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THE BENEFITS OF E-RECRUITMENT:

WEB 1.0 & WEB 2.0

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A Dissertation presented as partial fulfilment of the Requirements for the Degree of

Master in Human Resources Management

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October, 2017

ACKNOWLEDGMENTS

This thesis is a result of a combination of factors. It was a long trajectory that required a lot of self-motivation, constantly overcoming challenges and making sacrifices. This would not have been possible without the presence of others in this path:

To Professor Carla Gomes da Costa, my Supervisor, I am so grateful for the encouragement words and for her precious guidance and wisdom.

I would also like to thank Professor Alzira Duarte for her constructive feedback in the definition of the thesis' direction.

And finally, to my loving family specially my parents Armanda and Paulo who were always present with emotional support and my aunt Dina who keeps pushing me forward.

RESUMO

O uso da internet espalhou-se para muitas esferas da nossa vida. Esta afirmação é também verdadeira para o mundo empresarial onde o Recrutamento tem visto a internet revolucionar os processos e atividades desta área. O Recrutamento Online refere-se às atividades de recrutamento feitas através e com o apoio da internet. Em primeiro lugar, com a adoção de ferramentas da Web 1.0 foi possível atingir candidatos em todo o mundo através da publicação de anúncios de emprego nos Sites Corporativos das empresas e em Sites de Emprego especializados. A introdução de métodos online também permitiu aos recrutadores receber candidaturas através de sistemas integrados online onde filtrar e rever candidaturas tornou-se mais fácil e mais rápido para os profissionais de recrutamento. A Web 2.0 e o surgimento das Redes Sociais trouxe mais uma vez mudanças significativas aos processos de recrutamento e é ainda um fenómeno sob investigação. Apesar disso, organizações e recrutadores já usam as Redes Sociais nas suas atividades de atração de talento o que torna importante compreender o porquê e como estas novas ferramentas podem ser melhor utilizadas. Usando uma escala existente de benefícios da Web 1.0, o objetivo deste estudo é compreender que benefícios advêm do uso das diferentes ferramentas de recrutamento online, e como as duas gerações da web se podem complementar uma à outra nos processos de recrutamento. Para além disso, irão ser providenciadas algumas indicações para o futuro desenvolvimento de uma escala de benefícios de ferramentas da Web 2.0.

Palavras-Chave: Recrutamento Online, Redes Sociais, Sites Corporativos, Sites de Emprego

JEL Classificações: M51 Decisões de Emprego, Promoções; O33 Mudança Tecnológica: Escolhas e Consequências, Processos de Difusão.

ABSTRACT

The use of the internet has spread to many spheres of our lives. This is also true in the business world and Recruitment has seen the internet revolutionize the processes and activities in this field. E-Recruitment relates to the recruitment activities done through and with the support of the internet. First with the adoption of Web 1.0 tools, it was possible to reach candidates across the world through advertisement of jobs in companies' Career Websites and in specialized Job Boards. The introduction of online methods further allowed recruiters to receive applications through online tracking systems where screening and filtering applications became easier and less time consuming for recruitment professionals. The Web 2.0 and the arrival of Social Media again brought significant changes, and this is still a phenomenon under research. Despite that, organisations and Recruiters are already using Social Networking Sites in their talent acquisition activities, which makes it important to understand why and how these new tools can best be utilized. Using an existing scale of benefits of Web 1.0, the goal of this study is to understand what benefits come from the use of different e-recruitment tools and how these two generations of the web can be complementary to each other in a recruitment process. Additionally, some insights will be provided for the future development of a scale of benefits for Web 2.0 tools.

Key-Words: E-Recruitment, Social Networking Sites, Career Websites, Job Boards

JEL Classifications: M51 Firm Employment Decisions; Promotions (Recruitment), O33 Technological Change: Choices and Consequences; Diffusion Processes (Technology and Employment)

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INTRODUCTION

An organisation's key asset is its people. Attracting and retaining the best employees is crucial, especially in an extremely competitive labour world. Top talent is scarce and companies need to use the best tools and develop more efficient processes to target, attract and hire the best talent available (Cappelli, 2001). Recruitment and the activities around this function have experienced substantial changes, not only with the implementation of technology in the workplace, but also through the generalized use of the internet in our society (Girard and Fallery, 2010; Lin & Lu, 2011; Stopfer & Gosling, 2013). E-Recruitment has become a common practice among all size organisations across industries, and the benefits of using technology and the internet in recruitment activities have been a hot topic for researchers (Aboul-Ela, 2014; Broughton et al., 2013; Jeske and Shultz, 2015; Melanthiou et al., 2015, etc.). In an initial phase, the web allowed users to share information with each other (Aghaei et al., 2012). For organisations, this meant moving from paper job ads and applications to posting jobs online and receiving applications through the web. This changed recruitment processes massively, and brought substantial benefits to organisations (Aboul-Ela, 2014; Melanthiou et al., 2015). The improved efficiency of recruitment activities is the leading benefit brought by the first web generation, including the cost and time savings; the possibility to reach a much higher pool of talent, with no geographical restrictions and the reduction of human efforts put into recruitment activities (Cappelli, 2001; Galanaki, 2002; Parry and Tyson, 2008).

A new generation of the web, the Web 2.0, arrived with the creation of platforms that allow users to not only share information, but give feedback and communicate with each other (Aghaei et al., 2012). This two-way communication gives companies the opportunity to develop what Girard and Fallery (2010) call a relationship approach with candidates (contrasting with a one-way, exchange based approach fostered by the Web 1.0). The Web 2.0 and its implementation in recruitment processes also brought changes and benefits to organisations. The closer interaction with candidates is one of them (Allden and Harris, 2013; Broughton et al., 2013; Thielsch, Träumer, and Pytlik, 2012), but also the access to better quality applications, reaching passive candidates (Melanthiou et al., 2015) and the possibility to spread the organisation's brand widely (Allden and Harris, 2013; Galanaki, 2002; Girard and Fallery, 2010) are other consequences of the implementation of the Web

2.0 in recruitment processes. The use of this newer generation of the web is also called Social Recruitment due to the use of Social Networking Sites, such as LinkedIn and Facebook (Caers and Castelyns, 2010; Broughton et al., 2013; Jeske and Shultz, 2015).

E-recruitment has been widely studied in the past years, with particular emphasis on the transition from more traditional methods of recruiting to the implementation of online methods. These include research on the impact, benefits, challenges, the effectiveness and success of online tools in different environments (Aboul-Ela, 2014; Galanaki, 2002; Parry and Tyson, 2008, etc.). For the new web generation and the use of social media in recruitment, research has focused again on the impact, advantages and consequences of these tools (Broughton et al., 2013; Girard and Fallery, 2010; etc.), with a special concern for the ethical implications of recruiting and screening applications using social media channels (Jeske and Shultz, 2015; Melanthiou et al., 2015; Parez et al., 2013). Referring to the network society or information society Alden and Harris (2013) mention the need to infiltrate and understand the networks where applicants are moving as well as their expectations. At the same time, Tielsch et al. (2012) talk about the current sense of urgency and speed in all life situations, and the fact that candidates want immediate and personalized feedback. With this awareness and the fact that talent is found in these social networking sites (460 million users on LinkedIn and over 2 billion on Facebook), this study aims to compare the two web generations and their benefits in an attempt to understand how the use of Web 2.0 tools can be integrated with Web 1.0 tools, and thus complementing each other in an efficient and goal oriented recruitment process. This comparison will be based on the scale of benefits developed by Aboul-Ela (2014). As this scale was originally developed with Web 1.0 tools in mind, there are other specific benefits to Web 2.0 tools that are not included. As such, it is intended to gather information on these specific benefits in order to provide insights that can be used to develop a scale of benefits of Web 2.0 in the future. To achieve the goals above, this study targeted talent acquisition professionals as respondents of an online survey distributed via direct email and though sharing a link in different social media channels (such as Facebook and LinkedIn).

This dissertation is divided into five chapters: the first chapter gives an overview of what has been found in the literature concerning e-recruitment, Web 1.0 and Web 2.0 tools and the benefits and challenges of e-recruitment. The second chapter elaborates on the

research problematic, the goals of this study and the developed hypothesis to test with the data collected. The third chapter presents the methodology chosen for this study, including a description of our sample, the instruments and procedures used, as well as the tests and results of the analysis of the data collected. In the fourth chapter, there can be found a deeper discussion of the results achieved and the fifth chapter closes this dissertation with the main conclusions of the research, limitations of this study and suggestions for future research.

CHAPTER I. LITERATURE REVIEW

1.1 Recruitment within HRM

The Recruitment function is crucial for organizations as it is responsible for attracting, selecting and on-boarding the company's talents (Armstrong, 2014). Particularly in a global, competitive and fast-paced world, companies' success heavily depends on having the right employees, as hiring the wrong person for a job might imply great costs for employers (Newell, 2005; Ployart, 2006; Roberts, 2005). According to Heery and Noon's (2008) definition, recruitment is the process by which companies gather a pool of talent and select the best fit for a specific job. Moreover, Newell (2005) states that companies also seek to promote their image and have positive and lasting interactions with potential future applicants. Typically, the recruitment process starts when someone leaves their job or when the company goes through a transformation or expansion and needs to add more human resources to reach the business goals (Newell, 2005). Roberts (2005) states that the talent planning must be integrated in a broader HR plan and reality, to address and fulfil the business needs. Having a clear understanding of where the vacancy fits within the organization, depends on a thorough job analysis and a person specification (Armstrong, 2014; Newell, 2005; Roberts, 2005). The Job Analysis includes the definition of the job purpose, the tasks and responsibilities under such role, how to assess performance (expected performance goals), the position within the organization (reporting line) and remuneration. The "Person Specification" (Roberts, 2005) involves the needed qualifications, knowledge, experience, abilities, skills, values, motivations and behaviours from the ideal candidate. Roberts (2005) speaks of the importance of defining competencies to correctly identify the right person for the job. The author argues that using competency-based job descriptions can help individuals to self-select and feel attracted to apply to the job. The question that poses next is where to find these individuals? Armstrong (2014) argues that the best first approach is to publicize the job vacancy internally, giving current employees the chance to move jobs within the organizations. Following that approach, the author considers valuable to obtain referrals from current and previous employees and also

check the talent pools built from previous contacts. If these approaches do not work, then the organization can move to an external recruitment. Again, this type of recruitment can be done using different channels. Armstrong (2014) refers to the CIPD (Chartered Institute of Personnel and Development) survey to rank the most effective sources of recruitment in 2013. Below can be seen a table showing the most effective methods for attracting applicants and its evolution, based on the CIPD analysis and reports, comparing results from 2013 and 2017.

Table 1 - Most effective methods of attracting applicants – 2013 and 2017
(Adapted from Armstrong, 2014; CIPD 2013 and CIPD 2017)

	CIPD 2013 (%)	CIPD 2017 (%)
Own Corporate Websites	62	74
Recruitment Agencies	49	52
Commercial Job Boards	38	58
Employee Referral Scheme	33	26
Professional networks, e.g. LinkedIn	32	60
Local newspaper ads	29	21
Specialist Journals	24	28
Search Consultants	17	20
Links with educational establishments	14	28
National newspaper advertisements	12	12
Social Networking Sites, e.g. Facebook	9	40

The most significant change has happened in the use of Networking Sites (LinkedIn and Facebook) with an increase of 30 percentage points each. Corporate websites, recruitment agencies, and commercial job boards are likewise among the most efficient methods for attracting applicants.

Armstrong (2014) furthermore outlines, that companies choose either one tool or a combination of the tools that are most suitable to them, taking into consideration three factors: the probability of attracting good quality applications, the methods that will be the fastest to successfully complete the recruitment process, and the costs associated with each method adopted.

Still regarding the types of recruitment, Roberts (2005) describe how organizations face the choice of either developing an in-house department dedicated to recruiting activities, or outsource this function to a third party. If outsourcing is the best option, the recruitment department can be completely replaced by an external agency or it can be done by contracting recruitment consultants for specific assignments (for example executive roles or others where there is a need for specific experience/skills).

Recruitment and Selection go hand in hand as a process for attracting candidates and deciding who will be the best fit for the job vacancy. Roberts (2005) suggests that there is a need for a balance between quantity and quality when considering the attraction and selection of candidates. In other words, the recruitment/attraction part of the process will determine how meaningful and successful the selection of candidates will be. The Selection works as a funnel, reducing the number of applications in each step, until the decision for the one candidate that will get the job has been made. Among those steps or selection methods, Newell (2005) lists among others: biodata and other pre-selection methods (e.g. application forms), interviews, psychological testing (personality tests, cognitive tests, psychometric tests) and assessment centres. Roberts (2005) mentions a survey from 1996, conducted in US companies, where executives rated different selection techniques regarding their effectiveness in identifying high performers. The results identified the following methods: work samples, references and recommendations, unstructured interviews, structured interviews, assessment centres, specific aptitude tests, personality tests, cognitive ability tests and biodata. More recently other selection methods have been implemented by companies, instigated by the use of technology. Poepplman and Blacksmith (2014), for example talk about online testing and videoconference interviews.

The use of technology in recruitment processes will be discussed over the next pages, focusing on the attraction phase of the process. This new trend in recruitment has brought several significant improvements and benefits to organizations that can also impact other HR practices and functions. Parry and Tyson (2008) and Chapman and Webster (2003) speak of a standardization of processes, more engagement of managers and employees in HR practices, and the increasing strategic orientation of HR departments to support business needs.

1.2 E-Recruitment – The rise of technology and internet in Recruitment activities

The emergence of the Web occurred in the early 90's with the development of a common information space where people could publish information/documents for everyone to access at any time (Aghaei et al., 2012). From an initial one-way-directional web, the possibilities of an online presence started to shift to a two-way-directional web. Aghaei et al. (2012:3) refer to this new paradigm as "the wisdom web, people-centric web, participative web, and read-write web", a platform where there is interaction between users.

In the organizational context, the use of the web allowed for a number of improvements including costs and time savings, mass reaching communication, and increasing the company's competitive advantage. The same can be said for HR departments. The adoption of technology in HR functions has leveraged a faster, more strategic, and time and cost efficient environment (Mishra and Akman, 2010; Parry and Tyson, 2011). Parry and Tyson (2011) defined e-HRM as the implementation of "web-technology-based channels" to support HR departments in their activities, policies and strategies. According to Lepak and Snell (1998) e-HRM and the implementation of technology in HR functions can have a three-level effect in organizations. The *operational* level refers to the automation of processes which save costs and increase productivity, and thereby making HR more efficient. The *relational* level implies a greater interaction and the possibility for managers and employees to access and maintain a shared virtual database which reduces the time for HR personnel to respond to queries and thus improves HR service delivery. Mishra and Akman (2010) add that the implementation of HR information systems (HRIS) for collecting, storing and maintaining data not only provides a solid storage of data but also provides insightful information for strategic decision making. The *transformational* level of technology within HR eliminates geographical and time constraints by connecting teams from all over the world.

The Recruitment function has likewise seen the effects of the implementation of technology within its processes and activities. Before the internet, recruiters had access to limited pools of talent: active job seekers and recent graduates. Now, recruiters can not only find thousands of potential qualified applicants, they can also screen them and contact them immediately (Girard and Fallery, 2010). From posting jobs online to receiving, screening

and managing applications electronically, the use of the internet has significantly changed the way recruitment activities are done. E-recruitment relates to all recruitment activities done online, including job postings in corporate and commercial websites, receiving applications virtually, searching for candidates and screening profiles in social networks, and web-based assessments and interviews (Aboul-Ela, 2014; Wolfswinkel et al., 2010). Recent studies on recruitment have focused on the use of internet and how e-recruitment is taking over from the more traditional recruitment methods (Aboul-Ela, 2014; Broughton et al., 2013; Jeske and Shultz, 2015; Melanthiou et al., 2015, etc.).

However, even within e-recruitment one can find different ways to go about the recruitment process. Girard and Fallery (2010) distinguish between the Web 1.0 and the Web 2.0 recruitment approaches. E-recruitment through Web 1.0 is described as an exchange-based recruitment where organizations relate to applicants by putting information on the web, making information on the company and the vacancies available online to everyone and managing applications also online. The authors mention this approach has evolved into a relationship-based approach fostered by the Web 2.0, where different tools increase a two-way communication between organization and applicants (and potential applicants). Other authors refer to the Web 2.0 recruitment as Social Recruitment (Caers and Castelyns, 2010; Broughton et al., 2013; Jeske and Shultz, 2015), which in sum is recruiting using Social Media or the Social Networking Sites (SNS's). Within the next pages the definition of Web 1.0 and Web 2.0 are explored as important concepts for this study.

1.3 Web 1.0 – Career Websites & Job boards

The first generation of the Web, the Web 1.0, started as a space where information could be shared and read, with limited interactions between the content maker and reader (Aghaei et al., 2012). Even with its limitations, the Web 1.0 revolutionized the way businesses promoted their services and the number of people they reached. The same could be said about recruitment and the labour market which, in Cappelli's (2001:140) words "has at last become a true market: wide open, uncontrolled by individual companies, and unconstrained by geography". The author sees this new perspective of the labour market as an eye opener for executives to refashion recruitment from a clerical and reactive function to one more similar to the marketing function. After all, the Cappelli (2001) argues, applicants are seen as prospective customers, that are targeted, attracted and sold a job. Lievens et al. (2002, cited in Parry & Tyson, 2008) also present this argument, stating that organizations need to shift from selecting employees to attracting employees approach. This means that, in a very competitive market and with the desire to hire and retain the best talents, companies need to adapt and absorb the new trends and needs of the working population. Technology has become part of the every-day activities of people, both in professional environments but also in the private sphere. As such, it is expected that organizations implement technology in their interactions with external stakeholders. As put by Cappelli (2001:140), "in an environment with fierce competition for talent, companies that master the art and science of online recruiting will attract and keep the best people". But what does "master the art and science of online recruiting" mean? Wolfswinkel et al. (2010) defined e-recruitment based in three aspects: 1) job posting in careers websites, commercial websites or other advertising websites; 2) candidate assessment through interviews and other assessment methods remotely and 3) electronic communication channels between recruiter and candidate. These can be completely done online or in a combination of online channels with more traditional methods. Ruël (2004) refers to the use of technology in recruitment function as an alternative to the "paper-approach" in what concerns job advertisement and application forms. Studying the application of e-recruitment tools in organizations, Parry and Tyson (2008) analysed the perceived success of using "electronic advertisement" in both the "corporate websites" and "commercial job

boards". Girard and Fallery (2010) summarize Web 1.0 recruitment in three aspects: Career Sites, Job Boards and Recruitment Systems. These tools allow organizations to attract candidates at a lower cost than with the traditional methods, like paper adverts and application forms or using third-parties like recruitment agencies, thus making it an easy way for candidates and organizations to manage applications and access to a larger pool of talent (Parry and Tyson, 2008).

Some concerns have been brought up by Parry and Tyson (2008) in regard to the use of the web in recruitment. The authors state that bigger and better-known companies in the market are most likely to be more successful with using their career websites than smaller less well-known companies. At the same time, the use of internet practices for recruitment purposes are not seen as suitable to approach all kinds of applicants, for example blue-collar jobs, older workers, "housewives" and also high-level management (Parry and Tyson, 2008). To become more successful in the use of online tools for recruitment purposes, the authors identified the following steps: the use of more automated systems (as the posting of job ads online might significantly increase the number of applications), the use of other online channels to direct applicants to the company website (especially in the case of the smaller, less well-known companies), using the online tools to promote employer branding and getting information out that will help applicants self-select themselves and finally using these systems to create a talent pool for the future.

1.4 Web 2.0 – Social (Media) Recruitment

The Web 2.0, or the second generation of the world-wide web, brought new possibilities to the way users communicate. Through the web 2.0 tools it is possible to gather and manage groups of individuals with "common interests in social interactions" (Aghaei et al., 2012). The idea behind it is that these platforms/tools will work better the more users participate in them.

Creese (2007) mentions the Web 2.0 has immense appeal for businesses due to its focus on the collaboration, connection, flexibility and two-way communication between users. The Web 2.0 tools allow greater interaction and personalization of networking on the web and are "becoming almost a status symbol of progressive corporate management" (Creese, 2007:1). Within the Web 2.0 technology, Social Media has had a significant importance both for individuals as for organizations, facilitating the creation and exchange of information rapidly among users (Melanthiou et al., 2015; Nikolaou, 2014; Stopfer & Gosling, 2013). For organizations, the Social Networks have been implemented into the recruitment function as a means to strengthen the company's image as well as to connect to individuals, which are two key actions for developing a successful recruitment strategy (Melanthiou et al., 2015). At the same time the social networking sites allow recruiters to research candidates and potential candidates at reduced costs, for example when comparing with the use of job boards, where companies usually pay fees to have access to job seekers' CVs and personal data (Nikolaou, 2014).

Among the Social Networking Sites (SNS's), one can find more professional oriented sites, such as LinkedIn, or more social oriented sites, such as Facebook (Caers and Castelyn, 2010; Nikolaou, 2014; Stopfer & Gosling, 2013). Melanthiou et al. (2015) mention that organizations and recruiters realize more and more that the use of social media sites such as Facebook and LinkedIn is widely spread and this new digital space is where the best talent can be found. Also worth noticing, according to Broughton et al. (2013), the easiest target groups in SNS's are graduates, or the "millennials" generation. Additionally, other technology-literate groups such as skilled workers, managers or executives are targeted on social media. LinkedIn is focused on professional networking and both individuals and organizations can have their personal profile. It can be used to post jobs,

search for jobs or search for candidates (Caers and Castelyn, 2010). Facebook is mostly used to connect socially, however organizations can also use it as a recruitment tool, publishing relevant information about the company, posting job ads and redirecting people to their careers website (Caers and Castelyn, 2010). Companies also use SNS's such as Facebook for screening and conducting cost reduced reference checks on candidates (Melanthiou et al., 2015; Stopfer & Gosling, 2013), as it will be discussed later on. Besides LinkedIn and Facebook, Twitter and YouTube are also broadly used SNS's in organizations (Hood et al., 2014; Melanthiou et al., 2015; Girard & Fallery, 2010).

Similarly to Parry and Tyson (2008), Allden and Harris' (2013) study identified that companies are not as active in social media recruitment as they are in Web 1.0 tools such as career websites and job boards. Despite LinkedIn being a trusted tool for recruitment, it is not the primary source of recruitment activity. Recruiters prefer to redirect candidates to their careers sites where they feel more in control and can link profiles to their applicant tracking systems. This is the same argument presented by Cairns (2015) when stating that, despite the use of SNS's being spread, only a few companies recruit using social media and even in those the number of hires coming from SNS's is not higher than 3%. The author claims that "the real impact of social media may be its indirect effect on traditional recruiting sources, such as employee referrals, company career websites, job boards, and the like – where 60 percent of hires are presently generated" (Cairns, 2015:29), and where recruiters feel more in control of the recruitment process.

1.5 Benefits of E-Recruitment

As seen in the previous chapters, the internet has revolutionized the way organizations recruit, bringing with it changes in the recruitment processes. The main advantages and benefits mentioned in the literature are: cost efficiency (Aboul-Ela, 2014; Galanaki, 2002; Girard and Fallery, 2010; Melanthiou et al., 2015; Parry and Tyson, 2008), time efficiency (Aboul-Ela, 2014; Galanaki, 2002; Girard and Fallery, 2010; Melanthiou et al., 2015; Parry and Tyson, 2008), bigger geographical outreach (Aboul-Ela, 2014; Broughton et al., 2013; Cappelli, 2001; Galanaki, 2002; Girard and Fallery, 2010; Melanthiou et al., 2015,), improved quality of applicants (Aboul-Ela, 2014; Galanaki, 2002), better candidate relationship management (Broughton et al., 2013; Girard and Fallery, 2010; Thielsch, Träumer, and Pytlik, 2012), targeted communication/search (Broughton et al, 2013; Galanaki, 2002; Melanthiou et al., 2015) and employer branding reinforcement (Aboul-Ela, 2014; Cairns, 2015; Cappelli, 2001; Galanaki, 2002; Girard and Fallery, 2010; Melanthiou et al., 2015; Parry and Tyson, 2008).

The foremost mentioned benefit is indeed the cost savings organizations experience when using the internet for recruitment activities. Both in the findings of Parry and Tyson (2008, researching several UK companies over a period of six years) and Aboul-Ela (2014, researching several companies in Egypt), this was the most referred reason for implementation, and the main success factor of using e-recruitment tools. Melanthiou et al. (2015) add that costs can also be cut when the first contact with applicants comes through web-conference calls/interviews. Speed of hire is also a consequence of e-recruitment as recruiters spend less time with procedures (Parry and Tyson, 2008). Melanthiou et al. (2015) furthermore mention, that online recruitment has reduced the duration of the recruitment cycle by 30%, eliminating intermediaries and making all the relevant information easily available for both candidates and recruiters. This is supported by Aboul-Ela (2014) who describes how online methods allow a faster recruitment process when compared with more traditional methods.

Another commonly mentioned benefit, is the new potential outreach to a global audience. The web extinguished the geographical barriers (Cappelli, 2001) and thus gives access to a large and global pool of talent (Melanthiou et al., 2015). Aboul-Ela (2014)

refers that with the use of technology, companies can reach and contact a large and diverse pool of candidates by exploring different recruitment sources. With a bigger geographical reach the quality of applicants is also affected. Aboul-Ela's (2014) study concludes that the use of technology allows the organization to attract more competent and qualified applicants. This was also the case in Galanaki's (2002) research, where different organizations emphasised that e-recruitment tools provide better qualified candidates. Broughton et al. (2013) also saw that recruiters implementing social recruitment tools (using SNS's) experienced an improved quality of candidates.

Broughton et al. (2013) mention a list of features that the use of e-recruitment tools allow, suggesting the closer relationship management between recruiters and applicants (personalized communication between recruiter and candidates, better integration of communication systems, improved candidate experience). Girard and Fallery' (2010) exploratory study emphasizes that technology has the potential of improving the management of applications during the recruitment process, and of developing long-term relationships with active and passive candidates. On the applicants' side, Thielsch, Träumer, and Pytlik (2012) identified "immediate feedback" as a very important feature that the use of the internet has allowed. Allden and Harris' (2013) highlight that a positive "candidate experience" has cost advantages and increases engagement with top talent.

The literature also explores the fact that e-recruitment allows recruiters to target specific groups of individuals. Melanthiou et al. (2015:38) argue that e-recruitment methods target computer-literate individuals and also reach the passive applicant whom are "the most highly prized catch by recruiters as they are experienced, skilled, and already employed individuals who could consider a job if the right opportunity was provided". Regarding the Web 2.0 recruitment tools, Broughton et al. (2013) add that it is possible to target specific groups with specific backgrounds, using social media to communicate with candidates in a more informal and approachable way which reduces the distance between company and candidate, and it opens a two-way communication. This can make people more interested and motivated to work for that company (Broughton et al., 2013).

The last benefit mentioned here, is also one of the most emphasized in the literature. The ability of a company to attract employees can be fostered by the use of technology in recruitment. Parry and Tyson's (2008) research on UK companies argued that the use of

corporate websites and commercial job boards allows companies to promote their image as an employer, however the authors also concluded that less well-known companies are less successful in using corporate websites and commercial job boards. Galanaki (2002) reinforces that the decision to use e-recruitment tools is not completely focused on the recruitment process itself, but rather on corporate image. Employer branding goes hand-in-hand with the internet capabilities and companies need to use it to their advantage. Social Media and social recruitment has brought a fresh view on the employer brand promotion. Most participants of Allden and Harris' (2013) study felt that employer branding is key to attract the best talent, and the use of LinkedIn, Facebook and Twitter could help build stronger relationships with applicants.

Girard and Fallery (2010) present the argument that employer branding can be an opportunity and a challenge with the web 2.0. It makes communication go in two ways (not just one to many, but many to many), it gives better interaction between recruiters and applicants (active and passive), it can improve candidates' experiences and make companies seem more attractive and open. On the other hand, it poses a risk as candidates have a lot of power on their side as well, and a single post online can denigrate a company's image. Broughton et al. (2013) also raises awareness of this fact, however emphasizes that SNS's can act as a brand developer for companies, help them stay active among potential candidates, spread useful information about themselves and redirecting interested applicants to their webpage. As Aboul-Ela (2014) puts it, a "sounder image" of the organization helps attracting better qualified candidates.

1.6 Challenges of E-Recruitment

Another perspective to all of this, is how the changes brought by the use of the web in recruitment can raise a few concerns of negative consequences. The challenges or concerns identified in the literature are: costs with technology and training, overload of useless applications (Galanaki, 2002; Melanthiou et al., 2015), security, data protection issues, privacy, ethics, legal issues and accuracy of information online (Broughton et al., 2013; Caers and Castelyns, 2010; El Ouirdi et al., 2015; Jeske and Shultz, 2015; Stopfer & Gosling, 2013).

The costs associated with developing and integrating e-recruitment systems are the first concern explored by Melanthiou et al. (2015). The authors argue that there are several costs involved in implementing an e-recruitment methodology, costs with software instalment and monitoring, but also costs with training HR employees and maintaining the job posts updated in all the different channels online. They also mention that the wrong use of the tools, such as posting jobs in the wrong websites, can bring a lot of useless applications that will bring no results to the search, or not bring as many applications as expected (Cappelli, 2001; Galanaki, 2002).

When focusing on the use of Web 2.0 - social recruitment tools, there is a big concern with the invasion of privacy and biased selection of candidates through their social media profiles (Broughton et al., 2013; Caers and Castelyns, 2010; El Ouirdi et al., 2015; Jeske and Shultz, 2015). Talking about the ethical concern of the invasion of privacy and the need to respect the difference between public and private spheres, Jeske and Shultz (2015) mention that through an analysis of the applicants' LinkedIn and Facebook pages, the recruiter can have access to information that would not be accessible otherwise, things that recruiters are not allowed to ask during an interview (gender, race, marital status, nationality, political affiliation, religious believes…). This, according to Parez et al. (2013), can make organizations liable to discrimination claims.

Another central issue brought up by both Jeske and Shultz (2015) and Caers and Castelyns (2010) is the relevance of the information applicants have available on their social media profiles: how relevant it actually is to the job vacancy and how accurate and

reliable it is (El Ouirdi et al., 2015). Even though companies find the information contained in SNS's advantageous and useful for fact-checking, Jeske and Shultz (2015) counter-argue that the content of social media profiles is questionable in terms of accuracy (especially if candidates are expecting to get checked by potential employer) and/or relevance to the job itself. Broughton et al. (2013) also question the accuracy of what is displayed on individuals' social media channels as it cannot be guaranteed to be the full truth. Jeske and Shultz (2015) add the fact that social media does not have standardized ways of displaying users' information, as such it poses difficulties for recruiters to compare profiles, as information may be missing or it may be shared in different ways.

Even though these questions need to be taken into consideration when implementing e-recruitment processes, it was clear from the research done so far that recruiting online is more and more the usual practice among small, medium and large organizations (Galanaki, 2002; Girard and Fallery, 2010; Melanthiou et al, 2015). Parez et al. (2013) stated that despite organizations needing to be alert for discrimination claims, college students and graduates seem to view LinkedIn as an ethical platform and did not show any concerns about privacy or data security issues.

CHAPTER II. RESEARCH PROBLEM

2.1 Research problematic

The use of technology resources in HR is now a given (Parry and Tyson 2011; Ruël, 2004; Strohmeier, 2007). Most organizations have implemented technology tools into their HR departments, which has brought significant changes for the HR practices, including in the recruitment function. E-Recruitment relates to the recruitment activities done through and with the support of the internet. Girard and Fallery (2010) distinguish between two generations of e-recruitment: the Web 1.0 has been extensively debated in the e-recruitment literature (Aboul-Ela, 2014; Cappelli, 2001; Parry and Tyson, 2008; Thielsch, Träumer, and Pytlik, 2012; Wolfswinkel et al., 2010, etc.) while the Web 2.0 is a fairly new trend in research on e-recruitment (Broughton et al., 2013; Girard and Fallery, 2010; Jeske and Shultz, 2015; Melanthiou et al., 2015, etc.). If Web 2.0 is being more and more used in organizations and implemented by HR departments for recruitment purposes (CIPD, 2017), it is extremely important that research on this topic is done. Why and how are Social Networking Sites being used by recruiters? What are the potential outcomes of this usage? How can organizations make the best out of using these tools? The existing research has answered a few of these questions in some environments. However, little has been done in integrating the two generations of e-recruitment, understanding how they differentiate and/or complement each other and identifying what recruiters see as benefits of Web 1.0 and benefits of Web 2.0 tools. Also important is the fact that individuals move within social media (460 million users on LinkedIn and over 2 billion on Facebook). If recruitment processes are becoming more and more a "war for talent", organizations need to infiltrate these new channels and understand the best way to reach candidates. For organizations to be more attractive and capture the attention of the best talent, the Web 2.0 is key. Melanthiou et al. (2015) highlight this new trend and mention that organizations are still reluctant to include SNS's in their recruitment processes due to the lack of expertise and the unfamiliarity among recruiters with these tools and their impact. The question of how to best utilize these tools and integrating them in a recruitment process is still unanswered.

2.2 Research goals

Using Aboul-Ela's (2014) scale, this study attempts to compare the perceived benefits of Web 1.0 (corporate career websites and job boards) and Web 2.0 (social networking sites) in recruitment activities, with the goal of providing insights into how to best utilize and combine these tools in a complete and well integrated recruitment process.

Based on the reviewed literature, specific benefits of Web 2.0 are also observed (Allden and Harris, 2013; Broughton et al., 2013; Girard and Fallery, 2010; Melanthiou et al., 2015; Parry and Tyson, 2011; Tielsch et al., 2012) and will therefore be explored in this dissertation. The goal is to gather useful and real information that can later on be used for further research into the development of a scale of benefits for Web 2.0 usage in recruitment processes.

Another goal of the research is to understand which e-recruitment tools are used for different vacancies, both in terms of seniority of the role (junior roles and senior roles) and degree of qualification of applicants (not-qualified, qualified and highly qualified).

2.3 Hypotheses

Process efficiency, costs and time savings, are not a new topic. Especially when speaking of departments that are not a direct source of revenue. Organizations introduce technology into their HR activities to optimize and improve the speed in their processes. The introduction of Web 1.0 tools brought significant operational efficiency to recruitment, and Time Saving is the first benefit pointed out in Aboul-Ela's (2014) scale. The author compared the use of career websites and job boards with more traditional methods and concluded the time spent in the recruitment process is shorter with the use of the web. What about when comparing Web 1.0 with Web 2.0? Does Social Media Recruitment in the same way bring more Time Savings to recruitment operations? The hypothesis explored in this dissertation is that it does. Posting jobs in social media channels, connecting with applicants on LinkedIn and increasing the awareness of the organization's brand through social media can make recruitment processes more efficient. Melanthiou et.al. (2015) studied the impact of SNS's in recruitment activities in Cypriot organizations and concluded that time and cost efficiency were present, as qualified candidates were reached

with little effort. The authors also mention the easy access to social media through smartphones, tablets and laptops allows candidates to show interest in a job post immediately. Companies can eliminate intermediaries and shorten their recruitment cycle. Given the presented arguments the first hypothesis is the following:

H1: Using Web 2.0 tools saves more time to a recruitment process than using Web 1.0 tools.

The second benefit from e-recruitment pointed by Aboul-Ela (2014) is the bigger Geographical Outreach. Technology and the use of the web allowed recruiters to have access to a bigger and global pool of candidates in an easy way. It is possible for everyone with a computer and access to the internet to visit a company's careers websites and different job boards. Cappelli (2001) mentions that companies' geographical constraints are even non-existent. However, as seen in the literature (Galanaki, 2001; Parry and Tyson, 2008), Web 1.0 tools work best when companies have already an established and known brand in the market. Melanthiou et al. (2015) state that more companies are using social media channels to promote and expand their brand awareness; and being that the usage of social media is spread worldwide this means organisations will have a greater potential to reach more applicants using Web 2.0.

H2: Using Web 2.0 tools increases a company's geographical outreach in a recruitment process more than using Web 1.0 tools.

Technology replaces human hands. The use of the web and technology in HR departments has reduced the number of headcounts needed to do the same job. Both Parry and Tyson (2008) and Aboul-Ela (2014) emphasize that HR can become more strategic and focused on more complex matters with the implementation of technology and the web in HR functions. From the literature reviewed, there was no evidence that using Web 2.0 tools will reduce human efforts more or less than using Web 1.0. Moreover, Melanthiou et al. (2015) present a concern with the implementation of Web 2.0 in recruitment, regarding the costs of training HR personnel. As such, the hypothesis is the following:

H3: *Using Web 2.0 tools will not reduce the human efforts needed in a recruitment department, compared to using Web 1.0 tools.*

The Web 1.0 made it possible for recruiters to reach a larger pool of applicants geographically and in quality, targeting the computer-literate population (Aboul-Ela, 2014; Galanaki, 2002; Melanthiou et al., 2015). The Web 2.0 added the possibility of being even more narrow in the target population to recruit, posting jobs in different groups where individuals with a specific background can be found (Broughton et al., 2013). Aboul-Ela's (2014) fourth benefit of e-recruitment is the improvement of the quality of applications. Companies can attract and filter more qualified and competent candidates, by using web 1.0 tools. What about with Web 2.0 tools? Allen and Harris (2013) mention the possibility of increasing engagement with top talent and Melanthou et al. (2015:38) argue that with the use of social media, recruiters can reach passive applicants which are "the most highly prized catch by recruiters as they are experienced, skilled, and already employed individuals who could consider a job if the right opportunity was provided". Girard and Falerry (2010) also state that the talent force can be found nowadays in social media channels. LinkedIn counts over 460 million users and Facebook over 2 billion users (LinkedIn: April 2017; Facebook: July 2017). Broughton et al. (2013) reinforce this idea, mentioning the Millennials' generation as the easiest target group on SNS's, together with the technology literate individuals, which means most of the desirable talent is there.

H4: *Using Web 2.0 tools improves the quality of applications, more than using Web 1.0 tools.*

The last benefit pointed out by Aboul-Ela (2014) is the improvement of the organizational image. The author mentions that companies using e-recruitment tools "enjoy an improved organizational image" which is created by the use of the Web in the recruitment process. The recruitment function has a privileged place in the influence of the organizational image as it deals directly with external stakeholders. Word of mouth is a powerful tool and still a very efficient way to recruit (Cairns, 2015), however, the web has brought the potential of increasing the organizational image to another level. Career websites are a privileged channel for employer branding promotion. These channels are the

first thing applicants visit when considering applying for a job (Capelli, 2001). Advertising a job in the top job boards for the industry/function gives visibility to organizations (Aboul-Ela, 2014). The Web 2.0 has an even greater potential in fostering the employer image/reputation/brand. Broughton et al. (2013), Allden and Harris' (2013) and Girard and Fallery (2010) all state that using social media to communicate with candidates makes the company seem more open and modern, reduces the distance between the recruiter and the candidate and can make people more interested and motivated to work there. Based on the above arguments, the fifth hypothesis is:

H5: Using *Web 2.0 tools improves the organizational image more than Web 1.0 tools.*

CHAPTER III. METHODOLOGY

3.1 Sample

The targeted population for this study are all talent acquisition professionals with no geographical, age or sector restrictions. The only criteria applied, was for respondents to have a current professional occupation related to recruitment activities.

As such, the chosen sampling technique was the Convenience Sampling, a non-probability sampling method which collects data from people that are available and willing to participate in the study. This method was chosen as it was impossible to calculate and reach the entire population with the limited available resources for this study. Personal contacts of the researcher were used as well as LinkedIn connections to reach out to relevant individuals. The survey collected 202 responses in total and, excluding incomplete responses, 135 could be used for analysis.

3.1.1 Socio-demographics and occupation analysis

The gender distribution of the sample is 71% female (96 women) and 29% male (39 men). In terms of Age distribution, the responses come from people with ages between 22 and 62 years old. The most represented age is 26 years old and the average age of respondents is 32 years old.

Figure 1 - Socio-demographic analysis - Age Distribution
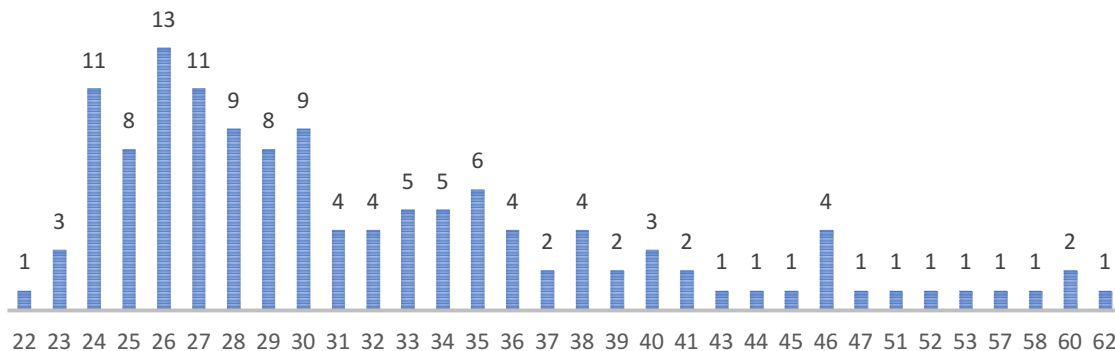
Regarding the qualification level of the study's sample, most (80 respondents) have a Master's degree (59,3%) followed by the Bachelor degree qualification with 45 respondents (33,3%). The 3% that answered with "Other", have a Post-Graduation degree. This means that almost the entire sample has a higher university education (1,5% have high-school degree).

Geographically, there was a global reach with the online survey and from the entire sample, 126 respondents shared their nationality. It can be seen that 89% of respondents are European, 6% are North American, 3% South American and 2% from Asia Pacific. The number of answers per country can be seen below in in Figure 2.

Figure 2 - Socio-demographic analysis - Nationality Distribution

The survey's target were professionals of talent acquisition, or recruiters, working both in-house (within an organization) and in-agency (outsourcing for other companies). Regarding the occupational characterization of the sample of the present study, it is quite balanced in terms of number of respondents from in-house (71 people, 53%) and in-agency

(64 people, 47%). The distribution of responses for the company size can be seen in Figure 3 below. The majority of respondents work in companies with over 250 employees.

Figure 3 - Occupational analysis - Company Size Distribution
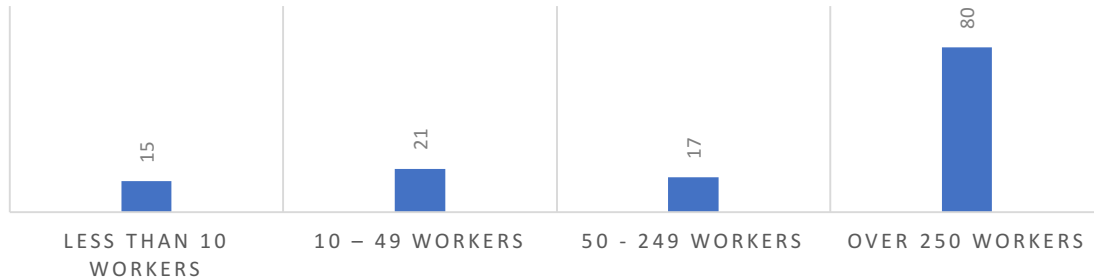
In terms of Industry distribution, there are 44 respondents working within IT sector, followed by 40 in Consultancy services. The respondents that checked the answer "Other" specified their sectors as Human Resources (6 answers), Fast Moving Consumer Goods (3 answers), Retail (2 answers), Pharma (2 answers), Contact Centre (2 answers), Marketing (1 person), Real Estate (1 person), E-Commerce (1 person).

Figure 4 - Occupational analysis - Company Sector Distribution
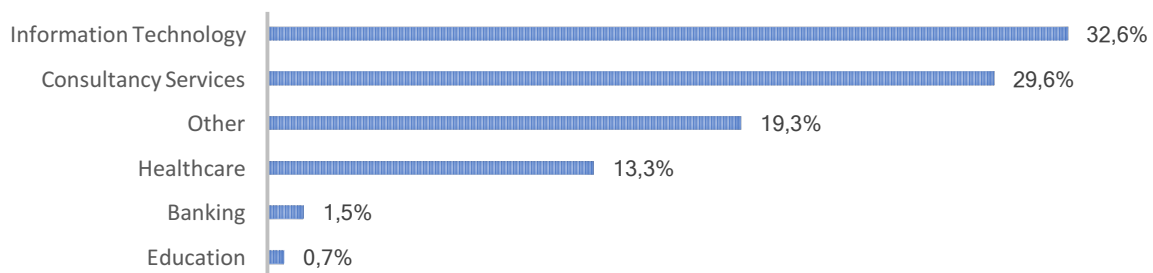
3.2 Procedures

The present study aims to analyse the use of technology in recruitment activities, as such it was decided to use a tool that could be spread using the web. For that purpose, an online survey was the instrument chosen to collect data. Surveys are a relevant and broad instrument for data collection which allows for quantitative and qualitative analysis. Surveys are an easy and flexible way to collect data due to their unique characteristics: it gives respondents the possibility to answer at any time of their day and taking as long time as they want/need to answer. There is no need for the researcher to be present which allows for more impartial and unbiased answers. By privileging closed questions, the survey makes it easier to aggregate and analyse responses in a standardized matter, using tools such as Excel or SPSS.

The survey included 18 questions (full English version of the questionnaire is available in Appendix A), with 17 closed questions and only one open question. This allowed for an easier and standardized analysis of results. All questions were of mandatory response except the open question.

The survey started with an introduction to the research goals, some instructions on how to fill the questionnaire, and a statement about anonymity and confidentiality of the responses. After that, the survey was structured in four sections. The first section addressed the frequency of use of the different e-recruitment tools. Question one asked respondents to select one or more tools used in their recruitment processes, questions 2 to 6 asked how frequently (1. Never, 2. Rarely, 3. Occasionally, 4. Most of the time, 5. Always or 6. Not Applicable) respondents use the different tools for different qualification levels (not skilled, skilled or highly skilled professionals) and different seniority levels (junior professionals and senior professionals).

In the second section of the survey, respondents were asked to state their level of agreement with Aboul-Ela's (2014) 24 statements about e-recruitment, having in mind separately the Career Websites & Job Boards (question 7) and Social Networking Sites (question 8). The scale used the following agreement levels: 1. Totally Disagree, 2. Disagree, 3. Neither Agree nor Disagree, 4. Agree, 5. Totally Agree.

The third section focused on the topic of Social Media recruitment and had 3 questions. Questions 9 and 10 asked the respondents to sort 10 different e-recruitment benefits by order of importance. Question 11 was the only open question in the entire survey and asked respondents to mention any other benefit of social media recruitment that was not identified in the previous questions.

The last section, questions 12 to 18, focused on socio-demographics (gender, age, education, nationality) and professional status (type of company, number of employees and company sector).

The survey was available in both Portuguese and English. Originally the questionnaire was developed in English and checked by a native English speaker (personal connection to the researcher) and was afterwards translated into Portuguese. The translation was obtained by undergoing the translation and back-translation method by Brislin (1980) to ensure accuracy in both versions of the questionnaires.

A pre-test was conducted with 10 respondents (5 Portuguese speakers and 5 English speakers), who completed the questionnaire and provided feedback on the questions' phrasing and structure. After the pre-test, minor changes were done to the questionnaire to make it more understandable and less confusing. No changes were done in section two, where the original phrasing of Aboul-Ela's (2014) scale was kept.

The channels used to distribute the survey were direct emails and social media channels; LinkedIn and Facebook. Initially the survey was built in the platform Qualtrics but to increase the number of responses another platform, SurveyMonkey, was later also used. Both platforms allowed the distribution of a message via emails and social media platforms where respondents could access the survey by clicking on a link. The message stated the context for the approach, the scope of the research and the researcher's contact details. The questionnaire was available online for 3 months, from 23rd of May to 26th of August 2017, and distributed regularly during that period. With every survey sent, there was a request for re-distribution of the message through the respondents' networks. The respondents were targeted based on their current occupation / job title and presence in talent acquisition and HR themed groups on social media.

Being the scope of the present study, the use of technology and internet in the recruitment processes, it was considered that the relevant population would also be found

online (emails and social media channels). There were no geographical restrictions which enriched the analysis.

3.3 Measures

As measures of data collection and analysis, the scale developed by Aboul-Ela (2014) was used to measure the agreement level of participants with five benefits (Saving Time, Bigger Geographical Outreach, saving Efforts, Increasing Quality of Applications and Improving Organizational Image) and comparing the agreement level considering Web 1.0 tools (Career Websites and Job Boards – the same as the ones considered in Aboul-Ela's study) and Web 2.0 tools (Social Media Websites – Facebook, LinkedIn, YouTube and Twitter). The scale consisted in 24 statements that were grouped into the five benefits, as per Aboul-Ela's work. A reliability test was conducted for the five computed variables from the 24 items' scale. Table 2 shows Cronbach's Alpha scores for Web 1.0 and Web 2.0 answers.

Table 2 - Computed Variables and Cronbach's Alpha Scores for Scale

Original Questions	Computed Variable	Cronbach's Alpha score	
		Web 1.0	Web 2.0
1. E-recruitment saves a lot of time to our company 8. The time taken for e-recruitment process is less than that is allocated for traditional recruitment methods 12. E-recruitment method is associated with the concept of time efficiency 17. E - recruitment reduces the time taken for analysing the data collected from applicants	Saves Time	0.71	0.81
2. The company's' recruitment efforts reach lots of applicants through e- recruitment 6. The company can reach several geographical locations through e- recruitment 9. It's easier to get the required expertise from different countries through e- recruitment 13. E-recruitment is the simplest method to reach several locations worldwide 18. E-recruitment allows a more diversity of applicants from various geographical locations to apply 20. E-recruitment allows us to reach the world easily 22. E-recruitment helps the organization to find worldwide recruitment sources	Geographical Outreach	0.91	0.92

3. E-recruitment helps our company to save lots of efforts through the utilization of technology 10. Using e-recruitment consumes less efforts as technology makes things easier 14. Using e-recruitment, will lead to a reduction in human efforts 16. E-recruitment saves lots of efforts that are further utilized by the organization towards efficiency 19. E-recruitment is a fast and an easy way to save human efforts	Saves Efforts	0.80	0.86
4. E-recruitment provides better quality of applicants 5. E-recruitment can save the organization the costs of attracting unqualified applicants 11. E-recruitment allows the company to filter the qualified applicants through the adoption of technology buffers 21. E-recruitment increases the opportunity of attracting competent applicants 23. E-recruitment can reduce the chances of attracting unqualified applicants	Increases Quality of Applications	0.77	0.79
7. E-recruitment helps to create a sound image for the organization 15. Companies adopting e-recruitment enjoy an improved organizational image 24. E-recruitment reduces the barrier of attracting unqualified applicants through improved organizational image	Improves Organisational Image	0.62	0.68

All variables (except "Improves Organisational Image") for both Web 1.0 and Web 2.0 present Cronbach's Alpha scores higher than 0.70, meaning they are strongly reliable. The new variable "Improves Organisational Image" has lower score, 0.62 for Web 1.0 and 0.68 for Web 2.0. For the purpose of this study, the scores will be considered acceptable as the variable was used and validated in a previous research (Aboul-Ela, 2014). Also, Peterson's (1994) meta-analysis of Cronbach's Coefficient Alpha, states that a scale-item with fewer categories can have lower alpha scores than 0.70, where a 0.60 score can be considered acceptable as the minimum threshold. The variable "Improves Organisational Image" is the category with less items, three, as such it will be accepted and considered reliable for the purpose of this study.

3.4 Results

The data collected was stored and analysed using SPSS (Statistical Package for Social Sciences) software and Microsoft Excel program. In the following sections, several analyses will be conducted. First a description of the most used e-recruitment tools in general, for different levels of seniority and qualification; secondly, using Aboul-Ela's (2014) scale, the hypothesis will be tested, comparing the perceived benefits of using Web 1.0 and Web 2.0 tools. After that, an analysis of the perceived benefits of Social Recruitment (using examples from the literature) will be done to provide insights for a future development of a scale, similar to Aboul-Ela's (2014) but for the benefits of using Web 2.0 recruitment tools.

3.4.1 Descriptive Statistics and Correlation

The most used e-recruitment tool is LinkedIn, the professional social networking site. Nearly the entire sample of this study (98%) stated they use LinkedIn as a recruitment tool. After this follows the use of Job Boards with 87% of respondents using this tool, the Career Websites with 76% and the social networking site Facebook with 52%. Only 14 people use Twitter and 13 use YouTube as a recruitment tool (10% each). The respondents that selected the option "others" mentioned other social networking sites (e.g. Xing, specific for the DACH region – Germany, Austria and Switzerland), other job boards used in different countries (NetEmpregos, Monster, Indeed…), databases and application tracking systems (e.g. Taleo).

Figure 5 - E-recruitment tools - Most used
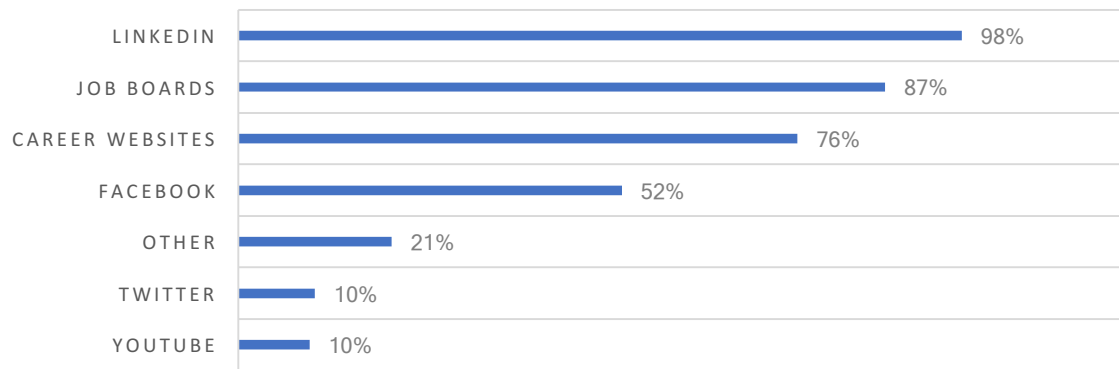
In Figure 6 a comparison of the most used tools in-house and in-agency is done. The ranking coincides, being that LinkedIn is the most used tool for both, followed by Job Boards and Career Websites. The most visible difference between in-house recruitment and in-agency recruitment seems to be the use of Career Websites, where 45% of in-house respondents use it compared to the 30% usage of agency respondents. The social networking sites Twitter and YouTube are the least used by both in-house and in-agency respondents.

Figure 6 - E-recruitment tools - Most used In-House VS In-Agency
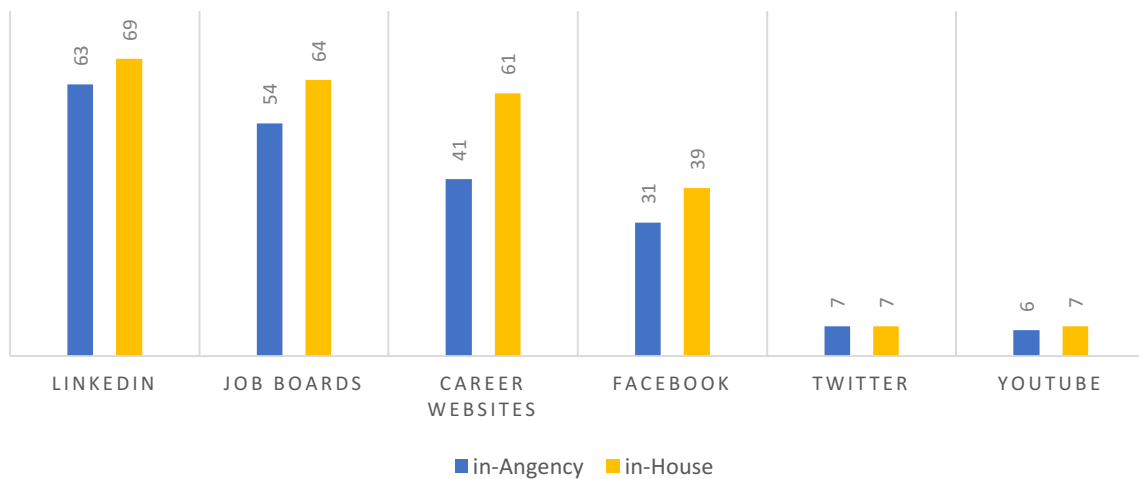
Regarding the use of e-recruitment tools for different levels of qualification, the respondents were asked to classify on a scale from 1 to 6 (1- Never, 2-Rarely, 3- Occasionally, 4- Most of the time, 5- Always and 6- Not applicable), how frequently they used the different tools for recruiting Unskilled Professionals (considering these to be individuals without studies), Skilled Professionals (individuals with studies) and Highly Skilled Professionals (individuals with specialized studies). The complete distribution of the answers (percentage) can be found below on table 1. Figure 7 compares the mean value for the usage of the different e-recruitment tools per qualification level. For calculating the mean, the answers with value 6 ("not applicable") were not included. In average, the respondents always use LinkedIn for recruiting highly skilled professionals, and Job Boards and Career Websites occasionally. For recruiting Skilled professionals, LinkedIn, Job Boards and Career Websites are used most of the time. The tools used to recruit unskilled professionals are Job Boards and Career Websites (occasionally) and rarely the social networking sites, LinkedIn and Facebook. Twitter and YouTube are, on average, never used for recruitment purposes.

Figure 7 - E-recruitment tools - Most used per qualification level (mean)
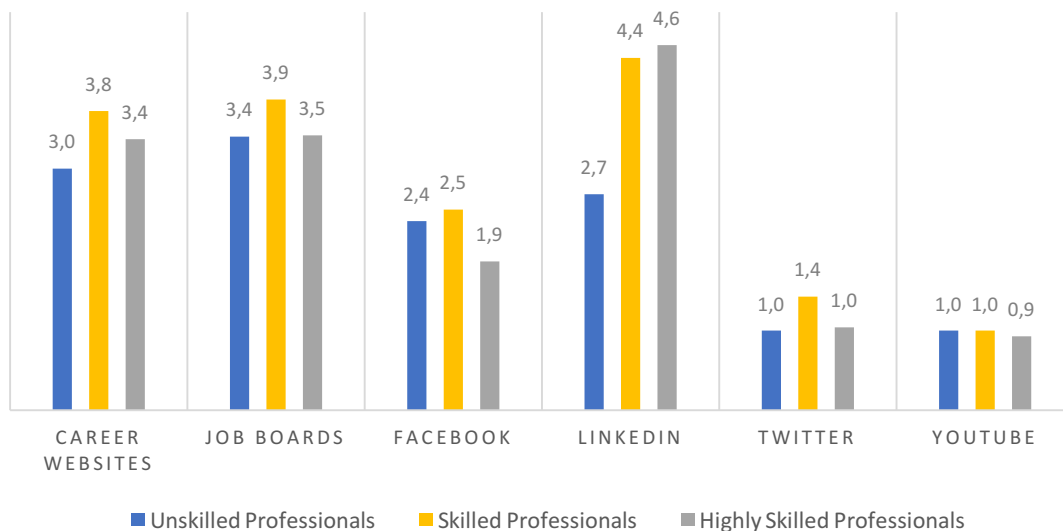
The survey also inquired respondents about the use of e-recruitment tools for junior professionals and senior professionals. Again, respondents needed to classify their use of the different tools in a scale of 1 to 6 (1- Never, 2-Rarely, 3- Occasionally, 4- Most of the

time, 5- Always and 6- Not applicable). Table 2 contains the detailed percentage distribution of answers by level of seniority and scale. Figure 7 gives the comparison of usage of the different e-recruitment tools, using the average of responses. LinkedIn seems to be used more for recruiting senior professionals, however it is the most used tool for recruiting junior professionals as well. Job Boards and Career Websites are used both for junior and senior professionals (occasionally for junior and most of the time for senior professionals). Facebook is rarely used for either seniority level and Twitter and YouTube are never used for junior professionals and rarely used for senior professionals.

Figure 8 - E-recruitment tools - Most used per seniority level (mean)
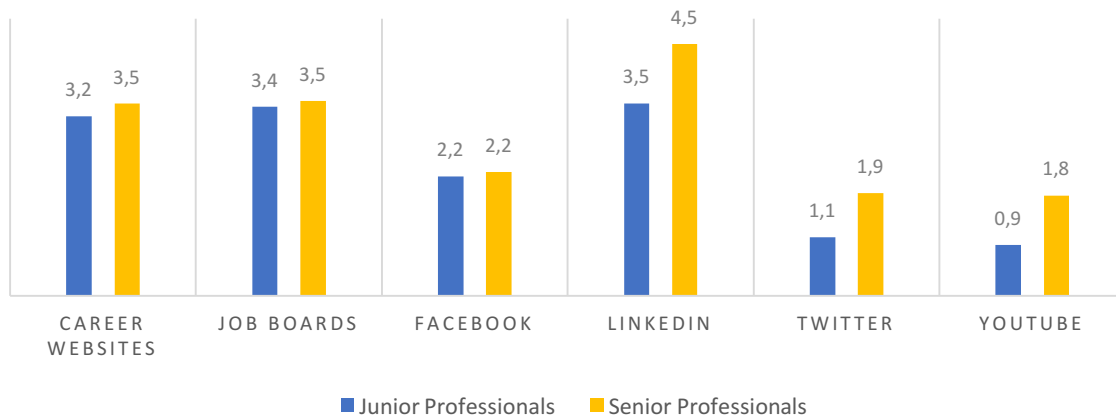
A Correlation between variables was also conducted and results can be seen on Table 7, below. All variables present a positive correlation with each other at a 5% significance level (some at 1%), which means that these results are likely to be representative of the population. For example, a person who considers "saving time" a benefit of Web 1.0 also considers it a benefit of Web 2.0 ($r = 0.569$, a positive moderate correlation). The same can be said about "geographical outreach" ($r = 0.618$), "saving efforts" ($r = 0.722$, positive strong correlation), "quality of applications" ($r = 0.653$) and "organisational image" ($r = 0.674$). The weakest correlation presented happens between the consideration of "organisational image" as a benefit of Web 1.0 and "geographical outreach" a benefit of Web 2.0. This can also be indicative of the lower reliability score of this item as shown previously on table 2.

Table 3 - Correlation Analysis – Web 1.0 and Web 2.0 benefits

|		WEB 1.0					WEB 2.0				
		1	2	3	4	5	1	2	3	4	5
WEB 1.0	1. Save Time	1									
	2. Geo Outreach	.490**	1								
	3. Save Efforts	.661**	.493**	1							
	4. Quality App	.471**	.443**	.479**	1						
	5. Org Image	.479**	.414**	.480**	.528**	1					
WEB 2.0	1. Save Time	.569**	.355**	.506**	.467**	.434**	1				
	2. Geo Outreach	.330**	.618**	.351**	.287**	.196*	.421**	1			
	3. Save Efforts	.518**	.415**	.722**	.446**	.478**	.709**	.393**	1		
	4. Quality App	.354**	.273**	.395**	.653**	.478**	.577**	.407**	.511**	1	
	5. Org Image	.385**	.202*	.351**	.374**	.674**	.319**	.257**	.339**	.408**	1

** $p < 0.01$ * $p < 0.05$

3.4.2 Test of Hypotheses

In this part of the questionnaire, it was intended to register the level of agreement of the respondents with the benefits of e-recruitment tools, comparing the agreeableness of the same benefits, having in mind Web 1.0 tools and Web 2.0 tools. The respondents were asked to state the level of their agreement on a scale from 1 to 5 (1. Totally Disagree, 2. Disagree, 3. Neither Agree nor Disagree, 4. Agree and 5. Totally Agree) with the statements taken from Aboul-Ela's scale (2014). Those statements were then grouped in five different Benefits: Saves Time, Geographical Outreach, Saves Efforts, Increases Quality of Applications and Improves Organizational Image (see table 2 for reliability test of Computed variables).

For Web 1.0 tools, the question asked for the level of agreement with benefits of using Career Websites and Job Boards. In Figure 9 it can be seen that more than half of the sample agree that Saving Time, Increasing Geographical Outreach and Saving Efforts are benefits of the use of Web 1.0 recruitment tools. The geographical outreach seems to be the most agreeable benefit of using the Web 1.0, 51% of the sample agrees with it and 30% totally agrees with it. Only 2% of respondents disagree that geographical outreach is a benefit of using career websites and job boards. Saving time is the second most agreeable benefit with 54% of "agree" and 15% "totally agree" answers. Saving efforts comes next with a combined 54% agreement level and a 42% of neutral answers, suggesting Web 1.0 does not impact the effort put into recruitment activities. The last two benefits, quality of applications and organizational image, also have a considerable number of respondents feeling neutral about them (49% and 45% respectively). Even so, the level of agreement is higher than disagreement.

Figure 9 - Aboul-Ela scale - Agreement with Web 1.0 benefits
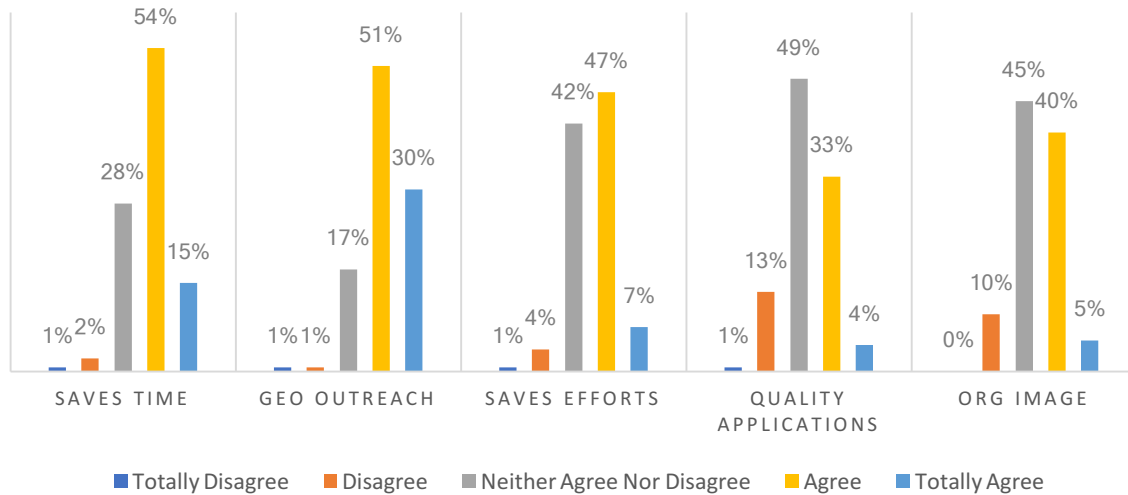
The original scale developed by Aboul-Ela (2014) inquired about the benefits of e-recruitment, considering "corporate websites and commercial websites", the same as what is considered in this study as Web 1.0 tools (Career Websites and Job Boards). The present study also asked respondents to state their level of agreement with the exact same benefits, but considering only Web 2.0 tools such as the social networking sites (LinkedIn, Facebook, Twitter, YouTube). Geographical outreach seems to be commonly perceived as a benefit of social recruitment (53% of "agree" and 36% "totally agree" responses).

Time efficiency is perceived as a benefit of social recruitment for the majority of respondents (47% "agree" and 18% "totally agree") and so is organizational image (44% "agree" and 10% "totally agree") and saving efforts (43% "agree" and 10% "totally agree"). Most respondents believe the quality of applications that come through Web 2.0 tools does not vary from the quality of applications coming from other tools (44% "neither agree nor disagree"), however for the remaining respondents, there seems to be more agreement (42%) than disagreement (14%).
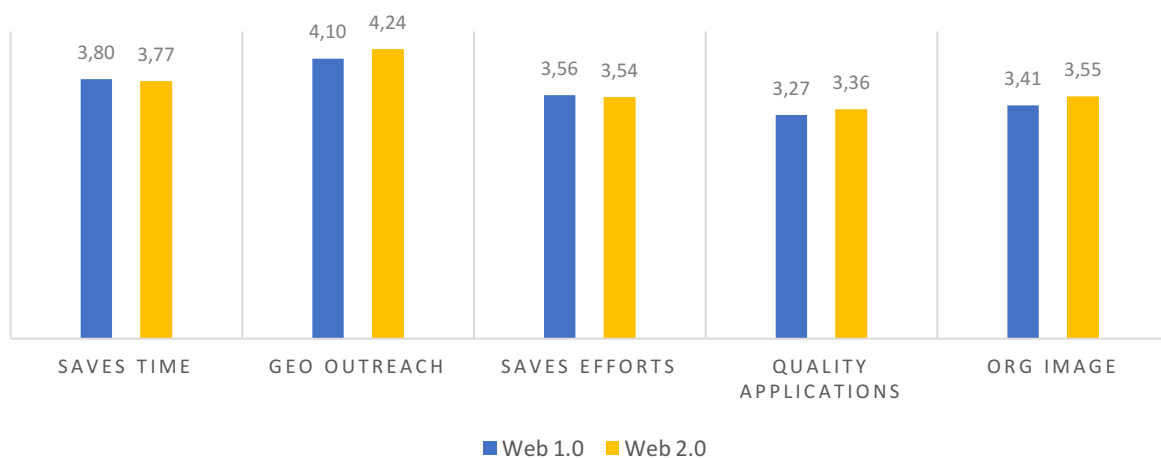
Figure 10 - Aboul-Ela scale - Agreement with Web 2.0 benefits
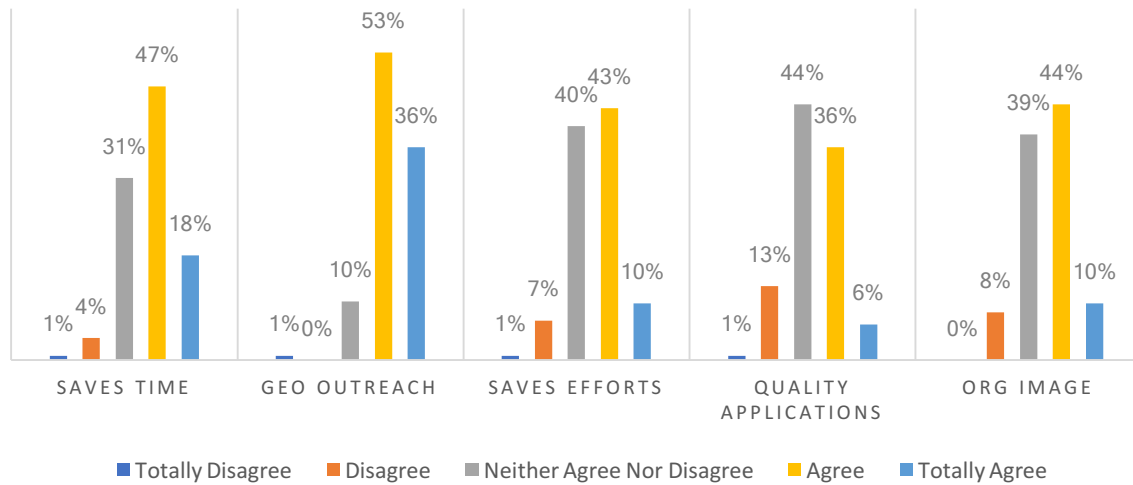
In order to test the hypotheses for this study (stated in Chapter II – Research Problematic), a series of tests and analysis were conducted, including a One Sample T-Test (comparing the means of Web 1.0 with Web 2.0), an analysis of Means and Standard Deviations and a Correlation of Variables.

Figure 11 shows a comparison of the average agreement value for the different benefits between Web 1.0 and Web 2.0. Again, the agreement scale ranges between 1 and 5 (1- totally disagree, 2- disagree, 3- neither agree or disagree, 4- agree and 5- totally agree).

Figure 11 - E-recruitment Benefits - Web 1.0 vs Web 2.0

At first sight, Web 1.0 and Web 2.0 seem to be considered equally beneficial in regards to all the five benefits, with slight differences. The benefits "Saves Time" and "Saves Efforts" are considered slightly truer when using Web 1.0. On the other hand, Geographical Outreach, Quality of Applications and Organisational Image have a slightly higher agreement level when considering Web 2.0 tools. To test the hypotheses in more detail, a One Sample T-Test was conducted for each benefit, comparing the mean of agreement when using Web 1.0 (the used Test Value) with the average of agreement when using Web 2.0. The results can be seen in Table 7 below.

Table 4 - One Sample T-Test

Web 2.0 Benefits	Mean	SD	Test Value for Web 1.0	SD	t	df	Sig. (2-tailed)
Saves Time	3.77	0.81	3.80	0.74	-0.425	134	0.671
Geo Outreach	4.24	0.69	4.10	0.75	2.333	134	0.021
Saves Efforts	3.54	0.79	3.56	0.72	-0.283	134	0.777
Quality App	3.36	0.82	3.27	0.78	1.220	134	0.225
Org Image	3.55	0.78	3.41	0.74	2.059	134	0.041

The first hypothesis stated that using Web 2.0 would save more time to a recruitment process than using Web 1.0. The results of the T-test (t (134) = -0.435, p = 0.671) show that the Null hypothesis (Web 2.0 tools do not save more time to a recruitment process than Web 1.0 tools) cannot be rejected as the level of significance much higher than 0.05 (Sig.= 0.671). This means that Web 2.0 tools do not save more time than Web 1.0 tools and the first hypothesis is not corroborated. It is interesting to notice that the *t* result is negative (-0.425), suggesting even a contrary tendency of what was here hypothesised, meaning that Web 1.0 would have bigger impact on time saving than Web 2.0. On the other hand, the standard deviation for Web 2.0 is higher than the standard deviation of Web 1.0, meaning responses for Web 2.0 have a bigger range of agreement (or disagreement).

For Hypothesis 2 (Web 2.0 will have bigger geographical outreach than Web 1.0) the results are favourable (t (134) = 2.333, p = 0.021) at a 0.05 significance level (if considering 1% Hypothesis 2 would be rejected). The Hypothesis is supported, meaning Web 2.0 tools are considered to have bigger geographical outreach than Web 1.0. Here the standard deviation is higher for Web 1.0, meaning that the level of agreement for Web 2.0 is more consistent than for Web 1.0.

Hypothesis 3 stated that Web 2.0 will not impact the human efforts more or less than using Web 1.0. The T-test is analysing whether there is a significant difference between the average of agreement in responses considering Web 1.0 and 2.0 tools. The results for the "saving efforts" benefit show that there is no significant difference (t (134) = -0.283, p = 0.777), which means the hypothesis 3 is supported (using Web 2.0 does not impact the efforts more than Web 1.0 tools). From the standard deviation value, it can be observed that agreement for Web 1.0 is more consistent than for Web 2.0, where responses are more scattered.

Regarding the quality of applications, Hypothesis 4 stated Web 2.0 tools would increase it, more than Web 1.0 tools. As mentioned before, it can be seen that Web 2.0 has a slightly higher average of agreement than Web 1.0, however, T-test results show that this is not a statistical significant difference (t (134) = 1.22, p = 0.225). As such, the fourth hypothesis is not supported and null hypothesis is not rejected (Web 2.0 tools do not increase quality of applications higher than Web 1.0 tools). The lower standard deviation value for Web 1.0 responses shows the agreement for these tools to improve quality of applications is more consistent than the ones for Web 2.0, where we might have respondents strongly agreeing but other strongly disagreeing that these tools improve quality of applications.

The last hypothesis considered Organizational Image – improved when using Web 2.0 more than when using Web 1.0. The results support the hypothesis (t (134) = 2.059, p = 0.041) at a significance level of 0.05, meaning that Web 2.0 are indeed improving the organisational image at a statistical significant higher rate than Web 1.0. If considering 1% significant rate, this would not be true and the hypothesis would be rejected. The responses for Web 2.0 are more spread than the ones for Web 1.0 (more consistent).

3.4.3 Social Media Recruitment Benefits

In regards to Social Recruitment, two more questions were added in the survey, asking respondents to rank a list of benefits, including the ones from Aboul-Ela's scale and adding other statements found in the literature about the improvement of the relationship between recruiters and candidates when using Web 2.0 tools (questionnaire can be seen in detail in Appendix A). The ranking scale was from 1 to 6 in each question (1 being the most important and 6 the least important benefit) and respondents needed to order 6 items in each question by order of importance. Figure 12 below shows the ranking of the listed benefits, by average of ranking level.

Figure 12 - Web 2.0 recruitment tools - Ranked Benefits by Mean
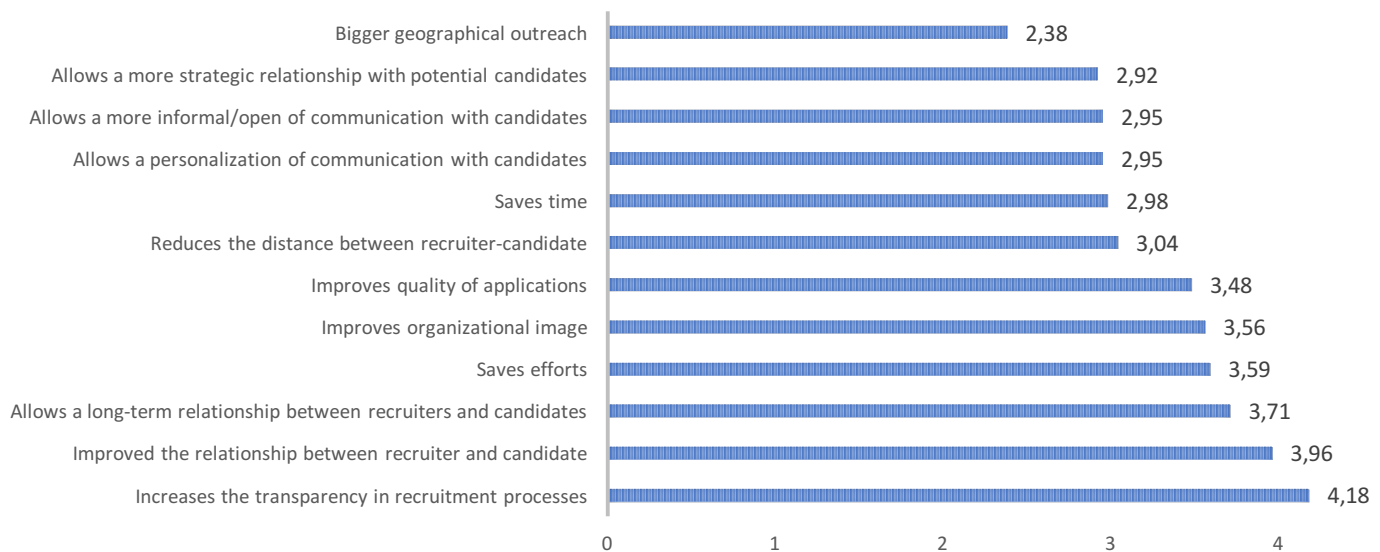
As seen in previous analysis, the bigger geographical outreach seems to be by far the most important benefit coming from the use of social recruitment tools (mean = 2.38). The second most important benefit from using social networking sites for recruitment purposes is the ability to develop strategic relationships with potential candidates (mean = 2.92). With the same ranking position of 2.95 are the items related to the improved communication with candidates (open, informal and personalized), followed by the time efficiency from Aboul-

Ela (2.98) and the reduction of the distance between recruiters and candidates (3.04). The remaining three benefits from Abou-Ela's scale come next, improved quality of applications (3.48), improved organizational image (3.56) and effort savings (3.59). Immediately after, with a 3.71 ranking follows the possibility of building a long-term relationship with candidates (3.71), the improved relationship in general with candidates (3.96) and the increased transparency of the recruitment process, coming in last place with a ranking of 4.18.

At the end of this section an open-ended optional question was added, asking respondents to mention any other benefit of the Web 2.0 that was not foreseen in the previous questions. There were 37 respondents that mentioned additional benefits. The most mentioned benefit was the possibility to reach passive candidates, with 12 responses. Aspects of process optimisation were also mentioned by 11 responses, such as the fast and easy way to find candidates, and the possibility to increase the number of people contacted, which will increase chance of closing a position. Despite being a benefit included in the previous questions, organisational image (or employer branding) was also mentioned as an additional benefit, by 8 respondents. Examples of answers include: "display a company's sense of community to the public" or "giving candidates more access to information about the company". The possibility of getting referrals was another common benefit of Web 2.0 mentioned by 5 of this survey's respondents.

CHAPTER IV. DISCUSSION

The benefits of using technology and the internet in recruitment activities are broadly accepted. Aboul-Ela (2014) developed a scale of the most commonly perceived benefits of using what has been identified in this study as Web 1.0 tools. Despite also being generally agreed in the literature that Web 2.0 is also beneficial to the recruitment activities (Broughton et al., 2013; Jeske and Shultz, 2015; Melanthiou et al., 2015, etc.), it is still of great importance to deepen the research in this field: understanding the potential specific benefits of these tools and how to best utilize them in a complementary manner with the first Web generation. This study attempted to bring contribution to this field by inquiring talent acquisition professionals regarding their activities and perceptions of the benefits of Web 1.0 and Web 2.0 tools. The results identified that the same benefits observed by Aboul-Ela (2014) when investigating Web 1.0 tools' benefits, are also perceived as benefits of using Web 2.0 tools. Time saving in a recruitment process is generally observed when using both Web 1.0 and Web 2.0 tools, with a slight preference for Web 1.0. This might be due to the novelty of the Web 2.0 tools that would require more time spent on training and adapting by recruiters (Melanthiou et al., 2015). This result was contrary to what was found in the literature and what was hypothesized. These unexpected results could be explained by the limited amount of responses as well as the fact that this study's sample privileges responses coming from recruiters working in large organizations (more than 250 workers – see figure 3), where recruitment processes are always conducted using Web 1.0 tools (or a combination of Web 1.0 and 2.0).

Geographical outreach was the benefit with highest agreement rate across all respondents. Over 80% of respondents agree that using both Web 1.0 and Web 2.0 to recruit, results in a bigger geographical outreach. In this case the slight advantage leans towards the use of Web 2.0 since social media is exploding. Facebook counts with over two billion users and LinkedIn with over 460 million users. This is where talent is gathering and the opportunities to reach a very large pool of talent is greater than just waiting for people to visit the Career Websites and Job Boards. Saving Efforts is again a benefit of both Web 1.0 and Web 2.0 with no significant difference between the two generation of Web tools. In both cases, applications (or online profiles) need to be screened and people need to be contacted.

This could be different if the question addressed the Selection phase, where the use of video interviewing and other Web 2.0 tools could have a bigger impact in effort savings.

Regarding the quality of applications, it was observed that there is no statistical significant difference between the quality brought by Web 1.0 and Web 2.0 to the applications. This would be something to further investigate since the literature mentions something different: using Web 2.0 allows recruiters to reach out to passive candidates (also something noted by the respondents of this study in a later question). The contradictory results of this study could again be due to the small sample of recruiters and the different understanding of the concepts among respondents.

Lastly, the improvement of the organisational image was observed to be higher when using Web 2.0 tools. This was aligned with the researcher's expectations and what was found in the literature. The fact that social networks allow a very large reach of people, they become a platform for organisations to promote themselves. This suggests that Social Media is not only a potentially very powerful source of recruitment, but also of long term strategy for employer branding and a way of spreading the organisation's image and values, and thus targeting talent.

This analysis and comparison of Web 1.0 and Web 2.0 benefits, using Abou-Ela's (2014) scale of benefits, brings insightful information to what could be more beneficial to organisations. For example, if one of the most important goals for the organisation is to improve the reach, awareness and visibility of their brand, then the preferred tools for reaching the talent should be social media channels.

The present study also aimed to gather further information regarding the specific benefits of Web 2.0 tools. Based on the existent literature, a list of Social Recruitment benefits was used and respondents were asked to rank them by order of importance. The highest ranked benefits related to the ability of developing strategic relations with potential candidates and the improved communication with candidates (open, informal and personalized). When asked an open question about other benefits not listed, many of the respondents mentioned the possibility to reach out to passive candidates (people that are employed, not actively looking for new jobs, but willing to hear about opportunities as they are present and open to be persuaded to move forward with recruitment processes). These

findings can bring insights into the perceived benefits of Social Recruitment that can be useful for a future development of a scale of Web 2.0 benefits in recruitment activities.

This study furthermore inquired talent acquisition professionals about their use of the different e-recruitment tools, relating to their most used tools in general, but also when recruiting for different seniority and qualification levels. The results suggest that Web 1.0 tools are greatly used (Job Boards: 87%, Career Websites: 76%). Regarding social media, LinkedIn is not only the most used Web 2.0 tool but also the most used tool in general, with 98% of our sample stating their usage of this social networking site. Slightly more than half of respondents also use Facebook for recruitment purposes.

Regarding the qualification level split, it is interesting to notice that the recruitment of Skilled and Highly-Skilled professionals includes the use of Web 2.0 tools (LinkedIn) whereas this does not happen for Unskilled professionals' recruitment. Regarding seniority level, LinkedIn also had a privileged place for recruiting both Senior and Junior professionals, followed by both the Web 1.0 tools (Job Boards and Career Websites).

4.1 Limitations

Despite the contributions of the present study, it does not come without limitations. First, related to the targeted population for this study (all talent acquisition professionals with no geographical, age or sector restrictions), only Portuguese and English speakers had the chance of participating as these were the only languages in which the questionnaire was distributed. Also, regarding the instrument of data collection, using online surveys makes it impossible for the researcher to address respondent's questions when filling out the questionnaire which can mean that the answers given might be biased by the respondents' perception or understanding of the concepts and questions included in the survey. Another important factor is the cultural differences. Having respondents from different geographies in the world, it is difficult to assert that all responded to the questions, having the same understanding of the concepts touched upon in this study. This was something the researcher did not take into consideration for the present study.

The online method for the distribution of the questionnaire also brings clear obstacles in gathering responses, the most prominent of these are the fact that respondents might consider this type of approach as spam. Because the internet is full of fake information,

advertisement, spam messages and trolls, people are more cautious and if the sender is unknown or strange, the message is often ignored.

The fact that this dissertation was not able to corroborate all the hypotheses, is also a limitation. This could be due to the sample size or the fact that the study in which the present dissertation is based (Aboul-Ela, 2014) has not been broadly studied and validated.

4.2 Future research

Most of all, it is suggested that future research should further the efforts of this study to gather sufficient data to develop a scale for the specific benefits of the use of Web 2.0 tools in recruitment. Future research could focus on re-testing the comparison of Web 1.0 and Web 2.0, using Aboul-Ela's scale, with a larger sample and including other geographies or focusing on one specific geography, especially in what concerns time savings and the increase of quality of applications. It is also suggested that future research furthers the comparison between the two web generations using a representative sample as the present study used the convenience sampling.

CHAPTER V. CONCLUSIONS

It would nowadays be difficult to find an organisation that recruits without online tools. The use of the internet and technology in recruitment processes is established and brought along massive advantages to both employers and employment seekers. Social Recruitment consists in undergoing recruitment activities through different social networking sites (Caers and Castelyns, 2010; Broughton et al., 2013; Jeske and Shultz, 2015). This new trend is spreading fast due to the societal transformation around social media and the global use of sites such as LinkedIn and Facebook but also due to its benefits for organisations.

This study's goals were defined in three fronts: the comparison between Web 1.0 and Web 2.0, gathering pointers for a future development of a scale of benefits for Web 2.0 and understanding whether there are specific tools more used to fill vacancies of different levels of seniority and qualification. We aimed to understand to what extent the benefits that Web 1.0 tools brought to recruitment activities are also seen with the implementation of Web 2.0 tools. To achieve this, this study used an already existing scale from Aboul-Ela (2014). The author developed a scale of benefits of Career Websites and Job Boards (Web 1.0) for organisations in Egypt. Saves Time, Bigger Geographical Outreach, Saves Efforts, Improves Quality of Applications and Improves Organisational Image were the five cluster benefits included in Abou-Ela's (2014) scale. In order to explore the perception of recruiters regarding the different benefits in Web 1.0 and Web 2.0, the original scale's statements were used to inquire recruiters regarding Web 1.0 and Web 2.0, separately. Additionally, the research attempted to gather further information regarding the specific benefits that come from using Web 2.0 tools. For this purpose, some statements found in the literature regarding the specific benefits of Web 2.0 were listed and recruiters were asked to rank those in order of importance. This was done through the spreading of an online questionnaire targeted talent acquisition professionals. The survey was distributed via email and postings on Social Media (LinkedIn and Facebook) and gathered a total of 202 responses, of which 135 could be used. Some questions were also included in the survey to understand which e-recruitment tools were being mostly used and what type of vacancies the different tools are being used for, in terms of seniority and qualification level.

In regard to the different e-recruitment tools, almost all the respondents of this study use LinkedIn to recruit. This tool had the highest average of use for Skilled and Highly-Skilled professionals in both Junior and Senior level positions. The Web 1.0 tools (Job Boards and Career Websites) seem to be the second favourite of this study's respondents, as these tools are used most of the time to recruit all seniority and qualification levels.

Concerning the benefits from Aboul-Ela's scale, the results of this study indicate that there are two benefits with more impact coming from the use of Web 2.0 tools: The Bigger Geographical Outreach and the Improved Organisational Image. These findings are aligned with the research done so far regarding social recruitment, but go beyond it showing that these Web 2.0 tools are serving organisations better in some aspects than Web 1.0 tools. This study also pointed out that organisations are already using social networking sites such as LinkedIn: 98% of our sample stated using it for recruitment activities frequently for the Skilled and Highly-Skilled professionals, and this was both for Junior and Senior vacancies. Time and Efforts savings were perceived as better served by Web 1.0 tools, which can be a result of the novelty of Web 2.0 tools in organisations, meaning the integration of these tools into the recruitment processes has not have enough time to bring its benefits to the full extent, but also the fact that talent acquisition professionals need time and training to adapt to the use of these tools. The same could be said about the increasing quality of applications' benefit, since the study did not show a statistical significant difference in this benefit coming from using Web 1.0 and Web 2.0 tools.

Not only is talent being found in social networking sites, but organisations are also entering this world more and more. In sum, this study's findings suggest, that the most important perceived benefits of using social networking sites in recruitment process are the bigger geographical outreach of these tools, but also its potential in connecting to candidates in a way that was not possible when using Career Websites and Job Boards. The possibility of developing strategic relationships and the ability to improve the communication with candidates into a more immediate, informal and personalized way, are some of the most important benefits stated by respondents of our sample. These results can be a good starting point for further investigating the advantages brought by the use of social recruitment and the development of a scale of benefits of the Web 2.0 e-recruitment tools.

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APPENDIX A. Questionnaire (English Version)

Questionnaire (English Version)

Objective

This questionnaire has the goal of studying the use of information technology in the recruitment processes. As a recruiter, we ask your collaboration to indicate the methods you use the most in recruitment.

Confidentiality

This questionnaire is anonymous and confidential, given the statistical data will be used in a global way and not in an individual way.

Instructions

Please answer all the below questions. There are no right or wrong answers, your opinion and description of what happens in the recruitment processes conducted by you is what really matters.

Thank you for your collaboration!

1. Please indicate all kinds of tools you use during the recruitment process:

   o   Career Websites
   o   Job Boards
   o   Facebook
   o   LinkedIn
   o   Twitter
   o   YouTube
   o   Other. Which? _____

2. How frequently do you use the different tools for ***Unskilled Professionals***?

	Never	Rarely	Occasionally	Most of the time	Always	Not Applicable
Career Websites	O	O	O	O	O	O
Job Boards	O	O	O	O	O	O
Facebook	O	O	O	O	O	O
LinkedIn	O	O	O	O	O	O
Twitter	O	O	O	O	O	O
YouTube	O	O	O	O	O	O
Other. Which? ____	O	O	O	O	O	O

3. How frequently do you use the different tools for ***Skilled Professionals***?

	Never	Rarely	Occasionally	Most of the time	Always	Not Applicable
Career Websites	○	○	○	○	○	○
Job Boards	○	○	○	○	○	○
Facebook	○	○	○	○	○	○
LinkedIn	○	○	○	○	○	○
Twitter	○	○	○	○	○	○
YouTube	○	○	○	○	○	○
Other. Which? _____	○	○	○	○	○	○

4. How frequently do you use the different tools for ***Highly-skilled Professionals***?

	Never	Rarely	Occasionally	Most of the time	Always	Not Applicable
Career Websites	○	○	○	○	○	○
Job Boards	○	○	○	○	○	○
Facebook	○	○	○	○	○	○
LinkedIn	○	○	○	○	○	○
Twitter	○	○	○	○	○	○
YouTube	○	○	○	○	○	○
Other. Which? _____	○	○	○	○	○	○

5. How frequently do you use the different tools for ***Junior Professionals***?

	Never	Rarely	Occasionally	Most of the time	Always	Not Applicable
Career Websites	○	○	○	○	○	○
Job Boards	○	○	○	○	○	○
Facebook	○	○	○	○	○	○
LinkedIn	○	○	○	○	○	○
Twitter	○	○	○	○	○	○
YouTube	○	○	○	○	○	○
Other. Which? _____	○	○	○	○	○	○

6. How frequently do you use the different tools for ***Senior Professionals***?

	Never	Rarely	Occasionally	Most of the time	Always	Not Applicable
Career Websites	○	○	○	○	○	○
Job Boards	○	○	○	○	○	○
Facebook	○	○	○	○	○	○
LinkedIn	○	○	○	○	○	○
Twitter	○	○	○	○	○	○
YouTube	○	○	○	○	○	○
Other. Which? _____	○	○	○	○	○	○

7. What is your level of agreement with the following sentences, considering ***Career Websites & Job Boards***?

Sentences	Totally Disagree	Disagree	Neutral	Agree	Totally Disagree
1. E-recruitment saves a lot of time to our company					
2. The company's' recruitment efforts reach lots of applicants through e-recruitment					
3. E-recruitment helps our company to save lots of efforts through the utilization of technology					
4. E-recruitment provides better quality of applicants					
5. E-recruitment can save the organization the costs of attracting unqualified applicants					
6. The company can reach several geographical locations through e- recruitment					
7. E-recruitment helps to create a sound image for the organization					
8. The time taken for e-recruitment process is less than that is allocated for traditional recruitment methods					
9. It's easier to get the required expertise from different countries through e-recruitment					
10. Using e-recruitment consumes less efforts as technology makes things easier					
11. E-recruitment allows the company to filter the qualified applicants through the adoption of technology buffers					
12. E-recruitment method is associated with the concept of time efficiency					
13. E-recruitment is the simplest method to reach several locations worldwide					
14. Using e-recruitment, will lead to a reduction in human efforts					
15. Companies adopting e-recruitment enjoy an improved organizational image					
16. E-recruitment saves lots of efforts that are further utilized by the organization towards efficiency					
17. E - recruitment reduces the time taken for analyzing the data collected from applicants					
18. -recruitment helps the organization to find worldwide recruitment sources					
19. E-recruitment is a fast and an easy way to save human efforts					
20. E-recruitment allows a more diversity of applicants from various geographical locations to apply					
21. E-recruitment increases the opportunity of attracting competent applicants					
22. E-recruitment allows us to reach the world easily					
23. E-recruitment can reduce the chances of attracting unqualified applicants					
24. E-recruitment reduces the barrier of attracting unqualified applicants through improved organizational image					

8. What is your level of agreement with the following sentences, considering *__Social Networking Sites (LinkedIn, Facebook, Twitter and YouTube)__*?

Sentences	Totally Disagree	Disagree	Neutral	Agree	Totally Disagree
1. E-recruitment saves a lot of time to our company					
2. The company's' recruitment efforts reach lots of applicants through e-recruitment					
3. E-recruitment helps our company to save lots of efforts through the utilization of technology					
4. E-recruitment provides better quality of applicants					
5. E-recruitment can save the organization the costs of attracting unqualified applicants					
6. The company can reach several geographical locations through e- recruitment					
7. E-recruitment helps to create a sound image for the organization					
8. The time taken for e-recruitment process is less than that is allocated for traditional recruitment methods					
9. It's easier to get the required expertise from different countries through e-recruitment					
10. Using e-recruitment consumes less efforts as technology makes things easier					
11. E-recruitment allows the company to filter the qualified applicants through the adoption of technology buffers					
12. E-recruitment method is associated with the concept of time efficiency					
13. E-recruitment is the simplest method to reach several locations worldwide					
14. Using e-recruitment, will lead to a reduction in human efforts					
15. Companies adopting e-recruitment enjoy an improved organizational image					
16. E-recruitment saves lots of efforts that are further utilized by the organization towards efficiency					
17. E - recruitment reduces the time taken for analyzing the data collected from applicants					
18. -recruitment helps the organization to find worldwide recruitment sources					
19. E-recruitment is a fast and an easy way to save human efforts					
20. E-recruitment allows a more diversity of applicants from various geographical locations to apply					
21. E-recruitment increases the opportunity of attracting competent applicants					
22. E-recruitment allows us to reach the world easily					
23. E-recruitment can reduce the chances of attracting unqualified applicants					
24. E-recruitment reduces the barrier of attracting unqualified applicants through improved organizational image					

9. Sort by order of importance the following benefits of Social Networks in Recruitment. In descending order, assign the number 1 to the benefit you consider to be the most important, until the number 6 to the least important

- o Saves time
- o Bigger Geographical Outreach
- o Saves efforts
- o Improves quality of applications
- o Improves organizational image
- o Improved the relationship between recruiter and candidate

10. Sort by order of importance the following benefits of Social Networks in Recruitment. In descending order, assign the number 1 to the benefit you consider to be the most important, until the number 6 (or 7) to the least important

- o Allows a personalization of communication with candidates
- o Allows a more informal/open communication with candidates
- o Reduces the distance between recruiter-candidate
- o Allows a more strategic relationship with potential candidates
- o Allows a long-term relationship between recruiters and candidates
- o Increases the transparency in recruitment processes

11. Mention other benefits from the use of social networks in the recruitment process that were not previously identified:

_____

_____

_____

_____

_____

The following data will be for statistic treatment only, not identifying you.

12. You perform your job:

    o   In a recruitment Agency (outsourcing)
    o   In a recruitment Department (in-house)

13. Your company has:

    o   Less than 10 employees
    o   10 – 49 employees
    o   50 – 249 employees
    o   over 250 employees

14. Your company belongs to one of the following sectors:

    o   Healthcare
    o   Banking
    o   Education
    o   Consultancy Services
    o   Information Technology
    o   Other: _____

15. Gender:

    o   Masculine
    o   Feminine

16. Age: _____

17. Education:

    o   High-School
    o   Bachelor
    o   Master
    o   PhD
    o   Other. Which? _____

18. Nationality: _____

APPENDIX B. Data analysis

Table 1 - *E-recruitment tools - Most used per qualification level (percentage)*

Qualification Level	Frequency of use	Career Websites	Job Boards	Facebook	LinkedIn	Twitter	YouTube	Other
Unskilled Professionals	Never	25%	17%	35%	21%	69%	70%	49%
	Rarely	12%	7%	11%	22%	4%	6%	5%
	Occasionally	12%	12%	15%	18%	5%	2%	5%
	Most of the time	10%	24%	12%	11%	0%	0%	5%
	Always	27%	28%	9%	15%	0%	0%	5%
	Not Applicable	15%	12%	19%	13%	22%	23%	30%
Skilled Professionals	Never	16%	9%	28%	3%	72%	76%	47%
	Rarely	2%	5%	22%	3%	4%	6%	4%
	Occasionally	17%	16%	23%	5%	6%	5%	12%
	Most of the time	19%	25%	10%	27%	4%	0%	8%
	Always	44%	44%	11%	62%	3%	0%	10%
	Not Applicable	2%	1%	7%	1%	12%	13%	19%
Highly Skilled Professionals	Never	16%	13%	35%	2%	70%	70%	41%
	Rarely	8%	10%	26%	2%	6%	8%	6%
	Occasionally	17%	19%	17%	2%	5%	5%	13%
	Most of the time	16%	17%	4%	19%	3%	1%	10%
	Always	40%	40%	11%	74%	2%	0%	11%
	Not Applicable	3%	2%	7%	2%	14%	16%	19%

Table 2 - *E-recruitment tools - Most used per seniority level (percentage)*

Seniority Level	Frequency of use	Career Websites	Job Boards	Facebook	LinkedIn	Twitter	YouTube	Other
Junior Professionals	Never	15%	8%	27%	5%	64%	65%	44%
	Rarely	5%	9%	18%	8%	7%	7%	9%
	Occasionally	19%	21%	14%	23%	5%	7%	11%
	Most of the time	15%	17%	19%	25%	4%	1%	4%
	Always	39%	38%	11%	32%	2%	0%	10%
	Not Applicable	8%	7%	11%	7%	19%	21%	23%
Senior Professionals	Never	19%	14%	48%	3%	69%	71%	43%
	Rarely	9%	14%	19%	2%	9%	8%	5%
	Occasionally	15%	14%	7%	4%	3%	3%	12%
	Most of the time	14%	17%	7%	20%	1%	0%	5%
	Always	39%	36%	6%	66%	3%	1%	14%
	Not Applicable	5%	5%	12%	5%	16%	16%	21%