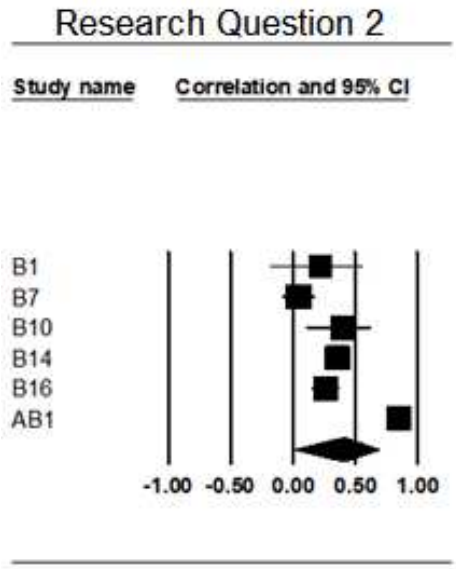

Figure 4. Research Question 2 study correlations and 95% confidence interval.

The weighted average effect size for Research Question 2 of applicant experience on applicant behavior as presented in Table 8 was r^*=0.413 (SE=0.215), with a significant z score (z = 1.993, $p < .05$). Similar to Research Question 1, the results of the analysis revealed a 'medium to large' effect size as it fell between medium (0.3) and large (0.5).

Table 7

Effect of Applicant Experience on Applicant Behavior

	r*	LL-UL	p value	z value
RQ 2	0.413	0.007-0.702	0.046	1.993

Note. Where r* is the weighted synthesized correlation, LL and UL are the lower and upper limits of 95% confidence interval; direct reports are the set of studies where all averaged subscale values were removed and only directly reported correlations are included.

Based on the results r^* = 0.441 (SE = 0.019), with a significant z score (z = 7.565, $p < .05$), a significant multistudy estimated effect size does exist from the synthesizing of

available literature on the relationship between applicant UX (specifically considering usability, accessibility, navigation, and user-friendliness) and their perception of an organization's e-recruitment website (including organizational justice, organizational culture, and organizational attractiveness). Thus, the null hypothesis for Research Question 1 is rejected. The results r^*=0.441 (SE=0.019), with a significant z score (z = 7.565, $p < .05$) also revealed a significant multistudy estimated effect size from synthesizing the available literature on the relationship between applicant UX (specifically considering usability, accessibility, navigation, and user-friendliness) and their behaviors when interacting with an organization's e-recruitment website (intentions to pursue employment and completion of the online application). Thus, the null hypothesis for Research Question 2 is rejected.

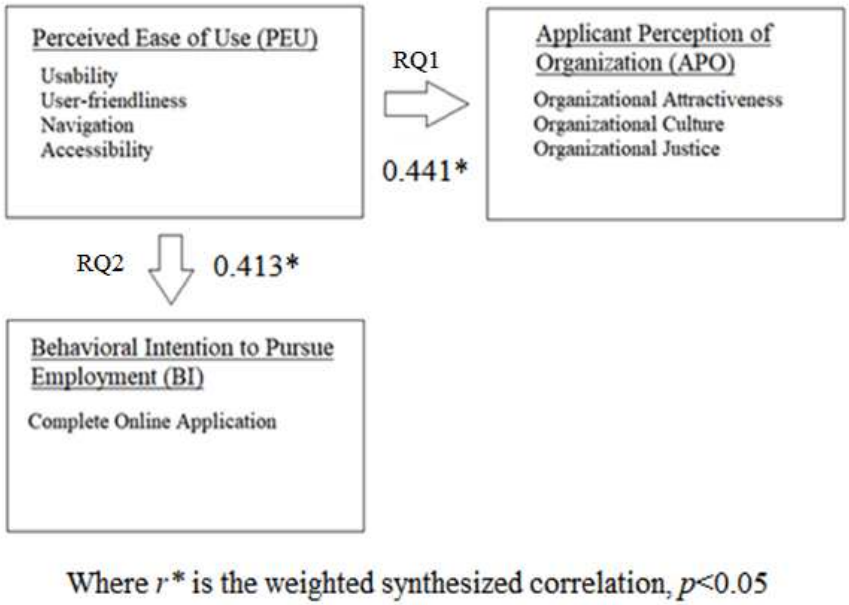

Figure 5. Adapted technology acceptance model for e-recruitment application with RQ results. Adapted from A. Monavarian, K. Kashi, and H. Ramin-mehr, 2010, "Applying Technology Acceptance Model to E-recruitment Context," Ecommerce Conference, January 1, 2010, France.

A thorough meta-analysis attempts to identify meaningful underlying differences between study subgroups in a way that reveals new information for future research (Lipsey & Wilson, 2001). Based on the literature review in Chapter 2, three areas for further investigation arose. The first one being that there may be differences in effect size across different age groups. The second being that there may be difference in effect size across genders. Lastly, there may be a difference in effect across job seekers and students. The post-hoc analysis investigates the multistudy effect age, gender, job seeker, and student on the study research questions (see Appendix C).

Statistical significance was found between the effect sizes for the student and job seeker subsets ($p < .05$). However, no statistical significance was found for the age and gender subsets ($p > .05$). Statistical significance was found between the effect sizes for the job seeker subset ($p < .05$). But no statistical significance was found for the age, gender, or student subsets ($p > .05$).

Table 8

Post-hoc Analysis by Research Question

	r*	LL-UL	p value	z value
RQ1				
Age	0.025	(-0.035)-0.086	0.415	0.816
Gender	-0.011	(-0.052)-0.030	0.603	-0.521
Student	0.504	0.169-0.735	0.005	2.832
Job seeker	0.415	0.317-0.504	0.001	7.644
RQ2				
Age	0.053	(-0.145)-0.247	0.600	0.525
Gender	-0.079	(-0.258)-0.106	0.402	-0.838
Student	0.169	(-0.007)-0.334	0.060	1.882
Job seeker	0.599	0.017-0.878	0.045	2.008

Note. Where r* is the weighted synthesized correlation, LL and UL are the lower and upper limits of 95% confidence interval; direct reports are the set of studies where all averaged subscale values were removed and only directly reported correlations are included.

Summary and Transition

Chapter 4 included the results of the hypothesis and exploratory analyses. As is standard with presenting results of meta-analyses, forest plots were provided to illustrate the outcomes for each candidate study. For the first hypothesis, a medium to large positive significant relationship between applicant UX and applicant perception of the hiring organization was identified. Similarly, for the second hypothesis, a medium to large positive significant relationship between applicant UX and applicant behavior regarding pursuing employment with the hiring organization was identified. In addition,

there were variances in results based on age and gender, but no statistically significant relationships between the variables and effect size.

Chapter 5 will summarize the results of the current study and discuss conclusions drawn from the findings. Additionally, the limitations of the study will be reviewed, describing recommendations for future research. Lastly, it reviews the implications for positive social change.

Chapter 5: Discussion

Introduction

As reviewed in Chapter 2, the literature on e-recruitment repeatedly tested for and proposed that a significant relationship existed between applicant experience when interacting with an organization's recruitment website and an applicant's perceptions of the hiring organization and behaviors related to pursuing employment. The current study was conducted to examine the nature of possible relationships. A medium to large positive relationship was found for each research question. Using a quantitative meta-analytic approach, the effect size of applicant UX and applicant perception was investigated using eight independent studies, and the effect size of applicant UX and applicant behavior were investigated using six independent studies. Additionally, exploratory analyses were conducted to further investigate these effects among subsets. Chapter 5 discusses these findings, providing concluding statements, implications for social change, and recommendations for future research.

Interpretation of the Findings

Hypothesis Analysis

Existing literature focusing on applicant experience factors, such as usability, user friendliness, navigation, and accessibility contended that an applicant's UX when interacting with an organization's recruitment website directly affect an applicant's perception of the hiring organization and their behaviors related to pursuing employment with the hiring organization. The purpose of this research was to synthesize the findings from all relevant, comparable independent studies on this topic to provide an overall

effect size across the literature for each of these relationships and then to determine if there is statistical significance based on the multistudy effect. Two research questions were developed to address the purpose of the study:

RQ1: Based on the meta-analysis of selected research from the available literature on the relationship between applicant UX and their perception of an organization's e-recruitment website, is there a significant multistudy estimated effect size?

RQ2: Based on the meta-analysis of selected research from the available literature on the relationship between applicant UX and their behaviors when interacting with an organization's e-recruitment website, is there a significant multistudy estimated effect size?

A meta-analytic review of available data that met the study's inclusion criteria was used to calculate an overall average effect size for the relationship between applicant UX and applicant perceptions of the hiring organization in RQ1 and behavior related to pursuing employment in RQ2. The averages for each research question were weighted based on the approach outlined by Lipsey and Wilson (1988) using the random effect model. For both RQ1 and RQ2, the research findings indicate a positive, significant correlation between applicants' experience when interacting with an organization's recruitment website and their perceptions of the hiring organization and behaviors related to pursuing employment. Thus, it may be beneficial to consider these relationships when assessing the constructs.

As discussed in Chapter 2 regarding existing e-recruitment literature, these constructs relate to one another. However, each construct is generally investigated

independently due to variances in operational definitions. Each construct measures concepts that fundamentally differ from one another, even if they may covary. Therefore, it may be appropriate to continue to study these constructs as separate entities when attempting to better understand human-computer interaction within the e-recruitment process. However, it is worth noting that many of the independent studies reported high degrees of correlations as the coefficient values fell between +/–0.5 and +/–1. For example, Banerjee and Gupta (2019) reported $r = 0.851$ for the relationship between applicant UX and applicant behavior, Teoh et al. (2013) reported $r = 0.648$ for the relationship between applicant UX and applicant perception, and De Geode et al. (2011) reported $r = 0.58$ for the relationship between applicant UX and applicant perception. As e-recruitment literature focusing on applicant experience continues to increase, it may be appropriate to reinvestigate this topic to determine if multicollinearity of the three constructs will impact future casual research.

Exploratory Analysis

After conducting the initial hypothesis analysis using the random effect model, additional post-hoc analyses were conducted to investigate the relationships within subsets of the sample. This was done with the intention of identifying any other variables' correlations with the effect sizes. A statistically significance relationship between the effect sizes in RQ1 and RQ2 and job seekers was revealed. Thus, a significant relationship exists between applicant UX and both applicant perception and behavior. However, a statistically significant relationship was only found between the

effect sizes in RQ1 and applicant perception for students, but not for RQ2 and applicant behavior.

There were no statistically significant relationships between the effect sizes in either RQ1 or RQ2 for gender and age. This directly contradicts conclusions drawn in existing literature that assert that demographic variables such as age, gender, work experience, and level of education influence applicant perceptions and behaviors. For example, Ehrhart et al. (2012) found that the applicant UX variable usability predicted applicant perception of organizational attractiveness in millennials. Adversely, De Goede et al. (2011) supported this study's findings, as the researchers concluded that applicants possess perceptions about an organization, specifically its culture, before interacting with the recruitment website. Thus, demographic variables play an insignificant role on the relationship between applicant UX and applicant perception. However, the results of the current meta-analysis may be largely impacted by the limited data collected on participants' age and gender. Many studies did not report on the two variables, limiting the number that could be examined in the post-hoc analysis. Furthermore, there were not enough data provided within the available literature to run additional analyses on the other coded variables.

Limitations and Future Recommendations

The most significant limitation with conducting a meta-analysis on e-recruitment literature focusing on applicant experience is the lack of available literature. It is possible that the limitation is due to the current publication process, with many researchers believing that effect sizes and p values should not be in the primary measure (de Winter

& Happee, 2013). Also, Rosenthal (1979) discussed the challenges of synthesizing studies due to the file drawer issue. Essentially, due to the biased selection process for publication in journals, researchers have limited access to findings that would result in a more thorough and accurate meta-analytic review.

Another limitation is the due to UX research, specifically in regard to job seekers and employees is relatively new and underdeveloped. According to Briner and Rousseau (2011), the lack of research could be due to the low number of doctorate level professionals. The field is dominated with master's level practitioners with limited understanding of research methods, possessing minimal skills needed to conduct research. Those who do possess the knowledge to do so are often hired by organizations to serve as practitioners rather than conducting primary research (Briner & Rousseau, 2011). Thus, limited literature exists on the connection between e-recruitment and applicant experience.

Lastly, there is the issue with comparing apples to oranges. Due to the challenge discussed previously with the field being underdeveloped, a consistent definition and measurement of each construct does not exist. Therefore, operational definitions and instruments used to measure the constructs may differ across studies. The use of various instruments is a clear limitation to the current. Future research may consider using or creating a more standardized version of the instruments to more universally measure UX. For the current meta-analysis, few commonalities in the independent variable applicant UX (using navigation, user-friendliness, usability, and accessibility variables) and dependent variables applicant perception (using organizational attraction, organizational

culture, and organizational justice) and applicant behavior (application completion and intentions to pursue employment) were sought out, ensuring the studies included in the review were comparable. Overall, the generalizability of this research is sufficient due to the adoption of the random effect model. This method accounts for underlying variances in effect sizes, allowing for generalization across the studies.

Ultimately, very few studies met the inclusion criteria for the current meta-analysis. As discussed in Chapter 4, majority of the studies were excluded from the analysis for not presenting enough data or not including an adequate applicant experience variable. This reveals a need for additional research specifically examining e-recruitment from the perspective of an applicant's experience. Future research is needed to further investigate the relationship between applicant experience during the e-recruitment process. Specifically, looking into other UX attributes other than usability. Majority of the studies included in the current study investigated usability when considering an applicant's experience interacting with an organization's recruitment website. But, additional research on accessibility and navigation are needed. For applicant perceptions, many study's examined organizational attractiveness. Additional research on applicant's perceptions of organizational culture and organizational justice would be valuable. To effectively investigate the relationship between applicant UX and applicant perceptions of the hiring organization and behaviors related to pursuing employment, a nonparametric analysis for future research designs to examine subsets that may moderate the correlation.

Based on the results of the study, both hiring professionals and HRIS development teams can benefit from knowing about this research, in addition to other I/O

psychologists. With the additional data supporting the positive relationship between applicant experience and applicant perceptions and behaviors, more consideration can be given to the e-recruitment process adopted by organizations. Professionals interested in applicant experience and modern-day personnel selection procedures will have a broader understanding of the overall existing e-recruitment literature as it pertains to applicant UX from this study.

Implications for Social Change

The study revealed statistically significant findings for both hypotheses, uncovering positive relationships between an applicant's experience interacting with an organization's recruitment website and an applicant's perception of the hiring organization and behaviors related to pursuing employment with the hiring organization. During the data collection stage of the meta-analysis, several noteworthy findings were recorded that have the potential to contribute to positive social change. Numerous independent studies discussed the significance of the usability of an organization's recruitment website on applicants' psychological outcomes.

As discussed in Chapter 1, the current study has implications of positive social change as providing job seekers with more user-friendly e-recruitment experience will increase the number of candidates that are able and willing to successfully apply for the open position with the hiring organization. This benefits the job seeker, hiring organization, and current employees. Improving the usability and accessibility of recruitment websites can not only help the organization's employer brand and applicant pool, but also increase the chances that a job seeker can find a job. If a job seeker is only

able to apply to a limited number of open positions due to challenges when interacting with an organization's recruitment website, it can lengthen the amount of time the individual will be searching for work. If the job seeker is unemployed during the job search, he or she may be facing economic challenges due to a drastic reduction in income. Thus, extending the duration of unemployment due to the inability to complete online applications could have devasting effects on the individual and their families. By improving the applicant experience during the e-recruitment process, more qualified candidates can complete the online application, increasing the likelihood that they will become gainfully employed (Zielinski, 2016)

More user-centric websites could potentially reduce recruitment related costs and days to fill open positions. Thus, more of the budget can be used on employees rather than marketing to candidates, improving employee experience through more resources being available for training, professional development, compensation, benefits, and amenities. According to Shuck, Reio, and Rocco (2011), psychological climate significantly impacts employee engagement. Employees reported positive psychological climates when the organization adequately invested in them. The reduction in vacant positions puts less burden on existing employees to pick of the slack while the organization looks for a candidate to fill the position. This has the potential to impact employee satisfaction. James (2014) discussed the negative impact that understaffing had on employees' perception of work-life balance. This in turn, influences retention and an employee's standard of living.

Conclusion

The current meta-analytic review sought to investigate the relationship between applicant UX and applicant perceptions of the hiring organization and applicant behaviors related to pursuing employment with the hiring organization. Using 8 studies of applicant UX and applicant perception and 6 studies of applicant UX and applicant behavior, this study synthesized the correlations reported across existing literature and identified medium to large, positive, significant relationships for both hypotheses. The use of e-recruitment strategies by organizations to recruit qualified candidates is on the rise. Factors such as the usability, accessibility, user-friendliness, and navigability of an organization's recruitment website are critical in the adoption of Internet-based recruitment approaches, directly impacting the job seeker's perceptions of the hiring organization and behaviors related to pursuing employment. This research illustrates the significance of applicant experience to job search related outcomes such as organizational perceptions and job seeking behaviors, thus, providing insights into the recruitment strategy that could assist in the improvement of hiring team performance and processes.

References

Aguinis, H., Gottfredson, R., & Wright, T. (2010). Best-practice recommendations for estimating interaction effects using meta-analysis. *Journal of Organizational Behavior, 32*(8), 1033–1043. doi:10.1002/job.719

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50*(2), 179–211. doi:10.1016/0749-5978(91)90020-t

Alonso, P., Moscoso, S., & Salgado, J. (2017). Structured behavioral interview as a legal guarantee for ensuring equal employment opportunities for women: A meta-analysis. *The European Journal of Psychology Applied to Legal Context, 9*(1), 15–23. doi:10.1016/j.ejpal.2016.03.002

Allden, N., & Harris, L. (2013). Building a positive candidate experience: Towards a networked model of e-recruitment. *Journal of Business Strategy, 34*(5), 36–47. doi:10.1108/jbs-11-2012-0072

Allen, D., Mahto, R., & Otondo, R. (2007). Web-based recruitment: Effects of information, organizational brand, and attitudes toward a web site on applicant attraction. *Journal of Applied Psychology,* 92, 1696–1708. doi:10.1037/0021-9010.92.6.1696

Allen, D., Biggane, J., Pitts, M., Otondo, R., & Scotter, J. (2013). Reactions to recruitment web sites: Visual and verbal attention, attraction, and intentions to pursue employment. *Journal of Business Psychology, 28*, 263–285. doi:10.1007/s10869-012-9281-6

American Psychological Association. (2017). *Ethical Principles of Psychologists and*

Code of Conduct. Retrieved from https://www.apa.org/ethics/code/

Anad, J., & Chitra, D. S. (2016). The impact of e-recruitment and challenges faced by HR Professionals. *International Journal of Applied Research, 2*(3), 410–413. Retrieved from http://www.allresearchjournal.com/

Anderson, N. (2003). Applicant and recruiter reactions to new technology in selection: A critical review and agenda for future research. *International Journal of Selection and Assessment*, *11*(2/3), 121–136. doi:10.1111/1468-2389.00235

Ansari, N., Moazzam, A., Jabeen, N., & Salman, Y. (2016). Gender and perceptions of organizational justice: A study of University of the Punjab. *Pakistan Journal of Women's Studies, 23*(1), 45–63. Retrieved form https://www.pakistanwomenstudies.com/

Barber, A. (1998). *Recruiting employees*. Thousand Oaks, CA: Sage Publications.

Bargas-Avila, J., & Hornbek, K. (2011). *Old wine in new bottles or novel challenges? A critical analysis of empirical studies of user experience*. Retrieved from http://www.kasperhornbaek.dk/papers/CHI2011_UXReview.pdf

Berman, N., & Parker, R. (2002). Meta-analysis: Neither quick not easy. *BMC Medical Research Methodology, 2*(10), 1–9. doi:10.1186/1471-2288-2-10

Birgelen, M., Wetzels, M., & Dolen, W. (2008). Effectiveness of corporate employment web sites: How content and form influence intentions to apply. *International Journal of Manpower, 29*(8), 731–751. doi:10.1108/01437720810919323

Bondarouk, T., & Ruel, H. (2009). Electronic human resource management: Challenges in the digital era. *International Journal of Human Resource Management, 20*(3),

505–514. doi:10.1080/09585190802707235

Borenstein, M., Hedges, L., Higgins, J., & Rothstein, H. (2009). *Introduction to meta-analysis.* Retrieved from https://www.wiley.com/en-us/Introduction+to+Meta+Analysis-p-9780470057247

Borstorff, P., Marker, M., & Bennett, D. (2007). Online recruitment: Attitudes and behaviors of job seekers. *Journal of Strategic E-Commerce, 5*(1), 1–24. Retrieved from https://www.abacademies.org/journals/journal-of-strategic-e-commerce-home.html

Boswell, W., Swider, B., & Zimmerman, R. (2012). Employee job search: Toward an understanding of search context and search objectives. *Journal of Management, 38,* 129–163. doi:10.1177/0149206311421829

Braddy, P., Thompson, L., & Wuensch, K., & Grossnickle, W. (2003). Internet recruiting: The effects of web page design features. *Social Science Computer Review, 21,* 374–385. doi:10.1177/0894439303253987

Braddy, P., Meade, A., & Kroustalis, C. (2006). Organizational recruitment website effects on viewers' perceptions of organizational culture. *Journal of Business & Psychology, 20*(4), 525–543. doi:10.1007/s10869-005-9003-4

Braddy, P., Meade, A., & Kroustalis, C. (2008). Online recruiting: The effects of organizational familiarity, website usability, and website attractiveness on viewers' impressions of organizations. *Computers in Human Behavior, 24*, 2992–3001. doi:10.1016/j.chb.2008.05.005

Braddy, P., Meade, A., Michael, J., & Fleenor, J. (2009). Internet recruiting: Effects of

website content features on viewers' perceptions of organizational culture. *International Journal of Selection and Assessments, 17*(1), 19–34. doi:10.1111/j.1468-2389.2009.00448.x

Brahmana, R., & Brahmana, R. (2013). What factors drive job seekers attitude in using e-recruitment. *The South East Asian Journal of Management, 7*(2), 39–50. doi:10.21002/seam.v7i2.2050

Breaugh, J., & Stark, M. (2000). Research on employee recruitment: So many studies, so many remaining questions. *Journal of Management, 26*(3), 405–434.

Briner, R., & Rousseau, D. (2011). Evidence-based I-O psychology: Not there yet. *Industrial and Organizational Psychology, 4*(1), 3–22. doi:10.1111/j.1754-9434.2010.01287

Bustaman, H., & Tambi, A. (2018). Organizational justice from the perspective of potential applicants. *International Journal of Engineering & Technology, 7*(4), 153–158. doi:10.14419/ijet.v7i4.34.23849

Calisir, F., & Calisir, F. (2004). The relation of interface usability characteristics, perceived usefulness, and perceived ease of use to end-user satisfaction with enterprise resource planning systems. *Computers in Human Behavior, 20*(4), 505–515. doi:10.1016/j.chb.2003.10.004

Card, N. (2012). *Applied meta-analysis for social science research.* New York, NY: The Guilford Press.

CareerBuilder. (2017). *Candidate experience from end-to-end: What's your weakest link?* Retrieved from https://screen.careerbuilder.com/difference/docs/2017-candidate-

experience-guide.pdf

Celani, A., & Singh, P. (2011). Signaling theory and applicant attraction outcomes. *Personnel Review, 40*(2), 222–238. doi:10.1108/00483481111106093

Chapman, D., Uggerslev, K., Carroll, S., Piasentin, K., & Jones, D. (2005). Applicant attraction to organizations and job choice: A meta-analytic review of the correlates of recruiting outcomes. *Journal of Applied Psychology, 90*(5), 928–944. doi:10.1037/0021-9010.90.5.928

Charlton, B. (1996). The use and abuse of meta-analysis. *Family Practice, 13*(4), 397–401. Retrieved from https://academic.oup.com/fampra

Chen, Y., Yi-ming, D., Bao-jian, Y. (2009). *An empirical research on e-recruitment systems based on the technology acceptance model*. 6th International Conference on Service Systems and Service Management. June 8, 2009. Xiamen, China.

Cheung, M., Ho, R., Lim, Y., & Mak, A. (2012). Conducting a meta-analysis: Basics and good practices. *International Journal of Rheumatic Diseases, 15*(2), 129–135. doi:10.1111/j.1756-185x.2012.01712.x

Cober, R., Brown, D., Levy, P., Cober, A., & Keeping, L. (2003). Organizational web site: Web site content and style as determinants of organizational attraction. *International Journal of Selection and Assessment, 11,* 158–169. doi:10.1111/1468-2389.00239

Cober, R. T., Brown, D. J., Keeping, L. M., & Levy, P. (2004) Recruitment on the net: How do organizational web site characteristics influence applicant attraction. *Journal of Managemen*t, *30*(5), 623–646. doi:10.1016/j.jm.2004.03.001

Cohen, J. (1992). Statistical power analysis. *Current Directions in Psychological Science, 1*(3), 98–101. doi:10.1111/1467-8721.ep10768783

Connelly, B., Certo, T., Ireland, D., & Reutzel, C. (2011). Signaling theory: A review and assessment. *Journal of Management, 37*(1), 39–67. doi:10.1177/0149206310388419

Coursaris, C., & Kim, D. (2011). A meta-analytical review of empirical mobile usability studies. *Journal of Usability Studies, 6*(3), 117–171. Retrieved from http://uxpajournal.org/en/

Crombie, I., & Davies, H. (2009). *What is meta-analysis?* Retrieved from http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.734.6596&rep=rep1&type=pdf

Davis, F. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly, 13*(3), 319–340. doi:10.2307/249008

Davis, F., Bagozzi, R., & Warshaw, P. (1989). User acceptance of computer technology: a comparison of two theoretical models, *Management Science, 35*(8), 982–1003. doi:10.1287/mnsc.35.8.982

De Goede, M., Vianen, A., & Klehe, U. (2011). Attracting Applicants of the Web: PO Fit, industry culture stereotypes, and website design, *International Journal of Selection and Assessment, 19*(1), 51-61.

De Winter, J., & Happee, R. (2010). Why selective publication of statistically significant results can be effective. *PloS One, 8*(6). doi:10.1371/journal.pone.0066463

DeGeest, D., & Schmidt, F. (2011). The impact of research synthesis methods on

industrial organizational psychology: The road from pessimism to optimism about cumulative knowledge, *Research Synthesis Methods, 1*(3-4), 185-197.

Deloitte. (2015). *U.S. spending on recruitment rises, driven by increased competition for critical talent*. Retrieved from http://www.bersin.com/News/Content.aspx?id=18439

Dierckx, B., Heijnen, W., van den Broek, W., & Birkenhager, T. (2012). Efficacy of electroconvulsive therapy in bipolar versus unipolar major depression: A meta-analysis. *Bipolar Disorders, 14*(2), 146-150.

Dineen, B., & Noe, R. (2009). Effects of Customization on Application Decisions and Applicant Pool Characteristics in a Web-based Recruitment Context. *Journal of Applied Psychology, 94*(1), 224-234.

Ehrhart, K., Mayer, D., & Ziegert, J. (2012). Web-based recruitment in the millennial generation: Work-life balance, website usability, and organizational attraction. *European Journal of Work and Organizational Psychology, 21*(6), 850-874.

Ellis, P. (2010). *The essential guide to effects sizes: Statistical power, meta-analysis, and the interpretation of research results.* Cambridge, UK: Cambridge University Press.

Elwood, P. (2004). The first randomized trial of aspirin for heart attack and the advent of systematic overviews of trials. *The James Lind Library.* Retrieved from https://www.jameslindlibrary.org/articles/the-first-randomized-trial-of-aspirin-for-heart-attack-and-the-advent-of-systematic-overviews-of-trials/.

Elwood, P., Cochrane, A., Burr, M., Sweetnam, P., Williams, G., Welsby, E., Hughes, S.,

& Renton, R. (1974). A randomized controlled trial of acetyl salicylic acid in the secondary prevention of mortality from myocardial infarction. *Britain Medical Journal, 1*, 436-440.

Emery, F. (1969), *Systems Thinking: Selected Readings.* In F. Emery (ed.), *The Emergence of a New Paradigm of Work.* London, UK: Penguin Books.

Erickson, W. (2002). *A review of selected e-recruiting websites: Disability accessibility considerations*. Retrieved from https://pdfs.semanticscholar.org/07b7/5977ae17f146c3ba354cc958574c1300fa85.pdf

Esch, P., Black, J., & Ferolie, J. (2019). Marketing AI recruitment: The next phase in job application and selection. *Computers in Human Behavior, 90*, 215-222.

Fagard, H., Staessen, J., & Thijs, L. (1996). Advantages and disadvantages of the meta-analysis approach. *Journal of Hypertension, 14*(2), 9-12.

Fujita, H., & Selamat, A. (2019), *Advancing Technology Industrialization through Intelligent Software Methodologies, Tools, and Techniques.* Paper presented at the 18th International Conference on New Trends in Intelligent Software Methodologies, Tools, and Techniques., September 23-25, 2019, Kuching, Malaysia

Garg, A., Hackman, D., & Tonelli, M. (2008). Systematic review and meta-analysis: When one study is just not enough. *Clinical Journal of the American Society of Nephrology, 3*(1), 253-260.

Garvey, W., & Griffith, B. (1971). Scientific communication: Its role in the conduct of

research and creation of knowledge. *American Psychologist, 26,* 349-362.

Gilliland, S. (1993). The perceived fairness of selection systems: An organizational justice perspective. *Academy of Management Review, 18*(4), 694-734.

Giumetti, G. & Brown, B. (2009). *Recruitment website characteristics and applicant attraction: A meta-analysis and review*. Papers from the 24th Annual Meeting of the Society of Industrial and Organizational Psychology, April 2-4, 2009, New Orleans, LA. doi:10.1037/e518422013-720

Glass, G. (1976). Primary, Secondary, and Meta-analysis of research. *Educational Researcher, 10*, 3-8.

Gopalia, A. (2012). Effectiveness of online recruitment and selection process: A case of TESCO *Indira Institute of Management Pune.* doi:10.13140/RG.2.2.17695.61605

Griepentrog, B., Harold, C., Holtz, B., Klimoski, R., & Marsh, S. (2012). Integrating social identity and the theory of planned behavior: Predicting withdrawal from organizational recruitment process. *Personnel Psychology, 65*(4), 723-753.

Hart, J. (2015). *Investigating user experience and user engagement for design* (Doctoral dissertation). Retrieved from https://www.research.manchester.ac.uk/portal/files/54566021/FULL_TEXT.PDF

Hassenzahl, M., & Tractinsky, N. (2006). User experience – A research agenda. *Behavior & Information Technology, 25*(2), 91-97.

Hazell, C., Hayward, M., Cavanagh, K., & Strauss, C. (2016). A systematic review and meta-analysis of low intensity CBT for psychosis. *Clinical Psychology Review, 45*, 183-192.

Hiemstra, A., Derous, E., Serlie, A., & Born, M. (2012). Fairness perceptions of video resumes among ethnically diverse applicants. *International Journal of Selection and Assessment, 20*(4), 83-86.

Highhouse, S., Lievens, F. & Sinar, E. (2003). Measuring Attraction to Organizations. *Educational and Psychological Measurement, 63*(1), 986–1001.

Hosain, S., Ullah, K., & Khudri, M. (2016). The Impact of E-recruitment on Candidates' Attitudes: A Study on Graduate Job Seekers of Bangladesh, *Journal of Human and Social Science Research, 8*(1), 9-17.

Hu, C., Su, H., & Chen, C. (2007). The Effect Of P-O Fit Feedback Via Recruitment Web Site on Applicant Attraction, *Computer in Human Behavior, 23*(1), 2509–2523.

Interaction Design Foundation. (2019). *Accessibility.* Retrieved from https://www.interaction-design.org/literature/topics/accessibility

Jackson-Sanborn, E., Odess-Harnish, K., & Warren, N. (2001). *Website accessibility: a study of ADA compliance (working paper)*. Retrieved from http://www.ils.unc.edu/ils/research/reports/accessibility.pdf

James, A. (2014). Work-life 'balance', recession and the gendered limits to learning and innovation (or, why it pats employers to care), *Gender, Work, & Organization, 21*(3), 273-294.

Joseph, S., Sahu, S., & Khan, K. (2014). Organizational attractiveness as a predictor of employee retention. *Journal of Business and Management, 16*(9), 41-44.

Joyce, S. (2016). The internet revolution: Digital disruption in recruiting & job search.

Career Planning & Adult Development Journal, 32(2), 14-20.

Kalugina, E. & Shvydun, S. (2014). An effective personnel selection model. *Procedia Computer Science, 31*(1), 1102-1106.

Kashi, K. & Zheng, C. (2013). Extending Technology Acceptance Model to the E-recruitment Context in Iran, *International Journal of Selection and Assessment, 21*(1), 121-129.

Kaur, P. (2015). E-recruitment: A conceptual study. *International Journal of Applied Research, 1*(8), 78-82.

Kerrin, M., & Kettley, P. (2003). *E-recruitment: Is it delivering?* Retrieved from https://www.employment-studies.co.uk/system/files/resources/files/402.pdf

Khan, N., Awang, M., & Ghouri, A. (2013). Impact of e-recruitment and job-seekers perception on intention to pursue the jobs. *Management & Marketing, 11*(1), 47-57.

Kuppusamy, J. & Ganesan, J. (2016). A study of factors contributing towards the effectiveness of e-recruitment among generation Y job seekers. *International Journal of Advanced and Applied Sciences, 3*(12), 106-112.

Kumar, M. & Priyanka, S. (2014). A study on adoption of e-recruitment using Technology Acceptance Model (TAM) with reference to graduating students in universities in Bahrain, *International Journal of Advance Research in Computer Science and Management Studies, 2*(9), 377-383.

Kuncel, N., Ones, D., & Klieger, D. (2014). In hiring, algorithms beat instinct. *Harvard Business Review.* Retrieved from https://hbr.org/2014/05/in-hiring-algorithms-

beat-instinct

Lakens, D. (2013). Calculating and reporting effect sizes to facilitate cumulative science: A practical primer for t-tests and ANOVAs. *Frontiers in Psychology, 4*, 863. https://doi.org/10.3389/fpsyg.2013.00863

Landau, S., & Everitt, B. (2003). *A handbook of statistical analyses using SPSS.* London, UK. Chapman & Hall/CRC.

Langer, M., Konig, C., & Fitili, A. (2017). Information as a double-edged sword: The role of computer experience and information on applicant reactions towards novel technologies for personnel selection. *Computers in Human Behavior, 81,* 19-30.

Lazar, J., Olalere, A., & Wentz, B. (2012). Investigating the accessibility and usability of job application web sites for blind users. *Journal of Usability Studies, 7*(2), 68-87.

Le, H., Oh, I., Shaffer, J., & Schmidt, F. (2007). Implications of methodological advances for the practice of personnel selection: How practitioners benefit from meta-analysis. *Academy of Management Perspectives, 21*, 6-15.

Levasseur, R. (2008). *Transforming leadership*. Germany: VDM Verlag Dr. Mueller e.K.

Li, Y. & Beghin, J. (2017). A meta-analysis of estimates of the impact of technical barriers to trade. *World Scientific Studies in International Economics,* 63-77.

Lieberman, M., & Cunningham, W. (2009). Type I and Type II error concerns in fMRI research: re-balancing the scale. *Social Cognitive and Affective Neuroscience, 4,* 423-428.

Lievens, F., De Corte, W. & Brysse, K. (2003). Applicant perception of selection procedures: The role of selection information, belief in tests, and comparative

anxiety. *International Journal of Selection and Assessment, 11*(1), 67-77.

Lievens, F., & Harris, M. (2003). Research on internet recruiting and testing: Current status and future directions. In C. L. Cooper & I. T. Robinson (Eds.), *International Review of Industrial and Organizational Psychology* (*Vol. 16).* Chichester, UK: Wiley and Sons.

Lievens, F., van Hoye, G., & Harris, M. (2003). Privacy and attitudes towards Internet-based selection systems: A cross-cultural comparison*. International Journal of Selection and Assessment, 11*(2/3), 230–236.

Lipsey, M., & Wilson, D. (2001). *Practical meta-analysis: Applied social research methods series.* Thousand Oaks, CA: Sage Publications.

Littell, J., Corcoran, J., & Pillai, V. (2008). *Systematic reviews and meta-analysis.* Oxford, UK: Oxford University Press.

Lin, H. (2010). Applicability of the extended theory of planned behavior in predicting job seeker intentions to use job-search websites. *International Journal of Selection and Assessments, 18*(1), 64-74.

Llorens, J. (2009). *E-recruiting.* Paper presented at the 2009 Annual Meeting of the American Political Science Association, September 3-6, 2009, Toronto Ontario, Canada.

Lori, R., Yang, J., & Diefendorff, J. (2009). Four-factor justice and daily job satisfaction: A multi-level investigation. *Journal of Applied Psychology, 94*, 770-781.

Mackey, J., Frieder, R., Brees, J., & Martinko, M. (2015). Abusive supervision: A meta-analysis and empirical review. *Journal of Management, 43*(6), 1940-1965.

Madera, J. (2012). Using social networking websites as a selection tool: The role of selection process fairness and job pursuit intentions. *International Journal of Hospitality Management, 31*(4), 1276-1282.

Manju, B. (2017). The impact of e-recruitment in HRM effectiveness. *International Journal of Research, 4*(5), 753-760.

Mathieson, K. (1991). Predicting user intentions: Comparing the technology acceptance model with the theory of planned behavior. *Information Systems Research, 2*(3), 173-191.

Maurer, S., & Cook, D. (2011). Using company web sites to e-recruit qualified applicants: A job marketing-based review of theory-based research. *Computers in Human Behavior, 27*, 106-117.

McCarthy, J., Bauer, T., Truxillo, D., Anderson, N., Costa, A., & Ahmed, S. (2017). Applicant perspectives during selection: A review addressing "So what?", "What's new?", and "Where to next?" *Journal of Management, 43*(6), 1693-1725.

McCarthy, J., Bauer, T., Truxillo, D., Campion, C., van Iddekinge, C., & Campion, M. (2018). Improving the candidate experience: Tips for developing 'wise" organizational hiring interventions. *Organizational Dynamics, 47*(3), 147-154.

McKeon, P., Medina, J., & Hertel, J. (2006). Hierarchy of research design in evidence-based sports medicine. *Evidence-Based Medicine, 11*(4), 42-45.

Miles, S., & McCamey, R. (2018). The candidate experience: Is it damaging your employer brand? *Business Horizons, 61*(5), 755-764.

Millar, R., & Shelvin, M. (2003). Predicting career information-seeking behavior of

school pupils using the theory of planned behavior. *Journal of Vocational Behavior, 62*(1), 26-42.

Moghaddam, H., Rezaei, S., & Amin, M. (2015). Examining job seekers' perception and behavioral intention toward online recruitment: A PLS path modeling approach. *Journal of Global Business Advancement, 8*(3), 305-325.

Monavarian, A., Kashi, K., & Ramin-mehr, H. (2010). *Applying Technology Acceptance Model to e-recruitment Context*, Ecommerce Conference, January 1, 2010, France.

Morris, S., Daisley, R., Wheeler, M., & Boyer, P. (2015). A meta-analysis of the relationship between individual assessments and job performance. *Journal of Applied Psychology, 100*(1), 5-20.

Musaa, N., Junaini, S., & Bujang, Y. (2006*). Improving usability of e-recruitment website: A preliminary study on Sarawak government website.* Paper presented at the Pacific Asia Conference on Information Systems, July 6-9, 2006, Kuala Lumpur, Malaysia.

Nabi, G., Ghous, G., & Rahimiaghdam, S. (2017). Do we have sufficient literature on e-recruitment and selection: An analytical review based on e-recruitment and selection. *International Journal of Economics, Commerce and Management, 5*(3), 347-362.

Naumann, A., Wechsung, I., & Hurtienne, J. (2009). *Multimodality, inclusive design, and intuitive use*. Proceedings of the British Computer Society Human Computer Interaction Workshop and Conference (HCI), September 1-5, 2009, Cambridge,

UK.

Nielsen, J. (2000). *Designing web usability*. Indianapolis, IN: New Riders.

Nielsen, J. (2012). *Usability 101: Introduction to usability.* Nielsen & Norman Group. Retrieved from http://www.nngroup.com/articles/usability-101-introduction-to-usability/

Nikolaou, I. (2014). Social Networking Web Sites in Job Search and Employee Recruitment. *International Journal of Selection and Assessment, 22*, 179-189.

Norman, D. & Neilsen, J. (2019). *The definition of user experience (UX)*. Nielsen & Norman Group. Retrieved from https://www.nngroup.com/articles/definition-user-experience/

Novo Group. (2014). 2014 Recruitment benchmark survey results. Novo Group. Retrieved from http://www.prweb.com/releases/2014/05/prweb11829630.htm

O'Reilly, C.A., III, Chatman, J. and Caldwell, D.F. (1991) People and Organizational Culture: A profile comparison approach to assessing person–organization fit. *Academy of Management Journal, 34*(1), 487–516.

O'Rourke, K. (2007). An historical perspective on meta-analysis: Dealing quantitatively with varying study results. *Journal of the Royal Society of Medicine, 100*(12), 579-582.

Ostroff, C., Kinicki, A., & Muhammad, R. (2003). Organizational culture and climate, *Handbook of Psychology, Second Edition, 12*(1), 84-93.

Palmer, T. (2019). Employers must stand out to win best talent. *Production Machining, 19*(6), 22.

Petrie, H., & Bevan, N. (2009). The evaluation of accessibility, usability, and user experience. In C. Stephanidis (Ed.). *The Universal Access Handbook.* Boca Raton, FL: CRC Press. doi:10.1201/9781420064995-c20

Pearson, K. (1904). Report on certain enteric fever inoculation statistics. *British Medical Journal, 2,* 1243-1246.

Petrovic-Lazarevic, S. (2001). Personnel selection fuzzy model, *International Transactions in Operational Research, 8*(1), 89-105.

Pfieffelmann, B., Wagner, S., & Libkuman, T. (2010). Recruiting on corporate web sites: Perceptions of fit and attraction. *International Journal of Selection and Assessment, 18*(1), 40-47.

Ployhart, R., & Ryan, A. (1997). Toward an explanation of applicant reactions: An examination of organizational justice and attribution frameworks. *Organizational Behavior and Human Decision Processes, 73*(3), 308-335.

Porter, J. (2011). Attract and retain top talent. *Strategic Finance Magazine. 92*(12), 56-61. Retrieved from https://sfmagazine.com/wp-content/uploads/sfarchive/2011/06/Attract-and-Retain-Top-Talent.pdf

Priyadarshini, C., Kumar, Y., & Jha, R. (2017). Employer attractiveness through social media: A phenomenological study. *The Qualitative Report, 22*(4), 969-983.

Priyadarshini, C., Sreejesh, S., & Anusree, M. (2017). Effect of information quality of employment website on attitude toward the website. A moderated mediation study. *International Journal of Manpower, 38*(5), 729-745.

Pullin, L. & Fastenau, M. (1998). A comparative typology of employment relations,

industrial relations, and human resource management, *International Employment Relations Review, 4*(1), 1-22.

Quesenbery, W. (2000). UPA 99 Workshop Report: Crossing the Chasm – Promoting Usability in Software Development Community. *UPA Common Ground, 10*(1), 8-15.

Ramaabaanu, R. & Saranya, M. (2014). Importance and problems of e-recruitment. *International Journal of Research, 1*(9), 445-450.

Revels, J., Tojib, D. & Tsarenko, Y. (2010). Understanding consumer intention to use mobile services, *Australasian Marketing Journal, 18*(2), 74–80.

Richardson, L. (2014). *A meta-analytic review of programs designed to combat workplace absenteeism* (Doctoral dissertation). Walden University. Retrieved from ProQuest Dissertations and Theses database.

Rosenthal, R. (1994). Statistically describing and combining studies. In H. Cooper & L. V. Hedges (Eds.), *Handbook of research synthesis*. New York, NY: Russell Sage Foundation.

Rothstein, H., Sutton, A., & Borenstein, M. (2005). *Publication bias in meta-analysis: prevention, assessment, and adjustments.* Chichester, UK: Johns Wiley & Sons, Ltd,

Rojon, C., McDowall, A., & Saunders, M. (2015). The relationship between traditional selection assessments and workplace performance criteria specificity: A comparative meta-analysis. *Human Performance, 28*(1), 1-25.

RoyChowdhury, T. & Srimannarayana, M. (2013). Applicants' Perceptions on Online

Recruitment Procedures, *Management and Labour Studies, 38*(3), 185-199.

Rynes, S., Bretz, R., & Gerhart, B. (1991). The importance of recruitment in job choice: A different way of looking. *Personnel Psychology, 44*(1)*,* 487-521.

Rynes, S. & Miller, H. (1983). Recruiter and job influences on candidate for employment. *Journal of Applied Psychology, 44*(1), 487-521.

Sathian, B., Sreedharan, J., Ahmad, M., Joy, T., Baboo, N., Dixit, S., & Devkota, S. (2009). Meta-analysis in medical research. *Journal of GMC-Nepal, 2*(3), 14-21.

Schmit, M. & Ryan, A. (1997). Applicant withdrawal: The role of test-taking attitudes and racial differences. *Personnel Psychology, 50*, 855-876.

Schreurs, Bert., Derous, E., Hooft, E., & Proost, K. (2009). Predicting applicant's job pursuit behavior from their selection expectations: The mediating role of the theory of planned behavior. *Journal of Organizational Behavior, 30*(6), 761-783.

Searle, R. (2003). Opinion. Organizational justice in e-recruiting: Issues and controversies. *Surveillance & Society, 1*(2), 227-231.

Sedgwick, P. (2015). Meta-analyses: What is heterogeneity? *British Medical Journal,* 350. doi: 10.1136/bmj.h1435

Selden, S. & Orenstein, J. (2011). Government e-recruiting web sites: The influence of e-recruitment content and usability on recruiting and hiring outcomes in U.S. state governments. *International Journal of Selection and Assessment, 19*(1), 31-40.

Sharpe, D. (1997). Of apples and oranges, file drawers and garbage: Why validity issues in meta-analysis will not go away. *Clinical Psychology Review, 17*(8), 881-901.

Shin, J., Chung, K., Oh, J. & Lee, C. (2013). The effect of site quality on repurchase

intention in Internet shopping through mediating variables: The case of university students in South Korea, *International Journal of Information Management, 33*(3), 453–463.

Shuck, B., Reio, T., Rocco, T. (2011). Employee engagement: an examination of antecedent and outcome variables. *Human Resource Development International, 14*(1), 427-445.

Sinar, E. & Reynolds, D. (2001). *Applicant reactions to internet-based selection techniques.* Paper presented at the 16th Annual Conference of the Society for Industrial and Organizational Psychology, April 2-4, 2001, San Diego, CA.

Sinar, E., Reynolds, D. & Paquet, S. (2003). Nothing but net? Corporate image and web-based testing. *International Journal of Selection and Assessment, 11*, 150-157.

Singh, P. & Finn, D. (2003). The effects of information technology on recruitment, *Journal of Labor Research, 24*(3), 395-408.

Slatten, T., Lien, G., & Svenkerud, P. (2019). The role of organizational attractiveness in an internal market-oriented culture (IMOC): A study of hospital frontline employees. *BioMed Central Health Services Research, 19*(1), 307.

Smith, A. (2018). *So to make your career website usable for people with disabilities.* Society of Human Resource Management. Retrieved from https://www.shrm.org/resourcesandtools/legal-and-compliance/employment-law/pages/careers-website-useable-for-people-with-disabilities.aspx

Song, Z., Wanberg, C., Niu, X., & Xie, Y. (2006). Action-state orientation and the theory of planned behavior: A study of job search in China. *Journal of Vocational*

Behavior, 68(3), 490-503.

Stoughton, J., Thompson, L., & Meade, A. (2015). Examining applicant reactions to the use of social networking websites in pre-employment screening. *Journal of Business Psychology, 30*(1), 73-88.

Spence, M. (1973). Job market signaling. *Quarterly Journal of Economics, 87*(1), 355-374.

Spence, M. (1974). *Market-signaling.* Cambridge, MA: Harvard University Press.

Steiner, D., & Gilliland, S. (1996). Fairness reactions to personnel selection techniques in France and the United States. *Journal of Applied Psychology, 81*(1), 134–141.

Sturman, J. (2007). Online job applications are an unfair hurdle. *Nursing Times, 103*(27), 15.

Sultana, N. & Sultana, N. (2017). Analyzing the effectiveness of online recruitment: A case study on recruiters of Bangladesh. *Asian Business Review, 7*(2) 79-84.

Sutcliffe, A. (2001). *Heuristic evaluation of website attractiveness and usability.* Interactive Systems: Design, Specification, and Verification: 8th International Workshop, June 13-15, 2001, Glasgow, Scotland, UK.,

Sylva, H. & Mol, S. (2009). E-recruitment: A study into applicant perceptions of an online application system. *International Journal of Selection and Assessment, 17*(3), 311- 323.

Teoh, W., Tan, S., & Chong, S. (2013). Factors influencing perceptions of university students towards internet recruitment. *Asian Academy of Management Journal, 18*(1), 123-142.

Thielsch, M., Traumer, L., & Pytlik, L. (2012). E-recruiting and fairness: The Applicant's point of view. *Information Technology Management, 13*(2), 59-67.

Thompson, L., Braddy, P., & Wuensch, K. (2008). E-recruitment and the benefits of organizational web appeal. *Computers in Human Behavior, 24*, 2384-2398.

Tong, D. (2009). A study of e-recruitment technology adoption in Malaysia, *Industrial Management & Data Systems, 109*(2), 281-300.

Tsai, Y. (2011). Relationship between organizational culture, leadership behavior, and job satisfaction, *BioMed Central Health Services Research, 11*, 98.

Tsai, W. & Yang, W. (2010). Does image matter to different job applicants? The influence of corporate image and applicant individual differences on organizational attractiveness, *International Journal of Selection and Assessment, 18*, 48-63.

Turban, D. & Keon, T. (1993) Organization Attractiveness: An interactionist perspective. *Journal of Applied Psychology, 78*(1), 184–193.

Tyagi, A. (2016). *Impact of e-recruitment on human resource.* Traverse City, MI: Horizon Books.

Uman, L. (2011). Systematic reviews and meta-analyses. *Journal of the Canadian Academy of Child and Adolescent Psychiatry, 20*(1), 57-59.

U.S. General Services Administration. (2017). *E-recruiting and accessibility*. Retrieved from https://www.section508.gov/blog/e-recruiting-and-accessibility

Valentine, J., Pigott, T., & Rothstein, H. (2010). How many studies do you need? A primer on statistical power for meta-analysis. *Journal of Educational and*

Behavioral Statistics, 35(2), 215-247.

van Esch, P., & Mente, M. (2018). Marketing video-enabled social media as part of your e-recruitment strategy: Stop trying to be trendy, *Journal of Retailing and Consumer Services, 44*, 266-273.

van Iddekinge, C., Aguinis, H., Mackey, J. & DeOrtentiis, P. (2018). A meta-analysis of the interactive, additive, and relative effects of cognitive ability and motivation on performance. *Journal of Management. 44*(1), 249-279.

Walker, E., Hernandez, A., & Kattan, M. (2008). Meta-analysis: Its strengths and limitations. *Cleveland Clinic Journal of Medicine, 75*(6), 431-439.

Weller, I., Holtom, B. G., Matiaske, W., & Mellewigt, T. (2009). Level and time effects of recruitment sources on early voluntary turnover. *Journal of Applied Psychology, 94*(1)*,* 1146–1162.

Williams, J. (2019). Theory of organizational attractiveness. *Sage Knowledge: Encyclopedia of Management Theory.* Retrieved from https://sk.sagepub.com/reference/encyclopedia-of-management-theory/i8542.xml

Williamson, I., Lepak, D., & King, J. (2003). The effect of company recruitment web site orientation on individuals' perceptions of organizational attractiveness. *Journal of Vocational Behavior, 63*, 242-263.

Yean, T. & Yusof, A. (2016). Organizational justice: A conceptual discussion. *Procedia – Social and Behavioral Sciences, 219*(31), 798-803.

Yusuf, S., Peto, R., Lewis, J., Collins, R., & Sleight, P. (1985). Beta blockade during and after myocardial infarction: An overview of the randomized trials. *Progress in*

Cardiovascular Disease, 27, 335-371.

Zielinski, D. (2016). *Study: Most job seekers abandon online job applications.* Retrieved from https://www.shrm.org/resourcesandtools/hr-topics/technology/pages/study-most-job-seekers-abandon-online-job-applications.aspx

Zhou, T. (2012) Examining mobile banking user adoption from the perspectives of trust and flow experience, *Information Technology and Management, 13*(1), 27–37.

Appendix A: Coding Manual

Significant factors in an effective coding process is replicability, reliability, and transparency. It is important that future researchers are able to understand the coding system and, in theory, be able to reach the same conclusions as well. To ensure objectivity and consistency in coding, a coding manual was developed:

STUDY-LEVEL CODING

Bibliographic reference: Provide APA formatted citation of the study.

1. Study ID Number – Assign a unique ID number to each study. Studies categorized under Research Question 1 will be identified as A#. Studies categorized under Research Question 2 will be identified as B#.
2. Article inclusion: Select articles to be included in the final meta-analysis. For articles not selected, provide explanation as to why the study did not meet inclusion criteria.
    a. Included
    b. Duplicate sample
    c. No applicant experience measure
    d. Applicant experience measures not close enough for comparison
    e. No effect or data to calculate
    f. No applicant perception or applicant behavior variables
3. Provide a 4-digit publication year
4. Provide mean age of the sample studies.
5. Describe the type of applicant.
6. Describe the predominant race of the sample.
7. Describe the predominant gender of the sample.
8. Describe the country where the study was conducted.
9. Describe the age of the sample.
10. List the response rate percentage as reported by the researchers of the study. If not provided, calculate the response rate based on information provided in the study when possible. If not feasible, choose zero and note this in the limitations question 18#.
11. Describe the data source provided by the authors.
12. Describe the sample size at the end of the study (N=)

13. Is applicant experience included as a measured variable? YES or NO
14. Are applicant perception variables included? YES or NO
15. Are applicant behavior variables included? YES or NO

EFFECT SIZE-LEVEL CODING

Each study that meets the inclusion criteria for the current meta-analysis will be coded.

16. Study ID Number – Should match the Study ID number originally assigned during study level coding.
17. Describe instrument used in study
18. Describe type of applicant experience being measured
19. Describe type of data effect size.
20. Provide the page number where the effect was located within the study.
21. Describe the study design.
22. Describe study's operational definition for applicant experience. If not available, N/A.

For 26-31, if only separate subscales are reported, write zero here and write the subscales separately somewhere else. The average values should be the only values found here.

23. Provide applicant experience standard deviation. If not available, N/A.
24. Describe study's operational definition for applicant perception. If not available, N/A.
25. Provide applicant perception standard deviation. If not available, N/A.
26. Describe study's operational definition for applicant behavior. If not available, N/A.
27. Provide applicant behavior standard deviation. If not available, N/A.
28. Significance test: nondirectional t-value. If necessary, calculate from r and n.
29. Significance test: directional t-value. If necessary, calculate from r and n.
30. Provide the effect size.
31. Describe the confidence rating in effect size calculation based on the following options:
    a. No estimation – descriptive statistics: means, standard deviation, proportions, frequencies, etc. in which the effect size was calculated directly.
    b. Some estimation – unconventional statistics requiring conversion to equivalent t values or may have incomplete conventional statistics.
    c. Estimated by averaging the effect sizes of subscales. Authors will be contacted twice to attempt to obtain the complete measure before estimating.
32. Describe how the effect size was calculated or presented in the study.
33. Describe the source of the means used to calculate the effect size.
34. Describe the source of the standard deviation used to calculate the effect size.
35. Describe the applicant perception measure instrument.
36. Describe the applicant behavior measure instrument.

Appendix B: Meta-Analysis Candidate Studies

The systematic literature search unveiled 105 studies that were relevant to the topic of organizational recruitment websites. Out of the pool of studies, 13 were selected based on the inclusion criteria and subsequently used in the current meta-analytic review to address the two research questions:

Research Question 1: Applicant Experience and Applicant Perceptions

Banerjee, P. & Gupta, R. (2019). Talent attraction through online recruitment websites: Application of Web 2.0 technologies. Australasian Journal of Information Systems, 23(1), 1-22.

Chen, C., Lin, M., & Chen, C. (2012). Exploring the mechanisms of the relationship between website characteristics and organizational attraction. *The International Journal of Human Resource Management, 23*(4), 867-885.

De Goede, M., Vianen, A., & Klehe, U. (2011). Attracting Applicants of the Web: PO Fit, industry culture stereotypes, and website design, *International Journal of Selection and Assessment, 19*(1), 51-61.

Ehrhart, K., Mayer, D., & Ziegert, J. (2012). Web-based recruitment in the millennial generation: Work-life balance, website usability, and organizational attraction. *European Journal of Work and Organizational Psychology, 21*(6), 850-874.

Howardson, G. & Behrend, T. (2014). Using the Internet to recruit employees: Comparing the effects of usability expectations and objective technological characteristics on Internet recruitment outcomes, *Computers in Human Behavior, 31*(1), 334-342.

Pfieffelmann, B., Wagner, S., & Libkuman, T. (2010). Recruiting on corporate web sites: Perceptions of fit and attraction. *International Journal of Selection and Assessment, 18*(1), 40-47.

RoyChowdhury, T. & Srimannarayana, M. (2013). Applicants' Perceptions on Online Recruitment Procedures, *Management and Labour Studies, 38*(3), 185-199.

Sylva, H. & Mol, S. (2009). E-recruitment: A study into applicant perceptions of an online application system. *International Journal of Selection and Assessment, 17*(3), 311- 323.

Teoh, W., Tan, S., & Chong, S. (2013). Factors influencing perceptions of university students towards internet recruitment. *Asian Academy of Management Journal, 18*(1), 123-142.

Research Question 2: Applicant Experience and Applicant Behaviors

Allen, D., Biggane, J., Pitts, M., Otondo, R., & Scotter, J. (2013). Reactions to recruitment web sites: Visual and verbal attention, attraction, and intentions to pursue employment. *Journal of Business Psychology, 28*, 263-285.

Banerjee, P. & Gupta, R. (2019). Talent attraction through online recruitment websites: Application of Web 2.0 technologies. Australasian Journal of Information Systems, 23(1), 1-22.

Brahmana, R. & Brahmana, R. (2013). What factors drive job seekers attitude in using e-recruitment. *The South East Asian Journal of Management, 7*(2), 39-50.

Kashi, K. & Zheng, C. (2013). Extending Technology Acceptance Model to the E-recruitment Context in Iran, *International Journal of Selection and Assessment, 21*(1), 121-129.

Moghaddam, H., Rezaei, S., & Amin, M. (2015). Examining job seekers' perception and behavioral intention toward online recruitment: A PLS path modeling approach. *Journal of Global Business Advancement, 8*(3), 305-325.

Selden, S. & Orenstein, J. (2011). Government e-recruiting web sites: The influence of e-recruitment content and usability on recruiting and hiring outcomes in U.S. state governments. *International Journal of Selection and Assessment, 19*(1), 31-40.

Appendix C: Post-Hoc Candidate Studies

Out of the pool of candidate research studies, the following studies were selected using the inclusion criteria and subsequently used in the current meta-analytic review for each of the respective research questions. The studies are further broken out by subsets. Some studies are listed twice for they consider more than one variable of interest.

Research Question 1 Meta-Analysis Studies

There was a total of 9 studies examined as part of the meta-analysis for RQ1: *Based on the meta-analysis of selected research from the available literature on the relationship between applicant UX and their perception of an organization's e-recruitment website, is there a significant multistudy estimated effect size?* Subsets are broken out by Job Seeker, Student, Age, and Gender.

Job Seeker

Banerjee, P. & Gupta, R. (2019). Talent attraction through online recruitment websites: Application of Web 2.0 technologies. Australasian Journal of Information Systems, 23(1), 1-22.

Chen, C., Lin, M., & Chen, C. (2012). Exploring the mechanisms of the relationship between website characteristics and organizational attraction. *The International Journal of Human Resource Management, 23*(4), 867-885.

Howardson, G. & Behrend, T. (2014). Using the Internet to recruit employees: Comparing the effects of usability expectations and objective technological characteristics on Internet recruitment outcomes, *Computers in Human Behavior, 31*(1), 334-342.

Pfieffelmann, B., Wagner, S., & Libkuman, T. (2010). Recruiting on corporate web sites: Perceptions of fit and attraction. *International Journal of Selection and Assessment, 18*(1), 40-47.

Sylva, H. & Mol, S. (2009). E-recruitment: A study into applicant perceptions of an online application system. *International Journal of Selection and Assessment, 17*(3), 311- 323.

Student

De Goede, M., Vianen, A., & Klehe, U. (2011). Attracting Applicants of the Web: PO Fit, industry culture stereotypes, and website design, *International Journal of Selection and Assessment, 19*(1), 51-61.

Ehrhart, K., Mayer, D., & Ziegert, J. (2012). Web-based recruitment in the millennial generation: Work-life balance, website usability, and organizational attraction. *European Journal of Work and Organizational Psychology, 21*(6), 850-874.

Teoh, W., Tan, S., & Chong, S. (2013). Factors influencing perceptions of university students towards internet recruitment. *Asian Academy of Management Journal, 18*(1), 123-142.

Age

De Goede, M., Vianen, A., & Klehe, U. (2011). Attracting Applicants of the Web: PO Fit, industry culture stereotypes, and website design, *International Journal of Selection and Assessment, 19*(1), 51-61.

Ehrhart, K., Mayer, D., & Ziegert, J. (2012). Web-based recruitment in the millennial generation: Work-life balance, website usability, and organizational attraction. *European Journal of Work and Organizational Psychology, 21*(6), 850-874.

Howardson, G. & Behrend, T. (2014). Using the Internet to recruit employees: Comparing the effects of usability expectations and objective technological characteristics on Internet recruitment outcomes, *Computers in Human Behavior, 31*(1), 334-342.

Pfieffelmann, B., Wagner, S., & Libkuman, T. (2010). Recruiting on corporate web sites: Perceptions of fit and attraction. *International Journal of Selection and Assessment, 18*(1), 40-47.

Sylva, H. & Mol, S. (2009). E-recruitment: A study into applicant perceptions of an online application system. *International Journal of Selection and Assessment, 17*(3), 311- 323.

Tsai, W. & Yang, W. (2010). Does image matter to different job applicants? The influence of corporate image and applicant individual differences on organizational attractiveness, *International Journal of Selection and Assessment, 18*, 48-63.

Gender

Ehrhart, K., Mayer, D., & Ziegert, J. (2012). Web-based recruitment in the millennial generation: Work-life balance, website usability, and organizational attraction. *European Journal of Work and Organizational Psychology, 21*(6), 850-874.

Howardson, G. & Behrend, T. (2014). Using the Internet to recruit employees: Comparing the effects of usability expectations and objective technological characteristics on Internet recruitment outcomes, *Computers in Human Behavior, 31*(1), 334-342.

Pfieffelmann, B., Wagner, S., & Libkuman, T. (2010). Recruiting on corporate web sites: Perceptions of fit and attraction. *International Journal of Selection and Assessment, 18*(1), 40-47.

Sylva, H. & Mol, S. (2009). E-recruitment: A study into applicant perceptions of an online application system. *International Journal of Selection and Assessment, 17*(3), 311- 323.

Research Question 2 Meta-Analysis Studies

There was a total of 11 studies examined as part of the meta-analysis for RQ2: Based on the meta-analysis of selected research from the available literature on the relationship between applicant UX and their behaviors when interacting with an organization's e-recruitment website, is there a significant multistudy estimated effect size? Subsets are broken out by Job Seeker, Student, Age, and Gender.

Job Seeker

Banerjee, P. & Gupta, R. (2019). Talent attraction through online recruitment websites: Application of Web 2.0 technologies. Australasian Journal of Information Systems, 23(1), 1-22.

Brahmana, R. & Brahmana, R. (2013). What factors drive job seekers attitude in using e-recruitment. *The South East Asian Journal of Management, 7*(2), 39-50.

Selden, S. & Orenstein, J. (2011). Government e-recruiting web sites: The influence of e-recruitment content and usability on recruiting and hiring outcomes in U.S. state governments. *International Journal of Selection and Assessment, 19*(1), 31-40.

Student

Allen, D., Biggane, J., Pitts, M., Otondo, R., & Scotter, J. (2013). Reactions to recruitment web sites: Visual and verbal attention, attraction, and intentions to pursue employment. *Journal of Business Psychology, 28*, 263-285.

Kashi, K. & Zheng, C. (2013). Extending Technology Acceptance Model to the E-recruitment Context in Iran, *International Journal of Selection and Assessment, 21*(1), 121-129.

Moghaddam, H., Rezaei, S., & Amin, M. (2015). Examining job seekers' perception and behavioral intention toward online recruitment: A PLS path modeling approach. *Journal of Global Business Advancement, 8*(3), 305-325.

Age

Ehrhart, K., Mayer, D., & Ziegert, J. (2012). Web-based recruitment in the millennial generation: Work-life balance, website usability, and organizational attraction. *European Journal of Work and Organizational Psychology, 21*(6), 850-874.

Schreurs, B., Derous, E., Hooft, E., & Proost, K. (2009). Predicting applicant's job pursuit behavior from their selection expectations: The mediating role of the theory of planned behavior. *Journal of Organizational Behavior, 30*(6), 761-783.

Tsai, W. & Yang, W. (2010). Does image matter to different job applicants? The influence of corporate image and applicant individual differences on

organizational attractiveness, *International Journal of Selection and Assessment, 18*, 48-63.

Gender

Ehrhart, K., Mayer, D., & Ziegert, J. (2012). Web-based recruitment in the millennial generation: Work-life balance, website usability, and organizational attraction. *European Journal of Work and Organizational Psychology, 21*(6), 850-874.

Hosain, S., Ullah, K., & Khudri, M. (2016). The Impact of E-recruitment on Candidates' Attitudes: A Study on Graduate Job Seekers of Bangladesh. *Journal of Human and Social Science Research, 8*(1), 9-17

Schreurs, B., Derous, E., Hooft, E., & Proost, K. (2009). Predicting applicant's job pursuit behavior from their selection expectations: The mediating role of the theory of planned behavior. *Journal of Organizational Behavior, 30*(6), 761-783.