Innovative Digital Practices: Enhancing the Effectiveness of Human Resource Management in the Digital Transformation Era

Hassani Omar^{1*}, Boubegra Nacer²

¹ Abdelhamid Ibn Badis University of Mostaganem, hassanim7@gmail.com ² Abdelhamid Ibn Badis University of Mostaganem, nacer20062011@gmail.com

Received: 24/09/2023 Accepted: 31/12/2023 Published: 31/12/2023

Abstract:

This study explores the role of digital transformation in enhancing human resource management within organizations. It employs a descriptive methodology to examine various dimensions and applications of digital transformation in the field of human resource management.

The findings highlight the importance of digital transformation for maintaining competitiveness and efficacy in today's business landscape. The study emphasizes the need for an organizational strategy focused on digital transformation as a primary objective, along with a meticulous plan for its efficient execution. Overall, digital transformation is seen as a crucial factor in elevating and refining human resources practices.

Keywords: Human Resource Management; Digital Transformation; Skills Development; Performance Improvement; Organizational Strategy.

(JEL) Classification : M12, O33, J24, D24, L21.

1. Introduction:

In the digital age, the pivotal role of human resource management in the success of any organization remains unwavering. Yet, this era is marked by unprecedented technological advancements and lightning-fast economic shifts, fundamentally reshaping the HR landscape in ways previously unimagined. Traditional norms are yielding to a new era characterized by the integration of digital technologies and the adept use of vast troves of data for precise decision-making.

Concurrently, the recruitment and cultivation of employees equipped with digital and technological prowess take on heightened importance, aimed at enriching

^{*} Corresponding author

their workplace experiences. Likewise, performance management and evaluations are now grounded in data-driven insights, while internal communications traverse new frontiers through social media channels and digital platforms.

Within this dynamic context, the rapid evolution of HR practices necessitates the adoption of novel and innovative strategies. Organizations that aspire to excel in this swiftly changing environment must embrace cutting-edge information and communication technologies, and deploy advanced human resource management systems. Furthermore, investing in employee development and providing comprehensive technical and digital training becomes imperative to enhance their skill sets.

1.1. Research Problematic:

Based on this, we will address the following problem:

What is the role of digital transformation in enhancing human resource management?

To address this problem statement, we will pose the following sub-questions:

- What is the concept of digital transformation and how can it be defined in the context of human resource management?

- What are the key objectives of digital transformation in human resource management and how can they be achieved?

- What are the modern digital practices that can be adopted in the function of human resource management?

1.2. Research hypotheses:

To answer the posed problem and the included sub-questions, we have formulated the following hypotheses, which will serve as the starting point for our study:

- **Hypothesis 1:** The use of digital technology and smart tools in human resource management will lead to process improvement and enhance organizational efficiency and effectiveness.

- **Hypothesis 2:** Digital transformation requires changes in organizational structures and culture, and may face challenges in adopting technology and adapting traditional work methods to meet the requirements of digital transformation.

1.3. research importance:

The significance of this study is as follows:

- Cost reduction associated with human resource management. For example, reducing reliance on paper and physical documents can save printing and storage costs. Additionally, recruitment, training, and development processes can be improved with more efficient and reliable methods, leading to resource utilization optimization.

- Enhancing communication and collaboration among team members and HR management. Through the use of digital communication tools such as email, collaborative platforms, and instant messaging, employees can easily and effectively communicate, exchange information and ideas faster, and improve coordination, thereby increasing productivity.

- Promoting diversity and inclusivity in organizations. Digital technologies can provide equal opportunities for access and participation for all employees, regardless of their geographical location or personal circumstances. Furthermore, data analysis tools can be used to identify and provide fair development and promotion opportunities based on qualifications and performance.

- Adapting to rapid changes in the labor market and organizational environment. Organizations can adopt new and innovative technologies to improve recruitment strategies, training programs, and performance management, thereby enhancing their ability to adapt to external challenges and fluctuations.

- Compliance with regulations and laws related to human resource management. Digital human resource management systems can track and document all necessary data for compliance with labor and tax laws and other regulations. They can also provide automated reporting and alerts to assist in legal compliance and risk avoidance.

- Improving the employee experience and increasing satisfaction. Digital technology can provide self-service options for employees, such as managing salaries, leaves, and health insurance, offering convenience and ease in managing personal affairs. Additionally, the ability to work remotely and flexible working hours can enhance the employee experience.

1.4. research aims:

This research aims to achieve the following points:

- Identifying how digital technology and smart solutions can be utilized to enhance human resource management processes. This study may include analyzing the use of automation, big data analytics, and artificial intelligence in improving HR performance.

- Understanding the impact of digital transformation on employees and organizational culture. This involves assessing employees' response to technological changes and analyzing their impact on employee satisfaction, commitment, and performance within the organization.

- Identifying effective methods and procedures for managing change associated with digital transformation in HR management. These methods may include developing awareness, training, and engagement plans for employees to adapt to technological changes.

- Evaluating the impact of digital transformation on organizational performance and achieving corporate objectives. This study may include analyzing factors that influence the success of digital transformation and measuring organizational performance and the benefits associated with digital transformation.

- Understanding the impact of digital transformation on the employee experience within the organization. This may involve evaluating the use of digital technology in facilitating the employee experience, such as tools and applications used in performance management, communication, and skills development.

- Assessing the impact of digital transformation on the labor market and future HR needs. This may include analyzing changes in the nature of work and required skills in the context of digital transformation and their impact on employee selection, recruitment, and development.

- Exploring challenges and problems faced by organizations in implementing digital transformation in HR management. This may involve analyzing potential barriers such as cultural transformation, lack of technical skills, and achieving a balance between technology and human aspects of work.

1.5. Previous research:

After conducting the desk survey, a collection of previous studies related to the subject of the study was compiled:

- A study conducted by researcher Mustafa Othmani titled "Digital Human Resource Management and its Role in Enhancing E-Government Performance". 2023. The researcher concluded a set of results, the most important of which is that achieving a successful and continuous digital transformation relies primarily on three main dimensions: digital human resources and technical capabilities, organizational aspects, and the absence or weakness of any of these elements will inevitably hinder the government in its pursuit of enhancing its electronic activities.

- A study conducted by researchers Qarqat Nasser and La'ashab Suhaim titled "Digital Transformation and its Impact on Human Resource Performance: A Case Study of Algeria Telecom". 2023. The researchers found that technology and digital tools significantly contribute to increasing employees' productivity and saving time. Additionally, these technologies assist employees in handling workloads, ensuring error control, quick access to information, and ease of use. Therefore, organizations that adopt new technologies must provide appropriate training to enhance employee efficiency. It has become necessary for all institutions to keep pace with digital transformation and adopt relevant strategies.

1.6. The Methodology Used:

Various methodologies are employed, and they vary depending on the study's topic and objectives. Therefore, each study requires a specific methodology that aligns with its nature and assists in achieving its goals. To achieve the objectives of this study, a descriptive methodology was adopted. This methodology aids in describing the digital transformation, its role in improving human resource management practices, and outlining the key challenges. The selection of this methodology was meticulously made to ensure precise and reliable results. Information and data related to the study's topic were collected from multiple sources, allowing for a thorough and comprehensive understanding, presented in a simple and clear manner to facilitate comprehension and assimilation.

1.7. Research Plan and Structure:

In their continuous pursuit of evolution and improvement, organizations adopt digital transformation as a fundamental tool to enhance efficiency and effectiveness in their operations. In the first axis, we will delve into the concept of digital transformation, its significance, and shed light on some of its distinctive characteristics. Then, we will transition to the second axis to explore the field of human resource management and the prominent digital practices that support it. In the third axis, we will discuss the vital role that digital transformation plays in enhancing human resource management practices and how it contributes to performance development and sustainability in the field of human resources.

Concept of Digital Transformation, its Significance, and Key Features: Concept of Digital Transformation:

Today's world is characterized by rapid advancements in technology and the widespread adoption of digital systems and technologies. These technologies are fundamentally linked to significant transformations in businesses and organizations. This fundamental change is known as digital transformation, which is a strategic shift aimed at altering the way organizations operate and perform by leveraging digital technology. Among the key concepts related to digital transformation:

Digital transformation is a gradual process that commences with the adoption and utilization of digital technologies. It then evolves into a comprehensive transformation within the organization, with a deliberate focus on creating added value for its customers or beneficiaries. Within organizations, digital transformation involves the integration of technology into various aspects, including the management of operations, services, activities, data processing and analysis, as well as fostering electronic communication among members. All of these aspects are conducted within a technologically-enabled digital environment, grounded in secure database systems (716–715, longer 10, 2020, longer 10, 2

Digital transformation is often described as the transition from traditional, slowpaced work to a fast-paced electronic approach, aiming to improve and enhance performance efficiency. Additionally, it involves moving away from conventional systems towards technology-driven systems for conducting various tasks and . (عوض حسن العمري، 2023، صفحة 97)

2.2. Objectives of Digital Transformation:

Among the objectives of digital transformation, we mention the following (577-576، الصفحات 2022، الصفحات):

- Removing geographical barriers and building an information society through harnessing information and communication technology because intellectual and informational wealth is considered the primary driver of the economy.

- Eliminating time constraints and working on developing the traditional economy, reevaluating certain development policies, especially removing import restrictions and reducing customs tariffs, and breaking down geographical, structural, and temporal barriers. These elements should not be seen in conflict or competition but rather in integration and synergy.

- Fostering an effective dynamic for research, innovation, and development, placing human resources at the center of concerns through training and qualification.

- Enhancing human resources by considering the recruitment and hiring process, developing the skills and capabilities of all young individuals through training and self-development programs, working on increasing return on investment, operating economic activities and projects through the internet, trading electronic contracts, creating wealth, and achieving sustainable development.

- Targeting consumers and reaching them through various means, promoting the computer and digital communication industry, breaking down structural barriers, and securing a market share everywhere in the world.

2.3. Dimensions of Digital Transformation:

In our current era, digital technologies and the digital transformation constitute a significant revolution in various aspects of our lives. It is not merely a collection of technological tools and systems; rather, it is a comprehensive approach that influences how we think, work, and interact with the world. In this context, it is essential to delve deeply into the dimensions of digital transformation and understand its effects on our societies, economies, and institutions(68–67 الصفحات 2023، الصفحات)

- **Digital Technologies:** The concept of digital transformation signifies a paradigm shift driven by the evolution of new technologies. The literature highlights that the technologies associated with institutional digital transformation are primarily centered around analytical internet technologies. These technologies have seen remarkable advancements in recent years, largely facilitated by cloud technologies.

- User Experience: Digital transformation places utmost importance on the user experience as a central element of an organization's strategy. Customers now have higher expectations for product and service quality, demanding organizations to swiftly adapt and customize their offerings to meet evolving needs. This is particularly relevant for the new digital generations, who possess extensive knowledge of emerging technologies and possess significant ability to share their experiences through social media. To meet these evolving expectations, organizations must adapt their approaches to product and service delivery in accordance with consumption trends. This is why digital transformation often commences with the transformation of internal functions within an organization. For instance, in the realm of marketing, this transformation involves adopting cutting-edge Customer Relationship Management (CRM) tools along with incorporating robust social elements through social network analysis modules. Likewise, the digitization of the Human Resources function entails implementing employee relationship management tools, treating employees as internal customers, and striving for a high level of service.

2.4. Characteristics of Digital Transformation:

Heavy Reliance on Intangible Assets: Digital transformation heavily depends on intangible assets such as intellectual property, software development, and algorithms that analyze large volumes of business data for the production or delivery of services on internet platforms. Creative content also plays a crucial role in the digital realm.

- Borderless Access: Digital transformation enables companies to establish connections and relationships with customers across long distances without the need for physical presence in different countries. The internet and digital platforms provide a means for widespread access and global reach.

- Customer and User Involvement in Value Creation: Digital platforms allow companies to interact with customers, analyze their behavior, and generate revenue through data utilization, targeted advertising, and data reselling. Value creation also occurs through the Internet of Things (IoT), customer participation, virtual currencies, and the sharing economy.

- Transition from Paper-Based to Digital Management: Digital transformation involves a shift from traditional paper-based processes to digital management systems. This includes recording, storing, retrieving, and transmitting information digitally, resulting in streamlined decision-making processes and increased efficiency.

- Dominance of Digital Platforms: Companies that dominate digital businesses often function as platforms facilitating interactions between two parties, such as buyers and sellers. These platforms act as intermediaries leveraging the internet to reduce transaction and search costs. Additionally, they connect advertisers with consumers, often providing free services to consumers while generating revenue through advertising (587–586 الصنحات 2023، الصنحات).

2.5. Challenges of Digital Transformation:

Enterprises and organizations striving for improved performance and maximum utilization of digital technology and big data encounter significant challenges that hinder the achievement of desired outcomes. These challenges reflect the complexities involved in the digital transformation process and the interaction with both the external environment and internal factors within organizations. Some of the key challenges include (18 صفحة 2022):

- Resistance to Change Culture: Many organizations are entrenched in a culture that resists change. This culture is often characterized by individualism and hierarchical structures that can impede the adoption of digital transformation initiatives. IT managers aiming to establish a new digital culture must start by fostering a clear digital mindset, forming dedicated teams for digital innovation, and overcoming resistance from other managers who may be reluctant to embrace change and learning.

- Information Security Risks: The utilization of digital technologies brings about concerns regarding information security. Organizations need to address potential

risks associated with data breaches, cyber threats, and privacy issues. Ensuring robust security measures and compliance with regulations becomes crucial in order to build trust and mitigate potential risks.

-Communication and Engagement: Effective communication and engagement with employees throughout the transformation journey is essential. Resistance or lack of understanding from employees who are accustomed to traditional work practices can pose challenges. It is important to establish clear channels of communication, provide training and support, and foster a culture of collaboration and participation.

- Resource Readiness: Successful digital transformation requires adequate resources, both in terms of financial investment and technological infrastructure. Organizations need to allocate sufficient budgets, upgrade existing systems, and invest in new technologies. The availability of skilled IT professionals and the ability to attract and retain top talent is also critical.

- Change Leadership and Talent Gap: Digital transformation demands strong leadership capable of driving change and innovation. Organizations may face a shortage of leaders who possess the necessary digital acumen and strategic vision. Additionally, there may be a shortage of specialized talent with expertise in emerging technologies, such as data analytics, artificial intelligence, and cloud computing.

Addressing these challenges requires a holistic approach that includes fostering a culture of change, prioritizing information security, effective communication, resource allocation, and talent development. Overcoming these challenges is essential for organizations to successfully navigate the digital transformation journey.

2.6. Technology Driving Digital Transformations:

- **Big Data Technology:** It refers to a collection of interconnected and complex databases obtained from various sources that are difficult to process using traditional methods. The term "big data" emerged alongside the growing flow of data due to the emergence of the Internet of Things, applications, and smartphones. A significant portion of this data is unstructured, such as images, videos, and presentations. Additionally, the significant increase in data volume has led to the

emergence of what is known as "metadata," which refers to data related to other data, and "hyperdata," which encompasses a wide range of data and its related information.

- Artificial Intelligence (AI): This technology revolves around making machines capable of intelligent actions. From a business perspective, AI enables devices to make decisions based on available data, thereby increasing the chances of success in a specific area (14–13–11 الصفحات 2022، الصفحات).

3. Digital HR Management Practices and Their Importance:

3.1. The concept of human resource management:

Human resource management (HRM) is the management that results in a series of decisions regarding the functional relationships that impact the effectiveness of the organization and its employees. It is also known as a branch of management that is defined as a continuous social process that aims to optimize available resources through planning, organizing, leading, and controlling to achieve a specific goal.

It is also defined as a set of activities that include job analysis, selection, recruitment, performance evaluation, promotion, transfer, designing salary structures, training, and providing safety and security measures for employees (03 صفحة 2022).

3.2. Objectives of Human Resource Management:

- Ensure that the organization has economically, operationally, and competitively competent employees.

- Ensure that the organization fulfills its obligations and responsibilities towards employees and provides suitable working conditions whenever possible.

- Follow ethical standards and practices in work and social relationships, giving the organization a good reputation among other institutions.

- Establish fair policies and regulations that govern the relationship between employees and the organization.

- Assist in finding appropriate solutions to all employment-related problems.

- Provide advice and guidance to managers of other departments regarding their work.

- Participate in clarifying all regulations, instructions, and policies followed by the organization to employees.

- Ensure that employees understand and fulfill their commitments towards the organization (29 منفحة 2016، صفحة)

4. Digital Practices in Human Resource Management:

- Digital Human Resource Planning:

Human resource planning is one of the most critical functions, aiming to identify an organization's workforce needs in terms of job types and required tasks. With the advent of digital technology, traditional human resource planning has shifted towards digital human resource planning. This approach relies on computer systems to create and design plans to meet these needs, often using modern tools like decision support systems and artificial neural networks.

- Digital Recruitment in Human Resources:

Recruitment is the practice of selecting the right person for the right job at the right time, considering qualifications, experience, abilities, and skills when hiring individuals. Recent research emphasizes the importance of integrating digital technology into the recruitment process, known as e-recruitment. It involves posting all vacant positions on the organization's website, allowing candidates to submit their resumes via email, and handling all recruitment processes electronically, from job posting to candidate evaluation, and announcing results through the website.

- Digital Training in Human Resources:

Digital training refers to a systematic and planned modification of individuals' behavior using specific learning tools to impart knowledge and equip them with the skills necessary to perform their tasks professionally. Training aims to apply the new skills and knowledge acquired through the training program effectively in job performance. Recent developments in information technology and communication have created an interactive and rich learning environment filled with applications and computer-based systems. These enable both trainees and trainers to achieve training objectives efficiently, with minimal effort and cost, while overcoming time and location constraints.

- Digital Human Resource Assessment:

Performance evaluation, also known as performance appraisal, performance estimation, or performance measurement, is a process that analyzes the performance of working individuals (psychological and physical characteristics, technical, behavioral, and intellectual skills) to identify strengths and weaknesses. The goal is to enhance strengths and address weaknesses to ensure organizational effectiveness. Given its significant importance, organizations are keenly interested in developments related to digital assessment. One of the most important advancements is online self-assessment by employees, where assessors primarily rely on electronic questionnaires or self-assessment tests to evaluate an employee's progress toward predetermined job objectives. Additionally, digital human resource management has contributed to cost reduction and ensured task completion efficiently. It offers fast and streamlined services while empowering employees, providing them opportunities to voice their visions for the organization's future. Moreover, digital HR management has enabled the documentation of contracts, tracking sick leave, and more through digital technology (232-231 الصفحات 2021).

6. The Impact of Digital Transformation on Enhancing and Advancing Human Resource Management Practices(161–160 ، الصفحات 2022 ، الصفحات) :

- The role of digital transformation in enhancing human resource management practices is evident in the following ways:

The Role of Information Technology Applications in Increasing Workplace Productivity:

One of the most significant contributions of digital transformation is the boost in productivity through various mechanisms, including:

Information storage, allowing for the reuse of the same data and enabling multiple copies at minimal cost, making it a catalyst for office productivity growth.

Information processing of files and documents at a faster pace and with higher accuracy compared to individual manual processing.

The ability to perform complex calculations, especially those related to decisionmaking, saving time, and reducing task completion costs.

- The Role of Internal Networks and the Internet in Advancing Digital Communication:

The impact of internal networks and the internet lies in the easy accessibility of various and diverse documents, allowing access to the organization's memory while reducing document duplication and archiving costs. Coordinating and linking various parts of the organization internally ensures workflow and promotes collaboration among members of the institution.

- Electronic Document Management:

In the past, from the 1950s to the 1990s, documents were handled manually. However, nowadays, documents are moved electronically through information carriers or exchanged via email, which not only offers an economical solution but also benefits from vast storage capacity. After digitization and organization, it becomes incredibly simple to access the required documents.

7. Conclusion:

With the rapid advancement of technology, digital transformation has become a pivotal factor for the success of human resource management in organizations. Digital transformation represents a fundamental shift in how data is collected, utilized, and administrative processes are organized. By harnessing information and communication technology, human resource management can enhance employee experiences, improve recruitment efficiency, foster skill development, and enable data-driven strategic decision-making. This digital transformation presents a challenge that opens doors to new opportunities and is essential for keeping pace with modern developments in the business world. In this context, human resource management demonstrates its adaptability and commitment to continuous improvement by embracing the latest technologies and digital tools to efficiently achieve its objectives. Beyond the traditional benefits of HR management, such as enhancing employee performance and job satisfaction, digital transformation also empowers management to predict changes and disruptions in the workplace environment and adapt to them effectively. Organizations can now analyze big data to gain a deeper understanding of employee needs and better guide recruitment and training strategies. Furthermore, digital transformation in HR facilitates effective communication among employees through internal communication systems and online learning platforms. Employees can access information and training more quickly and easily, enabling them to enhance their skills and increase their productivity.

7.1. Results of Hypothesis Testing:

For the first hypothesis: The use of digital technology and smart tools in human resource management can have a significant impact on the efficiency and effectiveness of an organization. This can contribute to improving administrative processes, as digital technologies can simplify procedures and reduce human errors. Additionally, smart tools enable employees to access information quickly and easily, enhancing their experience in the workplace.

For the second hypothesis: Digital transformation has become an inevitable necessity for organizations to remain competitive and adaptable to the rapidly changing business environment. This transformation is not just about using modern technology but entails a radical change in how work is organized and executed. It includes developing more flexible organizational structures, dismantling traditional hierarchical structures, and fostering collaboration and interaction among different departments and teams. Digital transformation also requires a shift in the organizational culture, promoting a culture of experimentation, continuous learning, and readiness to embrace change as an integral part of the work process.

Indeed, organizations need to adapt to the challenges of technological adoption, where they should invest in training their employees and increasing their awareness of modern technology and how to use it effectively. Digital transformation also signifies the urgent need to quickly adapt to technological advancements and changes in the labor market.

7.2. Research results:

Based on what has been discussed in the previous context regarding digital transformation in human resource management, several important results can be concluded:

- Digital transformation has become a necessity for organizations to remain competitive and efficient in today's business market. If organizations do not adapt to digital transformation, they may be susceptible to losing competitiveness. - The use of digital technology can significantly improve administrative processes in human resource management, reducing errors and increasing efficiency.

- Digital transformation requires a change in the organizational culture to encourage experimentation and continuous learning. It also requires employees' readiness to accept and embrace change.

- Digital transformation can pose a challenge in technology adoption and employee training to use it effectively.

- Organizations must be able to adapt to rapid changes in the digital environment and technological developments.

- Digital transformation in human resource management can have a significant impact on organizational efficiency and effectiveness if implemented correctly. However, it requires structural and cultural changes and readiness to face technological challenges.

- Organizations can expand their operations and reach new global markets by relying on digital technology for marketing and distribution.

7.3. Recommendations:

Based on the results obtained in the study on digital transformation in human resource management, several important recommendations can be made to successfully enhance the implementation of digital transformation:

- Organizations should invest in information technology and modern digital tools to support human resource management processes. Systems and applications should be chosen to align with the organization's needs and objectives.

- Continuous training should be provided to employees to learn how to effectively use digital technology and maximize its benefits. Professional development contributes to enhancing employees' skills and their ability to tackle digital challenges.

- Organizations should restructure their administrative processes and procedures to become more flexible and suitable for the digital age. Streamlining processes and eliminating unnecessary procedures can be achieved.

- Promote a culture of change to encourage employees to accept and adapt to change rather than resist it. This can be achieved through open communication, encouragement of experimentation, and idea-sharing.

- The organization's strategy should be oriented towards digital transformation as a key strategic goal. There should be a specific plan for implementing digital transformation most effectively.

- Monitor and evaluate performance by tracking the organization's progress in implementing digital transformation and measuring its impact on organizational performance. Regular assessments can contribute to improving transformation strategies.

- Prioritize information and data security. Strong security policies and procedures should be developed to protect sensitive information and ensure compliance with relevant laws and regulations.

7.4. Research Perspectives:

In the context of globalization and continuous technological advancement, human resource management is facing new challenges and opportunities. This opens the door to the study and exploration of a variety of research perspectives in the field of digital transformation and its impact on human resource management. Among the most important are:

- Analyzing the use of digital technology in improving the employee experience and its impact on company performance.

- Digital transformation and organizational culture: How does it affect the shaping of organizational culture?

- The impact of digital transformation on employee development and continuous learning opportunities.

8- Bibliographie liste:

- بشير عبد الحميد. (2023). أثر التحول الرقمي على ممارسات إدارة الموارد البشرية في منظمات المأعمال-دراسة حالة مؤسسة اتصالات الجزائر-(مذكرة دكتوراه). كلية العلوم المقتصادية والتجارية وعلوم التسيير-جامعة تبسة-، الجزائر. - طارق عمر الفاروق. (2022). دور استراتجية التحول الرقمي في تطوير منظومة وظائف إدارة الموارد البشرية -بالتطبيق على البنوك الحكومية المصرية-. المجلة العلمية للدراسات والبحوث المالية والادارية ، 15 (01). - عبد الرحيم ناصر أحمد عمر. (2016). إدارة الموارد البشرية باستخدام نظم المعلومات وعلاقتها باتخاذ القرار در اسة ميدانية على بعض الاتحادات والأندية الرياضية بالجمهورية اليمنية (مذكرة دكتوراه). معهد التربية البدنية والرياضية، الجزائر.

- عبد الله بلعيدي. (2022). التحول الرقمي ودوره في تطوير جودة الموارد البشرية في الصيرفة الإسلامية - در اسة حالة بنك السلام الجز ائر -. مجلة البحوث و الدر اسات ، 19 (02).

- عمر مهدى. (2022). دور التحول الرقمي في تحسين ممارسات إدارة الموارد البشرية. مجلة التنظيم والعمل ، 11 (01).

- فريعة عوض حسن العمري. (2023). دور سياسات التعليم في التحول الرقمي في ضوء رؤية المملكة 2020 من وجهة نظر المعلمات. المجلة العلمية لكلية التربية ، 39 (03).

- كريمة تيشوداد. (2022). دور الإدارة الإستراتجية للموارد البشرية في تتمية رأس المال الفكري بمنظمات الأعمال دراسة حالة (مذكرة دكتوراه). تيسمسيلت، كلية العلوم الاقتصادية والتجارية وعلوم التسبير، الجز ائر.

– محمد على محمود زلط. (2023). أثر التحول الرقمي على استراتجيات إدارة الموارد البشرية – دراسة ميدانية على العاملين بشركات الاتصالات في مصر -. المجلة العلمية للبحوث والدراسات التجارية .(02) 37 .

- مصطفى خوصة. (2022). التحول الرقمي وإشكالية تطوير ممارسات إدارة الموارد البشرية في الجزائر دراسة ميدانية لمجموعة من المؤسسات الناشطة في الجزائر (مذكرة دكتوراه). معسكر، كلية العلوم الاقتصادية والتجارية وعلوم التسبير، الجز ائر.

- نهى محمد هاال الشوبري. (2020). رؤية تحليلية المكانات تطبيق التحول الرقمي بالمنظمات غير الحكومية. مجلة كلية الخدمة الاجتماعية للدر اسات والبحوث الاجتماعية (18).

- وفاء زوقار. (2022). وظيفة الموارد البشرية الرقمية. مجلة الدراسات القانونية والاقتصادية ، 05 .(02)