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Reading of the Evolution of Human Resource Management between classical and Contemporary Management thought

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Abstract:

The shift toward adopting unconventional methods and techniques in Human Resources management and administration has become more than a necessity. This is especially true given the rapid changes imposed by the transition to a knowledge economy and the heavy reliance on technology. This situation has given rise to several contemporary organizational concepts, foremost among them being the **Digitalization of Human Resources**.

In this article, we attempt to provide an analysis of this concept as it has evolved in the thought of various scholars and theorists. Furthermore, we present an overview of its importance, dimensions, and key requirements. Such an exploration aims to encourage those interested in contemporary administrative thought, as well as corporate managers, to utilize and adopt this approach.

The study concludes that adopting the concept of HR digitalization enhances the competitiveness of organizations and the quality of their outputs. This is achieved by improving the efficiency of HR management in job planning and description, and monitoring career paths on one hand, while building a fair and transparent system for motivating and valuing human resources and enhancing their performance on the other.

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1. INTRODUCTION

It is undeniable that we are living in an era that can best be described as an age of rapid social change. Today's societies exist in a state of instability where shifting variables often overshadow established constants. This transformation is likely attributable to various material and immaterial factors, both internal and external. This emerging situation has brought with it several modern organizational concepts, particularly those rooted in unconventional methods for managing and leading human capital.

Perhaps one of the most significant concepts accompanying this shift-which we aim to highlight in this research paperis Human Resources Digitalization. This concept stands as one of the most effective organizational alternatives, forcefully presenting itself as a replacement for classical human resources management practices in any organization.

Given that modern management methods centre primarily on an organization's human assets, the Algerian state has paid special attention to the concept of digitalizing institutional management, particularly HR management. Significant financial resources and experts have been dedicated to this cause, reflecting an early realization of the importance of HR digitalization. This shift enhances efficiency, reduces bureaucratic hurdles, and ensures the "right man is in the right place," while guaranteeing a fair and transparent monitoring of a worker's career path from their first day on the job until their last. Furthermore, technology allows human resources to create new opportunities for education, training, and the expansion of knowledge and acquisitions.

Moreover, HR digitalization is merely one link within a new environment characterized by the widespread use of technology in all aspects of life. This provides high flexibility and greater speed in

dealing with and adapting to internal and external variables.

The adoption of HR digitalization by today's organizations is more imperative than ever, as the entire world has engaged in the wave of "Electronic Management." This approach has proven its efficiency in overcoming crises and demonstrated greater flexibility in solving problems primarily related to human resources. However, this digital transformation requires a suitable environment for its success; simply adopting this new pattern of human capital management is insufficient without the necessary causes and tools.

Based on the above, this modest analytical study attempts to explore the concept of HR digitalization by addressing the following problems:

- How has contemporary administrative thought approached the concept of HR digitalization?
- What are the mechanisms and requirements necessary for its effective implementation?
- Does its application truly provide added value to today's organizations?

2. The Essence of Human Resources

2.1 The Concept of Human Resources

The resources of organizations vary according to the nature of their activities; however, the human resource remains the most vital of all. Neither structures nor machines can replace humans in organizing, planning, executing, and forecasting. The human element is the beating heart of all administrative and technical processes within an organization. Below are some of the most prominent definitions of this concept:

Hamdaoui defines human resources as: "A group of individuals and collectives that constitute the organization at a given time. These individuals differ in terms of their background, experience, behaviour, attitudes, and ambitions, just as they differ in their functions,

administrative levels, and career paths".(1)

In the Dictionary of Human Resources Management, **Habib Al-Sahhaf** emphasizes that: "The concept of human resources is applied to the workforce within an organization. Human resources are the most important element of production- alongside capital, technology, and other facilities- as they give these other elements meaning and utility for the organization. They are considered the most effective factor in achieving business goals".(2)

As **Ahmed Sayed Mustafa** indicates, the human resources of any state or organization are those groups of individuals capable of performing work and who are willing to perform it in a serious and committed manner. Capacity and desire must integrate and interact within a harmonious framework. The opportunities for effectively utilizing these resources increase when systems are available to improve their design and development through education, selection, training, evaluation, growth, and maintenance.(3)

We may sense a difficulty in establishing a precise and comprehensive definition for the concept of "Human Resources." In its broadest sense, it refers to the **Population**; in its narrower sense, it refers to **Human Power**; and in its most specific sense, it refers to the **Labour Force**. To eliminate confusion and overlap between these concepts, we outline the following:

- **Population**: Includes all individuals of all ages belonging to a specific state and residing within a single territory.

- **Human Power:** Includes all individuals capable of working within the total population. The size of human power varies from one

(1) Hamdaoui, Wassila. Human Resources Management: Guelma University Press (Publications of the Directorate of Publishing). Algeria .(2004). P 25.
(2)Al-Sahhaf, Habib. Dictionary of Human Resources and Personnel Management.: Librairie du Liban Publishers. Lebanon.(1997). P1.
(3)Abu Al-Nasr, Medhat**.** *Human Resources Management and Development: "Contemporary Trends"* (Vol. 1). Nile Arab Group.Egypt.(2007). P 31.

country to another based on the estimated working age.

• **Labour Force:** Restricted to that segment of the population that is economically active (including both the employed and the unemployed). This category is referred to as the active segment of the population.(4)

2.2 Evolution of the Term "Human Resources"

Based on the definitions mentioned above, we conclude that Human Resources represent the human element working within the institution, and they are its most important strategic assets of all.

Those tracking the chronology of the development of the "Human Resources" concept will quickly realize that this naming convention has passed through several significant stages before reaching its current form. These stages reflect the evolution of administrative, social, and economic thought, and can be summarized in the following table:

Table (01): Stages of the Evolution of the Term "Human Resources"

Evolution of HR Designations	Characteristics
Industrial Revolution Stage	* Transformation of human activity from the field to the factory. * Transition from the designation of "Slaves" in the feudal period to "Workers" during this era. * Focus on human physical effort, with recruitment costs considered low and negligible.
Traditional Stage (1890–1930)	* Absence of a clear concept for "Human Resources." * Workers were viewed merely as tools for profit generation. * Dominance of authoritarian management and a complete absence of labour rights.

(4) Al-Labdi, NizarAwni. Human Resource Management and Development (Vol. 1). Dar Degla Publishers and Distributors. Jordan. (2015). P7.

	* Emergence of the Scientific Management Movement led by Frederick Taylor. * The worker was still regarded as a component of the means of production.
Human Relations Stage (1930–1950)	* Emergence of a new orientation in dealing with individuals within the factory. * Recognition of the worker as a "social being" with psychological and social needs. * This stage was marked by the adoption of the **Hawthorne Studies** results led by Elton Mayo.
Human Resources Stage (1950–1980)	* Emergence of what is known in administrative thought as Behavioural Schools. * Increased focus on the human element and its role in achieving the organization's mission. * Formal emergence of the term "Human Resources." * The human element began to be viewed as an investment asset, similar to other institutional resources. * Emphasis on the importance of individual culture in achieving organizational objectives. * Adoption of Organizational Culture as an analytical approach in the Sociology of Organizations and Work.
Contemporary Stage (1980–Present)	* Human resources became known as **Human Capital**, which plans, drives, and executes the production process. * Shift of the individual from a mere "cost" to an "investment" capable of achieving Competitive Advantage through effective development and management. * Evolution of the HR concept to include modern terms such as: **Talent Management**, Human Development, Emotional Intelligence, **Strategic HR**, Digital HR, Diversity and Inclusion, and Transformational Leadership. * Key features: Use of technology, Smart Recruitment, Performance Management, Sustainable Development, and HR Digitalization.

	* Increased focus on the culture of the human resource in achieving competitive advantage. * Evolution of the view of the individual from human capital to a Strategic Partner in the organization. * This stage is dominated by: - Use of Artificial Intelligence (AI) in recruitment. -Remote Performance Management applications. - Hybrid Work and remote work models. - Digitalization of Human Resources.

Summary of Human Element Designations

The various designations used to describe the human element can be summarized as follows:

- Slaves
- Workers / Employees
- Labour Force
- Human Resources
- Human Capital
- Human Assets
- Strategic Actor
- Strategic Partner
- Smart Capital
- Creative Capital
- Knowledge Capital
- Knowledge Reservoir (Knowledge Hub)

Source: Prepared by the researcher.

3. The Essence of Human Resources Management (HRM)

3.1 Concept of Human Resources Management

The management of any organization undertakes a set of organizational roles and tasks, of which Human Resources Management (HRM) is an integral part. If we were to rank the tasks assigned to any administration- be it public or private, economic or service-oriented- according to their degree of importance, HRM would inevitably be at the forefront. Given this significance, it is essential to define its concept through the following points:

- **HRM is defined as**: "A set of administrative activities aimed at enhancing human resources, through which individuals are acquired and developed to achieve organizational goals."
- **It also refers to**: "A group of activities encompassing job analysis, selection, recruitment, performance evaluation, promotion, transfer, compensation structure design, training, and the provision of health and safety measures."
- **Furthermore, it is**: "That part of the administrative function concerned with human relations within the organization" (5).

Additionally, **Rafida Al-Hariri** defines HRM as: "A set of practices and policies required to implement various activities related to the human aspects that management needs to perform its functions to the fullest extent"(6).

Sikula defined HRM as: "The utilization of the workforce within or by the enterprise. This includes manpower planning, selection and recruitment, performance appraisal, placement and development, compensation and salaries, industrial relations, evaluation of social and health services for employees, and finally, personnel research."

As for **French**, he defines HRM as: "The process of selecting, utilizing, developing, and compensating the human resources working in the organization"(7) .

3.2. The Evolution of Human Resources Management

Following the Industrial Revolution, institutions underwent rapid and complex structural developments that significantly impacted a vital aspect of administrative operations: the recruitment and

(5) Raba'iah, Ali Mohammed. Human Resources Management: Information Systems Specialization. (Vol. 1). Dar Safaa for Publication and Distribution .Jordan. (2003). P 20.
(6) Al-Hariri, RafidaModern,Trends in Human Resources Management.Dar Al-Yazouri for Publication and Distribution.(2014). P15.
(7) Makhlouf, Souad&Shrik, Ouiza. The concept of human resources management, its goals, and the challenges it faces. Journal of Psychological and Educational Research, Constantine University, 9(vol 4), Algeria. (n.d.). p 229-230.

utilization of workers. This accelerated the emergence of a specialized branch of management known as "Human Resources Management," concerned with manpower planning, recruitment, training, promotion, and career path monitoring.

It is worth noting that the title "Human Resources Management" was not used from the outset; rather, it underwent several transformations. It evolved from Personnel Affairs to Human Relations Management, Employee Affairs, Personnel Administration, Human Resources Management, and eventually Human Capital Management, Performance Management, and Talent Management.

Felkawi Najwa suggests that the evolutionary stages of HRM, as traced through Arabic and foreign literature, can be divided into three distinct periods: formation, growth, and maturity. These stages are:

3.2.1. The Formation Period

The formation years pertain to HRM activities prior to the beginning of the twentieth century. Before 1900, despite instances where specialists were hired in personnel-related activities in private industries to assist with recruitment, performance standards, industrial safety, training, and health aspects, the number of these professionals was very small—not exceeding a few dozen across the entire American industrial landscape.

By the late nineteenth century, laws were enacted and institutions were established that began to lay the groundwork for developing programmes that gained general acceptance in HRM. However, the implementation of these activities in practical reality was often disorganized and haphazard.

Overall, Human Resources Management activities prior to 1900 can be described as haphazard and unorganized.

3.2.2. The Growth Period

The growth period in the theoretical and practical development of HRM occurred between 1900 and 1946. This era began with the

emergence of what was known as "Welfare Secretaries" in business organizations. They performed what we might call today the "maintenance or preservation of human resources" function. The motivation behind establishing this role was an attempt by organizations to halt or limit the influence of labour unions.

This stage is also characterized by increasing recognition of the legitimacy and necessity of personnel management activities and the importance of implementing them within every organization. This period ended with the conclusion of World War II. In some large organizations in the United States, these activities evolved to the point where they did not fundamentally differ from current HRM activities; the differences lie mainly in the extent and sophistication of these systems rather than their core content.

3.2.3. The Maturation Period

This stage began with the 1946 Employment Act in the United States and the federal government's commitment to providing adequate employment opportunities. The large-scale expansion of government intervention in HRM programmes across all organizations is the primary characteristic of the maturation stage, which continues to this day.The continuous increase in federal and state legislation over the past forty years has had a profound impact on restricting the freedom of management in HR-related matters. While the growth of labour union membership and the expansion of Collective Bargaining during the latter part of the growth period limited management's authority, government policies during the maturation stage significantly influenced critical workforce management issues- such as setting recruitment and promotion criteria and intervening in the evaluation methods for both job candidates and current employees(8).

(8) Felkawi, NajwaHuman Resource Development according to Total Quality Standards in the Algerian Industrial Enterprise (Unpublished Doctoral Dissertation). Faculty of Humanities and Social Sciences, Setif 2 University, Algeria, .(2016/2017). pp. 58-59.

In general, the evolution of HRM can be categorized into the following pivotal movements:

- The early Industrial Revolution stage.
- The Scientific Management movement.
- The Human Relations movement.
- The Human Resources school.

4. The Concept of Technology

At the beginning of the third millennium, the world witnessed radical shifts in technology use. Technology is no longer just a set of tools used by humans; it has become a social and cultural feature that distinguishes human societies. Its presence is no longer confined to factories but extends to all social, economic, and even political aspects of life.

Sara Bouaifi argues that the dominance of technology has accelerated a new trend in sociology that seeks to establish a "study of usage," aiming for a consensus between social relations and technical use, focusing on the perceptions and values embedded in daily human-technological interactions.(9) Technology is a concept discussed by many scholars from various perspectives:

- It is an idea, tool, and solution for problems before being mere equipment; it is a human activity involving both scientific and applied aspects.

- It is a human effort and a way of thinking about utilizing information, skills, expertise, and human elements, along with their applications, to discover means for solving problems, satisfying needs, and enhancing capabilities.

- Some researchers define technology as a set of electronic equipment and devices designed for service (Hardware), operated

(9) Bouaifi, Sara. Sociology of Technological Usage and Gender.Retrieved.(2016). file:///C:/Users/joe/Downloads . 27 March 2026, 17 :30.

through organized and coordinated scientific and technical systems, methods, and methodologies (Operating systems and software) adopted by institutions and administrations to direct their diverse activities.

• Meanwhile, McLaughlin and Dawson have indicated that technology serves a social function, which is to improve work and life conditions in general by employing it in its various forms. They view technology not merely as devices, techniques, and equipment, but rather as "Social Technology" embodied in the form of values, techniques, and technical knowledge used as a means to improve work and life conditions.

Thus, technology is a composite of values, ideas, equipment, and software adopted by the organization and its human resources to enhance and define work methods. This takes various dimensions, including Electronic Management, technological values (the moral/intangible aspect), and Digital Information Systems (the software aspect)(10).

This technological revolution was accompanied by modern concepts, most notably Digital Technology. This refers to the electronic devices, tools, and resources used by companies to create, manage, and store data. It improves employee efficiency and productivity while optimizing operations and the customer journey.

Digital technology works by converting information into a digital format- a format that is easily processed and stored using computers, the internet, and microprocessors.

In light of the continuous changes occurring in technology, markets, and external conditions, organizations are left with no choice but to keep pace with these transformations. This is achieved by

(10) Faraj Allah, Zainab& Ben Souilah, Lilia. Modern technology and its role in achieving quality performance of human resources.Al-Muqaddima Journal for Humanitarian and Social Studies, 6(vol 2), Algeria .(2021). p 323-324.

fundamentally adopting technology and applying it to the organization's needs, its customer base, and industry trends. Digital technology is one of the primary means utilized by organizations to achieve this objective.(11)

Following this brief presentation of the concept of digital technology, its uses, and what it offers the organization- including data creation, management, and storage, as well as enhancing employee efficiency and productivity- it leads us to what is known today in contemporary administrative thought as HR Digitalization. So, what are the implications and connotations of this modern concept?

5. The Concept of Human Resources Digitalization

A key consequence of the digital revolution in the 21st century is the reliance on technology to manage human assets. HRM has shifted from traditional administration to digital models based on data analytics and smart applications.

Stone et al., in their article "The Impact of Technology on the Future of Human Resource Management," define HR digitalization as:"The process of transforming HRM functions and activities into a digital format by employing information and communication technologies (ICT). This allows for improved operational efficiency, enhances data-driven decision-making, and achieves integration with the organization’s overall digital transformation strategies"(12).

Accordingly, the concept of HR Digitalization refers to the use of digital technologies to plan, execute, and develop all human resources management functions with the aim of improving efficiency and making data-driven decisions.

Adopting this concept leads us directly to the digitalization of

(11) Technical and Vocational Training Corporation.(2025). Bakkah. Retrieved. 25 March 2026, from https://bakkah.com/ar/knowledge-center.
(12)Stone, D. L., Deadrick, D. L., Lukaszewski, K. M., & Johnson, R. The influence of technology on the future of human resource management.Human Resource Management Review, 25(vol 2), (2015).p 216-231.

human resources management, which has undergone a significant transformation in how HR functions are managed within organizations. It utilizes technology to enhance the efficiency and effectiveness of HR-related processes, such as recruitment, training, and performance management.

This transition is only achievable by providing an appropriate environment centred on establishing a Digital HR Platform. Such a platform shifts the relationship between the employing entity and the employees from a traditional nature to an electronic one. This digital HR platform is closely linked to the broader "Electronic Management" (E-Management) project, which has spread globally, including in Algeria, which adopted this approach in 2008.

To clarify any ambiguity for the reader, several terms can be applied to this digital HR platform, including: Digital HR Management Platform or Digital Competency Platform. Collectively, these terms refer to a comprehensive framework encompassing all possible integration mechanisms and content between HR management and modern technologies, aimed at creating added value through the synergy of human resources and management(13).

The trend toward HR digitalization emerged as an urgent response to the digital wave sweeping today's institutions. New patterns of communication-predominantly digital- have emerged, alongside "digital groups" as a new form of professional community. Furthermore, a new digital culture has surfaced, far removed from the classical concept of organizational culture. All these factors, combined with governments' adoption of E-Management, have accelerated the digital transformation of human resources administration and management.

This wave of change in the field of information delivery and

(13)Madouri, Mohammed &Madouri, Ghazlane.,. Digitalization of Human Resource Management (DRP - M2 - CUM - 03). Department of Law, Institute of Law and Political Science, Maghnia University Centre, Algeria (2023/2024), p. 6.7 adapted.

dissemination has driven all governments to shift towards e-government. Therefore, we see several developments simultaneously moving towards the adoption of e-government, including those related to officials developing new methods to improve administrative work and increase the efficiency of service delivery. Perhaps the most important of these is the digitization of human resources, as these are the cornerstone of every organization, regardless of its nature of activity. Indeed, the quality of an organization depends on the quality of its human resources selection and utilization. Consequently, we find that all countries are striving to implement e-government(14) .

6. CONCLUSION

In conclusion to this research paper, it can be stated that today's organizations, across their various administrative functions- foremost of which is Human Resources Management (HRM)- have reformulated their relationship with technology, allowing the latter to play decisive and increasingly vital roles. Digitization is no longer merely a set of auxiliary tools to help organizations perform their functions; rather, it has become a fundamental pillar and a driving force without which these functions cannot operate. Digital technologies have played a significant role in bringing about a radical shift in human resource management methods, transitioning from traditional models to modern ones based on strategic planning, digital data, and intelligent systems.

Furthermore, this study emphasized that the digitization of HR represents the core of digital transformation processes. There is little merit in discussing e-administration without linking it to human resources, as the concept of HR digitization transcends the mere automation of routine procedures. It extends to the restructuring of jobs and processes through e-recruitment, digital performance management, e-training, smart data storage and retrieval systems, and

(14) Bouhouch, Ammar. Modern Management Theories in the Twenty-First Century (Vol. 1): Dar al-Gharb al-Islami . Beirut. (2006,). p 183.184. adapted.

data analytics. This shift allows for reduced time, lower costs, and enhanced transparency, thereby bolstering efficiency and organizational agility.

When applying these concepts to the reality of Algerian institutions, we find them at the heart of these radical transformations, a fact confirmed by the Algerian government's adoption of digitization and e-administration strategies for its organizations. However, the success of this transition remains contingent upon two factors: first, the ability of institutions to balance the technological and human dimensions to ensure the rational use of digital tools; and second, the creation of a work environment with requirements that facilitate a flexible digital transformation of HRM. This places the human element at the centre of the transformation process and contributes to achieving a competitive advantage for organizations within a rapidly changing environment.

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