

الجمهورية الجزائرية الديمقراطية الشعبية
People's Democratic Republic of Algeria Ministry of Higher
Education and Scientific Research
Higher National School of Management. Kolea



GRADUATION DISSERTATION.

**To obtain an Academic master's degree in management of
organizations.**

**The contribution of digital platforms to the improvement of
recruitment processes
Case: Danone Djurdjura Algeria**

**Elaborated by:
NEMMOUCHI Maysoune**

**Supervised by:
Dr. BOUCHETARA
Mehdi**

Academic year: 2024/2025

Abstract

Researchers' interest in digital transformation in recruitment processes has grown significantly in recent years, particularly regarding the role of technology in improving human resource performance. This research aims to study the impact of digital platforms on enhancing recruitment effectiveness within Danone, with a specific focus on the ICIMS platform as a digital tool in this field. A mixed-methods research approach is adopted, analyzing secondary data to assess performance indicators related to the speed and efficiency of recruitment, in addition to conducting a series of semi-structured interviews with five HR managers at the company who directly interact with the platform.

The results highlight the role of the ICIMS platform in reducing recruitment time and saving time overall. They also confirm that digitalization contributes to improving the quality of professional life and facilitates administrative tasks within the company, emphasizing the importance of digital innovation in building a more effective and inclusive recruitment model.

Keywords: Digital Platforms, Recruitment Process, Human Resource Management (HRM), Recruitment Efficiency.

Résumé

L'intérêt des chercheurs pour la transformation digitale dans les processus de recrutement a connu une croissance significative au cours des dernières années, en particulier en ce qui concerne le rôle de la technologie dans l'amélioration de la performance des ressources humaines. Cette recherche vise à étudier l'impact des plateformes numériques sur l'amélioration de l'efficacité du recrutement au sein de l'entreprise Danone, en mettant l'accent sur la plateforme ICIMS en tant qu'outil digital dans ce domaine. Une approche méthodologique mixte a été adoptée, combinant l'analyse de données secondaires pour évaluer les indicateurs de performance liés à la rapidité et à l'efficacité du recrutement, et une série d'entretiens semi-directifs avec cinq responsables RH de l'entreprise jouant un rôle direct avec la plateforme. Les résultats mettent en lumière le rôle de la plateforme ICIMS dans la réduction de la durée de recrutement et dans le gain de temps. Ils confirment également que la digitalisation contribue à améliorer la qualité de vie professionnelle et à faciliter les tâches administratives au sein de l'entreprise, soulignant ainsi l'importance de l'innovation digitale dans la construction d'un modèle de recrutement plus efficace et plus inclusif.

Mots clés : Plateformes digitales, Processus de recrutement, Gestion des ressources humaines (GRH), Efficacité du recrutement.

الملخص

شهد اهتمام الباحثين بالتحول الرقمي في عمليات التوظيف تزايد كبير خلال السنوات الأخيرة وبالخصوص دور التكنولوجيا في تحسين أداء الموارد البشرية. يهدف هذا البحث إلى دراسة تأثير المنصات الرقمية على تحسين فعالية التوظيف داخل شركة دانون، مع التركيز على منصة ICIMS كأداة رقمية في هذا المجال. حيث تم الاعتماد على منهجية بحث كمية ونوعية تم فيها تحليل البيانات الثانوية لتقييم مؤشرات الأداء المتعلقة بسرعة وكفاءة التوظيف، بالإضافة إلى سلسلة من المقابلات شبه الموجهة مع خمسة من مسؤولي الموارد البشرية في المؤسسة الذين لهم دور مباشر مع المنصة. تسلط النتائج الضوء على الدور الذي تلعبه منصة ICIMS في تقليص مدة التوظيف وتوفير الوقت كما حيث تؤكد أن الرقمنة تساهم في تعزيز جودة الحياة المهنية وتسهيل المهام الإدارية داخل المؤسسة، وتبرز أهمية الابتكار الرقمي في بناء نموذج توظيف أكثر فعالية وشمولاً.

الكلمات المفتاحية: المنصات الرقمية، عملية التوظيف، إدارة الموارد البشرية، فعالية التوظيف.

Acknowledgements

From sprinkler splashes to fireplace ashes, this page is turned the first step of my journey.

First of all, I would like to thank my mother and father for their love, support, and the values they have instilled in me.

I want to express my deep gratitude to my supervisor, Mr. Mehdi Bouchtara, for his continuous support and valuable advice throughout this research.

To my uncle, my sister Maroua, and all my siblings thank you for the unconditional love you've always shown me.

To my whole family and my friends, thank you for your sincere encouragement.

Special thanks to my friend Rania, who stood by me in tough times. Your support meant more than I can say.

To my tutor, Ahmed Mecherf thank you for believing in me, for your constant support, and for the opportunity you gave me. You helped me grow, and I'll always be truly grateful for that.

Special thanks to his team Rof, Rayane, and Sid Ahmed it was truly an honour to know you and work with you as a team. I'm really thankful for all your help and everything you taught me.

And above all, I want to thank myself: for believing in me, for showing up every day, and for never giving up

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INTRODUCTION

1. Context of the study

In a competitive environment with the speed of change in operational processes, organizations continue to look for opportunities to optimize their internal processes. (Andreas Weigert, 2019) The human resource function, previously viewed as being predominantly administrative, has continued to evolve to become a strategic function, complemented by the embracement of technology in its operations. (Ochieng E. M., 2023) The hiring process, a crucial talent management function, has immensely been influenced by the growing wave of digitalization. Digital media, which are characterized by their speed, accuracy, and overall cost-effectiveness, have induced a great revolution in recruitment practices. (Zaryalova, 2022)

In the current context, digital media have been viewed as key tools in enhancing the efficacy of the recruitment process along with building the reputation of an organization. (Monika, 2023)

Nevertheless, the utilization of these tools presents a set of challenges. Some researchers have quoted organizational obstacles, for instance, inadequate digital culture among human resource departments, alongside technical issues, including unmatched platforms and insufficient customization in the process of application processing. (Tovmasyan, 2022)

The use of digital platforms for recruitment not only simplifies the recruitment process but also aligns it with human resource management strategic objectives. It allows HR practitioners to allocate more time to strategic functions. The digitization has also created current issues, such as data confidentiality and digital fatigue for the candidates and recruiters. (Alena FEDOROVA, 2019)

The e-revolution in the recruitment process is one of the major changes in human resource management practices. By utilizing online platforms, organizations can enhance their recruitment approach, acquire the best talent, and more successfully realize their strategic objectives. This research seeks to identify the ways through which online platforms help bring about improvement in the recruitment process. (Flynn, 2017)

2. Research Objective

This study is situated within the broader context of evolving human resource management (HRM) practices under the influence of digital transformation. While digital tools are increasingly adopted in recruitment, there remains a gap in understanding their concrete impact on the efficiency, fairness, and overall effectiveness of the recruitment process in large organizations.

Specifically, this research aims to explore how digital platforms—such as ICIMS—affect the seven key stages of recruitment, from job posting to candidate onboarding. Despite the growing use of such tools, questions remain about their real contribution to improving recruitment outcomes and the potential trade-offs involved, such as the risk of reducing candidate engagement or compromising the quality of matches.

Thus, the study seeks to:

- Analyze the impact of digitalization on each recruitment stage,
- Identify the key enablers and barriers in implementing these tools,
- Assess whether technology enhances HR functioning without undermining candidate experience or hiring accuracy.

To ground the analysis, Danone will serve as the primary case study, offering practical insights into how digital tools are reshaping recruitment practices in a real-world corporate context.

3. Research relevance

Digitalization plays a pivotal role in scientific research and modern economic theories due to its direct contribution to enhancing the efficiency of the recruitment process, talent acquisition quality, cost savings, and fostering higher levels of interaction with potential candidates. (Elena Zavyalova, 2022)

This evolution emphasizes the need to research the effect of digitizing hiring processes using online tools like ICIMS, which is a necessity in improving talent acquisition performance and its organizational impact. This research can offer insights to organizations on how best to utilize these online tools to improve recruitment results and thereby enhance overall organizational performance. In addition, the present research intends to guide future policies and strategies in the field of recruitment, thus promoting the continued development of organizational effectiveness.

4. Problem Statement

As the concern for the realization of the influence of digitalization on recruitment practices and its consequential effect on organizational recruitment effectiveness is on the rise (Monika, 2023; Elena Zavyalova, 2022; Alena FEDOROVA, 2019; Alena FEDOROVA, 2019; Rodrigues&, 2020.; Rodrigues&, 2020.) Nevertheless, the effects of digitalization are controversial and do not necessarily yield positive results. While, on the one hand, digital tools have facilitated the pace of recruitment processes, saved costs, and enhanced the accuracy of candidate analysis. On the other hand, empirical research highlights several practical issues associated with the use of these tools. These issues range from difficulties in their use by human resources personnel who lack digital skills, and the possibility of unintentionally discriminating against certain groups of applicants due to limited technological access.

The difficulties are particularly accumulated in the Algerian setting where most organization still use conventional recruitment practices and encounter huge barriers inadequate digital infrastructure. Our purpose is to investigate the investigation of the following research question:

To what extent does the digitalization of the recruitment process enhance talent acquisition performance without compromising transparency, equal opportunity, and alignment with the extent of digital maturity and organizational culture in Algerian labor market?

To guide the investigation, four sub-questions are proposed:

How does digital maturity affect recruitment performance?

What influence does organizational culture have on digital tool adoption?

Do digital tools promote or hinder fairness and access?

What are the main barriers and enablers in Algeria?

5. Hypotheses

The digitalization process improves the handling of recruitment processes. According to (Andreas Weigert, 2019), it allows for a significant reduction in recruitment time, thus increasing the efficiency of human resource services, while a strong link between recruitment digitalization and time efficiency, this effect is not automatic. In contexts where digital literacy or platform usability is limited as may be expected gains in speed may not materialize or may even be offset by adoption barriers. The above observation leads to the formulation of the following hypothesis:

H1: The digitalization of the recruitment processes the alignment between digital tools and existing HR strategies, as well as employee acceptance of technological change. significantly reduces recruitment time within companies. The first hypotheses observable variables are:

a) Recruitment Duration (Dependent Variable):

The average duration from the job posting to the final hiring decision.

b) Degree of Digitalization (Independent Variable):

The type of digital tools used in the recruitment process, such as the ICIMS platform.

The level of integration of these tools with the company's Human Resources system.

c) The employee acceptance of using these tools, measured through a questionnaire evaluating (Confounding variable):

- Ease of use
- Perceived usefulness
- Adaptation to the tool

Digitalization is at the core of the overall organizational performance. It facilitates the removal of redundancies, saves time wastage, and provides continuity in business through effective allocation of resources in a timely manner (Michael J. Kavanagh, 2020). This impact depends on the degree of technological integration and the organizational context. The above analysis permits the formulation of the following hypothesis:

H2: The digitalization of the recruitment process improves organizational performance by enhancing recruitment quality and aligning candidates with job requirements. **Observable variables:**

a) Dependent variable (Organizational Performance):

- Manager satisfaction with recruitment quality
- Recruitment-related performance indicators

b) Independent variable (Digitalization level):

- Use of digital platforms, tools, and systems in recruitment

c) Mediating variable (Candidate–Job Fit):

- Matching scores between candidate profiles and job criteria

H3: The digitalization of the recruitment process reduces time waste and redundancies, accelerating recruitment speed and enhancing process efficiency. **Observable variables:**

a) Dependent variable (Recruitment Speed and Efficiency):

Time taken to fill vacant positions

Number of redundant tasks eliminated

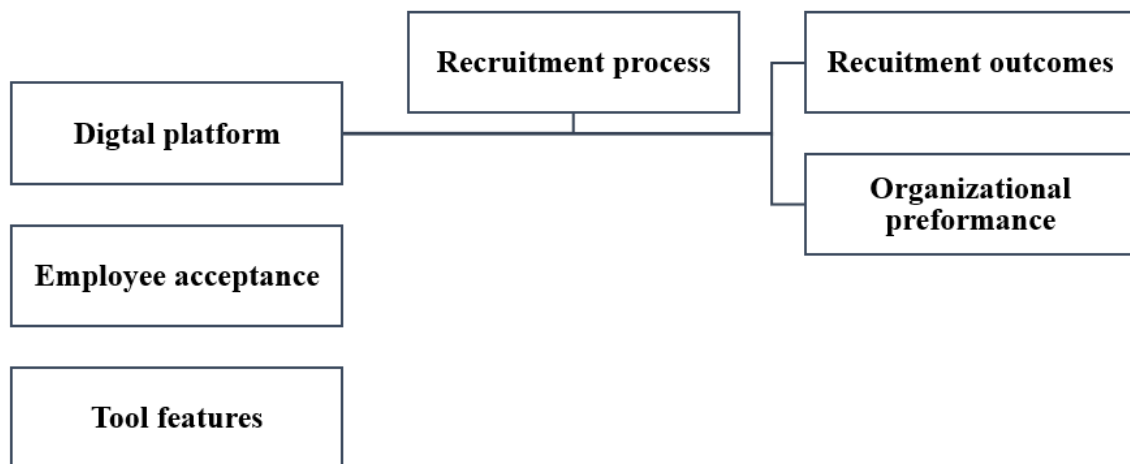
b) Independent variable (Digitalization level):

Use of automated screening and matching tools

This conceptual framework outlines the hypothesized causal linkages between the use of digital recruitment platforms (ICIMS) and the improvement of recruitment outcomes. It illustrates how tool capabilities, worker adoption, and level of integration with the HR system can influence recruitment speed and candidate-job fit, visibility, which can impact overall organizational performance.

To assess the impact of recruitment digitalization in the Algerian context, the following hypotheses are proposed, reflecting specific and testable relationships between key variables:

Figure 1: Conceptual framework of digital tools on recruitment efficiency.



Source: (Michael J. Kavanagh, 2020).

6. Methodology

In order to address our research question and assess the proposed hypotheses, we will conduct a quantitative study based on secondary data (Carrill, 2021).

In addition, a series of seven interviews will be conducted with Danoneurs as necessary (Martinez a. R., 2020).

7. Structure of the Document

This study is divided as follows:

Firstly, the general introduction presents the research topic, the objectives of our study, its relevance, and the methodology used.

Next, in the first chapter, we will attempt to explain the development and the main axes that constitute the concept of "Human resource management," by providing a general synthesis of our readings and knowledge on the subject.

In the second part: the methodological framework allows us to understand the details of the approach adopted in this document.

In the third part: we present the results of both the quantitative and qualitative studies, followed by the discussion that will compare the explored literature and the obtained results.

Finally, we present the general conclusion where we answer our research questions and share whether our hypotheses are confirmed or refuted, our contribution to the scientific community, and lastly, the limitations of our research.

CHAPTER I: CONCEPTUAL FRAMEWORK

In this chapter, we will present the definition and nature of Human Resources Management. We will also examine relevant literature in order to provide a theoretical foundation for understanding the key concepts and approaches related to this field.

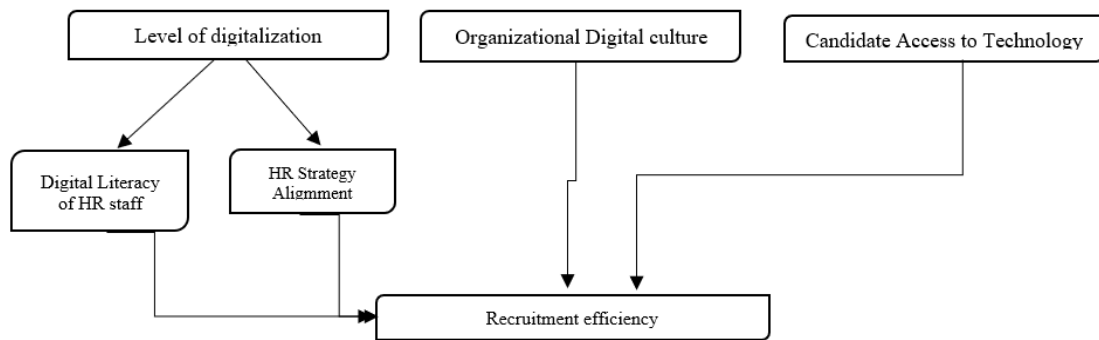
Section 01: Literature Review

Human resource management has long been seen as a function limited to record-keeping administration. until the 1980s that human resources management emerged as a strategic function, matching workforce capabilities with organizational objectives (Ochieng E. M., 2023). Recent studies indicate that digitalization also influences HR processes such as recruitment and performance management in a strategic outlook. But the strategic function is currently experiencing a new wave in response to digital transformation. (Mazurchenko, 2019) suggests that digitalization not only makes HR activities easier but also redefines them since technology is integrated into central practices such as recruitment and performance appraisal. (Yaser M. Al-Harazneh, 2021) supports this view by highlighting the emergence of what is known as (e-HRM) as a means to automate routine tasks and enhance decision-making effectiveness.

Nevertheless, this optimistic view is not universally shared. While both (Ochieng E. M., 2023; Mazurchenko, 2019; Piasna., 2024) emphasize the functional benefits of digitalization, other researchers such as (Tovmasyan, 2022; Mazhar, 2021) arm that excessive reliance on technology may lead to actual risks in HRM processes, including the marginalization of individuals who lack digital skills or sufficient access to technology. These critiques suggest that the transformation in HRM is not only a technical shift but also a profound cultural and organizational.

Digitalization represents a strategic opportunity for HRM. However, limited digital maturity of the human resource lack of investment, and institutional resistance to change pose real barriers to its implementation particularly evident in the Algerian organizational context. This conceptual analysis from the literature presents an examination of how digital tools impact human resource management, particularly recruitment process, as follows:

Figure 2: key drivers of recruitment efficiency in a digital HRM environment.



Source: Prepared by us.

1.1 Definition of Human Resources Management

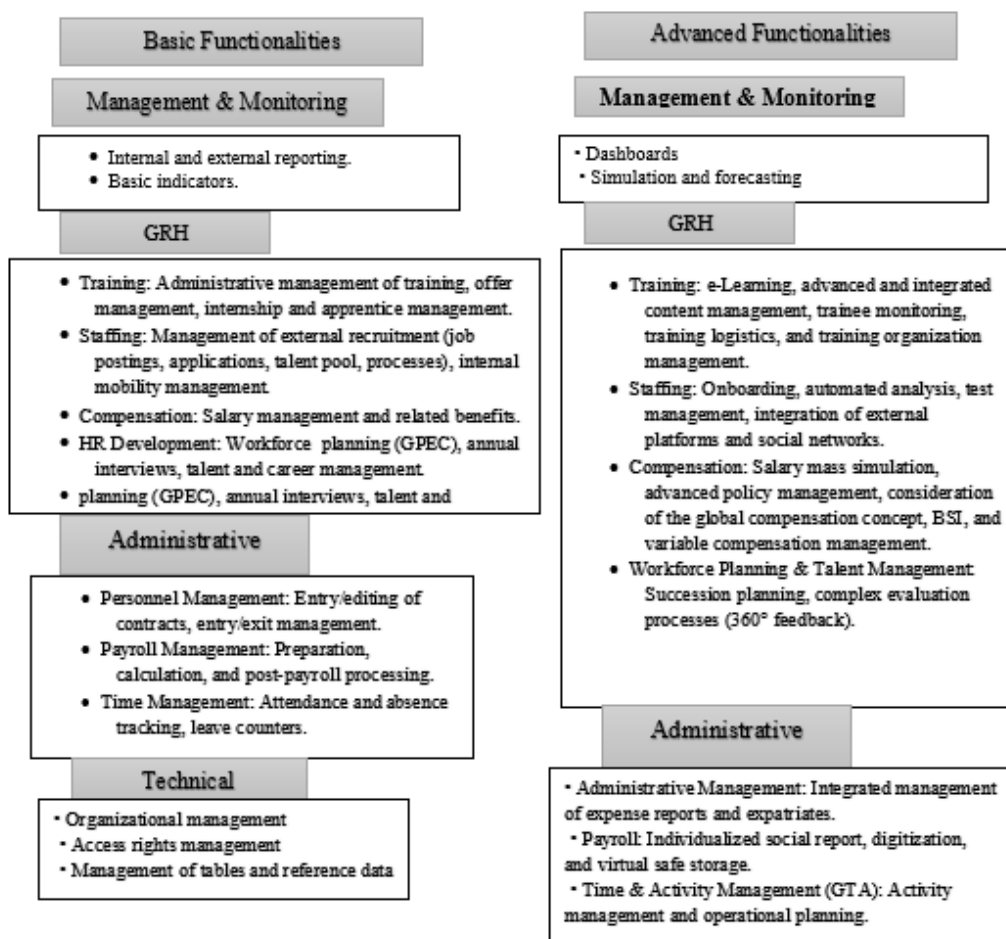
Human resource management ensures the effective use of human capital through structured recruitment, training, performance management, and employee relations. Historically, it was primarily focused on administration and record-keeping. Evolve from basic personnel management to a strategic function; human resources management aligns workforce capabilities with organizational goals. The integration of digital tools into human capital management is attained through the utilization of training and development programs. Development entails the improvement of workers' skills and knowledge, innovation development, intellectual capacity expansion, and capacity expansion. (Ochieng E. M., 2023).

Recent studies (Mazurchenko, 2019) indicate that digitalization also influences HR functions such as recruitment and performance management, fostering the strategic approach management. This transformation results in the emergence of electronic human resources management, which streamlines administrative tasks and improves human resources management (Yaser M. Al-Harazneh, 2021). Additionally, the impact of digitalization on employee well-being indicates both opportunities and challenges in adopting modern technologies. (Alena FEDOROVA, 2019). The first applications of digitalization in human resource management, significant huge changes. Historically, human resource management works to orient towards administration and record-keeping, including fundamental legal activities and the execution of agreements. In recent years, there have been major changes in human resources management practices. The two main factors through these changes are data protection and resistance to change, which constitute major challenges in HR digitalization (Mazhar, 2021). It also plays a crucial role in create an environment that

ensures employee satisfaction, protects their health and safety, and maximizes efficiency. (ÇALIŞKAN, 2024)

Previously, human resource management relied primarily on manual processes and paper-based documentation, today, digital platforms enable more efficient management. Digital technologies play an increasingly influential role in both the work lives of employees and human resource management (HRM), which is affect in multiple ways (Okoronkwo, 2021) It promotes productivity, motivation, and workplace effectiveness with the addition of psychology and behavioral science to improve job satisfaction. Contemporary human resource management concentrates on talent management, leadership, training, and retention programs to provide an educated and motivated workforce that leads to organizational success (Ochieng E. M., 2023).

Figure 3: Summary of functionalities.



Source: (Storhaye, 2015)

The studies (Storhay, 2015) indicate the strategic significance of human resource management in organizational performance; they examine the transformational impact of digitalization on the HR function. According to (Maryeme EL HAMMOUCHI, 2024). Human resources are a key element of the organization, influencing its performance and competitiveness directly. It emphasizes that human resources management constitutes a set of practices that are directed at obtaining, nurturing, and mobilizing human capital to achieve strategic and organizational objectives. Furthermore, HRM is a systematic approach and strategic method to manage an organization's workforce through a structured set of policies, procedures, and activities. These encompass planning, organizing, leadership, and control functions, which are dedicated to the administrative team. The primary objective of human resource management is the continuous availability of skills and competent work, thereby enabling the organization to achieve its strategic goals efficiently while simultaneously addressing the professional development of its employees and contributing to broader objectives (Salma Muftah Almasrite, 2023). It also ensures the effective use of human capital through structure recruitment, training, performance management, and employee relations. Evolve from basic personnel management to a strategic function; human resources management aligns capabilities with organizational goals. It promotes productivity, engagement, and work efficiency while the integration of psychology and behavioral science to increase job satisfaction. Contemporary human resource management focuses on talent development, leadership training, and retention strategies, guaranteeing knowledge that drives organizational success. (Ochieng E. M., 2023). However, this underscores the transformational role of digitalization in HR functions. This gap emphasizes the necessity of examining how digital tools and platforms enhance or challenge traditional HR practices, to impact organizational efficiency.

1.2 Evolution of human resources management

The transformation of human resources functions from scientific management to strategic functions improves automation and efficiency. (Yaser M. Al-Harazneh, 2021) Furthermore, it emphasizes HRM's flexibility in the digital age (Laurence Viale, 2022). The significance of matching HR strategies to organizational performance grows as the emphasis on human capital shifts (Stephen Gates, 2013). This advancement emphasizes the importance of human resource management in navigating the intricacies of modern organizational settings.

The evolution of Human Resource Management (HRM) has been shaped over more than a century, adapting to major economic, technological, and social changes. Its origins can be traced back to the late 19th and early 20th centuries, particularly through the work of Frederick Taylor. His theory of scientific management emphasized the rationalization of labor through time studies, job specialization, and incentive-based compensation. Taylor argued that performance could be maximized by applying scientific principles to work processes and employee selection, thus laying the foundation for formal personnel management. (Yamin M. A., 2024)

During the early 20th century, from around 1910 to 1930, the field of industrial psychology began to emerge, contributing significantly to HRM's development. This discipline emphasized the psychological well-being of workers, particularly during and after World War I, when psychological testing for recruitment became widespread. Organizations started to develop dedicated personnel departments focused on improving worker safety, morale, and productivity. (Al-kharabsheh, 2023) These changes marked a shift from mere administrative management to a more human-centered approach.

From the 1930s to the mid-1940s, a breakthrough occurred through the Hawthorne Studies, conducted by Elton Mayo and colleagues. These studies revealed that social and informal relationships in the workplace had a profound effect on productivity, thus challenging the purely mechanistic view of workers promoted by earlier theories. As a result, HRM began to incorporate the importance of employee motivation, morale, and satisfaction. (Zhang, 2023)

The post-World War II period (1945–1965) witnessed a rapid expansion in unionization and the emergence of collective bargaining as a key function of HRM, especially in Western economies like the United States. Employee representation became crucial in negotiating working conditions, wages, paid time off, and insurance benefits. This era solidified the transition from personnel administration to a broader human resources perspective that balanced organizational goals with employee rights. (Shahzad, 2024)

In the following decades, particularly from 1965 to 1985, HRM was significantly influenced by major legislative reforms such as the Civil Rights Act of 1964 in the United States. This law prohibited employment discrimination based on race, color, religion, sex, or national origin. Title VII of the Act became a cornerstone for equal employment opportunity and affirmative action. Consequently, HR departments took on new legal and ethical responsibilities, developing fair recruitment practices and diverse policies. (Al-Hadrawi,

2023)This period marked the institutionalization of HRM as a strategic and regulatory function within organizations.

From the mid-1980s to the present, globalization, digitalization, and the rise of strategic HRM have redefined the role of human resource departments. As organizations began to operate in increasingly competitive and international markets, HRM evolved from a supportive function into a strategic partner in achieving organizational objectives. New technologies such as HR information systems, talent analytics, and digital recruitment platforms have also transformed how HR professionals manage talent acquisition and development (Strohmeier, 2023)Additionally, managing diversity, remote work, and employee well-being in a post-pandemic context have become central to HRM strategies, emphasizing flexibility, innovation, and cultural intelligence. (Al-kharabsheh, 2023)

Frederick Taylor, recognize as the founder of scientific management, play a crucial role in shape personnel management in the 1900s, His book shop management introduce scientific principles for staff selection and training and pioneered incentive-base reward systems. While he focusses on improving production efficiency, his ideas laid the groundwork for human resource management (HRM), Industrial psychology began to influence worker recruitment, selection, and training, reaching a key moment during war I with the introduction of employment test for military roles.

In the 1920s and 1930s, it emphasized the impact of social and informal workplace factors on productivity, highlighting the importance of human relations. The act of 1935 led to a surge in labor union membership, making collective bargain a crucial function of personnel management in the 1940s and 1950s human resources management (HRM) expanding to address labor relations, collective bargain, and employee benefits.

During the 1960s, Title VII of the civil rights act and executive order's introduction laws against workplace discrimination and require affirmative action policies, these changes increased human resource management complexity and significance in organization. Since the 1980s human resource management has been further shaped by shifts in the workforce of demographics, technological advancements, and globalization, solidifying its role as a strategic function within organizations. (Ochieng E. M., 2023)

1.3 Digital transformation in HRM

The digitalization of HRM reorganizes managerial and operative activities, particularly in the period of the pandemic, where managerial activities employ data-driven decision-making, thus making them more effective but sometimes reducing the human elements. (Yaser M. Al-Harazneh, 2021) Additionally, digital media, such as job sites, strengthens operational activities like recruitment and development, however, issues like digital exclusion and decreased interpersonal interaction persist. (Tovmasyan, 2022)

1.3.1 Managerial functions

Digital tools have reduced administrative burdens, enhanced workforce planning, and optimized HR decision-making (Yaser M. Al-Harazneh, 2021). However, according to some studies (Tovmasyan, 2022), human intervention reduces the risks of automation in Algerian SMEs, while poor digital infrastructure and change aversion completely impede the process. Technology and human command must still be integrated using a human-facilitated methodology. The Human Resources (HR) manager oversees fulfilling the basic responsibilities of management, which can be summed up as follows, since they take on the role of manager's (Ochieng E. M., 2023).

Setting goals and objectives, assessing the internal and external environments, and creating a strategic plan are all steps in the planning process. (Ochieng E. M., 2023) Data and artificial intelligence are being used for more precise forecasting and decision-making as a result of digital transformation. Achieving specific goals requires organization, which includes establishing a defined framework, allocating responsibilities, transferring authority, and promoting coordination. Modern technologies like cloud-based management and virtual collaborative environments have been brought about by digital transformation, which has increased organizational efficiency and simplified hierarchies.

Creating a structured framework for an organization, identifying activities, assigning them to departments, distributing authority, defining roles, establishing relationships, and facilitating coordination are all parts of organizing. Effective goals and program implementation are essential for HR managers. Cloud-based management and virtual collaboration environments are examples of digital transformation that streamline hierarchies and boosts organizational effectiveness. (Mohammed, 2024)

The ability of HR managers to create plans is reliant on personal drive. Facilitating effective job performance to accomplish organizational goals is one of their guiding responsibilities. By introducing sophisticated performance management and learning systems, enhancing communication, and establishing an engaging work environment, digitalization improves HRM functions and encourages employee commitment and performance. (A. Valtonen, 2022) In this context Digitalization improves Human Resource Management functions by improving communication, creating an engaging work environment, and introducing advanced performance management and learning systems for increased employee commitment and organizational goals achievement. (Khuzaini, 2024)

A key component of the managerial process is controlling, which involves determining whether actions are in line with established plans and principles. It facilitates measurement and correction, allowing performance to be assessed in relation to preset goals. HR managers can now identify deviations and take corrective action to achieve effective organizational goals thanks to real-time tracking and analytics software made possible by the digital revolution. (Puspita, 2024)

1.3.2 Operative Functions

The human resource manager consistently and regularly conducts operative tasks. The nature of this phenomenon has characteristics akin to a routine. The operative functions may be delineated as follows:

HRM plays a crucial role in acquiring and recruiting suitable individuals for a firm's objectives and requirements. Digital transformation revolutionizes the recruitment process by utilizing digital solutions to find, attract, and retain top performers online, on social media, and with data insights. (Amalia, 2024)

Employee compensation is another key aspect of HRM, which includes both financial and non-financial incentives. Digital technology has enabled organizations to design market-oriented compensation plans that produce job satisfaction and attract high-quality talent. (Sonal Gulati, 2024)

Development of human resources involves the implementation of training and development initiatives, which enhance workers' skills, knowledge, and capacity. Performance assessment contributes to the facilitation of staff development initiatives, and digitalization keeps up with employee expansion through e-learning sites and virtual training programs. (Amalia, 2024)

HRM also fosters healthy human relations between management and staff, fostering positive interactions and fostering a sense of unity among the workforces. Digital platforms provide open communication channels for alignment of individual employee interests with organizational goals, ensuring the satisfaction of all parties involved. (Sheikh, 2024)

Safety and health of employees are essential for employers to ensure workplace safety and health. Digitalization introduces methods of monitoring safety and health in the workplace using data analytics and AI to detect potential risks and adhere to safety policies. (Amalia, 2024)

Stability and optimal utilization of employees are essential for HR managers to ensure that employees are used to their fullest potential. They must inspire workers by providing job happiness, job security, and prompt resolution of issues. Providers of professional development opportunities are essential for motivating and retaining employees. (Sonal Gulati, 2024)

Personnel research, audit, and records are essential for HR managers to engage in, as job satisfaction is a significant domain of inquiry within the field of human resources. Digital HR systems enable efficient handling of data, enabling strategic planning and more informed decision-making. (Sheikh, 2024)

1.4 Human resources management practice

The leading scholar, distinguished professors see the knowledge worker as the most valuable corporate asset of the 21st century. Human capital is the collection of skills, knowledge, social and personality characteristics, as well as cognitive abilities, adaptability, and emotional intelligence,

include creativity all of which embody in the ability to perform labor in order to generate economic value, management often deals with questions about how to model human beings as a capital asset to maximize productivity and long-term organizational growth.

While conventional human capital development mainly occurs via education, experience, and HRM processes (Frank brillet, 2020), digitalization has significantly transformed this landscape by creating new avenues for human capital development. Digital talent acquisition platforms, digital tools, and big-data-based workforce plan allow the optimization of talent management by HR managers through data-driven decision-making and automation. However, the use of such tools is a function of the tools' alignment with organizational goals

as well as workers' motivation metrics, which determine how effectively employees engage with these technologies.

Human capital is often considered the backbone of modern enterprises, defined as vital for the success of an organization and a key driver of competitive advantage, increases through education and experience. Recognizing the recruitment mode for human capital that contributes to the competitive advantage of the organization allows all HR-related managers to reconfigure adapt and reshape workforce structures to ensure optimal talent utilization.

Human resource management practices that enhance the commitment of employees at all levels are shown to involve the development of human capital, but there are more chances of generation commitment through internal improvement. This shows that the most important consideration for increasing human capital is the effectiveness of HRM practices. (Frank brillet, 2020) which emphasizes the need for continuous investment in workforce training, engagement strategies, and employee well-being programs.

According to (flynn, 2017) Professionals cannot 'do' HR; they can only 'do' HR practices. Most practices fit into one or another of the recognized specialisms of the broader HR profession. Here, we offer a framework consisting of six sub-specialisms. To some extent, any framework is arbitrary. The key question is whether it is useful in practice. The following framework of six pillars has proven to be of practical value in a number of organizations, by helping to structure HR functions more effectively:

Organizational effectiveness (OE)

Caliber and talent (C&T)

Employee engagement (EE)

Performance management systems (PMS)

Employee development (ED)

Rewards and recognition (R&R).

Each of these has its own specific definition, but each sit at one logical level down from the overall core purpose of HR. They do not, however, sit in isolation of each other HRM now has an explicit functional HR strategy. The perspective shifts to the medium term. HR seeks best in class solutions to the HR problems of the business. However, the implementation of this HR strategy is adapted to align with the array of SBU and functional strategies characteristic of Maturity level 3. Each strategic business unit & general manager has to be accommodated, so HR practices still differ across SBUs.

As with the host organization, HR is also focused on continuous improvement (CI). KPLs abound and these metrics are used to guide CI.

Table 1: Foundational HR processes

Foundational HR processes		
HR Pillar	HR Process	Comments
Organizational Effectiveness	Job Description design	
	Organizational charts	Defining reporting lines and team structures
	Core management responsibilities	
	Communications pack template	To manage each specific proposed critical change event
Caliber and talent	Resourcing and selection	Personnel Requisition Form (PRF) to authorize the hiring process person specification. Internal and external appointment procedures
	Start procedure	
	Rostering	To 'manage time' by defining working time, assigning shifts, setting start times, breaks etc.
	Attendance policy and procedure	To manage planned and unplanned absences, rehabilitation plans and
	Leaver's procedures	To manage planned and unplanned absences, rehabilitation plans and
Employee engagement	Communications	Basic communication tools, e.g. noticeboards, basic meeting techniques
	Grievance procedures	

Performance management systems	Budgets and objectives procedures	Budgets and objectives procedures
	'Works' rules	To regulate behavior through defining general responsibilities, duties and prohibitions for all employees
	Disciplinary procedure	
	Performance improvement plan (PIP) guidelines	
Employee development	Basic job training	To establish operational effectiveness
	First line manager training	
Reward and recognition	Grading	Job sizing processes
	Terms & conditions matrix	
	Salary and contract change process	Payroll control from authorizes changes to basic pay and contractual terms
	Contract of employment	
	Contract of employment	
	Initial offer pack	
	Annual pay review process	
	Payroll (01)	From hours worked to gross pay
	Payroll (02)	From gross pay to net pay

Source: (Flynn, 2017)

The prime HR practice at this maturity level centers around the performance management system. The CT agenda and the proliferation of KPIs demands sophisticated tools to drive improvement forward.

At this ML, the primary role of HR is that of advisors as an expert in organization people and people management.

According to model of (Flynn, 2017) indicate that possesses a structure approach to HRM and categorizes functions into six main domains. But in the rapidly changing digital era, the suitability of these categories can be questioned. Talent recruitment, for example, is no longer dependent on standalone internal HR processes but is more and more influenced by digital recruitment tools, web recruitment practices, and digital employer brands. New findings. (L HAMMOUCHI, 2024)

indicate that the practice of human resources management reconciles the administrative function, which includes employee management, conformance, and compensation, with strategy, whereas the primary areas are hiring, performance enhancement, training, compensation, and career planning, besides attempts to advance automation, retention, and diversity management. With digitalization, the activities of HRM practice will shift the strategy of the organization to remain competitive. though conventional HRM models, which give insights of immense value, to constant revision and suit digital solutions and processes.

1.5 The Importance of Human Resource management

Human Resource Management (HRM) plays a critical role in enabling organizations to utilize their human capital effectively by analyzing employee skills and potential to enhance productivity (Oubrahim, 2024). It ensures efficient workforce planning by identifying staffing needs and managing employment data, including benefits and training. HRM also contributes significantly to research and development, supporting improvements in recruitment, employee satisfaction, and overall workplace efficiency through strategic human resource practices. As a result, companies can align human resources with organizational goals to improve performance and drive business success (Oubrahim, 2024).

Additionally, HRM fosters adaptability, innovation, and operational efficiency. Employees who possess problem-solving skills, leadership abilities, and a collaborative mindset are vital to enhancing supply chain performance (Abdullah Okumuş, 2024). Continuous training and

development initiatives are essential to ensure that the workforce evolves in line with technological advancements and changing industry needs. Effective HR practices encompass performance management, knowledge sharing, and collaboration—elements that contribute to building a sustainable and competitive workforce (Abdullah Okumuş, 2024).

Hutasoit (2022) emphasizes that HRM is a key determinant of organizational stability, productivity, and competitiveness. Through appropriate management strategies, HRM motivates employees and ensures alignment with corporate objectives. It is also essential for recruitment, employee motivation, and the recognition of employees as assets rather than costs. This function includes organizational planning, staff development, and compensation, all of which contribute to creating a positive work environment and improving operational stability (Ochieng E. M., 2023).

In the post-pandemic era, the digitalization of HR processes has become increasingly relevant. Contemporary studies highlight the growing dependence on recruitment software to automate candidate screening and enhance hiring efficiency (Abdullah Okumuş, 2024). HRM's role now extends beyond productivity enhancement to include strategic use of digital technologies to support decision-making. Digitalization strengthens HR's integration into corporate strategy, enhancing its contribution to organizational competitiveness (Soudane, 2024).

Nevertheless, some industries still rely on traditional HR practices, revealing an uneven adoption of digital technologies across sectors (Erihadiana, 2021). As Soudane (2024) explains, for a company to realize its vision and goals, a robust HR strategy is required. This involves a hybrid model that combines administrative tasks—such as payroll and absence tracking—with strategic HR practices like talent development and digital transformation. Prominent practices include performance-based compensation and digital innovation, with HR departments increasingly working in close coordination with top management. This evolution marks a shift toward strategic human resource management, which is vital for enhancing organizational competitiveness and achieving long-term growth.

Section 02: Digitalization

This section is dedicated to introducing the concept of digitalization as it relates to the context of the study. It aims to define and contextualize digitalization within the framework of modern business practices, highlighting its growing significance across various sectors. The discussion will cover key definitions, historical evolution, and the strategic implications of digital transformation, providing a theoretical foundation for understanding its impact on organizational performance and decision-making.

2.1 Concept and evolution of digitalization

In this subsection, the concept and historical evolution of digitalization will be examined in order to provide a comprehensive understanding of its foundations and development over time. By exploring the origins of digitalization, its technological advancements, and its gradual integration into business processes, this part aims to establish a clear theoretical framework. This background is essential for analyzing the role and impact of digitalization in contemporary organizational contexts.

2.1.1 What is digitalization?

According to (Likely George Westerman, 2014) Digitalization is a process of integrating digital technologies into a company's commercial operations and business processes, to enable improvements in productivity and efficiency. It also allows the company to differentiate itself from competitors by creating new products, services, and business models. Other research (vinther, 2016) Said that digitalization is the process of transforming the structure, processes, people skills and culture of the entire organization so it can use digital technologies to create and offer products, services and experiences that customers, employees and partners find valuable.

The concept of Digitalization has garnered substantial attention in both academic and practical settings. Although the existing literature indicates that it is challenging to establish a unified and universally accepted definition of the notion of digitalization, this difficulty is not unique and is commonly encountered in other social sciences, particularly in the field of administration. (Al-Shabatat, 2022)

Delineate three successive waves of digitalization. The first wave involves the substitution of paper with computers as a primary medium for storing and processing information. The second wave describes the emergence of a globally interconnected environment characterized by pervasive communication, which fundamentally alters how businesses

create value and opens up novel avenues for business endeavors. Lastly, the third wave envisions the pervasive integration of computing technology, representing a visionary concept that is progressively becoming more tangible with each pass day. (Ahlemann, 2017) Digitalization refers to the conversion of analogue data into digital format, leading to improved commercial interactions between customers and companies, contributing to economic and social progress. This process entails the translation of diverse forms of data into digital formats, resulting in enhanced interactions and prospects for innovation, investment, and the establishment of new enterprises and employment opportunities. (Rodrigues&, 2020.)

Digitalization defined as the use of digital technologies to modify business processes, culture, customer experiences, insights, and decision-making, is a crucial pillar enabling agility and resilience on different levels. (Bodea, 2021).

2.1.2 The evolution of digitalization

The Internet came into existence in 1961, with Leonard Kleim Rock's theory of data transmission and the conception of the "ARPANET" in 1967. In the 1990's, the first connected computer called "ARPANET got developed, which was the pre-cursor to the internet. From then, the growth of this computer network has been exponential, with thousands of computers getting connected and offering almost unlimited functionality. This rapid evolution laid the foundation for Web 2.0, which further transformed digital interactions. (Habib, Khan, Ali, & Bezabih, 2013)

With the advent of the US consumer internet, society has changed the way people live and interact with each other. The user count increased from 100m to over a billion in over a decade, which indicates a massive adoption of this technology. (Flandrin, 2022)

This evolution of integration of these technologies into the fabric of organizations has transformed work but also the structure of organization evolving from the use of these more advanced platforms of work. In this introduction to the special issue, we explore and conceptualize the deep effects of these human-technology configurations. (João Baptista, 2020) Recent studies (Flandrin, 2022) that from the early 2000s, the notarial industry in Belgium has been gradually transformed into a digital sector by institutional and professional initiatives. The government has required digitalization in order to modernize the judicial system, and the profession has embraced technology in order to build a brand and sustain the profession.

Fed non-professional federation has been at the forefront of this shift and developed over sixty digital applications during the span of 2000 to 2022, including registration for registering contracts and for auctioning real estate online. These applications have changed notarial practice profoundly.

The changes brought about by technology are adopted differently by different organizations, and for some, such shifts inherently change the way they do business. For instance, organizations that work in competitive markets are more inclined to implement changes digitally as part of more complex strategic initiatives encompassing the whole firm. (João Baptista, 2020)

While Marketing Managers have been found to undergo similar shifts in the past, towards the usage and application of technology in their field, a case study conducted by *Deloitte in May 2016* highlights how HR manager responsibilities are subject to change. The study suggests that 94% of management professionals think that digital practices will impact their work life drastically.

Digitalization refers to the change involving transformation of information relating to data into numerical or other more modern forms like symbols which can conveniently be used or stored. The term has become widespread in more contemporary systems that use automatic numbering or binary framework for sorting data (Frank brillet, 2020).

These examples illustrate how public authorities consider the challenges related to data security due to the rapid advancement of technology at the institutional level. Therefore, adopting a balanced approach is essential to maximize benefits by integrating appropriate digital policies and effective management strategies, which could have significant impacts on the economy (Mtiraoui, 2024).

2.2 The COVID-19 Pandemic a catalyst for Digital transformation

In a world where the industrial revolution has been accelerated by the widespread application of new generation Information, technology attracts a lot of attention from governments, industry, and academia. (Lu, 2021)

Digitalization has transitioned from emergency technology to a widespread tool for business efficiency. (Narayanage Jayantha Dewasiri, 2023)

The digital transformation is widely recognized as an industrial and economic revolution with 88% of companies affirming that the rise of the internet and digital technologies has profoundly reshaped business models and competitiveness. (boutaky, 2023)

This transformation offers a chance to modernize human resources and public services in the post-pandemic era. (Zoltán Hazafi E. K., 2021). According to (Gerchen, 2024), on the COVID-19 pandemic, Digital tools help to replace many functions in HRM, like personal meetings, candidate evaluations, and voting to comply with restrictions. While these solutions ensure continuity. This shows that the pandemic has driven the transformation of digitalization.

The fight against the virus made it common. It currently appears in the form of a home office, but conceptually, the phenomenon includes not only work from home, but also other work performed outside the employer's premises. It fits into an increasingly growing trend in labor law and HRM, where the atypical is becoming typical. Let us take a look at some examples of said acceleration.

Fifty-four percent of German companies indicate that working from home will play a key role in their company after the crisis.

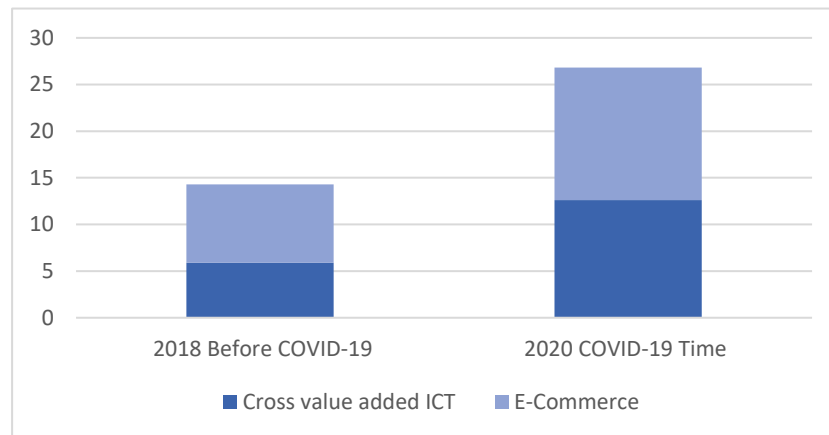
In view of the growing use of teleworking, the US federal government has created a portal that, in addition to legal and Post-Pandemic Sustainability in Europe Sixteenth Annual International Academic Conference on European Integration AICEI 2021

practical knowledge, publishes training, guides, reports, studies, and provides a platform for civil servants and employers to share experiences and issues related to teleworking.

Trade unions can be active actors in regulation. The Spanish government and trade unions have reached an agreement to regulate teleworking. Main elements are as follows:

- ✓encouraging the development of modern technologies and e-government, a precondition for examining job responsibilities in terms of whether they can be teleworked,
- ✓It should not become commonplace (the percentage of jobs that are suitable for teleworking is determined in advance, considering the need to maintain a personal relationship with clients).
- ✓The primary goal of teleworking is to achieve greater efficiency.
- ✓It has to be ordered by the employer, an objective assessment of the work in question is obligatory,
- ✓Further training in teleworking is also compulsory. (Hazafi, 2021)

Figure 4: Contribution of Digital Economy, Malaysia, 2018-2020 Chart Title



Source: (Nurliana Kamaruddin, 2023)

Figure 02 shows the contribution of the digital economy to the Malaysian national economy before and during the COVID-19 pandemic. This data comprises the gross value added of the ICT industry and e-commerce of the non-ICT industry. ICT is a service industry such as telecommunications services. Between 2018 and 2020, the ICT industry's gross value added, and e-commerce increased 1.6 percent and 2.5 percent, respectively. Overall, the digital economy's contribution to the national economy recorded an increase of 4.1 percent, from 18.5 percent in 2018 to 22.6 percent in 2020.

2.3 Impact of digitalization on organizations

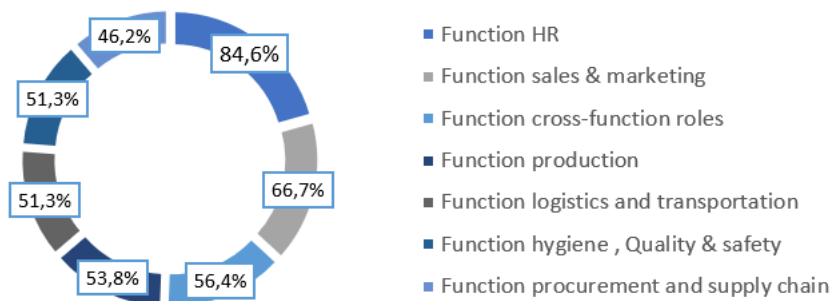
Digital transformation has revolutionized the business world, forcing companies to reform their strategies to remain competitive. It has impacted on economic models, organizational structures, and corporate culture, requiring greater flexibility and adaptability. Leadership has also evolved towards a collaborative project-based approach rather than strict hierarchical structure. Additionally, digitalization has transformed human resource management, especially adaptation to the new generation and emerging technologies. (TOUMI AMARA Djamila, Digital transformation impacts on the organization, 2021). The digitalization of human resources function of companies is a current topic that has arisen with the emergence of NICTs and the health crisis that has disrupted the management of organizations and due to this disruption organizations have been forced to introduce new

modes of human resources management to cope with the economic and social changes that companies have experienced. (boutaky, 2023)

Digital transformation has a profound impact on human resources management by automating various tasks and redefining the competencies. Organizations must adapt their recruitment processes by incorporating advanced technological tools. Data driven facilitates a more strategic approach to talent management. (Zoltán Hazafi E. K., 2021) .

Digitalization serves as a fundamental driver in optimizing human resources management by integrating advanced technologies such as human resources information systems (HRIS) and specialized digital applications. These tools streamline key processes, including recruitment, training, and employee administration by enhancing operational efficiency with modern digital solutions such as e-learning platforms, play a crucial role in professional development and internal communication. Additionally, the adoption of digital systems for scheduling and leave management strengthens organizational coordination and flexibility. (Frank brillet, 2020)

Figure 5: Participation rates across organizational functions.



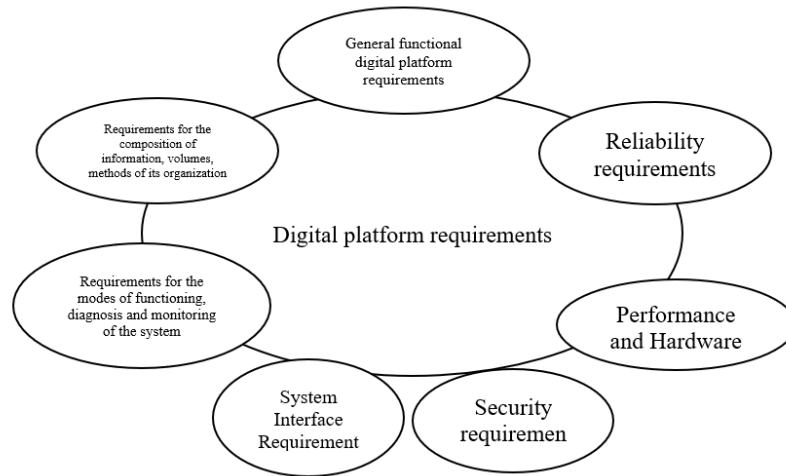
Source: (Frank brillet, 2020)

Digitalization has become a fundamental element in various corporate functions. It has been integrated into all the functions and the human resource’s function is the most impacted by digitalization, with an adoption rate of 84,6 indicating an increasing reliance on digital tools for employee management, recruitment, and training. The digitalization has become a fundamental element in various corporate functions, it has been integrated into almost all the function and the human resources function is the most impacted by digitalization, with an adoption rate of 84,6 indicating an increasing reliance on digital tools for employee

management, recruitment, and training. Also, in production and commercial have experienced a high level of digitalization, 66,7% and 56,4% respectively, as an indication of the growing need to improve business processes and simplify the process of production with digitalization. Aside from that, the cross-functional functions have digitalized at a rate of 53,8% where the focus is the contribution of technology in enhancing coordination among departments. Coupled with this, the supply chain and procurement function remain the sole one remaining to be digitalized where the adoption rate is at 46,2%. The result of this is the continuation of utilizing current processes undermining the adoption of digital. Human resource digitalization is transforming businesses through promoting dematerialization of administrative processes, simplification, and integration of information systems. surveys have shown that most human resource professionals understand the necessity of utilizing digital tools to promote efficiency and traceability of information and reduce administrative loads. However, this transition requires overall consistency in information systems and an evolution in skills particularly in terms of data management and collaboration. Digital solutions are seen as a means of strengthening interpersonal relations and fostering innovation, although their implementation requires greater management involvement and adaptation to legislative and organizational changes. (Frank brillet, 2020). According to (Bruskin, 2022) Digitalization is a critical driver of transformation in the construction industry, particularly in addressing challenges such as productivity, profitability, labor issues, and rising material costs. This transformation including the level of technological conditions, depreciation of fixed assets, and the composition of production assets, which are notably less advanced in Russia compared to global standards.

The success of digital transformation relies on a set of key indicators that reflect the level of adoption and efficiency of digital solutions within organizations. Based on the documents discussing digital platform architecture and requirements, some indicators include the platform's ability to meet general functional system requirements, reliability, security, performance, and integration with other systems. requirements mapping outlines major areas that include interface requirements, system reliability, and operational efficiency. Additionally, digital platform architecture portrays the role of artificial intelligence, and big data in operational effectiveness and business process improvement. (Igor Ilin, Inovation Hub and Its IT Support: Architecture Model, 2022)

Figure 6: Digital platform requirements Map.

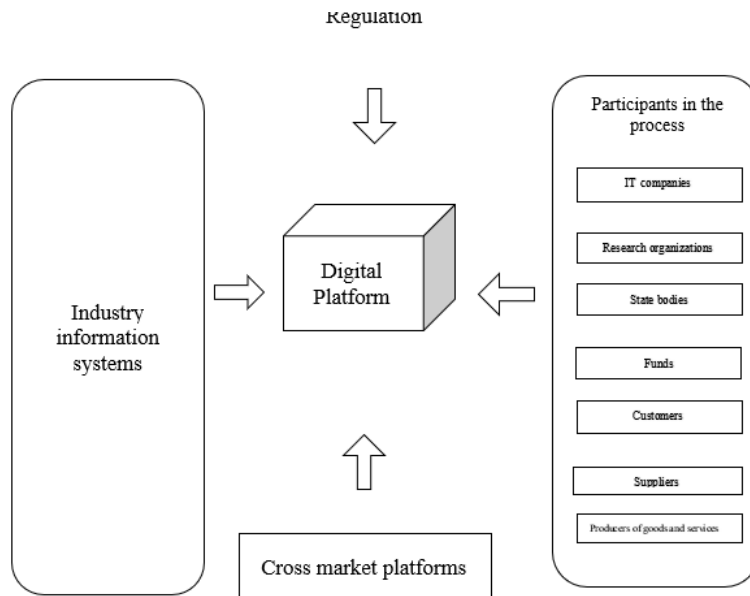


Source: (Igor Ilin, Innovation Hub and Its IT Support: Architecture Model, 2022)

Digitalization impacts can be quantified in the ways of the most pertinent factors, like the effectiveness in decision-making, information processing capacity, and IT strategic fit. Efficient digitalization enhances the quality, timeliness, and accessibility of information for enabling organizations to enhance decision-making and performance. Information processing capacity and information effectiveness capacity are two key drivers of digital maturity with effects that impact financial as well as operational performance. By matching IT investments with business priorities, organizations can realize the full potential of digitalization, fueling innovation, agility, and sustainable growth in the data-driven world. (Zelenkov, 2022)

Technological change and economic development are acceleration by innovation clusters and web platforms by enabling firms, government, and research institutions to exchange knowledge. Structured ecosystems emphasize much an enabling environment that supplies the necessary infrastructure, capital, and networking. This goes beyond the exploratory approach to a solution-oriented process with process scalability and efficiency. Business competitiveness and economic resilience improve through the use of digital technologies in such an environment, accelerating a rapid pace of digital change and innovation sustainability.

Figure 7: A reference model for an industry innovation hub for accelerating digital



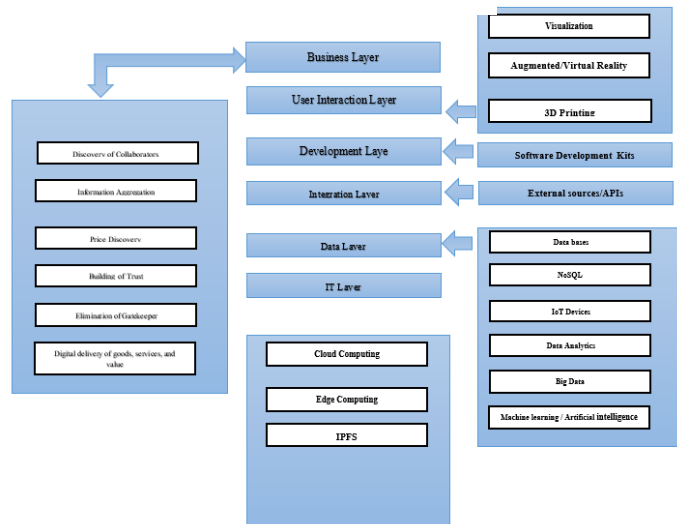
Source: (Igor Ilin, Innovation Hub and Its IT Support: Architecture Model, 2022)

Innovation is among the key drivers of digital transformation that facilitate the creation of recent technology and digital solutions to enhance business operation and efficiency. The innovation ecosystem players, effective digital transformation relies on the collaboration of universities, technology firms, government departments, and research centers. The players facilitate the creation of innovative digital models by technology transfer and reciprocal technological development. Technology innovation, venture capital and startup capital continue to be key in spurring digitalization, bringing closer the coming of AI-enabled platforms, applications, and advanced data analytics solutions.

There are different determinants of success for digital transformation projects. Depending on the digital platform requirements and digital platform development phases, system integration, performance, and security are the most critical determinants of success. Security is given top priority because stable digital platforms require robust defenses against data breaches and cyber-attacks, System performance also becomes imperative to enable smooth digital operations, and platforms have been compelled to perform under high loads and real-time processing without breaks. The interoperability of the digital platform determines success, where businesses require platforms to interlink with internal as well as external systems in terms of business continuity. All these culprits have a well-structured and well-

organized digital environment for effective digital strategies (Igor Ilin, Innovation Hub and Its IT Support: Architecture Model , 2022)

Figure 8: Digital Platform Architecture



Source: (Igor Ilin, Innovation Hub and Its IT Support: Architecture Model, 2022)

Upcoming trends in digital transformation are focused on the increased dependency on sophisticated technology to advance digital platforms and provide improved user experience. The written account of digital platform architecture focuses on serious trends such as undertaking artificial intelligence, cloud computing, and big data analytics to assist organizations in exploring more effective decision-making strategies as well as achieving efficiency. Emerging technologies have a crucial responsibility of ensuring security and openness in digital platforms. The other trend is more focus on inter-market platform utilization and employment of scalable cloud-based technologies in order to enable businesses to respond rapidly to market shifts and create competitive differentiation. (Igor Ilin, Innovation Hub and Its IT Support: Architecture Model , 2022)

2.4 Digital tools on human resources management

The integration of digital tools in Human Resource Management (HRM) has revolutionized traditional practices to enhance greater operational efficiency and innovation in organizations. The digital tools influence HR activities like recruitment, performance management, training, and employee engagement.

Human Resource Management Systems play a vital role in streamlining HR processes by gathering employee data, automating administrative tasks, and improving decision-making. Human resources management system facilitates efficient workforce planning, payroll management, and compliance tracking. Computer-based systems such as SAP SuccessFactors, Workday, and Oracle HCM are widely used due to their ability to increase HR productivity. (Michael J. Kavanagh, 2020)

Applicant Tracking Systems (ATS) have transformed hiring by automating candidate screening and improving the speed of hiring. ATS utilizes AI-driven algorithms to compare the candidates' qualifications with the job role requirements, reducing time-to-hire and enhancing the accuracy of the recruitment process. A few of the ATS tools that are utilized by companies and are extremely popular are Greenhouse, Lever, and Jobvite. (Andreas Weigert, 2019)

Performance management has also been improved by the development of performance management software and 360-degree feedback software. These computer-based systems enable organizations to set targets, track progress, and provide feedback in real-time, encouraging a more dynamic and responsive performance from workers.

Training and development initiatives have adopted digitization in the form of Learning Management Systems (LMS) and virtual classrooms. These media provide remote access to training material and courses and reach a geographically and diversely located workforce.

Table 2: Online courses, remote training, and other digital resources for employee learning and skill development.

Online courses, remote training, and other digital resources for employee learning and skill development.		
Resource type	Advantages	Disadvantages
Online courses	<ul style="list-style-type: none"> • Accessibility from anywhere, anytime. 	<ul style="list-style-type: none"> • Self-motivation for independent • Learning may be challenging.
	<ul style="list-style-type: none"> • Flexibility in choosing the time and pace of learning. • Ability to learn at one's own pace and schedule. • Interaction with other students and instructors. 	<ul style="list-style-type: none"> • Finding quality courses can be difficult. • It can be expensive.

	<ul style="list-style-type: none"> • Possibility to receive a course completion certificate. 	
Remote training	<ul style="list-style-type: none"> • Accessibility from anywhere, anytime. • Flexibility in choosing time and location for training. • Interaction with other training participants. • Possibility of receiving a training participation certificate. 	<ul style="list-style-type: none"> • Self-motivation for independent learning may be challenging. • Finding quality training programs can be difficult. • Can be expensive
Digital learning platforms	<ul style="list-style-type: none"> • Accessibility to a wide range of educational materials. • Ability to personalize learning for individual employees. • Ability to track progress in learning. • Ability to receive feedback from instructors 	<ul style="list-style-type: none"> • Finding quality educational materials may be challenging. • Can be expensive

Source: (Zhosan, 2023)

These tools allow companies to automate and streamline various activities of personnel management. Other digital technologies such as learning management systems, performance management software, and employee engagement platforms are also gaining popularity. These technologies allow companies to streamline the efficiency of personnel management and talent acquisition. Electronic equipment usage in Ukrainian companies has various advantages. It allows companies to increase workers' productivity and efficiency of HR processes; strengthen data-driven decision-making; improve workers' involvement; customize the development of employees; and make recruiting and onboarding easier.

However, there are some pitfalls of using digital tools as well. Companies have to consider confidentiality and security of data, avoidance of digital fatigue, employee health, building employees' digital literacy, digital tools' compatibility with existing systems, and avoidance of the danger of bias in decision-making from data. Companies that can effectively use digital tools gain a competitive edge in talent acquisition, talent retention, and talent development.

It must be mentioned, though, that the pace of adoption of digital means in Ukrainian companies lingers a bit behind the global trends. Gartner data indicate that the penetration of digital tools among businesses worldwide, as of 2022, stood at 85%. (Zhosan, 2023)

According to (Marler, 2020), HRIS evolution has realigned the human resource management function as a strategic partner by saving time because of administrative purposes at the cost

of high-added-value activities toward organizational objectives. The implementation of such information technologies is required, and that calls for change among the HR practitioners by acquiring command over such new emerging technologies to contribute toward human capital management and organizational competitiveness.

Digital technology has revolutionized human resource management (HRM) to the maximum degree by maximizing recruitment, onboarding, performance management, employee engagement, and training.

- Recruitment is maximized through the use of applicant tracking systems (ATS), online job boards, and social media to enable organizations to attract top talent.
- Onboarding is maximized through e-learning modules and virtual training to enable new hires to integrate conveniently.
- Continuous monitoring, data analysis, and real-time feedback underpin performance management to assist managers in effective goal setting and appraisal of performance.
- Employee engagement is facilitated through collaboration tools, computer communication, and reward schemes.
- Staff development and training have been transformed through internet-based learning systems with adaptable and customized opportunities for building skills.

On the whole, technology has computerized HRM, rendered it data-driven and people-focused, and has the effect of providing better workforce management.

Table 3: Digital tools in human resource management.

Digital tools in human resource management.						
Digital Tool in HRM	Benefits	Challenges	Recommendations	Advantages	Disadvantages	Application
Applicant Tracking Systems (ATS)	Streamlined recruitment, improved candidate tracking	Data privacy concerns, potential bias	Develop clear data privacy policies, regularly audit and update	Efficient candidate management, timesaving	Bias in algorithms, need for ongoing monitoring	Recruitment, Candidate Management
Online Job Boards	Increased visibility, broader candidate pool	Integration challenges, potential for misinformation Ensure seamless integration with ATS, verify	Ensure seamless integration with ATS, verify information accuracy	Wider reach, diverse talent acquisition	Reliance on external platforms, potential for irrelevant applications	Recruitment, Talent Acquisition

		information accuracy				
Social Media Platforms	Enhanced employer branding, diverse recruitment channels	Privacy issues, need for social media policies	Develop and communicate social media guidelines, train HR on compliance	Cost-effective branding, real-time interaction	Risk of unprofessional behavior, time-consuming	Employer Branding, Recruitment
Learning Management Systems (LMS)	Personalized training, easy tracking of learning progress	Resistance to change, potential for technical issues	Provide comprehensive training, offer ongoing support	Scalable training, consistent learning experiences	Initial setup costs, content maintenance	Employee Training, Development
Performance management software	Improved performance tracking, more effective appraisals	Employee resistance, potential for bias	Communication benefits, ensuring transparency in performance criteria	Objective performance assessment, data-driven insights	Employee skepticism, potential for subjectivity	Performance Management, Appraisals
Employee Engagement Platforms	Increased employee satisfaction, better communication	Digital fatigue, data privacy concerns	Digital fatigue, data privacy concerns	Enhanced workplace culture, real-time feedback	Overreliance on technology, resistance to constant feedback	Employee Engagement, Communication
HR Analytics Tools	Informed decision-making, workforce trend analysis	Data security risks, potential misinterpretation	Train HR staff on data analysis, establish clear data access protocols	Strategic workforce planning, predictive analysis	Skill gaps in HR staff, potential for misreading data	Strategic HR Planning, Decision Support
Benefits of Digital Tools in HRM	Increased efficiency, data-driven decisions, enhanced engagement	N/A	N/A	Streamlined processes, improved strategic focus	Initial implementation costs, dependency on technology,	HR Management strategic planning

Challenges of Digital Tools in HRM	Data privacy concerns, digital fatigue, integration issues	N/A	N/A	Improved efficiency, potential for innovation	resistance to change, ongoing maintenance	Various HR functions
Recommendations for Implementation	Clear strategy, HR involvement, employee training, continuous evaluation	N/A	N/A	improved workflow, better ROI	Initial time investment, ongoing monitoring	General HR practices

Source: (Zhosan, 2023)

The table provides an in-depth description of digital tools applied in Human Resource Management (HRM). The details of a tool, its strengths and weaknesses, tips for a successful rollout, as well as its strengths, weaknesses, and usage limit appear under each section. General sections have the general strengths and weaknesses of digital tools applied in HRM, as well as tips for a successful rollout.

HRM digital technologies are revolutionizing the way organizations interact with their employees. Incorporating digital technologies into various HR processes leads to greater effectiveness, accuracy, and overall performance. For instance, the recruitment process is controlled by applicant tracking systems, and performance management software ensures fair performance appraisals.

The digital technologies also support improving better internal communications through social networking websites and intranet sites.

Human resource data management information systems enable maintaining and processing employees' information with security and confidentiality requirements. Learning and employee development rise through electronic platforms offering customized and accessible web-based learning. Nevertheless, more digital capability leads to problems too. That the data are being held confidential and secure, workers' digital exhaustion is being taken care of, and training on employing new tools are pressing matters. A viable plan for using digital tools must be formulated, HR staff must be consulted, training and guidance must be provided for successful transfer and having in mind ethical concerns and examination of the

effectiveness of such tools from time to time ensure proper and successful usage of digital technologies in HRM.

2.5 The importance of Digitalization HRM Optimization

The literature has spoken about how digitalization helps to improve the performance of the organization, minimizes HR procedure, and benefits employee well-being significantly. Digitalization of HRM transforms traditional methods by processing back-office processes and streamlining recruiting and decision-making with data. Such transformation allows HR practitioners to participate in strategic plans, workforce planning, and talent management that subsequently bring greater efficiency and competitiveness. (Fadoua El Hajaji El Idrissi, 2021)

According to (Samir, 2024) a conceptual model is established, highlighting the interaction between digitalization, performance management, and HR governance. His premise is that the introduction of digital tools to HRM needs to have a strategic method of introducing them in a way in which the highest effect is generated, where digital HR strategies need to be connected to corporate goals in general. Similarly, (Vaidya, 2019) analyzes the effectiveness of digitalization in implementing HR policy based on the observation that even though digital HR systems enhance the efficiency of work, organizational problems arise in dealing with employee resistance, threats to data security, and the need for continued skills development. Other studies accentuate the transformational impact of digitalization on office life and employee experience. (Wafae Jarachi, 2022) describes how technologies in HR enhance continuous learning, career development, and flexibility within a continuously shifting labor market. They accentuate how digital HRM fosters employee engagement through tailored career paths, machine learning-based training frameworks, and instantaneous performance feedback processes. (Sakib., 2023) Shows the application of HR analytics in succession planning, talent acquisition, and forecasting workforce in their digital HRM practices research. The scholars also refer to the regulation and ethics dimensions of digital HRM. opines that organizations need to create effective policies for addressing data privacy, algorithmic decision-making, and digital workplace ethics. The need for an equilibrium approach in embracing technological innovation and human-centered HR practices in maintaining employee trust and organizational culture. (David Bruce Audretsch, 2024) Based on these authors, several critical steps are suggested to promote the digitalization of HRM:

- ✓ Unveiling the application of AI-driven HR analytics for enhanced talent management.
- ✓ Cloud-based HR platforms for accessibility and enhanced operations.
- ✓ Fostering digital literacy training to upskill employees and demote resistance.
- ✓ Develop data protection models to integrate with privacy legislation.
- ✓ Adopting agile HR practices to integrate digitalization with evolving business needs.

Digital HRM is the hub of technology-facilitated solutions for every human resource activity, its capacity to lead transformation, enhance employee experience, and build data-centered HR. Essentially, as much as digitalization enhances HRM, there is a little investment to be placed on the side of the organization so that they can overcome technology, ethical, and strategic limitations while fighting to benefit from its long-term dividends. (David Bruce Audretsch, 2024)

Section 03: Recruitment

This section focuses on the concept of recruitment as a fundamental component of human resource management. It aims to define recruitment, outline its key objectives, and examine its strategic importance within organizations. By exploring traditional and modern recruitment methods, this section provides the necessary theoretical foundation to better understand how recruitment practices are evolving in response to organizational needs and external influences, including digital transformation.

3.1 Definition and evolution of recruitment in the digital era

Effective recruitment is critical to an organization's success. If there is any truth in that well-worn "people are an organization's greatest asset," then it would seem obvious that close attention should be paid to ensuring that:

- Recruitment processes are robust.
- Job descriptions and person specifications are clear and up to date.
- Selection criteria are clearly defined and understood.
- Panel members are trained in the knowledge and skills required to sift applications and interview candidates effectively. (Stephen amos, 2020)

Recruitment is defined as a set of activities for an organization to catch the attention of job applicants that have the abilities needed to help the organization achieve its objectives and

goals. The recruitment process includes examining the necessities of work, drawing employees to that occupation, screening and selecting candidates, contracting, and coordinating the new employee to the association. Also, the HR department is responsible for finding the right person or best qualified candidate for the post an organization needs (LABPontanesi, 2021)

Recent studies (Fantino, 2021) indicate that recruitment is an essential human resources activity, with the aim of finding a candidate who matches the company's needs. It comprises several stages: the search, selection, hiring, and integration of candidates. This is a strategic process, as it impacts company performance and internal and external relations. According to (Elena Zavyalova, 2022), the impact of digitalization on human resources management is primarily reflected in the adoption of digital tools aimed at automating and improving personnel management processes. These tools, which include online recruitment platforms, enable companies to streamline their human resources practices, optimize talent management, and improve employee experience. However, The integration of social media and digital channels has grown exponentially, but traditional word-of-mouth is limited to social networks, often personal, rather narrow and confined, whereas word-of-mouth on social media has a reach on a global network since Internet users interact and disseminate information and statements that are not controlled by the service; they participate in this situation in building online reputations, so it is all about the power of stakeholders sharing all kinds of content. (Nesrine, 2021)

Previously, recruitment was a long and demanding process, involving a high degree of human intervention at every stage, from the drafting and distribution of job offers to the final selection of candidates. This method required manual follow-up of applications, multiple interviews, and in-depth analysis of profiles, all of which could lead to lengthy delays and excessive costs for companies. (Nejla JBARA, 2023) However, the scope of recruitment and selection is very wide, and it consists of a variety of operations. Resources are considered the most important asset to any organization. Hence, hiring the right resources is the most important aspect of recruitment. Every company has its own pattern of recruitment as per their recruitment policies and procedures.

The scope of recruitment and selection includes the following operations:

- Dealing with the excess or shortage of resources
- Preparing the recruitment policy for different categories of employees
- Analyzing the recruitment policies, processes, and procedures of the organization
- Identifying the areas where there could be a scope of improvement

- Streamlining the hiring process with suitable recommendations
- Choosing the most suitable process of recruitment for effective hiring of resources.

Any organization wants its future to be in good and safe hands. Hence, hiring the right resource is an especially important task for any organization. (Rajyalaxmi, October 2023)

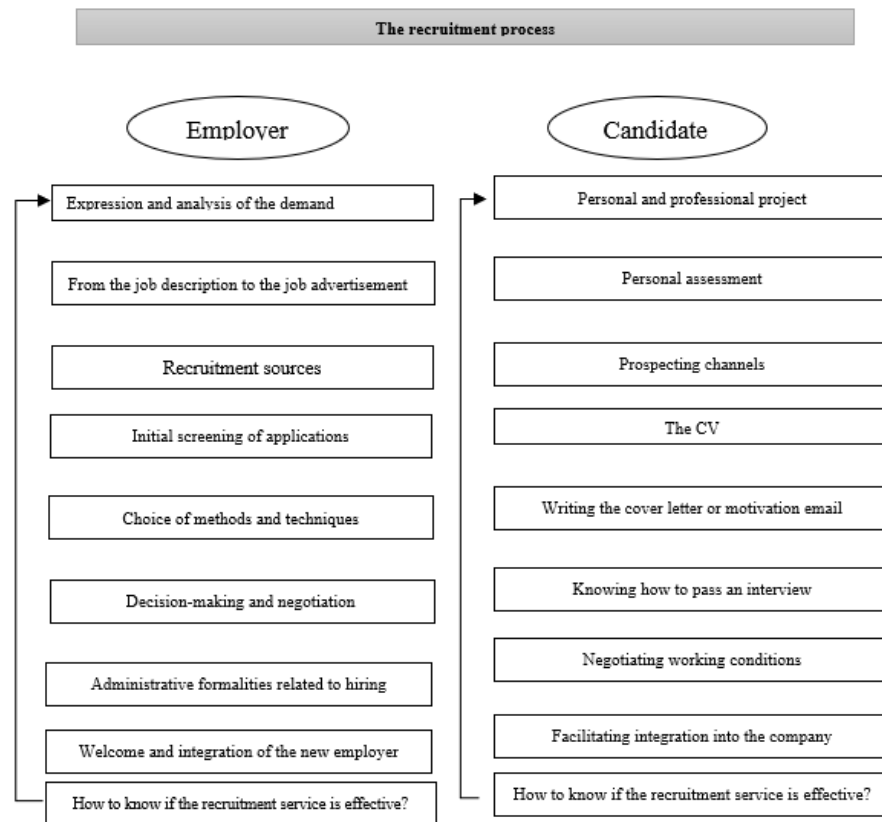
With the rise of digitalization, companies are now relying on digital platforms, professional social networks, and specialized software to automate several stages of the process. These tools make it possible to publish job offers more quickly, collect and filter applications, and interact directly with applicants. One of the main advantages of e-recruitment is the wider distribution of job offers, reaching a larger and more diverse audience. What is more, applicant tracking systems (ATS) facilitate the sorting of CVs according to predefined criteria, reducing the time spent pre-selecting candidates (racha, 2022). According to (lessoued, 2024), the integration of digital tools has revolutionized recruitment practices within SMEs. The automation of certain stages, such as virtual interviews, online tests, and CV analysis using artificial intelligence (AI), means that applications can be processed faster and more accurately. This modernization helps companies to select talent more efficiently while reducing the time and resources dedicated to this task. (Sara Zine El Abidine, 2021) has conducted a qualitative study using interpretive logic on the role of digital in attracting potential talent. Concluding that, more than ever before, companies need to differentiate themselves and capitalize on their employer brand to attract the best talent. To do this, they need to offer an attractive, fulfilling environment with positive value and establish a remarkable candidate experience that will engage potential candidates and draw them in subtly. Attracting the best candidates is one of the major strategic challenges and central concerns of human resources departments, as they enable companies to acquire the talent that will make them successful now and in the future. Science, the dynamics of digital recruitment, highlights how the integration of digital technologies into the hiring process can optimize and automate several essential steps. However, it also demonstrates that digital recruitment is not simply an automated process but a subtle blend of technological innovation and human relations. The hybrid model it advocates, combining digital tools and human interaction, appears to be the ideal solution for revolutionizing recruitment practices for both large corporations and SMEs. This approach not only attracts and retains the best talent but also guarantees a positive and inclusive candidate experience. The challenge for companies lies in their ability to fully exploit the advantages of digitalization while preserving the human aspect, which remains at the heart of successful recruitment. (Huart, 2024) Recent studies (Zakia NOUIRA, 2021) indicate that this evolution in recruitment

practice via social networks has created modern technologies. We could see that many recruitment managers use applications like LinkedIn and Indeed to search for candidates' information and to identify future talent. This is known as "sourcing" and refers to the act of targeting and finding the best candidate for a position. Regarding the paper format, recruiters rarely use it, and many companies no longer even accept applications in this format, preferring online submissions. Nowadays, candidates most frequently apply by e-mail or directly through the candidate space on the company's websites.

3.2 The Recruitment processes

Recruitment can be defined as "searching for and obtaining a pool of potential candidates with the desired knowledge, skills, and experience to allow an organization to select the most appropriate people to fill job vacancies against defined position descriptions and specifications. while recruitment and selection refer to "the chain and sequence of activities pertaining to recruitment and selection of employable candidates and job seekers for an organization. (Thiruvengatraj T.R., 2018) Which presents that recruitment is the major function of the human resource department and the first step towards creating competitive strength and strategic advantage for the organizations. In an ideal recruitment program, individuals responsible for the recruitment process must know how many and what types of employees are needed, where and how to look for individuals with the appropriate qualifications and interests, what inducements to use or to avoid for various types of applicant groups, how to distinguish applicants who are unqualified from those who have a reasonable chance of success, and how to evaluate their work. The recruitment process involves a systematic procedure from sourcing the candidates to arranging and conducting the interviews and requires many resources and time (Rajyalaxmi, October 2023). It is also defined as a process of searching for prospective employees and stimulating and encouraging them to apply for jobs in an (Thiruvengatraj T.R., 2018) A general recruitment process is as follows:

Figure 9: The recruitment process

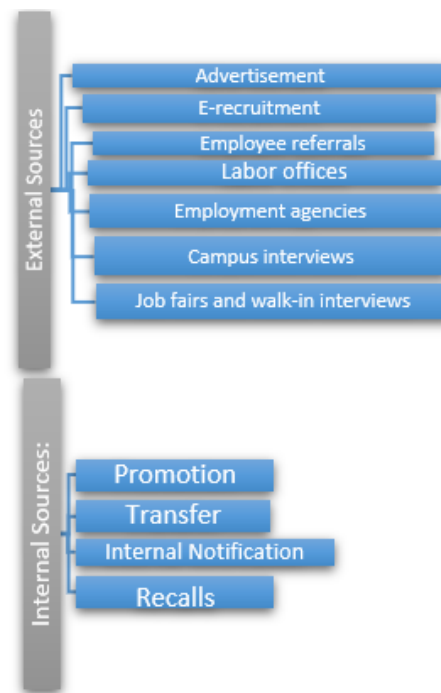


Source: (hennequin, 2014)

3.3 Source of Recruitment

According to (Latif, 2021), many employers use a variety of recruitment sources. Other researchers have argued that different recruitment sources reach applicant groups that may differ on characteristics such as motivation or perceived job mobility. Other researchers said that the sources of employees can be classified into two types, internal and external. Besides, the recruitment sources are linked to the organizational activities, such as the performance of employee turnover, employee satisfaction, employee wishes, and the commitment of the organization. Basically, there are two types of sources of recruitment. These are given below:

Figure 10: source of recruitment



Source: (Latif, 2021)

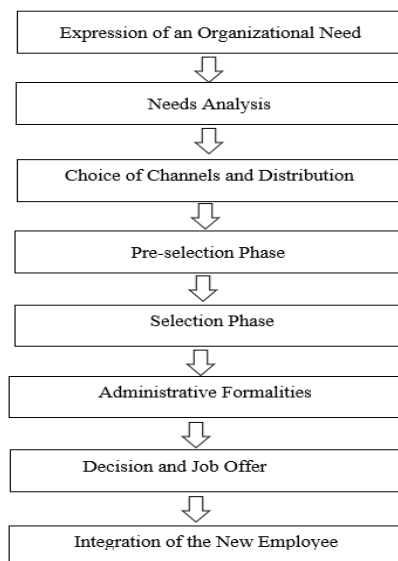
According to (Latif, 2021), internal sources of recruitment mean hiring people from within the organization to fill a position. An organization can hire internal candidates through job postings or rehiring former employees, through succession planning, through the internet, advertising, employment agencies, temporary staffing agencies, and other alternative staffing methods. Recent studies (mecherf, 2024) indicate that companies utilize internal and external recruitment strategies to replace departing employees. Internal recruitment entails the recruitment of employees from within the organization via promotion or transfer of existing employees. It promotes employee loyalty, reduces time to hire, and conserves hiring costs. This approach fosters employee loyalty, reduces onboarding time, and minimizes hiring costs. Internal recruitment may be conducted by internal notification of vacancies, talent programs, or succession. External sources involve the hiring process of candidates externally from an organization to perform labor in the organization in vacant seats. As illustrated by Bardwell and Brown. (Latif, 2021) On the other hand, external hiring involves the recruitment of workers outside the company using various means such as job advertisements, staffing agencies, employee referrals, and professional connections. External hiring allows firms to acquire new thoughts, specialized information, and

heterogeneity of ability. External recruitment, in contrast, tends to require additional resources like training and time for bringing on board. (mecherf, 2024).

3.4 Stages of recruitment process

The recruitment process comprises eight essential phases that must be strictly followed to ensure its effectiveness. Before initiating the recruitment process, a preliminary stage is required. This stage involves identifying the organization's quantitative or qualitative human capital needs over the medium and long term. This first step describes the recruitment process as a sequence of eight linear steps. Empirical observation shows that recruitment focuses more on candidate selection and selection tools at the expense of other steps, although they have a vital role to play in making the recruitment process efficient and in maintaining costs as low as possible. (Nejla JBARA, 2023) The recruitment process with eight important steps is as follows.

Figure 11: The Different Stages of Recruitment



Source: (hennequin, 2014)

Recruitment is an official process whereby the company selects the best fit. This keeps the best practice possible for maximizing recruitment to the minimum and incorporates the candidate accordingly. Digitalization automated some processes due to automation (video interview, human resources chatbot, CV sort, etc.).

According (mecherf, 2024), recruitment is the process of activity carried out with the aim of finding a candidate that can fulfill the requirements and qualifications required to carry out a particular job in a particular organization. Modern recruitment, however, involves systematic stage procedures to recruit and choose the best applicant. The procedure is:

3.4.1 Workforce needs assessment and plan.

Workforce planning allows one to identify future talent needs and coordinate recruitment with business objectives. (mecherf, 2024)

3.4.2 Job advertisement and candidate sources

Once the organization has completed job descriptions, defining key responsibilities, required skills, and qualifications. Organizations use different source channels, job websites, social media platforms, recruitment agencies, and professional network websites, to source the best candidates. (mecherf, 2024)

3.4.3 Application shifts and shortlist

The initial screening is conducted by sifting through applications to shortlist candidates and the job requirements. Most organizations employ applicant tracking systems (ATS) to streamline this and make it more efficient and unbiased. (mecherf, 2024)

3.4.4 Initial interviews and tests Shortlisted.

candidates are filtered through aptitude tests, psychometric tests, and technical tests. These tests provide the candidate's strengths, personality, and abilities. Initial interviews, either video interviews or telephone interviews, are conducted to test work motivation and culture fit. (mecherf, 2024)

3.4.5 Detailed interviews and selection

After clearance from the preliminary screening, applicants are invited for manager interviews, and behavior tests assist in deciding on the suitability of the candidate for the role. In certain cases, organizations apply panel interviews, assessment centers, or job simulation to subject skills to more scrutiny. (mecherf, 2024)

3.4.6 Final choice and offer negotiation.

The selection panel, after the interview and evaluation process, makes the choice. It has to provide formal employment, including salary information, benefits, and conditions of employment. (mecherf, 2024)

3.4.7 Integration and onboarding

Recruitment does not end with the employment of an employee. A successful onboard candidate facilitates the new employee's integration well into the firm. Onboard organizational design courses and continuous feedback systems are accountable for better

employee retention and productivity. (mecherf, 2024) We can refer to this process in the following diagram:

Figure 12: The Different Stages of Modern Recruitment

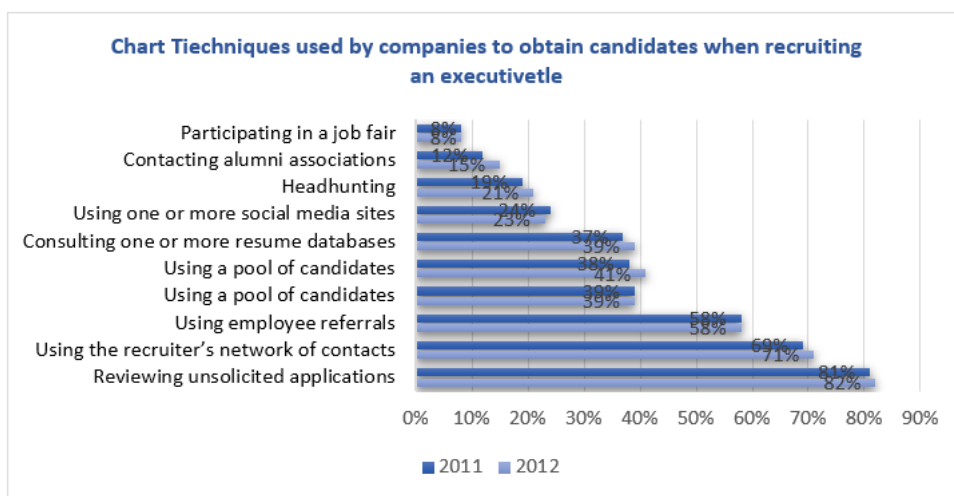


Source: (mecherf, 2024)

3.5 The Different Recruitment channels

The literature distinguishes two major types of recruitment channels: traditional and modern channels. However, there is no clear consensus in empirical research regarding the relative effectiveness of these two approaches (Syed Iradat Abbas, 2021). It is also increasingly recognized that the evolution of the labor market and digital transformation have significantly alter recruitment practices, thereby influences the strategic choices of organization (Gupta, 2019) .

Figure 13: Executive recrutement Methods



Source: (hennequin, 2014)

The chart considers various sources of recruitment, grouping them as new and old. It illustrates the dynamic labor market and how digitalization affects recruitment. The reasoning is backed by empirical evidence that attracts executive candidates.

According to (Nikolaou, 2020) Modern recruitment practices, namely the use of social media and online platforms, are more sensitive and provide greater access to talents. These new practices raise ethical concerns, notably discrimination and algorithmic bias. The idea of digitalization in recruitment is centered on the activities of technologies in changing the selection process, particularly job posts' customization and automatization of early-stage candidate filtering. (Kristina Potočnik, 2021) ,The sole difference between past and present methods of recruitment is the application of digital technology and artificial intelligence; past employment advertisements, labor agencies, and insider word of mouth remain prevalent (Syed Iradat Abbas, 2021), while web recruitment websites, algorithmic matching, and crowdsourcing sites are shaping attraction practices as well as talent selection. This difference brings more efficiency and speed. It also requires corporations to overcome technological and organizational problems created by modern recruitment practices. (Gupta, 2019)

3.5.1 Traditional recruitment:

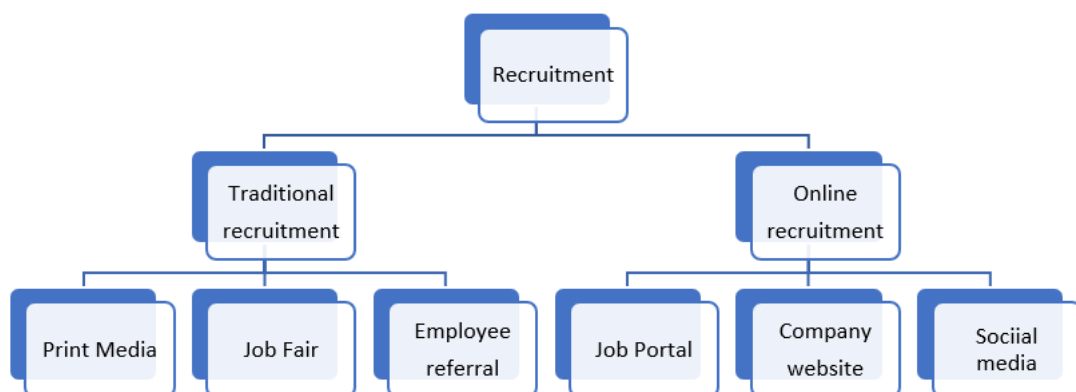
Print Media: Newspaper, Magazine, and trade journal job advertisements. Job fairs: As an exhibitor and even hosting career events.

Employee Referral: Utilizing employees to recommend friends. (hennequin, 2014)

3.5.2 Online recruitment:

Job Portals: Listing vacancies on websites such as LinkedIn, indeed, Glassdoor, and others. (hennequin, 2014)

Figure 14: Type of recruitment Methods



Source: (hennequin, 2014)

3.6 The impact of digitalization on recruitment

The trend of changing technology affects different sectors, including human resources management. (Paramita, Digitalization in talent acquisition, 2021) However, the use of digital technology transforms human resource management, particularly in the areas of recruitment and selection. This development adds significance in light of the nature of human capital, as competitive advantage shifts from tangible to intangible assets. (Chaitanya Kalidindi, 2024)

Recent studies (Monika, 2023) indicate that HR professionals mentioned the benefits and the advantages of these tools. Social media offers the possibility to reach a large audience and to send out authentic messages, all at low costs. Digital recruitment, driven by Technological advancements and automation have revolutionized hiring practices, resulting in increased efficiency and effectiveness. Artificial intelligence (AI) significantly impacts the key recruitment metrics such as time to fill a position, processing time for new hires, cost per hire, quality of hire, offer acceptance rate, and reduction of potential biases.

The integration of data and analytics empowers recruiters to make informed, data-driven decisions, facilitates the assessment of strategies, process optimization, and ongoing improvement efforts.

According to a study by (Chaitanya Kalidindi, 2024), digital tools and technology successfully outshine the recruitment process, which also attracts more talents and provides a better candidate experience. Most importantly, the hiring process is where a candidate begins to learn about their employer and organization. Therefore, the candidate can have more insights into the company's culture. Due to the positive experience in the recruitment process, the employees who are hired have a prominent level of commitment to the work.

The integration of data and analytics empowers recruiters to make informed, data-driven decisions, facilitating the assessment of strategies, process optimization, and ongoing improvement efforts. (Mohammed, 2024) The evolution of social media usage has brought changes in both recruitment campaigns and in the way, employers choose to approach future candidates for a job role. Current information and communication technologies have allowed human resources professionals to improve their activities, specifically when concerning recruitment and selection. (Carmen Novac, 2024)

Social media has become a trend to offer to initiate a professional discussion with potential candidates, although the final employment discussion is led in a safer context in order to build a relationship with the candidate. (Nesrine, 2021) Furthermore, the digital

transformation in recruitment presents both opportunities and challenges. While e-recruitment offers increased efficiency, a broader talent pool, and enhanced data analytics, it also raises concerns about data privacy, technological proficiency, and potential biases. Organizations must navigate these challenges carefully to fully leverage the benefits of online recruitment. Future research should focus on developing solutions to mitigate these challenges and further enhance the effectiveness of digital recruitment strategies. (Shukla, 2024)

Chapter 02: Methodological and organizational framework

Section 01: Presentation of Danone Djurdjura Algeria

In this section, the study setting will be presented through an overview of Danone Djurdjura Algeria. As the field of investigation for this research, Danone Djurdjura serves as a relevant case study to explore the dynamics of corporate practices within the Algerian agri-food sector. The section will cover the company's historical development, strategic foundation, and organizational values, offering essential context for the analysis that follows.

1.1 Origins and Global History of Danone :

Danone's global journey began in the early 20th century with Isaac Carasso, a physician based in Barcelona, who in 1919 founded the Danone brand. Concerned with the widespread intestinal infections among Spanish children, Carasso introduced yogurt—widely recognized for its health benefits in the Balkans—as a nutritional solution. His initiative marked the beginning of a health-focused enterprise that would eventually become a global leader in the food industry. A pivotal moment in Danone's history occurred in December 1972 with the merger of BSN and Gervais Danone, bringing together two visionary figures: Daniel Carasso, son of the founder, and Antoine Riboud, an innovative businessman influenced by the social movements of May 1968. Riboud's landmark speech in Marseille that same year laid the foundation for Danone's dual commitment to economic performance and social responsibility. This unique vision has continued to guide the company through decades of growth, innovation, and global expansion.

1.2 Founding of Danone Djurdjura Algeria :

Danone Djurdjura Algeria was established in 2001 as the result of a strategic partnership between the French multinational Danone and the Algerian dairy company Djurdjura, founded by the Batouche family in 1983. Djurdjura had demonstrated consistent and sustained growth over 23 years, making it a strong local player in the dairy sector. The collaboration marked Danone's commitment to expanding its footprint in North Africa while contributing to the development of the Algerian agri-food sector. Through this joint venture, Danone brought its international expertise in fresh dairy production and quality control, while benefiting from Djurdjura's deep-rooted understanding of the local market. The foundation of Danone Djurdjura exemplifies a successful integration of global vision and local innovation, contributing to the availability of nutritious and high-quality dairy products across Algeria.

1.3 Mission, Vision, and Core Values of Danone :

Danone's corporate philosophy is encapsulated in its mission: "Bringing health through food to as many people as possible." This mission reflects a deep-seated commitment to human well-being and sustainable development. At the heart of Danone's operations lies a humanistic value system that emphasizes responsibility, respect, openness, and inclusivity. The company prioritizes health, safety, and environmental protection, fostering a corporate culture where ethics and empathy guide everyday decisions. Innovation, passion, and courage drive Danone's approach to market leadership and agile decision-making. These core values are translated into practice through a set of behaviors that promote teamwork, people-first leadership, simplicity, accountability, and proximity to consumers. Danone's dedication to continuous improvement and stakeholder collaboration positions it as a model for socially responsible business in the global food industry.

Section 02: General research methodology

In order to analyze how digital platforms contribute to improving the recruitment process, particularly through the use of the ICIMS platform at Danone, we adopted a mixed methodology based on two complementary approaches focus on measurable KPIs such as time to fill, offers tangible proof of performance improvement and qualitative interviews offer data about users' experience, highlighting aspects such as process smoothness, transparency, and benefits of tool aggregation. Therefore, the qualitative approach allows for an in-depth understanding of these human and organizational aspects, which are not always captured through quantitative data. At the same time, incorporating quantitative elements (such as recruitment statistics or performance indicators) provides a broader view and helps validate qualitative findings. Therefore, a mixed-methods strategy was adopted to combine the depth of qualitative insights with the objectivity of quantitative analysis, ensuring a more complete and reliable interpretation of the research problem. Using both methods, the research not only tracks results but also accounts for the reasons behind these results, offering an integrated picture of how digital tools enhance recruitment processes:

A quantitative study based on the analysis of secondary data related to digitization in recruitment was then analyzed using Excel to calculate the indicators and compare their measurements.

A qualitative study through conducting semi-structured interviews of 05 employees, chosen due to their direct exposure to the ICIMS system. These interviews will assist us in filling

gaps left by the quantitative study. Data collection and analysis will allow us to explore the effect of digitization on recruitment effectiveness and determine what influential factors lead to enhance the recruitment process being more difficult.

Data were systematically coded and categorized into meaningful patterns. To increase the reliability of data, anonymous interviews were conducted to allow freedom of speech, and the findings based on qualitative and quantitative data were cross-checked using triangulation. The process of verification provided consistency and increased the credibility of the findings.

2.1 Quantitative approach

We employed a quantitative approach to obtain a comprehensive view of the impact of digitalization on the recruitment process. This method allows for the objective measurement of the performance related to the use of digital tools, particularly the ICIMS platform at Danone. In practice, we used secondary data gathered from reliable sources which are internal company documents and performance indicators related to recruitment effectiveness before and after the implementation of the ICIMS platform. The data analyzed included, among other metrics, the average time-to-hire, and satisfaction indicators from recruiters. This approach enabled us to assess the effects of digitalization on recruitment performance.

2.2 Analysis strategy

We found quantifiable positives in recruitment digitalization by extracting insights from data with a focus on key indicators such as the general reduction in time to fill by simplifying validation processes. In order to analyze the data and identify trends and correlations between the studied variables, we used Excel, which allowed us to process the data, deepen our comparison, and obtain accurate and reliable results.

2.3 Qualitative approach

Following the works collected in the literature review (Martinez D. R., 2020), and in order to establish the impact of digitization on recruitment efficiency, we interviewed five Danone employees who are employed in recruitment and utilize the ICIMS platform were provided with semi-structured interviews. The method was meant to get in-depth information regarding their experiences and perceptions of how digitalization influences the

effectiveness of the recruitment process. Thematic analysis of the interviews Carried out to look for significant patterns and themes. In addition, we analyzed secondary data, such as internal reports, to complement and validate the interview findings, thus presenting an in-depth insight into the implications of digitalization.

2.4 Sampling Method

A non-probability sampling method based on the relevance of selected profiles that are directly involved with ICIMS. Thematic coding utilizes to analyze the qualitative data, through which common themes of user experience, perceived effectiveness and system benefits were determined.

2.5 Interview Guide

Semi-structured interviews are used to conduct predefined guides that explore main ideas about Danone's recruitment digitalization, specifically the use of the ICIMS platform. The guide includes open-ended questions covering topics such as how people view digital tools in HR, and how it affects hiring effectiveness.

This approach allows the conversation to be fluid while remaining structured in the interviews.

The interviewees were selected intentionally by their occupations and how they interact with the digital recruitment process, such as HR managers, hiring managers, talent managers. This selection enables understanding things from numerous perspectives within the organization. that includes the following questions:

2.5.1 Personal Questions

What is your role at Danone?

2.5.2 Professional Questions

Can you describe how ICIMS facilitates your recruitment process?

For HR ONLY: what is your main use of ICIMS?

What are the key advantages of using ICIMS?

What challenges do you face using ICIMS?

2.5.3 Analytical Questions

Have you noticed any changes in recruitment efficiency since ICIMS was implemented?

In your opinion, how has the ICIMS platform impacted recruitment efficiency?

2.5.4 Interviewees profiles:

Table 4: The list of interviewees conducted.

Interviewee	Activities	Time of interview	Type
Interviewee 01	Human resources business partner- HRBP	20 min	In person
Interviewee 02	Talent & Employer Manager- MENA	15 min	In person
Interviewee 03	Head of Talent & Culture	20 min	In person
Interviewee 04	Human resources business partner- HRBP	30 min	In person
Interviewee 05	Talent & Employer Branding Manager	20 min	In person

Source: prepared by us.

The information collected from the five interviewees was recorded for transcription and coding to ensure proper analysis.

It is important to note that the language used during the interviews was English.

Chapter 03: Results and discussion

Section 01: Results of the research

1.1 Results of the quantitative

We conducted a comparison between the recruitment process before and after the implementation of the ICIMS platform, and we arrived at the following indicators.

Indicators in Short List Delivery time and Time to Fill. We will redefine them first:

1.1.1 Short List Delivery time:

Time allocated by the talent team for sourcing and interviewing phase to send a comprehensive selection of 2 to 5 candidates.

- 2023 (before ICIMS implementation): 3 weeks on average,
- 2024 + 2025 (post ICIMS implementation): 2 weeks on average, median: 12 days.

1.1.2 Time to Fill:

Time passed from opening the position officially in the organization to the finalist accepting the salary offer and signing the letter of hire.

- 2023 (before ICIMS implementation): 2 months on average,
- 2024 + 2025 (after ICIMS implementation): 1,5 months on average, median: 5 weeks.

This revealed a significant decrease in Short List Delivery Time, from an average of three weeks to two weeks, and Time to Fill, which decreased from two months to around 1.5 months.

These results are consistent with (Weigert, 2019) argument that e-recruitment software, including ATS platforms and automates administrative processes and shortens recruitment cycles.

A closer analysis reveals that the suggested efficiency gains are not solely the result of the technology but are very much dependent on the effective integration of this technology into existing practices, the digital readiness of human resource personnel, and the existence of a supporting organizational culture within Danone Djurdjura. This leads one to doubt the transferability of these improvements to other Algerian firms that may be less digitally mature, have poor IT infrastructure in their human resource management systems.

Table 5: Full time equivalent and time to fill before the implementation of ICIMS.

Department	Region	FTE Validation (week)	Time To Fill (week)
Marketing	Alger	3	20
Sales	Batna	3	8
Sales	BBA	2	6
Medical	Batna	2	7
Sales	Alger	1	3
Sales	Tlemcen	1	6
Sales	Constantine	1	4
Sales	Msila	1	7
Sales	Biskra	1	8
Sales	Mostaganem	1	6
Sales	El oued	1	11
Sales	Tizi Ouzou	1	5
Medical	Alger	2	9
Supply chain	Alger	2	11
Medical	Alger	2	12
Marketing	Alger	1	5
Medical	Tizi-Ouzou	2	8
Marketing	Alger	3	4
Quality	Alger	2	6
Production	Akbou	3	4
Production	Akbou	3	4
Production	Akbou	3	4
Medical	Oran	2	8
Sales	Setif	1	4
Sales	Sétif	1	4
Sales	Oran	1	7
Sales	Relizane	1	9
Sales	Tipaza	1	6
Sales	Alger	1	4
Sales	Batna	1	7

Marketing	Alger	1	8
Sales	Tiaret /Relizane	1	9
Sales	Tiaret	1	9
Sales	Sétif	1	4
Sales	Bouira/Msila /BBA	1	7
Sales	Oran	1	8
Medical	Constantine	2	4
Sales	Ain defla	1	7
ELN	Chlef	1	9
Sales	Alger	1	4

Source: Excel

Prior to ICIMS adoption The FTE validation process typically took between 1 and 3 weeks with a corresponding time to fill ranging from 3 to 20 weeks depending on the department and region. Notably, certain positions particularly in Marketing and Medical sectors in Algiers and Banta experienced longer time to fill durations and reaching up to 20 weeks. The average time to fill a position before ICIMS implementation was approximately 2 months (about 8 weeks).

Table 6: Full time equivalent and time to fill after the implementation of ICIMS.

Departement	Region	FTE Validation (days)	Time To Fill (week)
Indus	Akbou	3	7
HR	Akbou	1	25
Supply Chain	Tessala	2	5
Sales	Ouargla	4	6
Sales	Ghardaia	3	6
Sales	Alger	2	9
Sales	BBA	2	6
Sales	Mascara	2	7
DBS	Akbou	2	13
Indus	Akbou	2	3
Sales	Jijel	4	6
Sales	El Taref	4	7
Sales	Djelfa	4	7

Sales	Alger	2	6
Sales	Alger	2	6
Supply Chain	Alger	1	4
Indus	Akbou	1	5
Qualité	Akbou	1	4
Sales	Alger	2	4
Sales	Souk Ahras	2	5
Sales	Oran	2	5
Sales	Batna	2	4
Sales	Alger Est	2	3
Indus	Akbou	2	4
C&P	Alger	4	4
Indus	Akbou	2	4
Sales	Alger	2	6
Indus	Akbou	2	5
Supply Chain	Alger	3	5
Indus	Alger	2	5
HR	Alger	1	2
Sales	Alger	2	5
Finance	Alger	2	9
Finance	Alger	2	8
Sales	Tipaza	3	5
Sales	Blida	3	5
Sales	Alger	2	6
HR	Alger	1	2
Indus	Akbou	2	3
Finance	Alger	1	3

Source: Excel

Following the platform's deployment the FTE validation time significantly improved, now expressed in days instead of weeks indicating an acceleration of internal approval processes. The FTE validation duration now ranges between 1 and 4 days. Similarly, the time to fill positions dropped considerably and varying mostly between 2 and 9 weeks.

The average time to fill after ICIMS implementation is reduced to approximately 1.5 months with a median value of 5 weeks.

1.1.3 Comparative analysis of the recruitment process before and after the implementation of ICIMS:

Comparison of Tables 6 and 7 directly shows an effect of the ICIMS platform on recruitment effectiveness: Decrease in FTE Validation Period: Earlier, FTE validation used to be done in 1–3 weeks and now in 1–4 days only, a significant decrease in the internal clearance cycle. Time to Fill Decrease: Maximum of 20 weeks was the time to fill some of the jobs before ICIMS and although after ICIMS the maximum time to fill a job was 25 weeks in one case Akbou, but on average most of the time most of the jobs are filled between 5 to 9 weeks, which shows overall improvement in the effectiveness of hiring. Improve the reduction in validation and filling time between departments (Finance, HR, Indus, Sales) and regions (Oran, Alger, Akbou) reflects the organizational benefits in terms of how pervasive digitizing the recruitment process. Post-implementation measures also reflect lower variation within departments and regions of FTE validation and time to fill in, which represents ICIMS streamlined recruitment procedures throughout the company.

These benefits show that the implementation of ICIMS facilitates the process of recruitment in the HR department. Other elements, such as organizational readiness, worker training, and management support, could have been decisive factors. In addition, wider application of computer systems is accompanied by some additional problems, namely, data security and the potential exclusion of less experienced employees from using computer systems.

These findings are most relevant to the case of the Algerian employment context where recruitment procedures are often criticized as being slow and complicated.

The reduction in time-to-hire is one of the national plans meant to increase access to work and modernize administrative procedures. However, ICIMS's success at Danone will not necessarily benefit all Algerian companies, particularly small and medium-sized enterprises (SMEs), that do not have the necessary technological infrastructure and change management capabilities. As it stands, while evidence points towards an unambivalent advantage to large organizations, an extrapolation to the larger Algerian context.

1.2 Results of the Qualitative Study:

This section presents the findings obtained from the qualitative research conducted as part of this study. Through interviews and in-depth analysis, it aims to highlight key insights, patterns, and perspectives expressed by the participants. The results will be organized thematically to provide a clear understanding of the observed phenomena, contributing to the overall interpretation and discussion of the study's objectives.

1.2.1 Interviewees results:

Table 7: Can you describe how ICIMS facilitates your recruitment process?

Human resources business partner- HRBP	The tool integrates all aspects of talent acquisition and consolidates them in one digital platform allowing for faster and more accurate data tracking and mission management for the talent team as well as giving key insights and info for hiring managers and HRBPs
Talent & Employer Manager- MENA	Digital friendly, more efficient, more visibility, quicker process, accurate data.
Head of Talent & Culture	
Human resources business partner- HRBP	ICIMS facilitates our recruitment process by centralizing the management of applications, which improves the efficiency, transparency, and compliance of our recruitment process.
Talent & Employer Branding Manager	It's one of the best tools to use so we can filter and have a specific status for each candidate and also help me to put people in a pipeline for any of the vacancies we might have for the future.

Source: prepared by us.

Table 8: For HR ONLY: what are your main uses of ICIMS?

Human resources business partner- HRBP.	Managing job offers and onboarding documents.
Talent & Employer Manager- MENA.	Receiving and screening applications.
Head of Talent & Culture.	Managing candidate database
Human resources business partner- HRBP.	Receiving and screening applications
Talent & Employer Branding Manager.	Posting job offer

Source: prepared by us.

Table 9: What are the key advantages of using ICIMS?

Human resources business partner- HRBP.	Faster approval for job posting and allows to track and highlight data in a faster, more efficient way.
Talent & Employer Manager- MENA.	Digital friendly, more efficiency, more visibility, quicker process, accurate data
Head of Talent & Culture.	
Human resources business partner- HRBP.	We can put people in the pipeline for future vacancies and also it always helps me to make sure we are within the SLA of recruitment
Talent & Employer Branding Manager.	ICIMS improves efficiency, transparency, and compliance with the recruitment process.

Source: prepared by us.

Table 10: What challenges do you face using ICIMS?

Human resources business partner- HRBP.	Lack of integration and proficiency from the Hiring Managers.
Talent & Employer Manager- MENA.	People who are not familiar with digital platforms.
Head of Talent & Culture.	Digital literacy for no digital people.
Human resources business partner- HRBP.	There is nothing dedicated specially to the MENA Region so we can extract info about our recruitment progress.
Talent & Employer Branding Manager.	Ensure that all team members consistently use.

Source: prepared by us.

Table 11: Have you noticed any changes in recruitment efficiency since adopting ICIMS?

Human resources business partner- HRBP.	Adopting ICIMS had a direct result on decreasing the time to fill.
Talent & Employer Manager- MENA.	Yes, the workflow is much easier.
Head of Talent & Culture.	more clarity and easy to use.
Human resources business partner- HRBP.	The recruitment process became easier, clear, and organized.
Talent & Employer Branding Manager	ICIMS sends automatic notifications for the distinct stages of the recruitment process

	(currently for the recruitment request stage only).
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Source: prepared by us.

Table 12: In your opinion, how has iCIMS impacted recruitment efficiency?

Human resources business partner- HRBP.	Ensuring fast and transparent communication with internal candidates.
Talent & Employer Manager- MENA.	Helped me with the recruitment efficiency of finding candidates faster, putting some of the people who we will not need in a specific vacancy in a pipeline for other vacancies which is helping us indirectly in any other upcoming vacancies that we might have.
Head of Talent & Culture.	It gave more clarity on the workflows and facilitated the candidate's experience.
Human resources business partner- HRBP.	iCIMS platform has made recruitment faster, more organized, and easier to manage.
Talent & Employer Branding Manager	Increased transparency and visibility for all parties involved in the process

Source: prepared by us.

Section 02: Discussion of the results

There is previous research that suggests digitalization of recruiting processes not only reduces processing time but also enhances candidate experience and allows more collaboration between the stakeholders (Marler, 2020). Against this backdrop, we applied a mixed-methods research design to study the impact of the ICIMS platform on the effectiveness of recruitment in Danone. Cross-analysis between quantitative data (time to fill) and qualitative data (interviews of hiring managers and HR professionals) produced the following main observations.

In considering intra-organizational factors, our research shows that utilization of the ICIMS platform is associated with a decrease in time to fill, thereby supporting speculation regarding the connection between digitalization and agility in human resource activities.

Furthermore, cross-analysis with the qualitative feedback and the quantitative data allowed us to discover that departments with stronger digital capabilities not only recruited faster but also reported satisfaction with the ICIMS platform. This verifies the hypothesis that digital tools alone are not sufficient preparation of the user is key to success.

The quantitative study revealed that after the implementation of the ICIMS at Danone recruitment efficiency improved significantly. The Short List Delivery Time decreased from an average of 3 weeks in 2023 to 2 weeks in 2024–2025 (median: 12 days) while the Time to Fill dropped from 2 months to 1.5 months on average (median: 5 weeks). However, the observed efficiency gains are attributed to the effective integration of ICIMS, the digital readiness of HR teams, and a supportive organizational culture factors that may limit the transferability of these results to less digitally mature Algerian firms. Prior to ICIMS, the FTE validation process took 1–3 weeks, and Time to Fill ranged from 3 to 20 weeks, especially for positions in Marketing and Medical sectors in Algiers and Batna.

This result is attributable to the platform's ability to consolidate all stages of the hiring process, from job posting to onboarding, while delivering verifiable data to facilitate tracking and inform data-driven decisions. Additionally, users reported a considerable rise in internal communication, transparency, and autonomy in managing candidate pipelines.

Regarding the use of hiring managers and their digital competency level, several issues were identified. Data collected through the interviews also emphasized the challenges faced by managers who have lower digital competency, thereby supporting the evidence provided, based on which limited success of digitalization in human resource management was identified when none of the stakeholders possess at least a foundational level of digital

competency.

We had five HR professionals in our sample, of which 80% indicated that ICIMS usage had a direct influence on reducing time-to-fill metrics; however, other respondents stated that clarity and transparency were the most significant advantages realized. It should also be noted that internal organizational factors, such as prior history with digital tools, and departmental culture, played an important role in facilitating or constraining the effective implementation of ICIMS.

2.1 Candidate management

All the respondents concurred that having applications consolidated on ICIMS makes it easier to track candidates, categorize status, and build talent pipelines for future jobs. This is in line with (Sonal Gulati, 2024; Elena Zavyalova, 2022; Kamalakannan, 2024) findings. Compliance and transparency: The interviewees opined that utilization of the platform guarantees adherence to the in-house processes and offers improved visibility into every stage of the recruitment process, thereby minimizing errors or omissions.

2.2 Issues of integration

The issues of integration were the outcome of the platform not being properly customized to meet the distinctive regional needs, and the inconsistent usage by some team members.

Perceived usefulness: The majority of participants found ICIMS easy to use, efficient, and timesaving, thereby enhancing recruitment processes and enhancing communication between human resources and hiring managers.

The encouraging outcome that was being observed was with levels of digital literacy and organizational readiness levels. Though decreased time to post vacancies, platform effect was suppressed by variable take up across various departments. This indicates technology is insufficient in isolation, but organizational training and culture are the drivers of digital achievements. By examining intra-organizational dynamics, our results are that utilization of the ICIMS platform is complementary to the shortening of opening filling times, hence validating hypotheses surrounding the relationship between digitalization and agility in human resource activities. This is, however, non-linear units with higher trained staff and better-developed digital procedures had enhanced performance. This means that investment in digital HR solutions must be complemented by change management initiatives, particularly in countries such as Algeria where digital maturity is highly diverse across industries.

Internal differences explain the disparity in results among teams undertaking similar platforms from these findings, Algerian firms seeking to digitalize their HR activities must not only invest in technology but also focus on digital training, internal alignment, and change management. This process can help replicate the success observed in well-prepared departments in Danone.

This result is due to the ability of the platform to integrate all phases of the hiring process from job posting to onboarding the employee. The users also validated a drastic enhancement in internal communications, transparency, and self-service ability for managing candidate pipelines.

The assessment of recruitment managers' digital ability identified a set of issues. The information derived from the interviews uncovered the challenges encountered by low-digital-capability managers, thereby offering supportive evidence that insufficient digital competency among Algerian HR professionals is one of the main barriers to successful adoption of recruitment technology.

GENERAL CONCLUSION

1. Overview and Summary

This study set out to investigate the impact of digital platforms on the efficiency and quality of recruitment processes, with a focus on the implementation of the ICIMS platform at Danone Djurdjura Algeria. Adopting a mixed-methods approach, we combined quantitative analysis of recruitment performance indicators with qualitative insights gathered through semi-structured interviews with HR professionals. The research was guided by two central hypotheses. The first (H1) posited that digitalization significantly reduces recruitment time, and the second (H2) suggested that digital recruitment tools enhance overall organizational performance by improving speed, reducing redundancies, and ensuring better resource allocation. The study also aimed to evaluate how transparency and equal opportunity are influenced by digital platforms—two ethical dimensions that, while central to the research scope, require deeper empirical investigation.

The research contributes to the broader discourse on digital transformation in human resources by illustrating how digital recruitment tools, when integrated effectively, can align with HR strategies to support faster, more consistent hiring. However, the findings also show that these benefits are conditional—depending on digital literacy, user acceptance, and the level of tool integration with existing systems. While transparency was moderately improved, equal opportunity remains a dimension that was not deeply explored within the available data. Future research should investigate the ethical implications and inclusivity outcomes of digital recruitment systems, assess the candidate experience, and study long-term performance indicators such as employee retention and quality of hire.

2. Main Results Obtained:

The results confirm that H1 is supported: digitalization significantly reduced recruitment time. Quantitative data show a reduction in shortlist delivery time from three weeks to an average of two weeks (with a median of 12 days), and time to fill decreased from two months to an average of 1.5 months (with a median of five weeks) following ICIMS implementation. These improvements reflect enhanced process efficiency and faster decision-making. Additionally, H2 is partially supported. Interview responses indicated that ICIMS improved communication, candidate tracking, and compliance with internal procedures. Users found the platform user-friendly and timesaving, contributing to operational performance. Nevertheless, some limitations emerged—particularly regarding regional adaptation

challenges and inconsistent adoption among managers, which affected the full realization of potential performance gains.

From a qualitative standpoint, HR professionals acknowledged improvements in candidate management, compliance, and transparency. The platform enabled better tracking of applicants and streamlined classification of candidate statuses, which contributes to building more strategic talent pipelines. However, concerns remain regarding the adaptability of the platform to local contexts and the varying levels of digital competence among users. While ICIMS has made recruitment more transparent, the study lacks concrete empirical data to fully assess its role in promoting equal opportunity in hiring. The findings underscore the importance of considering organizational context and user readiness when implementing digital HR tools. Future research should include a broader set of performance and ethical metrics to fully capture the multidimensional impact of recruitment digitalization

2.1 Quantitative Results

Short List Delivery Time: This metric states the time period the talent team spends on the sourcing and interviewing process, culminating in the ultimate presentation of a comprehensive list of 2 to 5 candidates.

- 2023 (before ICIMS implementation): On average, it used to take 3 weeks.
- 2024 + 2025 (post-implementation of ICIMS): The average time taken was reduced to 2 weeks with a median of 12 days.

Time to Fill: This metric calculates the duration that passes from the formal announcement of a vacancy in the company to the moment when the selected candidate accepts the offer of employment and signs the contract of employment.

- 2023 (before ICIMS was implemented): Took an average of 2 months.
- 2024 + 2025 (post ICIMS implementation): The average duration reduced to 1.5 months, with a median of 5 weeks.

2.2 Qualitative Results

Qualitative results, derived from five semi-structured interviews of HR professionals, revealed several salient themes:

2.2.1 Candidate Management

All the participants were consensus that the addition of applications in the ICIMS platform enhances the ability to track candidates, classify them into their current status, and build talent pipelines for future hiring needs.

2.2.2 Compliance and Transparency

The members noted that the utilization of ICIMS guarantees adherence to internal processes and allows greater visibility into every phase of the recruitment process, thus reducing the likelihood of errors or omissions.

Integration Challenges: Difficulties were observed concerning the platform's ability to be tailored to fulfill specific regional requirements, along with the irregular utilization by certain team members.

Perceived Usefulness: A high number of respondents considered ICIMS to be user-friendly, efficient, and timesaving, thus simplifying recruitment processes and enhancing communication flow between hiring managers and human resources.

2.2.3 Theoretical Implications

Our research emphasizes the significance of digitalization within the domain of human resource management, specifically recruitment. It illustrates how digital solutions can streamline recruitment processes, improve candidate experience, and foster closer collaboration between stakeholders. The findings are of great value to inform organizations about embracing digital solutions as part of talent management initiatives.

3. Limitations

The scope limitation of our study is the small sample size of only five Danone Djurdjura Algeria human resource professionals. This methodological restriction presents an invitation for bias, even though it may be justified by the unique nature of the studied organization and its attendant digital environment. This research also focused on a single electronic recruitment tool iCIMS, that may restrict the generalizability of findings to other equipment or organizational settings.

Notwithstanding these limitations, there are some avenues for future research along several lines. It would be suitable to conduct comparative studies of different digital recruitment websites to determine their functional characteristics and differential impacts on the quality of working life.

Furthermore, the study focused exclusively on the iCIMS platform, which restricts the findings to this particular tool and does not account for the potential variability of other digital recruitment solutions in different organizational contexts.

4. Possible Extensions of the Research

This research, as limited as it is, provides a comprehensive and extensive review of the advantages and issues that accompany digitalization in recruitment.

Future research can extend the quantitative analysis to other online communities or expand the sample of companies under review. This will allow for greater insight into the ideas surrounding the topic and introduce resolutions for overcoming the problem as revealed.

Future studies could expand the sample size and diversity of participants to improve the reliability and generalizability of the results. In addition, researchers could refine and diversify the interview questions, focusing on more specific and practical aspects of digital platforms—such as their direct impact on recruitment timelines or candidate experience.

Comparative studies across multiple platforms and organizations could also be conducted to explore the distinct functionalities and outcomes associated with different digital tools. This would lead to a more nuanced understanding of the role digitalization plays in improving recruitment efficiency and the quality of working life.

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APPENDICES

APPENDICE A: INTERVIEW GUIDE

Contact Information

My name is Maysoune NEMMOUCHI, a second-year master's student in Management of Organizations at the Higher National School of Management - ENSM Koléa. I am conducting a graduation thesis titled: How do digital platforms contribute to improving the recruitment process? Case: Danone Djurdjura Algeria.

In this context, I would like to thank you for taking a few minutes to participate in this interview.

Interview Conditions

Before starting the interview, I would like to inform you of the following:

There are no right or wrong answers; all your responses are valuable.

Please try to be as spontaneous as possible.

Do you agree to have this interview recorded, knowing that it will be done purely for scientific purposes?

Themes Questions

Role at Danone

What is your role for Danone?

Facilitation by ICIMS

Can you describe how ICIMS facilitates your recruitment process?

Main Uses of ICIMS

For HR ONLY: What is your main use of ICIMS?

Advantages of ICIMS

What are the key advantages of using ICIMS?

Challenges with ICIMS

What challenges do you face using ICIMS?

Changes in Recruitment Efficiency

Have you noticed any changes in recruitment efficiency since ICIMS was implemented?

Impact on Recruitment Efficiency

In your opinion, how have the ICIMS impacted recruitment efficiency?