PROCESS OF E-RECRUITMENT FOR ENTRY LEVEL POSITIONS IN NORTH MACEDONIA

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ABSTRACT

The focus of the paper are the different channels for implementation of e-recruitment and their respective efficiency. As the "work from home" model became the default in the pandemic, there was a steady rise in the use of e-recruitment platforms and social media channels. However, businesses report that there is a discrepancy between in the e-recruitment process between varying position levels, based on the industry, type of job and required experience. The paper researches the first step (i.e. attracting candidates) in the e-recruitment process for entry-level positions, as defined being with lower than country average salary, no required experience and faculty education.

Through the process of primary quantitative and qualitative analysis, the results of the paper determine that certain channels may deliver results several times higher than others, in particular social media as a whole. Variable factors such as creative elements, job description and other are outlined in the paper to place the foundation for further research. The reach and efficiency of social media channels in e-recruitment is determined to be a powerful tool if utilized within a proper framework. The paper finalizes the research with the obstacles created with e-recruitment as a whole in the recruitment process, after the first phase of attracting candidates is completed.

Keywords: e-recruitment, social media recruitment, job ads, attracting candidates

JEL classification: O15

1. **INTRODUCTION**

The start of the COVID-19 pandemic has created different problems in the organizational aspects of companies. However, the process of digitalization of workplace activities has also created certain benefits, both from the employee and employers' aspects, such as enabling agility, reduce employee absenteeism, decrease staff turnover, enable more transparent work, enable geographical flexibility and enable environmental gains due to reduction in travel, among many others (Rakovic et al., 2022). The human resource function in an organization was facing difficult pressure to continue business operations without interruption during the pandemic, while also reaping some of these benefits. Regardless of the type of business or organization, its efficiency is determined based on the employees who fulfill the set goals in accordance with the mission and strategic plan of the organization (Dima and Vlăduțescu, 2012). Therefore, every organization tries to recruit staff that strictly fits into its policy. Internal and external changes in the company's environment, influenced by political changes and the internationalization of companies, require reasonable flexibility from both parties, candidates and corporations, who try to meet the demands of the market (Stonehouse, Hamill, Campbell and Purdie, 2000). The pandemic normalized the work-from-home behaviour, where governments basically demanded it with lockdown and movement restrictions. After implementing different strategies to accommodate work-from-home models, companies introduced entire virtual or hybrid positions even after the lockdown restrictions started ending (Binoy M., Walarine M., 2021). This created new possibilities in the recruitment department, where geographical presence was no longer required for positions, thus expanding the positions reach to other cities, regions and even countries. The goal of the research is to examine the effectiveness and efficiency of different e-recruitment strategies that involve social media as a channel, as well as draw relevant conclusions and recommendations of structuring multi-channel e-recruitment funnels.

2. **METHODOLOGY**

The research for the paper was done on the territory of the Republic of North Macedonia and it includes primary and secondary data. Literature review was utilized to gather relevant secondary data, as well as analyze significant research in the area in books, scientific papers, online publications and other sources. The main method for primary research was a collective case study, with the goal being to gather the necessary quantitative and qualitative data for the research purpose. The case study took place between 10.12.2021 through 10.03.2021 in four different companies on the territory of Republic of Macedonia. To generate more diverse results, each company was from a different industry, however company data (name, industry, size and other details) are not published as per the participants requests. The case study generated extensive data from the research and enabled further analysis of the topic at hand. To analyze the effectiveness of each channel, e-recruitment funnels were defined and data was placed in each step of the funnel accordingly. By utilizing e-recruitment funnels, a much clearer picture is defined in analyzing data, since a larger pool of candidates doesn't always have positive implications on the recruitment process as a whole. The paper also defines conversions rates per funnel as a more complete metric when comparing the effectiveness and efficiency of e-recruitment funnels. The analysis and synthesis method were used to process the results from the case study, i.e. for logical representation of the subject of research and processing of the collected empirical data, to draw relevant conclusions.

3. **LITERATURE REVIEW**

Research in the field of recruitment focuses on the effects of different recruitment sources (eg, do individuals recommended by their current employers have a lower turnover rate

than those individuals recruited through print media advertisements?), on the recruiters (eg, do recruiters who share more job information make a better impression on candidates), as well as realistic job reviews (eg, does sharing accurate job information result in higher job satisfaction among new hires). All these areas and topics can be defined as recruitment activities, and although it is more than clear why a number of researchers have focused precisely on research on the effects of recruitment activities, however, the greatest attention should be paid to the entire process of recruitment, in order to understand whether the company's recruitment activities lead to the fulfillment of its own set goals (Breaugh, 2009).

In defining the recruitment process, Barber (2018) describes three stages:
1. Generating applicants
2. Maintaining the applicant's interest
3. Influence on the decisions on the choice of workplace

Applicant generation refers to recruitment activities aimed at posting and advertising the open position. This stage is very important, as the decisions made on this matter affect the number and type of individuals who would potentially apply. With the pandemic, digital transformation of process was rapidly evolving, which also entailed the digitalization of recruitment. Recent research shows that 39% of candidates find job openings on social media (Jobvite, 2022). E-recruitment can be viewed as utilizing Internet technologies to attract potential employees to the organization and into the recruitment process (Ghazzawi & Akccoumeh, 2014). Some of the noted benefits of digitalization of recruitment can include instant feedback from candidates, larger geographic reach, reduced hiring costs, faster time to employment and many other (Sultana & Sultana, 2017). Wozniak (2014) defines four different generations of e-recruitment channels:

- **Web 1.0 channels** – includes the company website, as well as other employment websites. Offers a one-way communication with the candidates, where interested parties can apply via e-mail or other external form of communication.
- **Web 2.0 channels** – includes search engines, as well as social networking sites. Offers a two-way communication, with the possibility of appraising the candidate without informing him/her about the fact.
- **Web 3.0 channels** – offer multilateral communication between the companies and candidates and in focus in modern times. Social networking sites are again at the forefront; however, they can be expanded with image-building tools, games, blogs etc.
- **Web 4.0 channels** – includes the expansion of e-recruitment activities with all of the above instruments, as well as gamification opportunities.

Through recent years, e-recruitment has functioned on different platforms, with significant popularity being given to social network sites. Social network sites (SNW) can be defined as web-based services which can allow individuals several different elements: a. create a public or private (semi-public) profile within its bounded systems, b. articulate a list of other users with whom they share a connection and c. view and traverse their list of connections and create content (Boyd D., Ellison N., 2007). In 2022, are over 4.7 billion social media users, occupying 93.6% of total internet users (WAS, 2022). This demonstrates that the reach of social media is over 90% of all Internet users, which is the main goal of the first step of recruitment, concerned with attracting candidates for the relevant job positions. Further details show us that more than 7 SNW platforms are used per month, with the pandemic creating a 5% rise in social media users on a yearly level. Regarding North Macedonia, data shows that there are 1.75 million Internet users in the country, with social media penetration being higher that the average with 77% (1.35 million active social media users). In terms of e-recruitment, recent statistics demonstrate that companies mostly use Facebook for e-recruitment (68%), followed by LinkedIn (65%), Twitter (48%), Instagram (46%) and YouTube (35%). Comparing candidate

quality, LinkedIn is cited as having the highest levels of quality with 53%, followed by Facebook (33%), YouTube (22%), Twitter (21%) and Instagram (20%).

Beside social media, e-recruitment channels can include the company web-site, online job boards, blogs, wikis, forum and other digital mediums (Miller & Lammas, 2010). E-recruitment through social media channels can be seen as being the channel of choice after the pandemic (Malik & Patel, 2020), offering various benefits over traditional channels for large, as well as small and medium sized companies (Poorangi et al., 2018; Munro, 2018). Research shows that e-recruitment through social media can contribute to reduced cost and time, attract passive job seekers and avoid negligent hiring (Hosain et al., 2020). Additionally, there are instances where social media is utilized in a combined effort, as a primary or secondary source in the candidate pools. Evident from the data, SNWs remain very popular in modern e-recruitment initiatives, since social media penetration on average is between 55-80% depending on the country. Along SNWs, companies also utilize job portals and employer websites (Okolie & Irabor, 2017). These channels generally enable the companies wide reach to advertise the position, which is crucial to the first step of recruitment concerned with attracting candidates. Figure 2 shows that mobile usage in job applications is between 44%-55% for the younger workforce (Millennials and Gen-Z), which can translate in mobile-friendly job applications processes being the requirement in the near future for a successful e-recruitment process[1]. This new generation approach is needed for candidates that have grown up in a digital age, which has implications on their view of the recruitment process (Emanuela, 2018).

3.2 E-recruitment funnel

Recruitment is defined as the process of searching candidates for open job positions and includes all activities up until filling that position with a suitable candidate (Biswas, 2012). The recruitment process can mimic the sales funnel, transforming itself to a recruitment funnel which includes several key activities. As the sales model shows four types of steps - contact; potential customer; prospective customer and customer (D'Haen & Van den Poel, 2013), we can apply the same logic to the recruitment process to visualize a funnel.

Figure 1. E-recruitment funnel
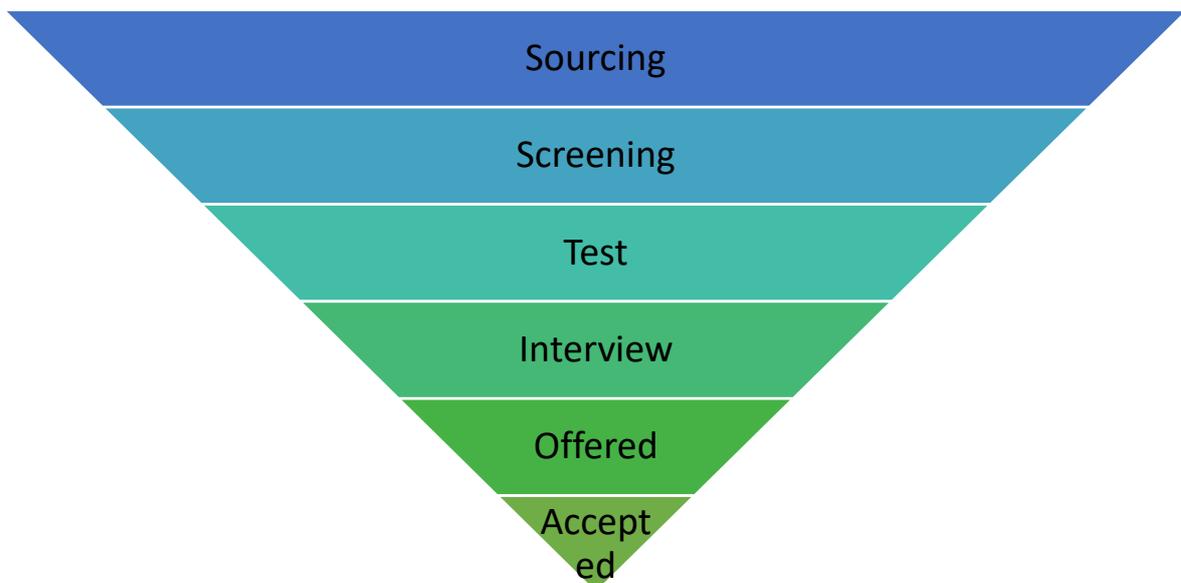
Source: Mohapatra M., Sahu P., (2017)

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[1] https://www.entrepreneur.com/article/239400

As show in figure 1, each step of the recruitment funnel has a goal of moving the candidates forward towards the final goal of filling the open job position. The first step of sourcing/attracting candidates is vital to the success of the whole process, as a greater pool of candidates sets-up the selection process and all other process following it. Analytics have been utilized in HR to improve its performance and answer to challenges in implementation of the e-recruitment funnel. Companies that are building their e-recruitment funnels based on data from primary and secondary sources usually improve four core areas (Mondore et al., 2011):

- **Attracting candidates** – more candidates apply for the open job positions
- **Higher quality candidates** – candidates applying for positions having the necessary prerequisite to move along the recruiting process
- **Lower TTE** (time to employment) – refers to the length of the recruitment process, starting with opening the job position up to hiring the candidate
- **Lower costs** – recruiting is done in a more efficient and faster manner, usually resulting reduction of costs

Research shows that in e-recruitment funnels, 24% are active candidates, while a good benchmark on the effectiveness of the funnels if the conversion rate (or offer accepted) is over 1.6% (JobVite, 2022). The conversion rate can be defined as the number of employed candidates versus the number of applications received. Lower conversion rates can have significant implications on the effectiveness of the recruiting process. The research of this paper is focused on these four core areas and how different approaches to step 1 (sourcing/attracting candidates) can improve the e-recruitment funnel, however it can also have a negative correlation on the recruitment process as a whole (longer time to employment, time and cost implication etc.). The research is performed based on quantitative and qualitative analysis on primary data collected from case studies in the Republic of North Macedonia.

4. RESEARCH AND DISCUSSION

Primary research was done on the territory of North Macedonia in the period of 10.12.2021 through 10.03.2022. A case study method was utilized, in which 4 companies opted to participate, where data was collected under certain conditions to ensure the validity of the research. The companies were either small or medium in size, with the underlying industries being retail, construction, service and hospitality industry. By including companies from different industries, the results can be more heterogenous and have greater general implications, making them more suitable as a basis for drawing conclusions and recommendations for e-recruitment funnels as a whole. During the research period, a total of 15 open jobs positions were analyzed as part of the study.
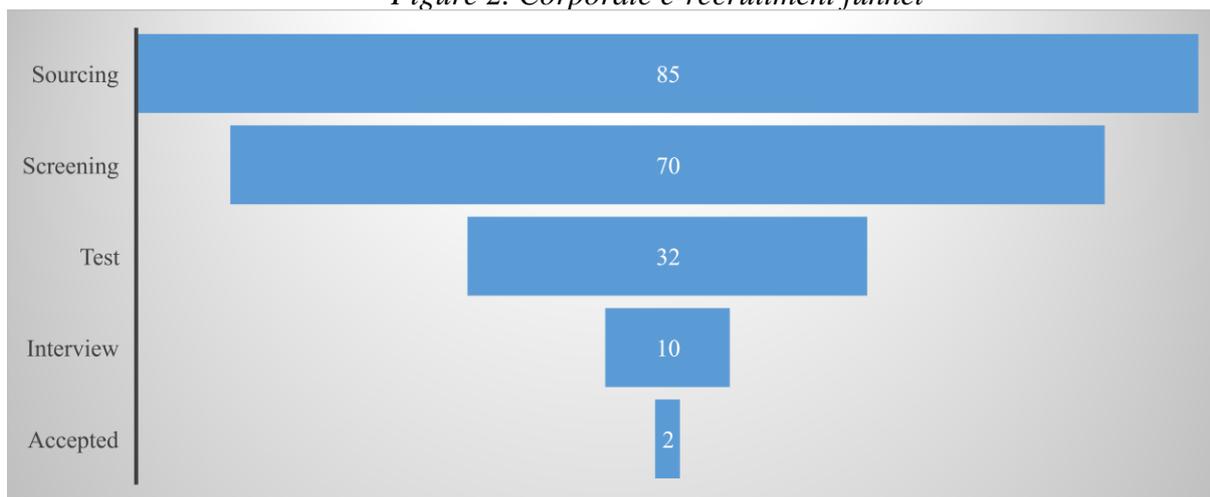
The conditions for data collection and processing in the research had 5 different checkpoints:

- Data was collected only for job placements that were opened and finalized in the research period. Incomplete placements were not taken into account
- Only entry-level positions were analyzed for open job positions. Other positions were not taken into account due to varying factors and limited potential candidate pool affecting the research
- Data was compared between platforms for a single open job position, to minimize variables taking place
- Data was combined between job positions with cut-off point to ensure budget controls
- Each position taken into account implemented all three e-recruitment sales funnels equally

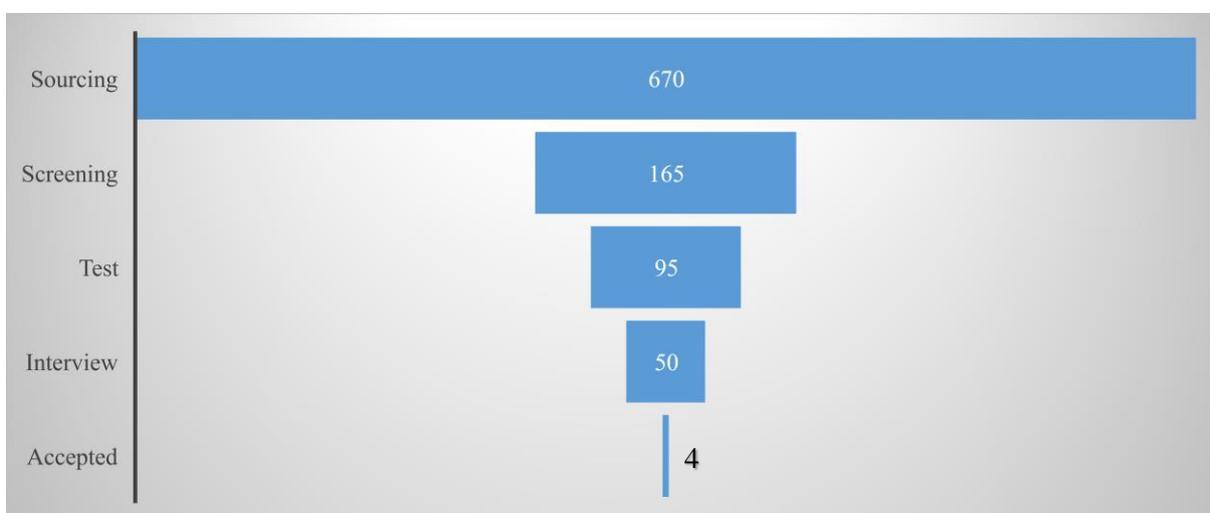Three different e-recruitment funnels were analyzed:
- **Corporate site funnel** – utilizing social media for promotion of open position, leading to the corporate website of the company. Application process can include either a form on-site or e-mail address to send resumes
- **Social media funnel** – utilizing social media for promotion of open position, as well as converting interested candidates directly. Available channels included LinkedIn and Facebook/Instagram as a unified platform. However, this method provided limited results, as the "Facebook Jobs" feature was shutdown completely for Europe in February, 2022[2].
- **Social media combined approach** – utilizing social media for promotion of open positions, while conversion happens through an external form, such as Google Forms or similar tools.
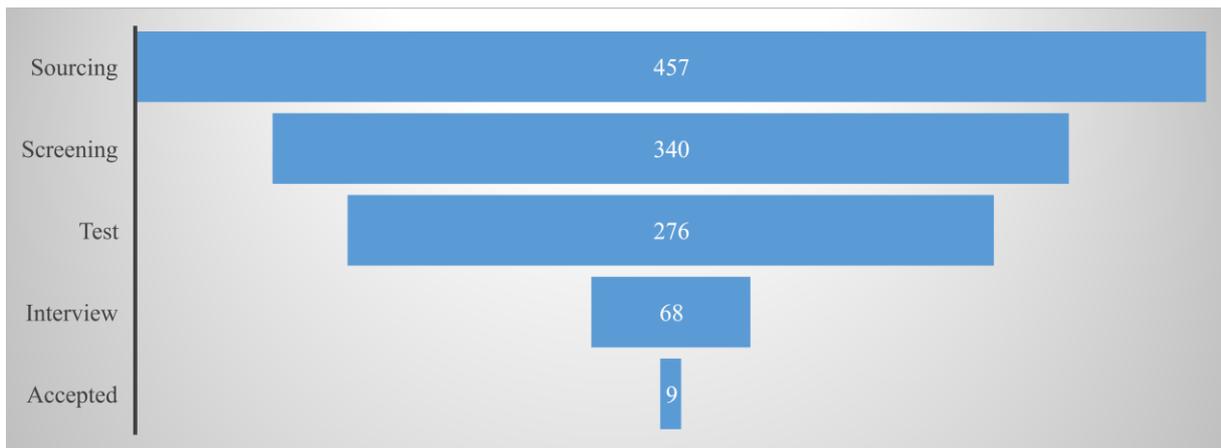
Figure 2. Corporate e-recruitment funnel

Sourcing	85
Screening	70
Test	32
Interview	10
Accepted	2

Source: Own research

Figure 3. Social media sales funnel

Sourcing	670
Screening	165
Test	95
Interview	50
Accepted	4

Source: Own research

[2] https://www.facebook.com/business/help/982945655901961

Figure 4. Social media combined funnel

Source: Own research

Figures 2, 3 and 4 illustrate the effectiveness of the three e-recruitment funnels utilized by companies. Comparing data, it can be seen that the number of generated applications is highest through direct social media funnels (670 applications), followed by combined funnels (457 applications) and corporate funnels (85 applications). This number is generally analyzed in both business and academic research as a sole statistic, which implicates that direct social media funnels are the most successful set-up for e-recruitment. However, following the funnel, we can clearly see a very steep drop-off in the second step (selection process/screening), combined funnels have the highest number of applicants proceeding through the funnel (340 applicants), followed by direct social media funnels (165 applicants) and corporate funnels (70 applicants). This constitutes a very steep drop-off rate in direct social media funnels of 65% of applicants, which is significantly higher than combined funnels (25%) and corporate funnels (17%). E-recruitment channels are often evaluated on the first step, which is attracting candidates for open job positions. However, this might not present the complete picture, as it can clearly be seen through the recruiting funnels that more candidates would not correlate into higher employment opportunities, as the percentage of employed candidates has a very steep drop-off during the selection process. It's paramount to view the whole recruiting funnel to assess the effectiveness of recruiting channels, as in certain cases greater candidate pool (with either qualified or non-qualified candidates) can extend the recruiting process, increase costs and cause additional staffing issues.

Figure 5. Conversion rate per funnel
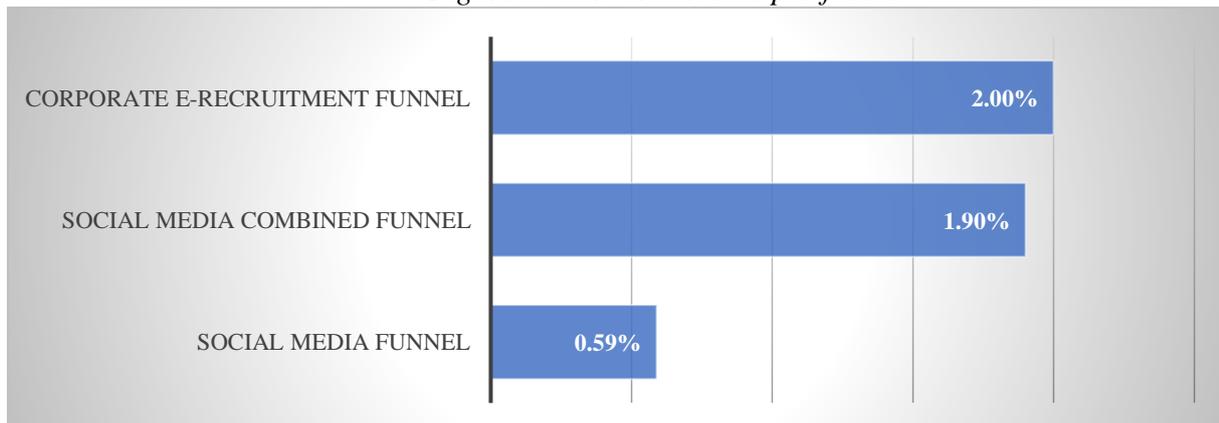
Source: Own research

Figure 5 illustrates the overall effectiveness of e-recruitment funnels. Corporate e-recruitment funnels are the most effective, with 2% hiring rate from the overall pool of applicants, followed by social media combined funnels (1.9%) and social media funnels (0.59%). However, it must be taken into account that a much higher overall number of candidates were higher through combined funnels (9 filled positions) than social media funnels (4 filled positions) and corporate funnels (2 positions). Combining statistics and raw data enables a clearer view of the effectiveness of each e-recruitment channels, as the percentages of candidates employed through these channels often work with a different sizes of candidate pools.

5. CONSLUSIONS

Based on the research data, conclusions can be made regarding the concerned aspects of e-recruitment funnels, summarized in Table 1.

Table 1. Performance of e-recruitment funnels

Aspect	Best performer	Worst performer
Attracting candidates	Social media funnel – generated the most candidates in the given timeframe	Corporate websites – generated the least candidates in the given timeframe
Higher quality candidates	Corporate websites – lowest drop-off rate from step 1 (sourcing) to step 2 (selection) in candidates with 17%	Social media funnels – highest drop-off rate from step 1 (sourcing) to step 2 (selection) in candidates with 65%
Lower TTE	Corporate websites – the lower number of candidates expedites the following steps	Social media funnels – the selection process is elongated due to high number of candidates with limited information on qualifications
Lower costs	Combined funnels – generated the most filled position in the given timeframe	Corporate websites – generated the least amount of candidates and filled positions in the given timeframe

Source: Own research

Table 1 demonstrates that corporate web-sites are the best performers in two aspects (higher quality candidates and lower TTE), which is expected since the pool of candidates was the smallest from the three funnels. The smaller pool of candidates points to a more complex funnel, which would only be completed by the most interested (and possibly qualified) candidates, leading to an easier e-recruitment process overall. Social media funnels are the best performers in attracting candidates, with the overall largest pool of applicants. However, this leads to difficulties in the sourcing process, as the application is very easy and basic, leading to unqualified candidates and a very large drop-off rate in step 2 (sourcing). Combined funnels are the best performers for lowest costs, leading to the highest number of filled positions with

the same budget and timeframe. From a company perspective, funnels should be optimized to lead to the ultimate goal, which is fulfillment of the open position in a fast and optimized manner. Comparing e-recruitment conversion rates, social media only funnels fail to achieve the minimal conversion rate of 1.6% to be considered effective (0.59%), compared to combine funnels who are at 1.9%. This indicates that social media only funnels can results in an unoptimized e-recruitment funnel which can bring risks of higher resource spending in terms of cost, staff and time to employment.

Results from the paper indicate several implications for companies:

- Increasing the pool of candidates through e-recruitment doesn't necessarily translate into a more successful e-recruiting process. It can be seen that a larger pool of candidates can cause further complication in the following steps of the recruiting process, especially in the selection and interview phases
- Social media as an e-recruitment channel increases reach to passive candidates, however they don't necessarily appear as qualified candidates compared to active ones – 65% drop off rate between the first and second phases in social-media only funnels
- Combining channels results in the most optimized e-recruitment funnel. Although corporate funnels can bring a higher conversion rate, combined funnels achieve the minimal conversion rate ratio and also result in more employees filling the open job positions
- Consider the number of positions that need to be filled. Depending on the number of open positions, companies can be better equipped to choose between corporate or combined funnels, as corporate funnels are better suited for a single position, while combine funnels are more effective in filling multiple positions

Existing research and literature focuses mostly on separating different channels for attracting candidate. The paper demonstrates that it is important to view e-recruitment as a funnel, since it can provide clearer view on the effectiveness and efficiency of each channel. The paper shows relevant new data correlated to different e-recruitment funnels utilizing social media, which can serve as a basis for future research in the area. Additionally, a novel approach is creating funnels from combined channels and providing raw data in this context, which can have significant implications of a new view of the e-recruitment problem. The data was limited with changing e-recruitment funnels with the disruption of the Facebook job market in February 2022, which resulted in a shorter case study period as to level out results. The research can be expanded in multiple countries to get a better understanding on e-recruitment trends, as well as incorporate results against more traditional recruiting channels which are still utilized by companies.

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