

**AI in recruitment and its relationship with employer branding.  
Exploring candidate's perception within the Irish market.**

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Master of Arts in Human Resource Management

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## Abstract

Nowadays Artificial Intelligence (AI) has attracted significant attention and is transforming businesses in a rapid, more agile way through automation. Bringing unforeseen opportunities to the working environment. This paper's main aim is to generate insights on the possible relation AI-based technology applied in the recruiting process has with employer branding within the Irish context, through empirical investigation of applicant's perception.

Being a revolutionary factor, AI, can represent a shock to the system and foster new ways of working. Therefore, it is imperative to understand the powerful role it plays at recruiting and what challenges and opportunities it carries to the Human Resources (HR) strategy, through company's image, thus impacting its attraction and retention.

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## Chapter 1: Introduction

### Introduction

AI is the latest big development with high potential to impact both human and business life. Based on the need to have a framework that regulates its life cycle, on March 2024, the UN general assembly adopted the first resolution regarding its use and creation (Anon., 2024) In which safety, security and compliance with human rights is seek (Anon., 2024) and it is expected to be the baseline for further dialogue over future development and application. Thus, representing a step stone for future governance of AI in the HR domain.

In the last years AI-based recruitment operations and technologies have evolved and increased in popularity. Transforming the industrial landscape by making tailored processes faster and more efficient (Harvard Business Review *et al.*, 2021). While improving people management, thus, being the stages of sourcing and hiring the most suitable for its adoption (Bhatt, 2023) and impacted by it.

Being some of the biggest concerns, information security and attaining a good return on investment (Bhatt, 2023). Some studies put in question the positive outcomes of adopting AI-based hiring strategies, as some AI recruitment tools have proved to have biased algorithms (Chang, 2023). As well as it has been shown that low knowledge from HR employees can undermine the adoption of AI-based technologies, leading to not fully embedment of such within the company (Snell *et al.* 2023), thus impacting candidates' experience. Aside from posing ethical (da Motta Veiga *et al.* 2023), fairness and discrimination concerns (Lavanchy, M. *et al.* 2023), being these, the main contemporary research-focused areas. Whereas there are no current studies analyzing the relation based on applicants' experience and perception between AI-based sourcing and hiring processes, and employer branding. This area of study is crucial, as companies need to be aware of AI's full scope of impact in order to effectively integrate such technological advances in building a strong AI strategy and corporate brand.

This study will explore applicants' perceptions regarding AI-based sourcing and hiring processes. In order to conduct a correlation analysis and answer the main research question: Is the use of AI-based hiring technology impacting negatively the employer branding in Ireland? It will be structured by presenting a theoretical background of concepts describing what AI is and how it relates to sourcing and hiring practices. Then, a correlation study will be presented, after which, results will be analyzed and further steps proposed.

### Research aim and objectives

As AI-based technologies permeate the HR value chain, it is important to have an interdisciplinary approach to research candidates' perception. This research's main aim is to find possible

correlations between AI-based sourcing processes and employer branding, based on candidate experience and perception of the hiring process.

The main objective of this study is to evaluate and understand the experience and perception candidates have after applying to job positions through an AI-based process, within the republic of Ireland. By collecting and analyzing data on communication, transparency, time, support, freedom and perceived fairness during the applicant's journey.

In order to attain the main objective, the following primary question is to be answered:

*Is the use of AI-based technology applied at the sourcing and hiring stages, affecting negatively the employer image in the Irish market?*

Thus, being the main Hypothesis:

H0: AI-based hiring does not affect negatively a candidate's perception of the employer.

H1: AI-based hiring negatively affects a candidate's perception of the employer.

In order to address the main objective, this research will focus on addressing the following secondary objectives as well:

1. To identify if the candidate would recommend applying to the company based on their experience.
2. To identify if the candidate would apply to the same company in the future.

The secondary research questions for this study are:

1. Would the candidate recommend applying to the company based on their application process experience?
2. Would the candidate re-apply to the same company undergoing the same process?

The hypotheses proposed are the following:

1. H02: Candidate's negative perception on the application process will not lead to recommend the company.
- HA2: Candidate's negative perception on the application process will lead to recommend the company

2. H03: Candidate's negative experience with the process will make them not willing to apply again to the same company

HA3: Candidate's negative experience with the process will make them willing to apply again to the same company

The objective, main research question and hypotheses will allow exploring candidates' experiences and perception of AI-based sourcing processes and its relation with employer branding. This, by functioning as a guide in order to highlight strengths and weaknesses in current hiring practices. In order to derive insights that can help employers enhance their recruitment process, improve candidate satisfaction, and attract top talent more effectively.

From a managerial perspective this research is relevant as it will help bring light into candidates perception towards the use of AI in the sourcing and hiring stages, an area that has not been fully researched. Whilst, function as a baseline for possible KPI development regarding employer brand, (Sherman, A., 2012)

## Methodology

This study will follow a quantitative research approach. As it can be associated to a deductive approach (Saunders, et al., 2016), where numerical data will be used to test the Hypotheses. This, in order to analyse through statistics and give an explanation to the research by data collection, from all relevant sources. In order to address the objectives previously presented and drawing answers to the research questions through hypotheses testing. Aswell as show frequencies and enable comparisons through statistical relationships between the variables (Saunders, et al., 2016).

Therefore a voluntary and anonymous survey was applied to a stratified, aleatorious sample within the Irish population. Using closed questions, likert scale questions, open-ended questions, matrix questions, in order to attain nominal and ordinales data to test the hypotheses.

## Research structure

This research is divided into six chapters in order to answer the main research question and objectives, and are as follow:

Chapter 1 provides an introduction to the topic of AI and Human Resources. It explains the main aim and objectives of this research and gives the context of rationale for it.

Chapter 2 encompasses the literature review, which summarizes existing literature available for analyzing the topic of AI in HR, and how it reflects on candidates' perception. The literature review focus on drawing light into factors that relate and influence the use of AI in the HR domain.

Chapter 3 describes the research methodology used for this study. Showcasing how the primary research was conducted in order to attain significative data and analysis.

Chapter 4 deals with the findings and analysis of the data gathered. Giving an overview of the primary data gathered through a voluntary survey of the recently hired population in Ireland within the first quarter of 2024. In order to test the hypotheses and provide a summary of the analysis in order to allow for discussion of the results.

Chapter 5 focuses on the discussion of the results based on each one of the objectives. Giving in-depth knowledge and its comparison with the previous literature review in previous chapters.

Chapter 6 presents the conclusion and future recommendations for further research. As well as the implications of the findings and personal learning are discussed.

Furthermore, the references, appendices, and tables are located at the end of this research dissertation document.

## Chapter 2: Theoretical Background

### History of AI

AI history has been influenced by diverse factors. From sci-fy literature such as Asimov's work and Turing's electro-mechanical computer and test for intelligence within an artificial system (Hoffmann, C.H., 2022).

Over the past 32 years, with the invention of computer science, the ways and value drives for business creation have shifted from tangible assets, such as machinery, to intangible ones such as people and brand recognition. Being the late very important in giving value to a company and representing up to 800% of its tangible ones, thus impacting the company's value, according to

what has lead to an increase on R&D towards maximizing these intagibles and their effectiveness on company outcomes. In regards of people and marketing, measuring long-term business value is complex, as personal perception and biases might be present.

As there is no standard method to measure such intangible assets, companies have developed their own metrics, leading to a big array of methods and techniques which can't be benchmark within the industry. Within the area of human resources, (performance-wise) this represents an area of opportunity for developing, measuring, analysing and reporting. Whilst developing a data strategy that ensures accuracy and relevancy within the short and long term.

Historically, HR systems have not been able to link business performance data with people data effectively, although this is currently evolving. As one of HR's function is to gather and link people data to other sources, such as sales, finance, etc., in oerder to measure and create strategies. Hence, the system through which this is accomplished plays a vital role in building relationships between people, strategy and performance, by gathering, sorting, analyzing and presenting information and tendencies. As a result of this, a shift into big data and people analytics has taken place worldwide, supported by the implementation of technology and AI systems.

### Understanding AI

AI can be seen as the ability of a system to interpret and learn data from external sources and learn from it in order to conduct specific tasks (Haenlein, M. and Kaplan, A., 2019), it can express different types of intelligence, e.g. cognitive, social, etc., based on which classifies into analytical, human-inspired and humanized according to (Haenlein, M. and Kaplan, A., 2019).

Its a concept that comprises such diverse technologies, which support companies attain more agile processes. From a business perspective it can be used to support automation of processes by gathering insight and analyzing large amounts of data, aside engaging with employees and customers according to (Nachit, M. and Okar, C. 2020)

Robotic process automation, according to (Harvard Business Review, 2023) is set to transform digital and physical work through technological advances, as it is suited to work back-end systems.

Such as acting on a server, instead of having a person conducting such tasks of inputting, sorting, transferring and analyzing data, tasks commonly conducted by a back-office personnel.

For conducting such tasks, cognitive insight is required. Through which, patterns are detected by way of algorithm use and interpretation of such patterns within large volume of data. These are known as machine learning (ML) systems, which can predict patterns of conduct, detect frauds, provide personalized information, manage identify safety and quality, aside others. (Lewicka, D. et al. 2024). Such systems have the ability to arrange by category and improve the use of new data to develop data-based predictions. Differing of traditional analytics by originating data intensive driven, detailed models, which insights are continuously trained in specific segments of the data set, according to (Harvard Business Review, 2023).

Deep learning is a subset of ML, composed by artificial neurons, called. software nodes. Whilst artificial neural networks are algorithms and programs that work together to solve calculations, according to Through algorithms it can train software to recognize language, images, patterns, and learn from simple concepts into more complicated ones. What makes deep learning unique is the network-layer structured learning based on the experience it self, rather than based on programming. (Goodfellow, *et al.* 2016) Therefore, well managed ML is the one trained with reliable data, thus giving feedback within previously, human-defined, parameters. Leading to remain a positive trait for systems and companies overall.

Within ML, deep learning attempts to imitate human brain activity, by recognizing patterns, images and speech. Whilst identifying probabilities within such data, regardless of specific formats and databases (Harvard Business Review, 2023).

These cognitive systems, used to improve performance, mainly, have need of high speed data analyzing, plus high level of automation. Chatbots and intelligent agents are one example of AI applied to interaction, accordin to (Albassam, W., 2023) which addresses technical queries, thus expediting processing time by answering questions and giving first line solutions and recomendations to potential candidates within the HR domain. Customized attention, information, attention, etc. can be attained. Functioning as an interactive platform between candidates and employees, with the company.

Nevertheless, a machine might not be able to discern the biases created by data, according to (Goodfellow, et al. 2016), nor the impact and consequences that might arise as a result of the outcome it is set to attain, by conducting a specific task. Giving high importance for decision making, such as whom to hire, to remain in the hands of people.

Although technological advances will be incorporated within a company, they will not be implemented instantly. Feasibility studies are to be carried, its benefits and risks to be addressed, pilot testing to be conducted, training to be given, while employees need to under go a process of adaptation. Such advances should benefit the employees and company, without loosing sight of the candidates' experience and perception on the employer and company, with such technologies.

Developing and applying new technologies, must focus on improving areas where such improvements are needed and where efficiency can be upscale.

The support, results and advice AI gives the users is based on human intelligence, behaviour and learning, and it is sought by companies as a way to enhance their overall productivity while reducing work's complexities and time (Qamar, 2022). Therefore, it can be said that by integrating advanced, state of the art technology throughout the entire value chain, improvement in performance will be achieved, thus influencing profitability. Another side for why these technologies are gaining terrain, is that they represent an improvement on decreasing error rate, compared to humans.

## AI in HR

HR is in charge of managing all human capital related processes in order to attain the company's organisational goals. Thus, having a HR strategy in place in order to source skilled employees and attain efficient development is imperative. HR is about creating value through services and dynamics that allow the right application of talent around the organization. This, through a culture that is dynamic, resiliently interconnected to business, while maintaining it's interdependency and flexibility to change.

AI in HR is gaining terrain and is becoming widely used, mainly by big firms, where every more often is in top of agendas. As it bears advantageous benefits for conducting day to day tasks, such as updating records, filing, updating employee and potential candidates' information and handle communications. Thus, having the potential to revolutionize the industry, due to its rapid expansion as a result of its benefits, ML algorithms, NLP processing and predictive analytics (Vapiwala F., Pandita D.).

Some of the main reasons to digitilise HR operations are to manage large data sets, keep accurate records and allocate resources, (Lee and Cha, 2023), such as money, time and workforce, while reducing human-based bias. Making processes such as sourcing, recruitment, selection, training and onboarding easier and faster to develop. Therefore, the efficiency of applied AI-based hiring strategies will depend on machine learning, advanced algorithms and natural language processing technologies (Nachit and Okar, 2020).

Some benefits of this technology is that it tends to be cost effective (()), whilst easy to implement and operate, thus generating high return on investment (()) in shorter time than other technologies.



Integrating technology to the HR processes can help align both the company's management strategy and its HR strategy. For example, algorithms can be created to identify potential employees considering leaving their job, as was the case of IBM. For such forecasts, indepth knowledge based on data such as performance, salary, etc. is needed and AI can help deliver it. Thus, being a clear example of people analytics and the role AI plays in it. According to Khan, Nadeem, and Dave Millner. *Introduction to People Analytics : A Practical Guide to Data-Driven HR*, Kogan Page, Limited, 2023. ProQuest Ebook Central, <https://ebookcentral.proquest.com/lib/ncirlie/detail.action?docID=30602565>.

Nevertheless, the scope of AI remains focused in conducting specific tasks and analysis, rather than having one algorithm that can be applied to several different tasks according to Prasad *et al.* (2022). Data is an strategic asset in managing busines challenges and demands. While in the past its management has been a labor-intensive task, AI technology has help change that, Thus, finding a niche when applied to HR, as making people decisions depend in a wide array of variables. This has lead to developing the area of people analytics. By leading to more automated systems and processes, avoiding data management to be conducted manually, thus leading to time saving and decreasing levels of bureocracy <https://ieeexplore.ieee.org/document/10293704> ).

The new term of HR 4.0 has been concocted in order to refere to the adoption of AI within the HR chain, ML included, relating to the implementation of specific tools such as human-machine according to Magdalena M. Stuss (2023) 'The concept of HR 4.0: A literature review', *International Entrepreneurship Review*, 9(3). doi:10.15678/IER.2023.0903.07.

<https://research.ebsco.com/c/x47o15/viewer/pdf/o4fwo2qbkz?modal=cite> Thus, influencing and changing accostumed practices, e.g. within learning and training. <https://ebookcentral.proquest.com/lib/ncirlie/reader.action?docID=30602565>, As it focuses on creating a base path to data driven decision making, strategy and planning, whilst it alignes HR iniciatives and work with organizational goals. Thus, creating new business models, while simplifiying tasks and processes. As it can update records such as candidates applications, CVs, references and personal details.

Nowadays, friendly user platforms and systems such as Workday, Personio, PinPoint, etc. focus on the end user and having an easy to manage platform. Thus yielding a high return on investment for companies. Moreover, small companies can keep their adaptability and agility to cope with fast changing working environments, trends and organizational needs, as well as their capacity to obtain data to drive change, according to <https://ebookcentral.proquest.com/lib/ncirlie/reader.action?docID=30602565>

These tools' main functions are collecting, analysing, storing and providing information to support HR management (Albassam, 2023). While conducting such labour intensive tasks, internal processes become more manageable for HR employees.

Within HR processes, Machine Learning (ML) systems are mainly used for business analytics, voice and image recognition, chat bots, HRIS databases, gamification, etc., in order to attain operational and strategic HR management goals as shown in (Nachit and Okar, 2020). Being CV screening and AI-supported interviews some of the most commonly used according to (Köchling, A. and Wehner, M.C., 2023)

#### AI-based recruiting tools:

Digital transformation has the power to influence a company's internal practices, structures, culture, etc. Linked to HR, companies use AI to leverage their position as innovative, inclusive and with a candidate-centric approach mentality. It has become more common for companies to apply digital transformation throughout their HR units. Impacting and changing some of the most HR essential functions such as hiring and assessment, workforce planning, compensation and training, among others. Aside from this, normal social exchange between employer and employees or candidates is directly affected through the use of AI. It can outline career paths and match employees with candidates. Therefore, it can be implied that practices alongside the HR stream are impacted as well (Upadhyay, Khandelwal, Iyengar, 2021). As implementing such systems fast flexible, functionality, support tasks such as requisition, job posting, sorting scheduling interviews, offering letters and reporting.

Within recruitment, AI is mainly used for optimization, onboarding, performance management and employee engagement.

([https://www.sciencedirect.com/science/article/pii/S187705092302029X?ref=pdf\\_download&fr=RR-2&rr=8962dd11d91923bb](https://www.sciencedirect.com/science/article/pii/S187705092302029X?ref=pdf_download&fr=RR-2&rr=8962dd11d91923bb) )))

The most common stages through which a potential candidate goes through are: online application, interviewing, assessment centers, to get an offer, hired and onboarded.

Within the application stage, the screening of candidates is automatized, in order to shortlist efficiently large amounts of candidates that best align to the job's specifications and requirements. In this stage, AI systems are used to gather all the required, tailored to the company needs, data from the candidate. Through the use of NLP, It can help get personalized recommendations of the most suitable candidates, by obtaining information from CVs, motivation letters, etc. and sorting them out based on preloaded questions and parameters as the company sees fit. As well as conduct all communication easy and fast, based on pre-loaded templates. Although it supports keeping track of candidate's journey alongside the pipeline at all time. This is only possible if there is right, orderly management of such softwares/systems by people in charge of such tasks. Thus making it prone to human error and biases if the person publishing the opening positions, inputting the data and managing the information is not accustomed to the system and aware of the bias possibilities at this stage.

Aside this, and based on the company's talent acquiring strategy, chatbots could be used as first line contact to solve questions regarding the application process and the particular job position. Whilst directing candidates to a particular role or employee to support them in the process.

Within the Interviewing stage, AI can schedule meetings by managing several diaries, avoiding back and forth emails, one example being Pinpoint (((((O))))). As well as conduct, record and analyse interviews, based in previously given parameters by the employer and analysing non verbal communication. It can administer and evaluate various tests, including technical skills assessments, psychometric tests, and cultural fit assessments. These tools can adapt in real-time based on the candidate's responses, providing a dynamic testing environment.((((((((O))))))) while this can speed the process and bring homogeneity through standardization. Evaluation of interviews can influence future applicants- perception, thus impacting negatively the candidate pool, aside the employer's reputation in the market. Agata Mirowska and Laura Mesnet. Human Resource Management Journal. Online first June 2021. <https://www.cipd.org/ie/knowledge/bitesize-research/diversity-talent/>

The onboarding process can be streamline by providing new hires with necessary information, training schedules, and resources. Tailored to the role and new employee. Gamification is a novel practice being used, as it can provide a rigorous assessment whilst improving the employees' experience. Another example is the use of virtual reality, which can support making the onboarding process faster and more effective (((((O))))). These are examples of AI used not only in hiring but in learning and development.

Nevertheless, AI, mainly ML systems, claim to make hiring faster, fair and more objective by scoring candidates to standardized criteria. This could represent a lower degree for diversified talent pool, thus representing a problem in the future for the company.

[https://www.sciencedirect.com/search?qs=10.1016%2Fj.procs.2023.12.039\)\)\)](https://www.sciencedirect.com/search?qs=10.1016%2Fj.procs.2023.12.039))))

## AI and Talent Management

Talent management has undergone an AI integration, in most of the cases of big companies in Ireland (Irvine k., 2024), thus revolutionizing practices. More companies are using data-driven approaches, fuel by AI systems, to recruit, evaluate employee performance and for career development (Vapiwala, F. and Pandita, D., 2024).

As it englobes recruitment, training and development, succession planning and career development, appraisal and incentives. It has to be a, impartial practices, for which AI represents

an area of opportunity, as it deals with vast amount of data in a short time, thus making routine talent management tasks easier for the employer.

Implementing AI in recruitment represents a paradigm shift, as previously HR tended to have a reactive approach towards recruitment and selection (Vapiwala, F. and Pandita, D., 2024). Evolving within the last years, towards a more proactive, technology-based approach. Having AI become part, at some extent, of the systems in most of the companies.

The heterogeneity of the talent pool in the market, as a result of generational differences, poses a challenge to companies. As the fight for qualified employees need to be tailored to their expectations, needs, minds and hearts, to avoid having a high turnover rate. AI, can predict employee turn over, according to (Irvine k., 2024). While, on the other hand, candidates to be analyzed under inflexible parameters, with low human interaction can lead to having an homogeneous talent pool. Thus, impacting the skills at the workplace.

Human resource planning (HRP) focuses on planning to meet requirements for future HR needs inside the company (Taylor, S., 2018). In order to do so, companies have move towards more agile systems, being AI new to this niche market, delivering robust amount of information with the lesser effort and time possible, through HR data analysis.

Commonly used techniques for decision making and forecasting are the Delphi method or the Nominal Group Technique, according to (Taylor, S., 2018) which can be directly impacted by AI, as it can forecast, find, match and reach out to new talent.

Forecasting future labour demand, from both internal and external sources needs to take into account skills, experience, employee perspective on remaining in the company, etc., which normally, are not assessed by AI systems.

As talent management faces pressing difficulties, such as lacks in quality, skills high rotation levels, low employee engagement, etc., a strategy must be defined. Such, might be benefited from having AI solutions in place, which can bring higher integration and flexibility, whilst boosting a learning culture within the company (Vapiwala, F. and Pandita, D., 2024).

It can provide fast and data-based performance evaluations, give feedback by analyzing trends, both internally and externally, and predict future needs and areas of opportunity, thanks to advanced algorithms. Thus, leading to improved efficiency and higher accuracy within hiring and talent management. Nevertheless, AI-based systems should be able to identify talents rather than tendencies based on wording, e.g. on CV application or body language, as discussed above.

Employees need to want to be part of the organizational culture, therefore the company must be a destination of choice. This being influenced by the intangibles and how fulfilled employees feel in their working environment. This relates to talent management, motivations, goals, needs of

employees to match that of the company. While it is directly related to how the employer is seen by both internal employees and the external market, such as competitors and potential candidates.

## Employer Branding

Within a company, marketing practices can be divided into tangible and intangible, based on the added value these attributes build upon the value of the products or services the company produces, being an example of this employer branding. As the tangible side of this HR area relates with activities such as compensation and career development. While prestige and recognition are examples of the intangible side of employer branding (Yu *et al.*, 2022). Thus, making most of a company's aim to build upon a unique brand, where both marketing and HR strategies align. Where employer branding is used as a competitive advantage. An example is through creating and maintaining a positive image in the candidates' minds by formulating connections with specific traits that are appreciated or sought by applicants, such as social engagement, innovation, family-focused company, etc. Employer image can also be influenced by the information shared through social media platforms, as this might present its work culture, hiring practices, etc. in a negative way for potential candidates (Malik *et al.* 2023).

For most of the potential employees, the selection process is their first contact with the company. Representing an important factor when building their perception of the company through their application process experience. Thus, influencing their willingness to continue the process and accept an offer (Köchling and Wehner, 2023). Hence, attaining and maintaining a positive experience for applicants, where their expectations are met (Anderson N., 2003), should be sought by companies.

It is imperative to know how AI-based platforms within the hiring process affects applicants' job perception related with branding. As perception is influenced by an individual's own cognitive processes, through which information is perceived, interpreted and remembered and through which, mental patterns are created (Aronson E., 2012). Therefore, it should be within a company's interest to know how such perception is built and affected by its approach and appliance of AI throughout the sourcing and hiring process. As this will link with the applicants' willingness to continue the process or apply for future job positions within the same company and through the same process.

It has been shown that applicants perceive AI-based selection processes unfair compared to human-based ones (Köchling and Wehner, 2023). On the other hand, giving information to the applicants, regarding the benefits of such technology being applied to these processes can lead to perceived fairness and to a better amount of company/employer attractiveness (Truxillo *et al.*, 2009). Leading to position companies as employers of choice and top employers, hence supporting and widening its branding and marketing within the employment market.

Employer branding's main aim is to attract highly qualified candidates, while maintaining a high candidate attraction within the market, as well as high levels of retention. All by conducting hiring processes as efficient as possible. Therefore, communication plays an important role, as it is the platform through which companies are perceived. Being the most common practices: website publications regarding culture, corporate identity, benefits and values, etc. It is about how company is perceived by customers, employees, and potential candidates, as well as all the people it relates to.

HR role in employer branding is regarded as a fight for talent, where getting the right, highly qualified employees is the main goal. As well as it is within the company's interest to recruit, retain and motivate them, thus impacting employer performance and attaining competitive advantage across the industry. Employer branding, being a tool used by companies to attract and retain its talent pool, can support deliver on attaining competitive advantage. While employers must assure there is no gap between perceived employer brand image and real image.

As employer branding relates to organizational development, as well, it is necessary to know and put in place benefits and practices that support employees' needs and potential, by knowing how different generations work, think, and expect from their working environment (Vieira, J. et al., 2024). All the above help attract top talent and enhance the company's reputation in the working market as a great place to work.

Strategic employer branding can be used as an approach to attain competitive advantage (Yu, K. *et al.* 2022) and it should connect and align the company's brand, values, policies and practices with people. It helps the company differentiate itself from others in the labour market by building on its reputation and supporting talent attraction and retention.

Attraction-focused employer branding allows a company to promote itself as a top employer, in order to attract and compete for best quality talent by generating a positive image in potential applicants or future employees. As well as candidates' perception about the employer, varies according to each applicant's and employee's interests and factors that brings satisfaction based on their individual preferences and needs.

Working with employer brand, it can be difficult, therefore measuring the process of candidates based on turnover, quality of hire, time to hire, reach and impression is important to attain and maintain clear knowledge of current position and possible pitfalls as employer and therefore adjust the employer approach.

## Conclusion

To conclude this section of the research, it is clear that AI-based techniques and systems play an important role within HR to sort, group and select potential candidates from the talent pool and reflect their recruitment process within the pipeline. HR practices can be time intensive and biased, therefore there is area of opportunity to apply a technology-based approach, as it allows gaining

data insight and evidence to back up and make informed decisions based on that provided by such AI systems.

Furthermore, it is inevitable for this kind of technology to become more broadly used within the companies, as it brings meaningful benefits such as downsizing recruiting times and efforts from the talent teams within companies. As well as it aids maintain clearness through out all the hiring process for hundreds, and sometimes thousands of applicants.

The fact that previous pitfalls have been shown to be present during such selecting processes, such as biases and ethical concerns. Makes evident there is room for further research at all levels, in order to better understand the deep implications and full impact these practices will have in the long term both for the companies and candidates as well.

Candidates might show some bias towards the use of AI at the hiring stages. As they are willing to trust the AI powered process once they have a positive outcome through out the hiring stages (Mirowska & Laura Mesnet, 2021) .

## Chapter 3: Research Methodology

### Introduction

This chapter focuses on describing the applied methodology used for data collection. First, it is important to highlight that research, with a business focus, investigates a specific issue within the market or working environment, through a systematic and organized approach (Sekaran & Bougie, 2016). It involves thought, and carefully executed steps that, by inquiring, investigating, examining and experimenting, leads to solving problems or questions (Sekaran & Bougie, 2016). All this, possible, by gathering relevant information, analyzing the data and drawing conclusions that solve problems, while helping understand.

### Research Objectives

It is of interest to have knowledge about the relation that such AI technology holds with employer branding and how it might influence candidates' perception on the employer.

Most studies focus on the employer's benefits, all of the above discussed, of using AI in the hiring process, leaving lower focus on the applicant's perception of having such AI based systems and tools used during their application process. Therefore, limited empirical research, makes it a novel area for research.

In order to address the main objective, which is *to evaluate and understand the experience and perception candidates have after applying to job positions through an AI-based process, within the republic of Ireland.*

This research focuses on addressing the following primary question:

*Is the use of AI-based technology applied at the sourcing and hiring stages, affecting negatively the employer image in the Irish market?*

Thus, being the Hypothesis:

H0: AI-based hiring does not affect negatively a candidate's perception of the employer.

H1: AI-based hiring negatively affects a candidate's perception of the employer.

Aswell as the following secondary objectives are addressed:

To identify if the candidate would recommend applying to the company based on their experience.

To identify if the candidate would apply to the same company in the future.



Thus, leading to the secondary research questions, which gives context, serve as pillars for the study and helps draw a conclusion to the study.

*Would the candidate recommend applying to the company based on their application process?*

*Will the candidate re-apply to the same company undergoing the same process?*

For which, the following hypotheses proposed are to be addressed:

H02: Candidate's negative perception on the application process will not lead to recommend the company.

HA2: Candidate's negative perception on the application process will lead to recommend the company

H03: Candidate's negative experience with the process will make them not willing to apply again to the same company

HA3: Candidate's negative experience with the process will make them willing to apply again to the same company

## Research philosophy and approach

The method used to conduct this research reflects and follows a positivist focus (Saunders, et al., 2016) to attain data without influence of human bias and generating accurate knowledge. This study searched for causal relationships between variables in order to draw generalizations and explanations to the research objectives.

Therefore, the method that was applied, was selected based on the type of research, and reflects the aims and objectives of this study. Thus, being a quantitative approach as it associates with positivism for its high structure of data collecting techniques (Saunders, et al., 2016)

Based on the diagram presented in (Saunders, et al., 2016) called *the research onion*, the dilemma regarding the choice of technique for collecting data and the analysis process the study was understood through its different layers in order to carry the appropriate approach and study the matter effectively. Following such diagram, this approach addresses the research by reviewing the research philosophy, the approach to develop a theory, choosing a methodology, defining the research strategy and time horizons to finish by selecting techniques and procedures for data collection and its analysis. Thus serving as a clear, comprehensive framework followed by the researcher. Following this research approach, it can be inferred that this particular study follows the positivism philosophy, with an approach to theory development based on deduction. Following

a quantitative mono quatitative approach, as the sole data collection technique was through a voluntary survey, that will allow a cross sectional analysis of the data based on attaining information regarding candidates' diverse experiences. Leading to data analysis.

## Research Design

For addressing the objectives, first an exploratory and descriptive approach was taken in order to answer basic information questions (Bryman, 2015), such as type of AI systems applied within a company's HR unit, e.g. AI-assisted, AI-managed. This in order to present a framework for this study. As well as to gain knowledge and familiatiry with the topic and situation of current studies and developments in the matter. To the, develop on the descriptive part of the study, where the variables are analised and described in relation to the interest of the study.

A review of the techniques, technologies or systems that companies use to approach candidates through internal and external promotional activities was conducted. In order to build upon the main research of a correlation between AI-based technology usage in hiring processes and employer branding.

The above was done, in order to develop the suited research design. For it acts as a framework for planning the research study by giving parameters under which the data is defined and collected based on the needs of the study. Thus taking into account the time span for conducting the study, participants, variables and hypotheses under specific methods of collecting such data and analising it (Sekaran & Bougie, 2016)

As quantitative research associates with a descriptive approach, examining relationships between numerical variables, which are analysed statistically and graphically. It suits the purpose of this research study aim and objectives. As one of the different types of quantitative research focuses on survey research (Sekaran & Bougie, 2016)it is associated with survey and experimental research.

Therefore a voluntary and anonymous survey was applied to a stratified, aleatorious sample within the Irish population. Using closed questions, likert scale questions, open-ended questions and matrix questions, in order to attain nominal and ordinal data to test the hypotheses. Ensuring questions were clear and eassy to understand, as well as the questionnaire length was suited for purpose

## Population and sampling

The aim of estimating the right sample size is to attatin relevant differences within the study, for which the population first needs to be define. The population within a research study referes to the

entire group (Saunders, et al., 2016) within the scope of the research based on the characteristics previously defined. It is the most suitable source from which primary data is gathered, and from which the sample is drawn. Thus, being a significant segment of the total population, from which information can be collected and extrapolated to represent the total population (Sekaran & Bougie, 2016)

The larger the sample size, the lower is the probability error in making generalizations and assumptions, never the less the higher need in other resources, such as time and access to bigger pool of participants (Saunders, et al., 2016). Therefore, attaining the right sample is also based on compromises between accuracy of findings, money and time invested in the study for collecting and analyzing the data. The smaller the sample size, its practical implications regarding these resources is greater, never the less the level of significance can be affected and shown as false positives (Bryman, 2015) and no extrapolation of the results would be possible.

The target population of this study is the people who have applied to an online job within the last 2 years within the republic of Ireland. As there is no official data published regarding this specific sector of the Irish population, an approximative calculation was drawn, instead, from the job vacancies reported by (CSO, 2023) which for 2023, where of 25,500. This for sample building purposes, as it cannot be drawn, only, from the unemployed people, as the percentage of those actively applying to jobs online is unknown. Furthermore, focusing only on the percentage of hired people is not viable, as there are unemployed people that are actively applying. As well, as it would imply going back in time, therefore changing the study type to a generational approach.

Therefore, a primary focus on the vacancy ratio of 1% for 2023 (CSO, 2023), referring to 23,100 job vacancies was taken into account. The job vacancy rate is used to measure and express as percentage the amount of vacant jobs. While a job vacancy is seen as a paid post, for which the employer is actively seeking external candidates to fill in the short time (CSO, 2023). The level of certainty, known as confidence, in the data collected represents the target population (Saunders, et al., 2016).

As the unemployed population between the ages of 15 and 74 years old. According to the Central Statistics Organization (CSO, 2023) 115,200 people were within this range during the first quarter of 2024. As well as the amount of households with internet access, 94% according to (CSO, 2023) Thus being the total population of interest based on unemployed people with access to internet within the household, amounting for up to 108,288 people.

#### Data collection method

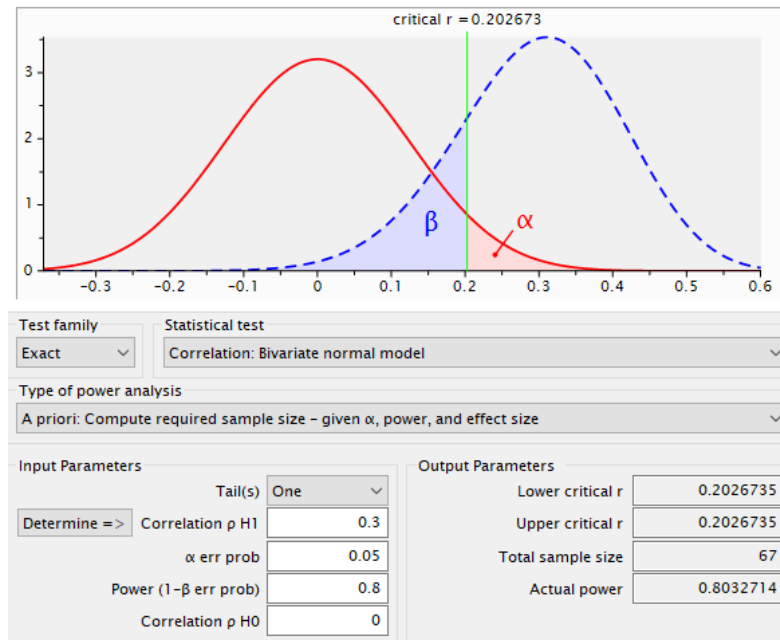
The data collection method depends on the type of study to be conducted (Bryman, 2015) and the aim of the research. As a hundred percent rate of response is practically unattainable, the sample

size will normally need to be larger in order to attain sufficient number of responses for the margin or error that is required (Saunders, et al., 2016).

Nevertheless, the collecting method, focused in target population characteristics, such as employment status and platform of application, as AI based applications are only available through the internet. Leading this to be one reason to the application method of the survey online, as well.

As it is this study aim to find relation between variables, sampling for a Pearson correlation was put in place. For which the sample size was determined through G\*Power as it follows, thus showing a sample size needed of 67 participants for a medium, predefined, correlation value between the population ( $\rho_{H1}$ ) of .3, a type 1 error probability of .05 and a type 2 error of .8.

Figure 1: Sample Size for a Pearson Correlation



Through a probability sampling, 67 participants were drawn randomly from the population, limiting participation to Ireland-based participants. Therefore limiting the demographic distribution of the sample only based on location, as none of the most common demographic factors, such as age, sex etc. are meaningful for the scope of this study. Nevertheless, other demographic data was gathered such as employment status and industry to which the candidates applied, in order to give support an wider scope to the study.

For which, data Analysis was conducted through SPSS, in order to attain the central tendency and variances of applicant's perception regarding their own experience with AI-based sourcing and hiring processes.

In order to assess the correlation whether AI-based hiring factors contribute to employer branding perception by applicants, and provide a comprehensive analytical review of the benefits and risks, a set of questions will be asked (Appendix A). This in order to conduct a bi-variate correlation analysis and attain the correlation coefficient and the coefficient of determination (Lunenburg, and Irby, 2008) in order to determine how much the variances have in common.

This will lead to answering the research hypotheses, for which, both likert and dichotomous data scales were applied.

H0: AI-based hiring does not affect negatively a candidate's perception of the employer.

H1: AI-based hiring negatively affects a candidate's perception of the employer.

Thus being the independent variable the candidates's perception, while change of the candidates' perception of the company is the dependable one.

Regarding the secondary research questions and answering the following hypotheses, the variable type is as follows:

H02: Candidate's negative perception on the application process will not lead to recommend the company.

HA2: Candidate's negative perception on the application process will lead to recommend the company

Thus being the independent variable the candidates's negative experience, while willingness to recommend is the dependable one.

H03: Candidate's negative experience with the process will make them not willing to apply again to the same company

HA3: Candidate's negative experience with the process will make them willing to apply again to the same company

Thus being the independent variable the candidates's experience, while willingness to apply again is the dependable one.

In order to examine the relationship between variables, such as differences and trends. The data was divided into categories.

### Data analysis

In order to attain this research objectives, a correlational research was conducted in order to highlight relations between variables, through a quantitative approach. There are four different types of correlation research analysis, being the Spearman, Pearson, Kendall and Point/Biserial. (Saunders, et al., 2016) Which are used to quantify, through the correlation coefficient, the degree to which two variables are related, and how much one variable changes when the other variable changes as well (Saunders, et al., 2016).

This study follows a Pearson correlation as this quantifies the degree to which two variables are related without manipulation of any sort.

Therefore both a descriptive and inferential statistical approach will be in place. As descriptive statistics will deliver on gaining insight on the perception that AI-based techniques have on candidates. This by obtaining and analyzing the mean, median and variance (Saunders, et al., 2016). While the inferential statistics will focus on the dependent and independent variables used to test the hypotheses, through the application of a Pearson correlation.

For this, the data previously gathered through a Google forms survey, was then gathered into Microsoft Excel to then be analysed in IBM SPSS. This to analyse and understand the gathered information in order to draw conclusions into the hypotheses.

### Ethical considerations

Conducting research studies requires to have ethical integrity throughout the process and it should be reflected in the sampling and collecting data methods. This in order to ensure the participants' health and welfare, and to ensure they don't undergo any stress or unethical practices in order to obtain the research data (Sekaran & Bougie, 2016).

Therefore, the survey was made available online and through social media, LinkedIn. Giving a statement regarding the scope and aim of the study, as well as the participants' full capacity to withdrawn from the survey process at any given time. As well as no personal data was collected, therefore no responses can be traced to any of the participants. Thus, respecting privacy and anonymity. As well as it was stated the aim for such study is solely academic.

### Limitations

Some of the limitations of this study were the ones directly related to the research methodology and research process. Thus being the most visible time constraint, as the study was conducted in a short time. Thus completing research survey was impacted by attaining less participants than the seek sample size. Therefore the margin error type 1 would be greater than the initial .3

The length and depth of the study was longer than feasible for the 3 months window for conducting it. This as a result of the eagerness of the researcher and the level of interest on the research topic, as well as having no previous knowledge regarding AI technologies and its in-depth technical use regarding sourcing and hiring. As well as conducting this research will maintaining a full time job position within the talent unit at a firm.

## Conclusion

It is vital to understand the scope and significance of the research methodology applied to the study, in order to build on the analysis and conclusions. Through explaining the various factors involved in data collection and analysis. As well as giving a clearness on the steps to conduct a research and the importance of acknowledging the ethical impact such research has on the participants.

## Chapter 4: Findings and Analysis

A cross sectional research between the variables previously addressed was conducted. For such quantitative method, voluntary and internet based, questionnaires were applied, focusing on participants based in Ireland. Use of secondary data through peer reviewed articles, books and CIPD publications was used to give theoretical framework to the study.

From the total sample size needed of 67, the survey was answered by 55 participants. Having three complete refusals, thus leaving the study with 52 fully viable participants from which the analysis was drawn. Although, the actual sample size was smaller than the foreseen, expected size, due to time constraints previously explained. It locates within range according to error type 1, therefore the study remains significant to draw conclusions on the objectives.

The study recollected a wide range of information in order to build on a wider picture of the candidates experience and situation during their application process online. In order to then focus on answering the study research questions in depth. This, as a way to bring light into future areas of research and steps to take towards AI implemented in the working environment.

First, demographic data regarding how long ago did the candidates applied to an online job was obtained. Showing in Figure 2 that, although 80% of participants applied within the last two years as shown in Figure 3. There is a significant amount of the sample that applied in a time span of three to five years and up to 8 or more years.

Regarding the industry to which the candidates applied, the study showed that the major two industries with candidates are the accomodation and hospitality as well as the technology industry, with 25% and 19.2% respectively as shown in Figure 4. This can be a reflection of Irish market, as those industries are some of the industries with the most workers in Ireland (CSO, 2023). Whilst the job level to which most of the applicants applied was entry level (46.2%), followed by mid senior level roles(28.8%), and senior roles (25%). Whom applied mainly through social media as seen in Figure 5 with a total of 51.9% of the total sample. This highlights how important are nowadays social networks when it comes to candidates' place of preference when applying to a new job.

All the above builds on the candidates' profile and work as a base for drawing on further general assumptions, giving context to the current market situation within Ireland.

Communication is an important trait that influences the candidates' perception through out the entire process and its perception regarding the company it self. It was discovered that the lack of communication from the company after the application was made is high as shown in Figure 6 with 78.8% of applicants stating they never received feedback. Nevertheless from the remaining21.2% that did received feedback, this was perceived as good in terms of clearness and usefulness as seen in Figure 7.



While, from 84.6% of candidates that stated they received a response acknowledging their application, 77.3% said they received an automated email reply, against 15.9% that stated they received a personalized email. Thus, showing there is higher percentage of unpersonalized contact with the candidates.

From the total sample, 61.5% of the applicants did not attain the job they applied for, being 65.6% of them rejected at the first stage of application. What is of high significance is that from the rejected amount of participants, the 31.3% did not receive any type of communication or acknowledgment to let them know they were not selected as shown in Figure 8.

On the other hand, from the 38.5% of candidates that did get hired, 85% of them received onboarding. Where usefulness and clearness of such practice was seen as good, but only 17.6% of them said some type of AI was used during the process as seen in Figure 9.

Regarding rejection, it was shown that although 68.8% of applicants did receive a notification letting them know their process was unsuccessful. Nevertheless, 81.8% of them, received an automated email to communicate such decision. Either a lack or misfitted communication in such matter has a relation with candidates' perception of the company and can relate to other variables such as their willingness to apply to the same company in the future.

Aside from the above, it was shown that candidates perceived the quality of communication based on time with the possible employer to be good at 44% according to Table 1, as well as clearness, detail quality and easiness of communication were graded good as well. Whilst helpfulness of communication shared was poorly rated.

*Table 1: Communication perception*

|  | Poor  | Fair  | Neutral | Good  | Very Good |
|--|-------|-------|---------|-------|-----------|
| CommunicationQualityBasedonTime        | 19.2% | 7.7%  | 17.3%   | 44.2% | 11.5%     |
| CommunicationQualityBasedonClearness   | 21.2% | 9.6%  | 25.0%   | 30.8% | 13.5%     |
| CommunicationQualityBasedonDetail      | 26.9% | 11.5% | 23.1%   | 28.8% | 9.6%      |
| CommunicationQualityBasedonHelpfulness | 26.9% | 11.5% | 26.9%   | 25.0% | 9.6%      |
| CommunicationQualityBasedonEasiness    | 17.3% | 5.8%  | 21.2%   | 42.3% | 13.5%     |

An important trait discovered in this study was that a high percent of participants were either unaware or unsure that AI was used during their application process with 50% and 26.9% accordingly as seen in Figure 10.

Through a likert scale, perception on diverse topics, such as perceived fairness, matching candidate to the job accuracy, review time reduction, candidates' comfortability on AI usage, transparency on the use of AI during the process and candidates' perception being affected by AI in screening was gathered. As depicted in Table 2 the majority of the candidates that were aware of the use of AI during their application process, the majority stated that they find AI does not evaluate their

application, as well as there was a lack of transparency from the company regarding the use of such technology.

Table 2: Level of candidates' acceptance of AI

|  | 0     | Disagree | Neither disagree nor Agree | Agree |
|--|-------|----------|----------------------------|-------|
| AI Fairly Evaluate                         | 76.9% | 17.3%    | 3.8%                       | 1.9%  |
| AI Matching Accuracy                       | 76.9% | 7.7%     | 11.5%                      | 3.8%  |
| AI Reduced Review Time                     | 76.9% | 9.6%     | 0.0%                       | 13.5% |
| Comfortable with AI Use to Assess          | 76.9% | 11.5%    | 7.7%                       | 3.8%  |
| Company Was Transparent About AI Use       | 76.9% | 15.4%    | 5.8%                       | 1.9%  |
| Perception Affected by AI Use in Screening | 76.9% | 1.9%     | 9.6%                       | 11.5% |

Regarding perceived freeness to express themselves freely throughout the process, 53.8% of participants stated they could do it, but 46.2% did not think they were able to showcase their suitability and abilities in accordance to the job position as seen in Table 3. Whilst 11.5 % agreed their perception could be affected by knowing AI was being used in the screening process.

Table 3: Freeness to showcase one self

|                              | yes   | no    | unsure |
|------------------------------|-------|-------|--------|
| Free to Express              | 53.8% | 32.7% | 13.5%  |
| Able to Showcase Suitability | 34.6% | 46.2% | 19.2%  |
| Able to Showcase Abilities   | 36.5% | 46.2% | 17.3%  |
| Questions Describe Applicant | 28.8% | 28.8% | 42.3%  |

## Hypothesis testing

Hypothesis testing is conducted in order to explain the nature of the relationship between the variables, and analyse differences on factors within a given situation. (((RED)))

The type of investigation for testing the hypotheses undertaken in this study is a Pearson correlational study, as there is an interest on identifying the important factors associated to the research objective. Thus, defining the correlation between variables, as well as factors that unmistakably contribute to the problem the hypotheses try to solve.

Furthermore, a correlational research, being conducted with minimal interference from the researcher within the process, sometimes can see conditions within the study frame alter to gather data regarding those alterations (((red))). Nevertheless, in this case, variables were not manipulated to study and/or establish cause and effect relationships.

This will lead to answering the research hypotheses, for which, both likert and dichotomous data scales were applied. A person correlation for each of the hypotheses was conducted in order to estimate the relation between the variables score on an interval level.

H0: AI-based hiring does not affect negatively a candidate's perception of the employer.

H1: AI-based hiring negatively affects a candidate's perception of the employer.

Thus being the independent variable the candidates' overall satisfaction, while how perception changed is the dependable one. As shown in Table 4 .

*Table 4: Correlation of Overall Satisfaction and Perception change*

| Correlations                     |                     | OverallSatisfac<br>tionwithAIUse | HowPerception<br>Changed |
|----------------------------------|---------------------|----------------------------------|--------------------------|
| OverallSatisfactionwithAIUs<br>e | Pearson Correlation | 1                                | .031                     |
|                                  | Sig. (2-tailed)     |                                  | .830                     |
|                                  | N                   | 52                               | 52                       |
| HowPerceptionChanged             | Pearson Correlation | .031                             | 1                        |
|                                  | Sig. (2-tailed)     | .830                             |                          |
|                                  | N                   | 52                               | 52                       |

Where overall satisfaction with AI use is correlated with how perception changed, but being the correlation coefficient of .031, with a significance level of .830. It can be inferred that the correlation is strong as it is 1, but it is not significant as the significance level is grather than .05. Therefore meaning that although there can be a relation between the variables of overall satisfaction with the use of AI and the variable How perception changed. There is not significative relation that can lead to say that each of the variables will reflect and affect one other.

Regarding the secondary research questions and answering the following hypotheses, the variable type is as follows:

H02: Candidate's negative perception on the application process will not lead to recommend the company.

HA2: Candidate's negative perception on the application process will lead to recommend the company

Thus being the independent variable the candidates' overall satisfaction, while likeness to recommend is the dependable one.

*Table 5: Correlation of Overall Satisfaction and Likeness to Recomend*

| Correlations                                  |                     |  |   |
|---|---------------------|--|---|
|   |                     | LikelytoRecom<br>mendHiringPro<br>cess | OverallSatisfac<br>tionWithApplica<br>tionProcess |
| LikelytoRecommendHiring<br>Process            | Pearson Correlation | 1                                      | .853**  |
|   | Sig. (1-tailed)     |  | <.001   |
|   | N                   | 52                                     | 52  |
| OverallSatisfactionWithAppl<br>icationProcess | Pearson Correlation | .853**                                 | 1   |
|   | Sig. (1-tailed)     | <.001                                  |   |
|   | N                   | 52                                     | 52  |

\*\* . Correlation is significant at the 0.01 level (1-tailed).

Through Table 5 it was shown that there is a direct correlation between candidates overall satisfaction with their application process and the likness that they will recommend the hiring process. As the correlation coefficient is .853 and the significance level is lower than .001, thus indicating the correlation is significant and therefore, one variable affects the other in a direct proportional way. Meaning that higher the overall satisfaction, the more likely the candidate will recommend such process.

Regarding the analysis of the third hypothesis, the following variable analysis applied.

H03: Candidate's negative experience with the process will make them not willing to apply again to the same company

HA3: Candidate's negative experience with the process will make them willing to apply again to the same company

Thus being the independent variable the candidates's experience, while willingness to apply again is the dependable one.

Table 6: Correlation of experience and willingness to apply again

| Correlations                                  |                     |                        |   |
|---|---------------------|------------------------|---|
|   |                     | LikelytoApplyAg<br>ain | OverallSatisfac<br>tionWithApplica<br>tionProcess |
| LikelytoApplyAgain                            | Pearson Correlation | 1                      | .663**  |
|   | Sig. (2-tailed)     |                        | <.001   |
|   | N                   | 52                     | 52  |
| OverallSatisfactionWithAppl<br>icationProcess | Pearson Correlation | .663**                 | 1   |
|   | Sig. (2-tailed)     | <.001                  |   |
|   | N                   | 52                     | 52  |

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Based on Table 6, it was shown that there is a direct correlation between candidates overall satisfaction with their application process and the likness that they will re-apply to the same company, undergoing the same selecting process again. As the correlation coefficient is .663 and the significance level is lower than .001, thus indicating the correlation is significant and therefore, one variable affects the other in a direct proportional way. Meaning that higher the overall satisfaction, the more likely the candidate will be willing to apply and undergo the same process in the future.

## Chapter 5: Discussion

### Discussion based on objectives

Getting knowledge on the candidates' time of application to jobs online, it was shown that the parameter of two years proposed by the researcher, is narrow. Although the two year span was put in place as a way to discern and increase the probability that participants have had undergo an AI-based application process. As technological developments are fast changing and the AI boom has take place within recent years. Never the less, it was shown that although participants applied before this selected parameter of two years, could have had an AI-based experience. Thus making them viable to research.

Regarding the industries with higher level of applicants, the study shows reliability and truth in the answers gathered from the participants, as it showcases the reality of the market.

Although, most of candidates didn't received feedback on their application, the amount that di received it perceived it as good in terms of clearness and usefulness. Thus reflecting on an unexpected outcome, that might imply not giving feedback is a commo practice within he working environment. At the same time it shows that little effort, such as providing such feedback can have a big impact on candidates' perception and acceptance. On the contraty, not receiving any type of communication after not getting selected might haver a greather negative impact in the candidates' ming if added with other perceived communication issues with the company.

Communication is known to be important at all levels of work at any company, and in this research it was shown that it is important when it comes it relation to AI. As although 47% of candidates recognices their opinion after knowing AI was used within the sourcing process would have changed their opinion of the employer. It is true that the other 52.5% states the contrary. Therefore, having clear, on time, detailed and helpful information with the candidates is important to most of them and it can help either overcome AI fears or doubts regarding the use of personalized and empathic communication.

Regarding on boarding, The amount of 82.4% participants stating that no AI was used during their onboarding but still the process it self was seen as good in terms of usefulness and clearness. Can lead to assume that, although AI-based systems might bring the benefits discussed in `previous sections of this study. It does not reflects on the usefulness and clearness perceived by the candidates. Therefore it should be analized in depth by a company before investing in such programs, based on their return on investment and real, tangible benefits putting such practices in place can have.

Receiving low acknowledge during application and poor or none feedback at all can lead candidates to feel and state concern about higher percentage of unpersonalized contact with the company recruiting team. As well as the data obtained regarding communication quality shows that all parameters are labeled as good, except for the helpfulness of such communication. This could mean the candidates either find it unusefull for their particular application estatus, as well as

they might feel it will not help them in future applications. Or even feel a lack of hope on attaining the job, as a result of such low fitted and tailored communication.

Regarding rejection, the high amount of unpersonalized rejections via automated email can show a lack of direct contact from the company side, which could be seen from the candidates' perspective as lack of empathy, interest or even respect. This area would need further study based on specific perception and emotions arising from such activity from the employers.

The high percentage of participants unaware and unsure of AI usage draws light on the lack of knowledge of such technology and practices within the employment market. As nowadays, most of the companies uses some sort of ML at some level within their hiring processes. Such use might not be representative or of high extend within their processes. Nevertheless applicants should be aware what processes their applications undergo, and which specific technologies are part of such processes. This in order to bring clearness and build on ethic procedures and practices, which could lead to a higher perception and rate of participation from the candidates. As well as build some empathy towards the company and the HR hiring team and their work sorting hundres and sometimes thousands of applications.

For the candidates that recognized the use of AI during their application process, the majority estated that they find a lack of fairness in evaluating their application, a well as a lack of transparency about the process characteristics and steps. This corroborated what was presented before regarding AI-based systems perceived as unethical and lacking transparency.

The discrepancy highlighted between the candidates that did not think they were able to showcase their suitability and abilities in accordance to the job position, but at the same time they could express freely, shows a dichotomy that could be a result of the data gathering system e.g. clearness on wording and asking cuestions, or could show participants' bias towards their own strengths, abilities and how they think they are being perceived. Therefore this is an area that can be further analysed and develop.

Further more, although the first correlation was negative and therefore the hypothesis must be rejected:

H1: AI-based hiring negatively affects a candidate's perception of the employer.

Therefore showing that no correlation is in place between the variables, what leads to say that candidate's overall satisfaction has no relation to how his or her perception of the employer changes. Therefore, such change cannot be attributed to the use of AI within the sourcing and hiring process. Never the less, having a positive correlation on the other two hypotheses:

HA2: Candidate's negative perception on the application process will lead to recommend the company. And HA3: Candidate's negative experience with the process will make them willing to apply again to the same company.

This shows that candidate's overall perception of the process does have a direct relation on their willingness to recommend the process and the company, as well as to undertake the same process in the future.

Therefore, showing that employer branding will not be as affected negatively as it was first thought, before conducting the research. Never the less, there were other variables that shown importance and could be decisive when take decitions on own perceptions, such as communication quality.



## Chapter 6: Conclusion and recommendations

### Conclusion

Measuring perception can be subjective and influenced by external factors that may impact candidates' perception, such as recruiter's biases, candidates' biases e.g. emotional attachment to the topic.

The lockdown in 2020, influenced the spread of data-driven technology and systems and as a result the level of acceptance was increased due to its benefits. This, plus the fast developments in the AI sector are big concerns regarding the extend to which AI will shift the work environment, leading to redundancies and the lost of employment opportunities. Never the less, working environments should be prepared for changes involving jobs where hard skills plays a vital role. As more likely these will be impacted at some extend by AI embedment within companies' systems. Rather, focus should be put into developing new soft skills. As employment where the human factor plays a key role, are less likely to be higly impacted by AI. Therefore, a shift in paradigm regarding soft skills should be attained, as they are most likely to become the new hard skills in the employment market. Hence employees must upskill in order to remain essential.

Throughout this study it was show that communication plays a key role when dealing with candidates' perception. Therefore it is of high importance for companies to be aware of their communication practices, based on quality, time to deliver, clearness, helpfulness as candidates find this trait very important during the sourcing and hiring process. Being investment in communication systems to attain, tailored, fast and up to date communication with candidates an important task to be undertaken by companies. This might represent an issue as the application of AI within the working environment aim is to make processes leaner and faster. Therefore, it might seem contradictory to having tailored communication in place.

### Recommendations

Because of all the above, it is important tha companies invest in communicating on their sourcing and hiring processes, specialy if there is AI involved as this can help them be perceived as ethical employers. Thus, possible, consolidating their employer brand in the market. As well as educating candidates regarding such utilized technologies, in order to avoid possible barriers and missconceptions from the candidates. Such changes should be seek to be attained within the short time of up to 1 year, if the companies what to keep attracting high quality talents.

As well as more focus should be put on candidate and employee experience, aside researching and focusing on the obvious benefits to operations and performance management. One of this, being talent analytics and talent development, as AI evolves continuously in a fast moving market, leading to a higher demand for specific knowledge and skills such as adaptability, talent management, and empathy. Skills that were once seen as soft skills, will be in the future more likely to be seek by employers, thus transforming them into hard skills. Such new skills will be

around data and people based functions, with a human centric approach such as mobility, ageing workforce, etc. This will lead to changes in career development, HR cycles and human capital rotation. Therefore finding ways of retaining talent and skills around data and people functions are crucial in order to attain successful businesses.

More emphasis on people and mobility should be brought back to the Irish market, as within the last year the changes that took place after the 2020 pandemic are starting to be drop by the companies, thus returning to onsite working, leaving lower emphasis on work-life balance. This, plus incursionating in the AI-based processes could bring more uncertainty into the working place, thus leading to higer stress imposed to the workforce if such changes are not correctly presented and introduced, thus leading to change aversion and rejection of the new technology.

### Implication of findings

Develop new skills for business will be key to all companies, and they would rather focus on this than on trying to avoid AI technology.

Although, such processes and technology promess greater productivity by decreasing time spent and managing high levels of data in an easier way. It is of vital importance to pilot any new AI project within the company, before mass application. Through such process, employees' and candidates' opinions should be surveyed in order to know possible pitfalls and future ares of opportunity.

AI is often used in ways it can not be controlled, therefore companies need to get ahead of it, and figure ways to use this technology in a positive way that impacts positively the entire talent pipeline.

Candidates' perception is an important component of a business. It could be a good approach to see them as consumers and analyse the treatment and relationship in a consumer focused approach. Taking into account candidates' satisfaction as if they were consumers. i

A user-friendly system is intuitive, efficient, and accessible, allowing users to accomplish tasks or goals with minimal effort and frustration. User-friendliness often involves clear communication, intuitive design, logical workflows, and consideration for the diverse needs and abilities of users. It aims to provide a positive and satisfying user experience by prioritizing usability and ease of use. It prioritized needs and expectations of users. HR could have the same approach towards potential candidates, as this will lead to a higher perception of human-based approach. In other words, the optimal combination of human and automated systems at work, should be seek.

Companies will need to analyse carefully the best timing and tools if they have the resources and preparedness, to get to know how to manage new knowledge, data bases, security of information, as well as hidden costs of applying such technologies.

Giving employees encouragement to explore and not from a position of power and imposition, but rather of curiosity and inclusion can be a good approach to implementing such technical advances within the company. As well as training will be needed to be conducted for managers and employees, in order to shift in skills and adopting of new ways of working.

Skills in managing and coaching people will need to be develop in new ways, as well as human judgment skills will play a more important role for finding good solutions, otherwise it will only represent creating more content, without giving any meaningfull benefit. By enhancing operative efficiency and allowing companies to become more dynamic and responsive to the working environment and job market.

### Future research

Nevertheless, further research to define and address the full scope of AI-based systems within HR management should be conducted in order to identify and highlight the full spectrum of challenges, applications and possible pitfalls these systems could have within organizations. Some examples of areas of research directly related to this study are the following:

- What is the impact of AI-based sourcing technologies on candidates' applications if they have special needs. This specific topic can be a ground breaking research as there are no studies regarding how accessible, easy to understand, use and apply through such processes has on neurodivergent populations for example.
- Aside from this, candidates' performance and suitability for the job post e.g. critical skills, team work, cultural fit, resilience, throughout the hiring process could be measured.
- Further areas of study could be measuring employee's acceptance and engagement towards AI-based recruiting technology. As workers have a tendency to seek support and learning themselves in order to adjust and meet the changing needs that a digitalized evolving workplace possess. While overcoming obstacles such as training costs, time to learn and employer support (Janevski *et al.*, 2023).
- As well as other areas of study could be analysing AI-on boarding technologies and its impact on learning and development techniques.
- AI based hiring strategies must evolve in order to take into consideration legal and ethical issues, therefore having and applying the right policies regarding the usage of AI in HR context must be addressed. Making this another area of possible, further research.
- Social behaviour regarding AI usage in hiring process, e.g. people adapting and masking their CV.
- How much does AI resembles the delphi technique

- AI and leadership relation. What skills and competencies a manager or employer should give to employees while being able to manage disruption due to AI disruption within the company.
- New future job positions and specific needs to be created as a result of AI-based systems, such as how and which skills to develop for future AI based tasks
- Analyze how different generations perceive the Use of AI in their hiring process.
- Analyze the psychological impact of AI in HR processes.

From the Company's perspective it can be interesting to study the following:

- How is the quality of hired employees changed after using AI-based systems?
- How AI will lead to generate new working profiles and skills

### Personal learning statement

Taking on this research, has been one of the most challenging things in my academic experience in Ireland. In part because I am working fulltime as an intern in the talent team within an Irish firm. But mainly because I was unaware of the process to conduct scientific, statistical research.

The topic being so new and broad, presented a limitation when it came to write the literature review. Aside the time constraint, previously discussed, of three months to conduct such indepth research in order to attain significant robust information. For which, selecting the appropriate research approach was time consuming as well as for the lack of knowledge.

Never the less, although I have no knowledge on the AI topic at all, I am glad I decided to follow through with the topic, as it is one that intrigues me and I always wanted to learn more about it. Therefore this dissertation served me as a way to push myself to attain such knowledge on the topic.

Analysing through SPSS, was a challenge as I never worked with the software before. Thus the learning curve was exponential within such small time frame for the study.

Furthermore, the study helped me link the theory and what I learnt at previous lectures in the university with my work as an intern as it is within the talent team, it relates directly to the research topic. This made me more aware at my work place and my daily interactions with candidates as we do use some level of AI within the recruitment process. Therefore, personally, this is a study that will continue to have a positive impact in my professional life. Through which I gained the basic knowledge to carry my daily work and it has helped me so far to analyse and look for areas of opportunities within the firm I work in currently. One example is to think on how roles will be reshaped to AI, and what new skills will become indispensable within the firm for the upcoming 5 years.

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Figures and Tables

Figure 2: Applications within the last two years

Have you applied to a job online within the last 2 years?  
55 responses

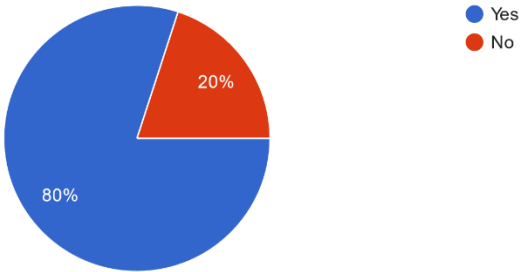


Figure 3: Time span of application

How long ago did you applied to a job online?  
9 responses

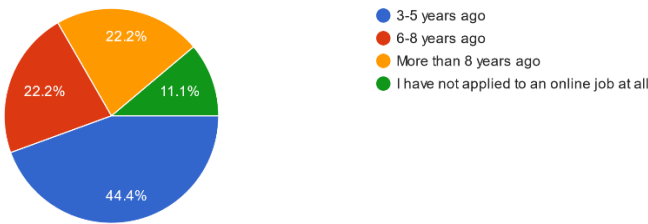


Figure 4: Percentage of applications based on Industry

To which industry did you apply? If you applied to more than one company, please select only one.

52 responses

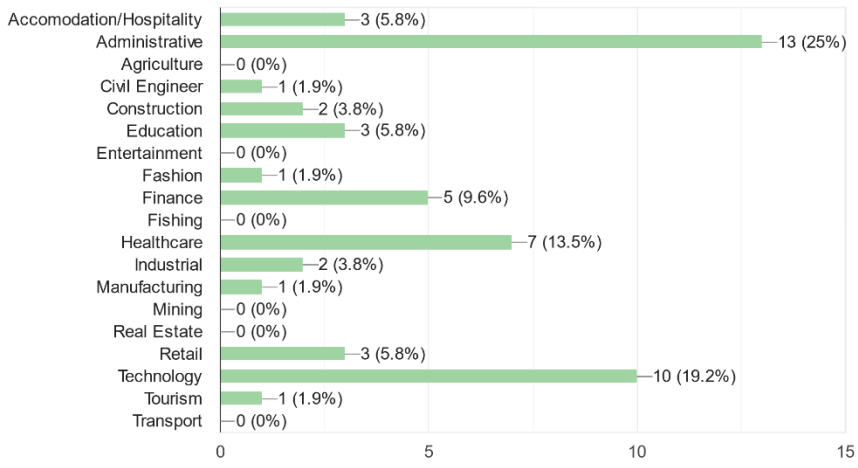


Figure 5: Platform used by applicants

Through which platform did you applied?

52 responses

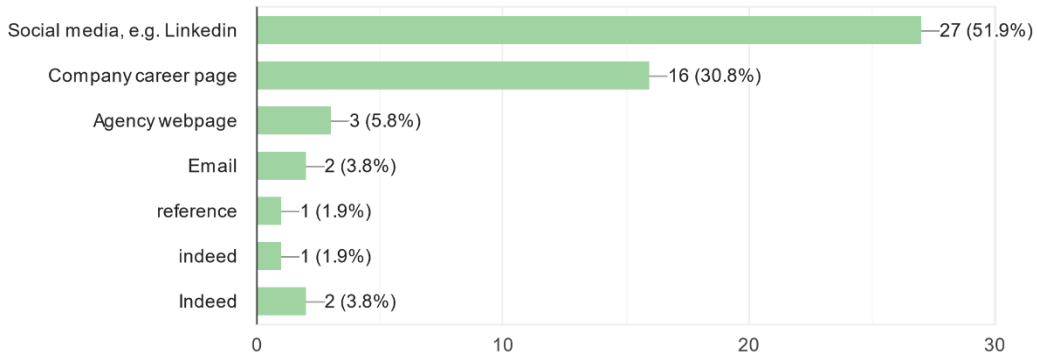


Figure 6: Personalized feedback

Did you received personalized feedback after the application process?  
52 responses

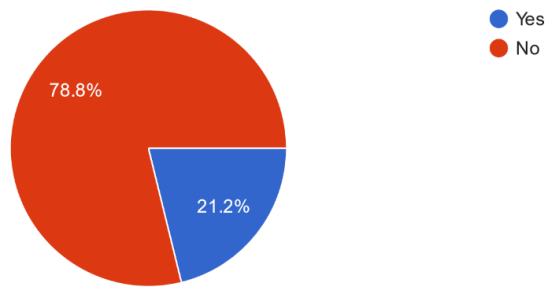


Figure 7: Quality of Feedback

How would you rate the quality of the feedback received, based on the following:

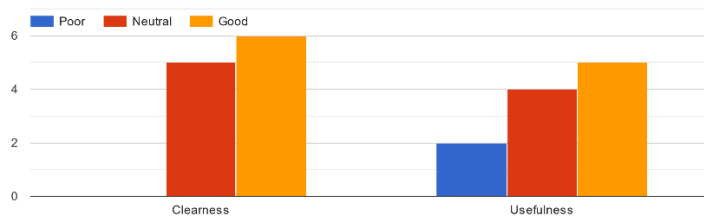


Figure 8: Response after no selection

Did you get a response letting you know you were not selected?  
32 responses

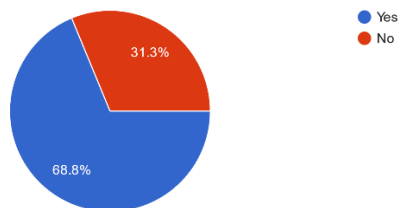


Figure 9: Onboarding perception

How did you find the onboarding, based on the following:

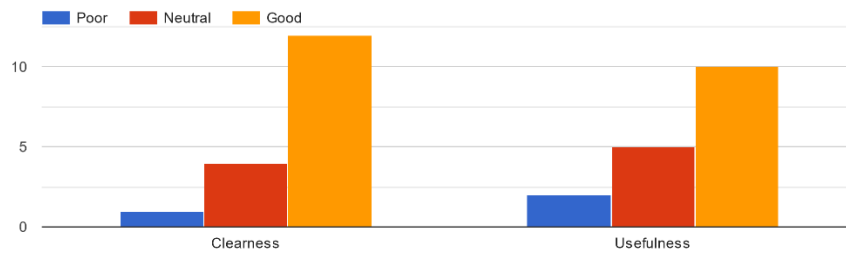
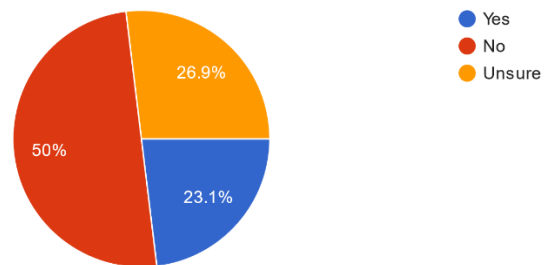


Figure 10: AI use awareness

Were you aware that AI was used in the application and recruitment process?

52 responses



## APPENDICES

Demographic data:

Age\_\_\_\_\_ Sex\_\_\_\_\_ Nationality\_\_\_\_\_

1. Are you currently employed? Y/N
2. Have you applied to a job online within the last 2 years? Y/N
3. To what level of job did you apply?
  - a. Entry level
  - b. Mid-senior
  - c. Senior
  - d. Other:\_\_\_\_\_
4. To which companies did you apply? \_\_\_\_\_
5. Please rate the online application experience:

|   | Very<br>unsatisfied | Unsatisfied | Nor satisfied<br>or unsatisfied | Satisfied | Very<br>satisfied |
|---|---------------------|-------------|---------------------------------|-----------|-------------------|
| How satisfied are you<br>with the overall<br>application process      |                     |             |                                 |           |                   |
| How satisfied are you<br>with the time amount<br>spent on the process |                     |             |                                 |           |                   |
| How satisfied are you<br>with the easiness of<br>the process          |                     |             |                                 |           |                   |

6. Where you successful in attaining the job? Y/N
  - a. If Yes, on which stage did you get to meet physically someone from the company?
    - i. First interview / Second interview /Third or more interviews /Assessment center /signing contract / Never have met/ Other\_\_\_\_\_
    - ii. Please select the time range it took you to get the job (from applying to being recruited):  
1 week / 2 weeks / 3 weeks / 4 weeks / more than a month
  - b. If NOT, on which stage was your application withdrawn?  
Online application / First interview / Second interview /Third or more interviews /Other:\_\_\_\_
    - a) Did you get a response letting you know you were not selected? Y/N
    - b) If Yes, what kind of response: Automated email / Personalized Email / Phone call/ Other:\_\_\_\_\_

7. Would you recommend applying to the company based on your experience with the application system? Y/N

a. Why Y/N?\_\_\_\_\_

8. How did you find the application process regarding the following:

|   | Very unsatisfied | Unsatisfied | Nor satisfied or unsatisfied | Satisfied | Very satisfied |
|---|------------------|-------------|------------------------------|-----------|----------------|
| Clearness   |                  |             |                              |           |                |
| Time invested   |                  |             |                              |           |                |
| Transparency  |                  |             |                              |           |                |
| Able to solve doubts  |                  |             |                              |           |                |
| Freedom to add other information aside the one asked for, e.g. comments, letters. |                  |             |                              |           |                |
| Fairness  |                  |             |                              |           |                |

9. Did you feel discriminated during the process in anyway? Y/N

a. If yes, why?\_\_\_\_\_

10. Could you express yourself freely throughout the process? Y/N

11. Do you feel the process allowed you to showcase your suitability for the job? Y/N

12. Do you feel the process allowed you to showcase your abilities? Y/N

13. Do you feel the questions in the process describe you? Y/N

14. How likely is it for you to apply to the same company through the same process?

|               |          |                        |        |             |
|---------------|----------|------------------------|--------|-------------|
| Very unlikely | Unlikely | Nor likely or unlikely | likely | Very likely |
|---------------|----------|------------------------|--------|-------------|

15. Has your perception of the company you applied to, changed since your application process? Y/N

a. If Y, please indicate: Positive / Negative

i. Why?\_\_\_\_\_

ii. What would you change of the application and recruitment process?\_\_\_\_\_

b. If N, thank you for taking this survey!