The impact of digital transformation on E-recruitment performance: An empirical study

Zenab Elmenzhi[1], Samia El Fassi[2], Rafia Frij[3], (iD)Imad Ait Lhassan[4*], Ahmed Maghni[5]
[1]Laboratory of Intelligent Systems and Applications (LSIA), Ecole Marocaine des Sciences de l'ingénieur, Tangier, Morocco; z.elmenzhi@emsi.ma (Z.E.)
[2,3]Governance and Organizational Performance Laboratory, National School of Business and Management of Tangier, Abdelmalek Essaadi University, Morocco; samia.elfa@gmail.com (S.E.F.) rafiafrij@gmail.com (R.F.)
[4]Organizational and Territorial Governance Laboratory, National School of Applied Sciences of Tetouan, Abdelmalek Essaadi University, Morocco; iaitlhassan@uae.ac.ma (I.A.L.)
[5]Governance and Organizational Performance Laboratory, National School of Business and Management of Tangier, Abdelmalek Essaadi University, Morocco; maghn.med@gmail.com (A.M).

Abstract: This study investigates the impact of digital transformation on the performance of e-recruitment in companies based in the northern region of Morocco. The purpose of the research is to understand how factors such as digital maturity, stakeholder influence, and data analytics contribute to the effectiveness of digital recruitment processes. A quantitative research design was employed, involving the distribution of a structured questionnaire to 117 companies, and data were analyzed using structural equation modeling (SEM) to test the proposed conceptual model and hypotheses. The findings reveal that digital transformation significantly enhances e-recruitment performance, with digital maturity and the use of social media emerging as key drivers. The study concludes that digital tools and competencies are essential for optimizing recruitment outcomes in a digital context. In terms of practical implications, the results offer valuable insights for HR managers and decision-makers aiming to improve recruitment efficiency through digital strategies, highlighting the need to invest in digital capabilities and stakeholder engagement to remain competitive in talent acquisition.

Keywords: Digital maturity, Digital transformation, E-recruitment, Human resources, Social media.

1. Introduction

"The ability to attract and select the best talents has always been a decisive factor in a company's success. Today, digital transformation is profoundly reshaping this dynamic, altering not only the internal operations of organizations but also their human resource management practices" [1].

Despite the disruptions caused by the COVID-19 pandemic, companies have continued to actively pursue highly qualified profiles, pushing them to rethink and strengthen their talent acquisition strategies. In an increasingly competitive environment, the ability to identify, attract, and retain top candidates has become a strategic priority for Moroccan employers, particularly in dynamic regions such as Tangier.

The rise of digital transformation has significantly altered organizational practices, professional interactions, and modes of collaboration [2]. By integrating digital tools and automating numerous processes, digital transformation enables companies to optimize their efficiency, enhance the responsiveness of their HR teams, and refine their decision-making, especially in talent management.

In this context, analyzing the factors influencing the performance of e-recruitment in companies based in the northern region of Morocco is of strategic importance. Given the rapid evolution of digital technologies and the increasing digitalization of HR processes, it has become essential to understand how

organizations leverage digital tools to enhance the efficiency of their recruitment practices. This study offers a contextualized analysis of the local specificities, while shedding light on how digital transformation can strengthen e-recruitment performance.

The findings of this research are likely to provide valuable insights for human resource professionals, business leaders, and policymakers, helping them adapt their recruitment strategies to maximize the performance of their digital systems in an ever-changing labor market.

This study is therefore structured around the following research question: How are companies in the northern region of Morocco integrating digital transformation to enhance the performance of their e-recruitment? What are the major determinants influencing this process, and to what extent does digital transformation contribute to strengthening the effectiveness of recruitment strategies?

To address this research question, we will first define the key concepts involved, present prior empirical research on this topic, formulate hypotheses, and propose a research model, before presenting and analyzing the results obtained from our empirical study.

2. Conceptuel Framework

2.1. Digital Transformation

Firstly, digital transformation can be defined as the integration of digital technology into all areas of a business, fundamentally changing how organizations operate and deliver value to customers. According to Westerman, et al. [3] digital transformation "is about using digital technology to radically improve the performance or reach of enterprises." This definition emphasizes the disruptive potential of technology in redefining business models and customer interactions.

Moreover, digital transformation is not only about technology itself but also about cultural and organizational change. Bharadwaj, et al. [4] argue that it involves "a coordinated set of digital initiatives with the objective of achieving business transformation." Hence, it requires rethinking leadership, encouraging innovation, and adopting a mindset of continuous learning and adaptation. The focus, therefore, shifts from mere digitalization of processes to a more strategic and holistic transformation of the organization.

Finally, some scholars highlight the customer-centric nature of digital transformation. Verhoef, et al. [5] define it as "a process that aims to improve an entity by triggering significant changes to its properties through combinations of information, computing, communication, and connectivity technologies." This perspective underlines the importance of enhancing the customer experience and creating new value propositions. As such, digital transformation is a multidimensional concept that involves technological, strategic, and human factors [6, 7].

2.2. E-recruitment

Recruitment is described as a means of attracting and persuading potential candidates to apply for a job opportunity within an organization [8]. A significant distinction exists between traditional recruitment and e-recruitment. Traditionally, recruitment involves hiring talent through media advertisements, job fairs, and employment portals [9]. In contrast, e-recruitment is defined as the use of online sources to attract talent via job portals, career websites, and social networking sites (SNS), offering an alternative approach. Similarly, organizations use e-recruitment to identify and attract top talent online [10, 11].

Traditional recruitment methods are increasingly seen as inadequate, necessitating the adoption of new approaches Munro [12]. Muduli and Trivedi [9] emphasized that traditional recruitment practices must evolve toward e-recruitment. This shift helps reduce recruitment expenses and leads to cost efficiencies. Opportunities and required skills are becoming more globalized, and in light of these developments, e-recruitment is proving to be effective. Financial crises have also driven organizations to explore e-recruitment as a means of accessing new global talent pools [13]. Researchers found that organizations using the e-recruitment approach experienced recruitment costs that were nearly 88% lower than those using traditional methods [14].

E-recruitment has also enhanced the effectiveness of recruitment strategies, which is a major advantage for human resources professionals. Online recruitment—also referred to as e-recruitment—offers numerous benefits for organizations, such as better candidate matching, reduced costs, faster processes, time savings, and broader reach Anand and Chitra [15].

Abia and Brown [16] conducted a foundational and effective examination of the role of the Internet in recruitment, suggesting that the Internet was initially considered merely an alternative tool in the recruitment process. Since then, the landscape has changed dramatically, and the widespread use of social networking sites (SNS) is now seen as essential in e-recruitment approaches, both from the perspective of the candidate and the organization. D'silva [17] demonstrated that evolving recruitment strategies—from more traditional and time-consuming methods to automated approaches—can result in significant time and cost savings for organizations.

With the rise of global competitiveness, a company's productivity is increasingly determined by its ability to recruit qualified talent Gilch and Sieweke [18] as a substantial part of acquiring critical talent relies on the task of hiring promising candidates [19]. SNS platforms can offer organizations significant cost-saving opportunities [19, 20]. Furthermore, the use of e-recruitment networks, and SNS platforms in particular due to their global reach, likely enables companies to recruit internationally with greater convenience.

From the candidate's perspective, Van Esch and Mente [8] found that active job seekers appreciate the immediacy of employer responses via e-recruitment systems. However, their study did not explore candidates' views on the use of SNS as a component of the e-recruitment process. They noted that "more and more organizations are currently recruiting online—some driven by cost savings and competitive pressure, and others because it is the most effective way to reach their target candidate group" [8].

Previous studies have shown that recruitment decisions significantly impact various recruitment outcomes, such as candidate diversity [18]. According to them, talent acquisition involves a set of processes organizations implement to find the right skills for their vacancies—an essential element in convincing future employees. Recruitment encompasses a series of tasks forming a cycle characterized by distinct stages. It begins with setting recruitment objectives, developing a structure, and implementing practices such as job postings, interviews, etc [18]. For any recruitment team, this cycle presents a challenge, starting with the establishment of clear objectives.

2.3. E-Recruitment Performance

The performance of e-recruitment is influenced by various factors, including the quality of the tools used, how the company leverages social media, and its ability to effectively manage the data generated. According to Madsen, et al. [21] the use of advanced technologies such as artificial intelligence (AI) and automation tools significantly reduces the time and costs associated with managing the recruitment process. Companies that integrate these technologies can quickly analyze applications and better match candidates to the organization's needs.

On the other hand, e-recruitment performance also depends on the user experience, from both the recruiters' and candidates' perspectives. Cook, et al. [22] state that a transparent and interactive online recruitment process, offering an intuitive user interface and rapid communication, helps enhance candidate satisfaction and increases the number of applications received. A positive experience also raises the likelihood that candidates will accept a job offer, thereby strengthening the employer's brand reputation.

Finally, the performance of e-recruitment can be measured by the quality of the talent hired. Reilly, et al. [23] observed that organizations using data-driven candidate assessment tools and recommendation systems tend to attract more qualified candidates, which in turn improves the company's overall long-term performance.

3. Literature Review

Numerous studies have highlighted the growing importance of digital transformation in recruitment practices. In particular, the shift toward more sophisticated digital tools—such as social media and online recruitment platforms—directly influences recruitment performance. For instance, research shows that platforms like LinkedIn and Viadeo have facilitated talent attraction by enabling recruiters to better target and communicate with a wider audience [24-26]. These digital tools also allow recruiters to conduct more efficient selection processes by providing quick access to a large pool of candidate profiles.

The integration of new technologies such as Web 2.0 tools has revolutionized traditional recruitment practices, making the process more dynamic and responsive to market needs. Moreover, the systematic adoption of these tools is a tangible indicator of a company's digital maturity, which has become a key driver of recruitment performance. The use of social media and modern recruitment platforms suggests that companies are developing a stronger capacity to attract talent, thereby enhancing the overall effectiveness of the recruitment process.

As noted by these authors, the increasing integration of digital tools and social media in recruitment is clear evidence of the impact of digital maturity on recruitment outcomes [24-26].

Hypothesis 1: Digital maturity impacts e-recruitment performance

Numerous studies on human resource management have shown that stakeholders, whether internal or external to the company, play a crucial role in the effectiveness of recruitment processes. Recruiters, in particular, are encouraged to strengthen their employer brand in order to attract top talent. The use of social media facilitates this task by enabling more direct and authentic communication with potential candidates. For instance, Web 2.0 tools allow recruiters to share information about the company transparently and to interact with a wide audience instantly [27, 28].

Transparency and direct interaction with candidates through platforms such as LinkedIn or Twitter not only enhance the company's attractiveness but also enable a better understanding of candidates' expectations. This phenomenon positions stakeholders as a central element in the recruitment process, as ineffective communication or poor management of interactions can damage the company's image and, consequently, affect recruitment quality.

The influence of stakeholders goes far beyond simple interaction, shaping the way recruiters select and attract candidates. This stakeholder influence is clearly reflected in how companies leverage social networks to engage with their target audience, which has a direct impact on recruitment performance [27, 28].

Hypothesis 2: Stakeholder influence impacts e-recruitment performance

The impact of data analytics on the performance of online recruitment has been the subject of extensive discussion in recent literature. The collection of large volumes of data through social media and other online platforms provides recruiters with unprecedented access to detailed information about candidates. However, this abundance of data can become counterproductive if not properly analyzed. One of the main challenges lies in managing the volume of information collected and being able to extract relevant data to make informed decisions.

The use of data analytics tools has therefore become essential to filter candidate profiles and avoid information overload, which can disrupt the selection process [29, 30]. Moreover, the application of advanced data analysis methods—such as artificial intelligence and machine learning algorithms—helps reduce bias and enables more effective selection of the candidates best suited for each position. This ability to analyze and interpret data quickly and accurately has a direct impact on the performance of online recruitment, allowing companies to streamline their processes and shorten the time-to-hire.

Thus, data analytics plays a critical role in enhancing the performance of online recruitment by enabling recruiters to filter information more precisely and efficiently.

Hypothesis 3: Data analysis impacts e-recruitment performance

4. Research Model

The objective of this research is to develop a conceptual model, based on an extensive literature review, aimed at analyzing the role of digital transformation in enhancing e-recruitment performance. The model incorporates four essential variables (Figure 1): digital maturity, stakeholders' influence, data analysis, and e-recruitment performance.

Based on this theoretical framework, research hypotheses will be formulated to empirically explore the relationships between these variables. These hypotheses are grounded in causal reasoning and supported by the findings of previous studies. The rigorous identification of these variables will enable the development of a structured theoretical model, which will serve as the foundation for the empirical analysis and the validation of the proposed hypotheses.
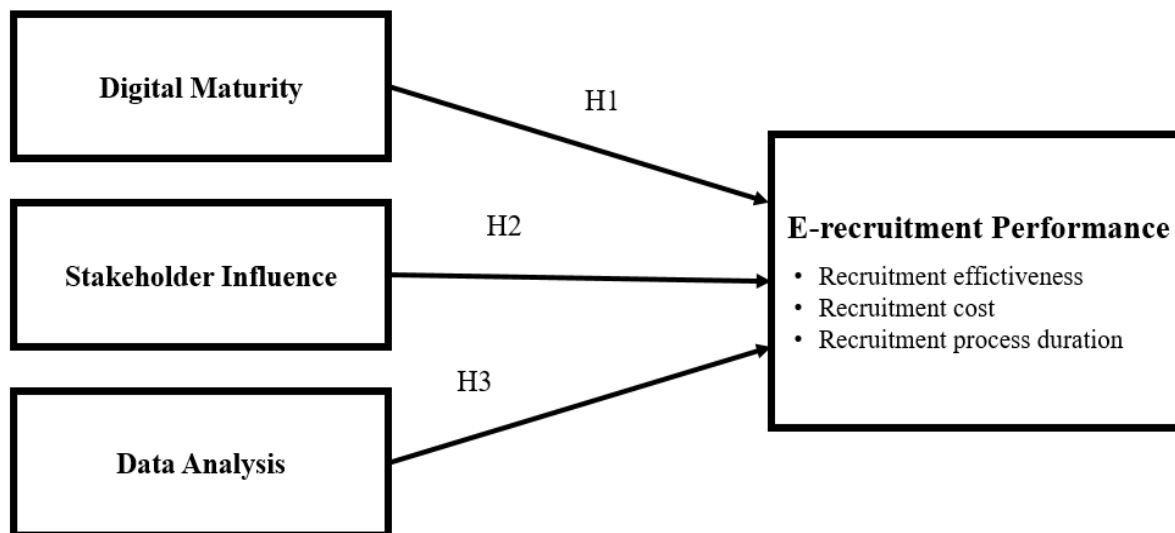

Figure 1.
Conceptual Model.

5. Method

The decision to adopt a quantitative study to analyze the impact of digital transformation on the performance of e-recruitment in companies in the northern region of Morocco is based on several fundamental considerations. Firstly, this method provides a systematic and unbiased approach to assess the complex relationships between the various variables, which is particularly crucial in the Moroccan context. By using SMART PLS4, a tool recognized for structural equation modeling, it is possible to conduct in-depth analyses that precisely test the formulated hypotheses and validate the research model. Moreover, these analyses offer the opportunity to extrapolate conclusions to a larger population, covering various industry sectors in companies from the northern region of Morocco, thereby strengthening the validity and relevance of the results. Finally, the chosen quantitative approach will help to clearly identify correlations and trends, thus providing significant value to businesses and human resources managers seeking to wisely select digital tools to enhance their e-recruitment performance.

5.1. Measurement Instruments

The measurement instruments are designed to assess the variables influencing online recruitment. Digital maturity will be measured on a scale from 1 to 5, where 1 indicates a low use of technologies and 5 indicates an advanced use. This instrument was adapted from Westerman, et al. [3] and Brynjolfsson and McAfee [31] who explored the impact of digital transformation on organizations.

Stakeholder influence will be assessed by evaluating the level of support from employees, managers, and key departments, with responses ranging from "Not supportive at all" to "Highly supportive." This model is adapted from Clarkson [32] as well as Mitchell, et al. [33] who examined the significance of stakeholders in corporate governance.

For data analysis, the frequency of using analytical techniques in recruitment will be measured on a scale from "Never" to "Always." This measurement is inspired by the work of Davenport [34] and Provost and Fawcett [35] who highlighted the importance of data analytics in decision-making processes.

Finally, e-recruitment performance will be assessed on a scale from 1 to 5, where 1 represents low performance and 5 represents high performance. This instrument is adapted from the research of Ployhart, et al. [36]; Van Hoye and Lievens [37]; Stone, et al. [38] and Breaugh [39] who explored recruitment performance in both digital and traditional contexts.

5.2. Sample

The analysis of the data from our sample, consisting of 117 companies located in the northern region of Morocco, reveals significant trends across several key aspects. First, concerning the duration of the companies' existence, a notable diversity emerges. Indeed, 43% of the companies have been in operation for more than 20 years, while a significant proportion of companies, ranging from 1 to 20 years, represents percentages ranging from 3% to 21%. These temporal variations highlight the diversity of business longevity and warrant further investigation.

Regarding the sectors of activity of the companies in the sample, a clear sectoral distribution emerges. The majority of the surveyed companies belong to the manufacturing industry, representing 38% of the sample. Other sectors, such as education, healthcare, financial services, professional services, information technology, retail, and others, are more evenly represented, providing a broad overview of the sectoral diversity in the northern region of Morocco.

In terms of company size, a wide variety is observed, reflecting the diverse range of company sizes in the sample. For instance, 28% of companies have fewer than 50 employees, while 19% employ more than 5000. The other categories, with employee counts ranging from 50 to 5000, complete this distribution, demonstrating the presence of companies of varying sizes in the region.

The examination of the characteristics of the respondents from the second sample, composed of 117 companies in the northern region of Morocco, highlights crucial information regarding the diversity of profiles within this population. First, concerning the positions held by the respondents, a distinctive distribution is apparent. Recruitment officers dominate the category, representing 35%, followed by communication officers at 25%, and general managers at 8%. The significant variations in the distribution of roles emphasize the pluralistic nature of the positions within the companies surveyed.

Furthermore, the analysis of the respondents' years of experience reveals interesting trends. A majority of the respondents, 44%, have professional experience ranging from 2 to 5 years, while 28% have less than 2 years of experience. Additionally, 18% of respondents have more than 10 years of experience, providing a diversified perspective on the seniority levels within this population.

Lastly, regarding the respondents' educational background, a significant distribution is observed. Specifically, 48% of respondents hold a master's degree, followed by 43% with a bachelor's degree, and 9% with a doctoral degree.

6. Results and Discussion

In this section, we will present the results of our empirical analysis, based on data collected from a sample of 117 companies located in the northern region of Morocco. The structural equation analysis was carried out using SMART PLS 4 software, allowing us to test our research hypotheses and validate the robustness of our study model.

6.1. Validity and Reliability of the Model

The conceptual framework shown in Figure 2 includes four variables, with hypotheses formulated to define the relationships between them. We will now proceed to validate these hypotheses.
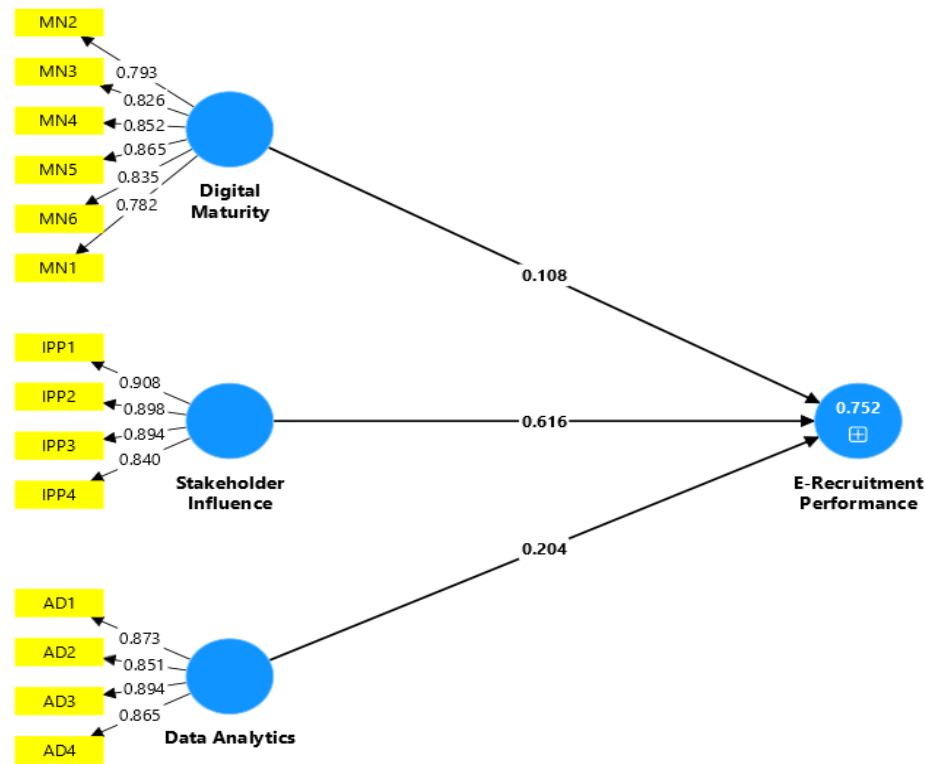

Figure 2.
Adjusted research model.

The validity of the measurement model relies on four key criteria: Cronbach's Alpha, Rho_A, Rho_C, and AVE. The results presented in the Table 1 below indicate that Cronbach's Alpha exceeds 0.7, as do the values of Rho_A and Rho_C. Additionally, the AVE exceeds 0.5, confirming the model's convergent validity.

This first step in validating the measurement model adheres to the standards established in management science, as recommended by academic references such as Dutta [24]; Munro [12] and Mitchell, et al. [33]. These results enhance the robustness and credibility of the model within the context of management research.

Table 1.
Reliability, Convergent and Discriminant Validity Results.

	Cronbach's alpha	Rho_a	Rho_c	AVE	Data Analytics	Digital Maturity	E-Recruitment Performance	Stakeholder Influence
Digital Maturity	0.907	0.908	0.928	0.682	0.871			
Stakeholder Influence	0.908	0.909	0.936	0.784	0.806	0.826		
Data Analytics	0.894	0.896	0.926	0.758	0.740	0.741	0.787	
E-Recruitment Performance	0.956	0.959	0.960	0.619	0.730	0.761	0.847	0.886

6.2. Structural Model Tests

The structural model tests are based on the values of R^2, Q^2, and GOF. The R^2 values for key variables, such as e-recruitment performance, are 0.752, indicating significant results (Table 2). The data shows that all Q^2 values are greater than 0, demonstrating the predictive relevance of the model. More specifically, the Q^2 values for "E-Recruitment Performance" exceed 0.30, highlighting a large Q^2 effect size for these variables. In conclusion, the Goodness-of-Fit (GoF) reaches 0.731, exceeding the threshold established by Westerman, et al. [3] for a PLS model, confirming the model's fit quality.

Table 2.
The R2 and Q2 values.

	R-square	Q-square	Interpretation
E-Recruitment Performance	0.752	0.615	Significant

6.3. Validity of Hypotheses

According to Table 3 and Figure 3, three direct relationships between the variables are empirically validated. Digital maturity is positively associated with e-recruitment performance (T = 1.052, p > 0.05), which does not confirm hypothesis H1. Furthermore, the results show a direct positive impact of stakeholder influence on e-recruitment performance (T = 7.489, p < 0.01), thus validating hypothesis H2. Finally, the variable "data analysis" is positively linked to e-recruitment performance (T = 2.766, p < 0.01), thereby accepting hypothesis H3.
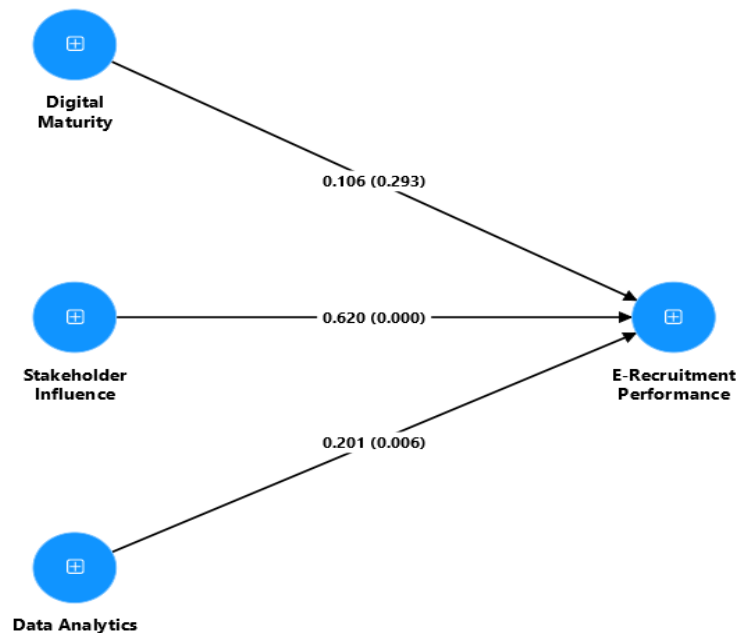

Figure 3.
Results of the model testing.

Table 3.
Results of the hypotheses (direct link)

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values	Decision
H1 : DM -> ERP	0.106	0.110	0.101	1.052	0.293	Rejected
H2 : SI -> ERP	0.620	0.618	0.083	7.489	0.000	Validated
H3 : DA -> ERP	0.201	0.203	0.073	2.766	0.006	Validated

Note: DM : Digital Maturity – SI : Stakeholder Influence – DA : Data Analytics – ERP : E-Recruitment Performance *Significatif à P values <0.05 et T statistics >1.96.

6.3. Discussion

The results of the empirical data analysis yielded significant and diverse conclusions. In summary, seven hypotheses of our study were empirically confirmed, while one was not validated.

First, hypothesis 1, which established a positive relationship between digital maturity and e-recruitment performance, was rejected. These findings contradict those of Clarkson [32] who emphasize the importance of digital maturity in optimizing processes, not only in marketing but also in recruitment. This divergence may be explained by the specific context of Morocco, where companies, especially in traditional sectors, have not fully integrated digital transformation into their recruitment processes. The slow adoption of digital technologies in some regions of Morocco may limit the expected impact of digital maturity on recruitment performance.

On the other hand, hypothesis 2, which proposed a positive relationship between stakeholder influence and e-recruitment performance, was confirmed. This result supports the theories of Fondeur and Lhermitte [29] regarding the importance of involving stakeholders in corporate governance. In the Moroccan context, this phenomenon is particularly reflected in companies that consider the opinions of recruiters, managers, and HR leaders in their recruitment strategies, especially in an increasingly digitalized environment.

Furthermore, hypotheses 5 and 6, which examined the positive relationship between data analysis and two aspects of recruitment, namely cost and process duration, were also validated. These results align with the conclusions of Keefe, et al. [1] who emphasize the crucial role of data analysis in improving candidate-job fit and reducing recruitment costs. In Morocco, this trend is growing rapidly, with many companies, especially those in the tech or international sectors, beginning to adopt data analysis tools to refine their selection processes and thus reduce the time and costs associated with recruitment.

In conclusion, while some hypotheses were not validated, the results of this study provide valuable insights for Moroccan companies, especially those seeking to optimize their recruitment processes through digital transformation and data analysis.

7. Conclusion

The major challenges faced by human resources lie in their ability to support the company's growth by identifying and retaining key talent. E-recruitment performance, from candidate search to aligning skills with organizational needs, is a strategic component. Recruitment strategies are of paramount importance, and digital transformation, including tools such as online recruitment platforms, company websites, and digital tools, plays a key role in connecting with various individuals and groups. These tools do more than just post job openings; they also provide detailed information about companies and their culture, thus optimizing the recruitment process.

The conclusion of this article highlights several significant findings from the entire analysis and validation of our hypotheses. The fact that two out of three formulated hypotheses were confirmed within our study context suggests a notable convergence between our empirical observations and the theoretical models underlying our research. These positive results strengthen the robustness of our conclusions and support the idea that digital transformation has a positive influence on e-recruitment performance.

Finally, our study confirms the central issue that digital transformation can positively impact e-recruitment performance in northern Morocco. These results offer essential practical insights for HR professionals and decision-makers, encouraging them to strategically integrate digital transformation into their recruitment practices.

Regarding future research directions, we plan to expand our investigation by incorporating new variables. We also intend to focus our efforts on other regions of Morocco to gain a deeper understanding of the dynamics specific to different locations.

Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

Author Contributions:

‘Zenab Elmenzhi’ and ‘Imad Ait Lhassan’ contributed to the conceptualization of the study. Data curation was carried out by ‘Zenab Elmenzhi’ and ‘Samia El Fassi’, while formal analysis was performed by ‘Imad Ait Lhassan’ and ‘Samia El Fassi’. The investigation and methodology were undertaken by ‘Samia El Fassi’, with methodological support from ‘Imad Ait Lhassan’ and ‘Zenab Elmenzhi’. Project administration was managed by ‘Imad Ait Lhassan’ and ‘Rafia Frij’, who also provided the necessary resources. ‘Imad Ait Lhassan’ was responsible for the software development. Supervision and validation were ensured by ‘Ahmed Maghni’ and ‘Imad Ait Lhassan’. Visualization tasks were handled by ‘Rafia Frij’ and ‘Samia El Fassi’. The original draft of the manuscript was written by ‘Zenab Elmenzhi’, ‘Imad Ait Lhassan’, and ‘Samia El Fassi’, and the review and editing were completed by ‘Ahmed Maghni’ and ‘Imad Ait Lhassan.

Copyright:

References

[1] F. J. Keefe, C. J. Main, and S. Z. George, "Advancing psychologically informed practice for patients with persistent musculoskeletal pain: Promise, pitfalls, and solutions," *Physical therapy*, vol. 98, no. 5, pp. 398-407, 2018. https://doi.org/10.1093/ptj/pzy024

[2] D. Giles, *Psychology of the media*. Palgrave Macmillan. https://doi.org/10.1007/978-1-137-05904-8, 2010.

[3] G. Westerman, D. Bonnet, and A. McAfee, *Leading digital: Turning technology into business transformation*. Harvard Business Press, 2014.

[4] A. Bharadwaj, O. A. El Sawy, P. A. Pavlou, and N. v. Venkatraman, "Digital business strategy: toward a next generation of insights," *MIS quarterly*, pp. 471-482, 2013.

[5] P. C. Verhoef *et al.*, "Digital transformation: A multidisciplinary reflection and research agenda," *Journal of business research*, vol. 122, pp. 889-901, 2021.

[6] V. N. Phuong *et al.*, "Digital transformation and customer satisfaction in the retail industry in emerging countries: Case study in Hanoi, Vietnam," *Edelweiss Applied Science and Technology*, vol. 8, no. 5, pp. 1843-1853, 2024. https://doi.org/10.55214/25768484.v8i5.1918

[7] R. H. Surahman and N. Legowo, "Factors that affecting firm performance mediated by digital transformation in Indonesia's state-owned enterprises plantation and forestry industries," *Edelweiss Applied Science and Technology*, vol. 8, no. 6, pp. 3674-3692, 2024. https://doi.org/10.55214/25768484.v8i6.2810

[8] P. Van Esch and M. Mente, "Marketing video-enabled social media as part of your e-recruitment strategy: Stop trying to be trendy," *Journal of Retailing and Consumer Services*, vol. 44, pp. 266-273, 2018. https://doi.org/10.1016/j.jretconser.2018.06.016

[9] A. Muduli and J. J. Trivedi, "Social media recruitment: the role of credibility and satisfaction," in *Evidence-based hrm: a global forum for empirical scholarship*, 2020, vol. 8, no. 2: Emerald Publishing Limited, pp. 237-251.

[10] H. Ding, "Application of artificial intelligence in career development of women in STEM field: Counseling, network construction and recruitment," *Edelweiss Applied Science and Technology*, vol. 8, no. 6, pp. 3569-3577, 2024. https://doi.org/10.55214/25768484.v8i6.2755

[11]   J. Binney *et al.*, "New distances to RAVE stars," *Monthly Notices of the Royal Astronomical Society*, vol. 437, no. 1, pp. 351-370, 2014. https://doi.org/10.1093/mnras/stt1896

[12]   N. Munro, "An exploration of the role of social media platforms in the employee recruitment process ", Doctoral Dissertation University of Salford. http://usir.salford.ac.uk/id/eprint/48015/, 2018.

[13]   A. Waheed, M. Xiaoming, S. Waheed, and N. Ahmad, "The role of social networking sites in effective e-recruitmen; A study of telecom sector in context of Pakistan," *KSII Transactions on Internet and Information Systems* vol. 13, no. 8, pp. 3842-3861, 2019. https://doi.org/10.3837/tiis.2019.08.002

[14]   K. Vatansever and Y. Akgül, "Using multi criteria decision making approaches for evaluating and selecting website: A literature review," *Int. J. Curr. Adv*, vol. 6, pp. 3388-3399, 2017. http://dx.doi.org/10.24327/ijcar.2017.3399.0281

[15]   J. Anand and D. S. Chitra, "The Impact of E-Recruitment and challenges faced by HR Professionals," *International Journal of Applied Research*, vol. 2, no. 3, pp. 410-413, 2016.

[16]   M. Abia and I. Brown, "Conceptualizations of E-recruitment: A literature review and analysis," presented at the In Responsible Design, Implementation and Use of Information and Communication Technology: 19th IFIP WG 6.11 Conference on e-Business, e-Services, and e-Society, I3E 2020, Skukuza, South Africa, April 6–8, 2020, Proceedings, Part II 19 (pp. 370-379). Springer International Publishing, 2020.

[17]   C. D'silva, "A study on increase in e-recruitment and selection process," *International Journal of Research in Engineering, Science and Management*, vol. 3, no. 8, pp. 205-213, 2020.

[18]   P. M. Gilch and J. Sieweke, "Recruiting digital talent: The strategic role of recruitment in organisations' digital transformation," *German Journal of Human Resource Management*, vol. 35, no. 1, pp. 53-82, 2021. https://doi.org/10.1177/2397002220952734

[19]   M. Villeda, R. McCamey, E. Essien, and C. Amadi, "Use of social networking sites for recruiting and selecting in the hiring process," *International business research*, vol. 12, no. 3, pp. 66-78, 2019.

[20]   M. Miqdad and S. A. Oktaviani, "The contribution of social media value to company's financial performance: Empirical evidence from Indonesia," *The Journal of Asian Finance, Economics and Business*, vol. 8, no. 1, pp. 305-315, 2021. https://doi.org/10.13106/jafeb.2021.vol8.no1.305

[21]   J. B. Madsen, M. R. Islam, and H. Doucouliagos, "Inequality, financial development and economic growth in the OECD, 1870–2011," *European Economic Review*, vol. 101, pp. 605-624, 2018. https://doi.org/10.1016/j.euroecorev.2017.11.004

[22]   R. Cook, R. Jones-Chick, N. Roulin, and K. O'Rourke, "Job seekers' attitudes toward cybervetting: Scale development, validation, and platform comparison," *International Journal of Selection and Assessment*, vol. 28, no. 4, pp. 383-398, 2020. https://doi.org/10.1111/ijsa.12300

[23]   D. Reilly, D. L. Neumann, and G. Andrews, "Gender differences in reading and writing achievement: Evidence from the National Assessment of Educational Progress (NAEP)," *American Psychologist*, vol. 74, no. 4, p. 445, 2019. https://doi.org/10.1037/amp0000356

[24]   D. Dutta, "Tweet your tune—social media, the new Pied Piper in talent acquisition," *Vikalpa*, vol. 39, no. 3, pp. 93-104, 2014.

[25]   K. Singh and S. Sharma, "Effective use of social media for talent acquisition and recruitment," *International Journal of Intercultural Information Management*, vol. 4, no. 4, pp. 228-237, 2014.

[26]   R. Caers and V. Castelyns, "LinkedIn and Facebook in Belgium: The influences and biases of social network sites in recruitment and selection procedures," *Social Science Computer Review*, vol. 29, no. 4, pp. 437-448, 2011.

[27]   D. Buyens, V. De Schamphelaere, J. Verbrigghe, and S. Verhaeghe, "Recruitment and personnel selection x-ray: Current trends and challenges for tomorrow," *Vlerick Business School*, 2012.

[28]   A. Girard and B. Fallery, "Chapter 8 e-recruitment: From transaction-based practices to relationship-based approaches," Emerald Group Publishing Limited, 2011, pp. 143-158.

[29]   Y. Fondeur and F. Lhermitte, "Réseaux sociaux numériques et marché du travail," *La Revue de l'IRES*, vol. 52, no. 3, pp. 101-131, 2006. https://doi.org/10.3917/rdli.052.0101

[30]   A. Girard, B. Fallery, and F. Rodhain, "The emergence of social media in e-HRM: Employer brand management and e-recruitment," presented at the 16e Congrès de l'AIM, Saint-Denis de La Réunion, France, 1–18, 2011.

[31]   E. Brynjolfsson and A. McAfee, *The second machine age: Work, progress, and prosperity in a time of brilliant technologies*. W. W. Norton & Co, 2014.

[32]   M. E. Clarkson, "A stakeholder framework for analyzing and evaluating corporate social performance," *Academy of management review*, vol. 20, no. 1, pp. 92-117, 1995. https://doi.org/10.5465/amr.1995.9503271994

[33]   R. K. Mitchell, B. R. Agle, and D. J. Wood, "Toward a theory of stakeholder identification and salience: Defining the principle of who and what really counts," *Academy of management review*, vol. 22, no. 4, pp. 853-886, 1997. https://doi.org/10.2307/259247

[34]   J. Davenport, "Leadership style and organizational commitment: the moderating effect of locus of control," in *ASBBS Annual Conference: Las Vegas*, 2010, vol. 17, no. 1, pp. 277-290.

[35]   F. Provost and T. Fawcett, "Data science and its relationship to big data and data-driven decision making," *Big data*, vol. 1, no. 1, pp. 51-59, 2013. https://doi.org/10.1089/big.2013.1508

[36]   R. E. Ployhart, D. Hale Jr, and M. C. Campion, "Staffing within the social context," *The handbook of organizational climate and culture: Antecedents, consequences, and practice,* pp. 23-43, 2014. https://doi.org/10.1093/oxfordhb/9780199860715.013.0002

[37]   G. Van Hoye and F. Lievens, "Social influences on organizational attractiveness: Investigating if and when word of mouth matters 1," *Journal of Applied Social Psychology,* vol. 37, no. 9, pp. 2024-2047, 2007. https://doi.org/10.1111/j.1559-1816.2007.00249.x

[38]   D. L. Stone, D. L. Deadrick, K. M. Lukaszewski, and R. Johnson, "The influence of technology on the future of human resource management," *Human resource management review,* vol. 25, no. 2, pp. 216-231, 2015. https://doi.org/10.1016/j.hrmr.2015.01.002

[39]   J. A. Breaugh, "Employee recruitment," *Annual review of psychology,* vol. 64, no. 1, pp. 389-416, 2013.