

CHAPTER I: INTRODUCTION

1.1 Background of Study

Digital transformation is now vital to modernising administrative processes, particularly in human resources management. This research focuses on the obstacles encountered by Sudan's human resources management, specifically at the Ministry of Higher Education and Scientific Research, in their efforts to digitise their HR practices. As technology advances, digitalizing human resources management in Higher Education is required to use digital solutions to streamline their operations (Aker, 2017). Managing human resources (HR) is indeed a strategic approach that aligns the management of people with the overall goals and objectives of an organisation (Goklas et al., (2021). It involves overseeing and coordinating the workforce to ensure the organisation operates effectively and efficiently. The primary aim is to oversee individuals, not solely as employees, to further the company's long-term interests. As per Biesalski and Abecker (2005), human resource management encompasses the strategic and purposeful structure, regulation, and advancement of all aspects that impact human resources in an organisation. Senyucel (2009) perceives human resource management as a combination of employee-focused management practices that acknowledge workers as valuable assets and drivers of a skilled and dedicated workforce to accomplish organizational objectives.

However, human resource management encompasses a set of philosophies, policies, systems, and practices that shape employee behaviour, attitudes, and performance. The objective of these practices is to manage the workforce and ensure that their skills and abilities are utilized towards achieving organizational goals. To measure the effectiveness of human resource management, an organisation must achieve its intended goals for managing employees. Success is defined as the achievement of objectives that align with business strategies, fully utilizing employee potential and enhancing organizational performance. Measuring HRM effectiveness involves assessing achievements in both traditional HR administrative functions and strategic HRM goals (Sharma & Vyas, 2012). The significant advancement of

digitalization has transformed various aspects of public sector operations globally, including human resource management (HRM) Foresight and STI (2022). Digitalization in this study refers to offers opportunities to enhance service delivery, efficiency, and transparency in the Ministry of Scientific Research and Higher Education in particular. The significant advancement of digitalization has transformed various aspects of public sector operations globally, including human resource management (HRM) (Foresight and STI, 2022). Digitalization in this study refers to opportunities to enhance service delivery, efficiency, and transparency in the public sector, particularly in the Ministry of Higher Education and Scientific Research.

To overcome these challenges, the Ministry of Higher Education and Scientific Research in Sudan needs to address the issue of digitization in the public sector comprehensively. While the implementation of digitization methods can bring numerous benefits, certain strategies are essential to overcome resistance to traditional approaches. Key steps include implementing change management programs and providing continuous training (Zaanoun, 2023). Within HRM, there are two overarching categories of competency: professional HRM capability, which pertains to performing traditional HR tasks, and business-related capability, which is required to comprehend the business and implement competitive strategies. Ulrich (1995) identified three categories of HR competency: knowledge of the business, HRM functional expertise, and management of change. Increased competencies in each domain are associated with greater perceived HRM effectiveness. Kahn (1990) suggests that people's work habits are influenced by the benefits of their facilities in the public sector services, highlighting that a work environment offering meaningful incentives can foster a sense of return on investment. Similarly, Brown (2011) notes the importance of such incentives in shaping employee behaviour. Martins (2007) emphasizes the need for proper job descriptions, performance criteria, and reward systems to motivate employees and encourage them to complete HR tasks effectively. Gostick (2007) assert that a manager's ability to reward employees hinges on understanding each employee's individual interests, lifestyle, and motivational factors.

The study focus on using technology to streamline the human resources process and increase transparency in recruitment, training, and personnel management within Sudan's public sector. There is an urgent need to improve efficiency, digitalization, transparency, and modernity in the public sector, as highlighted by (Abol Kuyok, 2017). Exploring digitalization in HRM is crucial for reducing administrative procedures, expanding access to educational materials, and promoting transparency and accountability in government institutions. This has ushered in a new era in Sudan's Higher Education reforms, which remain a model component of every government's endeavour to modernize public service using digital facilities (I. K. Ibrahim et al., 2014). (Zavvalova et al., 2022).

This exploration can greatly contribute to the successful implementation of digitalization projects (Arbab & Mahdi Abaker, 2018). Additionally, it is important to consider the impact of resource allocation and availability on the adoption and utilization of digital HRM technology. Furthermore, understanding how organizational traits influence the efficacy of digital HRM implementation initiatives is essential. The structure of the thesis title is designed to convey the focus of the research, which is to investigate how to empower the impact of digitalization on HRM to reform public sector services in the Sudanese public sector, this will provide a clear indication of the subject matter, scope, and geographic location of the study. along with addressing the challenges facing Sudanese citizens in the digitalization of human resources management in the public sector, specifically in Sudan, including public employee institutions (Ramadan, 2015).

The Ministry of Higher Education in Sudan addresses various administrative issues and procedures. It is essential to evaluate and support government institutions to help achieve the objectives of Sudanese educational institutions (Mert & ED-Dafali, 2022). The Ministry of Higher Education and Scientific Research, which oversees the country's higher education system and scientific research initiatives, faces challenges in digitalization. Despite the potential benefits such as streamlined HRM processes,

improved management, and enhanced employee engagement it has several barriers hinder its successful implementation (Eisa & Sin, 2015).

The integration of digitalization into human resources processes at the Ministry of Higher Education and Scientific Research in Sudan faces several significant challenges (A. H. Ibrahim, 2021). A primary issue is the lack of digital skills among employees, which hampers the digitalization of documents. Additionally, there are deficiencies in administrative procedures, limited access to educational materials, and insufficient promotion of transparency and accountability within government institutions. These obstacles complicate efforts to ensure equal access to human resources and erode public confidence in the Ministry of Higher Education institutions. Moreover, the management of higher education institutions in Sudan has struggled to keep pace with technological advancements due to inadequate funding and insufficient facilities for digital public domains. Arbab and Mahdi Abaker (2018), suggest that addressing these issues is crucial for the successful implementation of digitization initiatives.

It is also essential to consider how the availability and allocation of resources impact the adoption and utilization of digital HRM technology. Ensuring transparency will enable the Ministry of Higher Education and Scientific Research in Sudan to participate effectively in digital services during the recruitment process. Digitalization facilitates the exchange of goods, ideas, and cultural aspects. This study aims to explore the impact of digital technology on human resource management at the Ministry of Higher Education and Scientific Research in Sudan. The research aimed to identify the primary obstacles hindering the effective implementation of digital HRM systems and to propose policy solutions to overcome these barriers. Key challenges identified include limited technological infrastructure, insufficient digital literacy among ministry employees, a lack of administrative procedures, and inadequate training programs. Using a quantitative descriptive approach, data was collected through a questionnaire distributed to all employees, with total 139 out of 201 respondents participating.

1.2 Research Authenticity

This research investigates the difficulties faced in implementing digital HR management within the Ministry of Higher Education and Scientific Research in Sudan. The findings will help Sudanese HR institutions evaluate their systems and take necessary actions. Furthermore, this research will be a valuable reference for future scholars interested in this topic. The data shows that the Ministry of Higher Education is focused on implementing innovative reforms and actively embracing digitalization by integrating digital initiatives within higher education institutions. Previous policies in higher education were not in line with the digitalization efforts in Sudanese management.(Boselie et al., 2021).

By identifying challenges and opportunities for growth, the study provides valuable insight and evidence into the in-demand skills and emerging trends that can lead to managing the Ministry of Higher Education institutions. These institutions are responsible for guiding the use in adapting to the digitalization in the Higher Education institutions. The results of this study can serve as a reference for policymakers, stakeholders, and public sector institutions in Sudan, as well as a guide for researchers to improve their public administration by implementing strategic advancements in human resources management (HRM).

1.3 Statement of the Problem

It is crucial to identify and articulate the specific issues or gaps that the research aims to address. The Sudanese people face the daunting task of historical adjustment and restructuring, particularly in modifying administrative procedures at public sector facilities like the Ministry of Higher Education and Scientific Research and other government institutions. (Frost, 1984). Addressing the digital skills gap within Sudan's higher education institutions workforce is essential for effectively managing the process of digitalization. This is a critical priority for the Ministry of Higher Education and Scientific Research's HRM department (Handayani & Maheswari, 2020).

The Ministry of Higher Education and Scientific Research in Sudan is encountering notable difficulties in incorporating digital technologies into its Human Resources Management (HRM) practices. These obstacles encompass insufficient infrastructure, an absence of technical know-how among personnel, reluctance to embrace change, and restricted financial resources. Furthermore, there exists a disconnect between the current HRM procedures and the possible advantages of digitalization, resulting in inefficiencies and reduced productivity. This study aims to elucidate the factors that influence government employees within the Ministry of Higher Education and Scientific Research when implementing digital HR management in the country's public sector authority (Charles et al., 2014).

1.4 The Objectives of the Study

The primary goal of this study is to explore the determinants and factors impacting the challenges associated with the implementation of digitalization in HR management in Sudan particularly at the Ministry of Higher Education and Scientific Research. These challenges encompass inadequate funding and limited resources, the influence of leadership, and the gap in digitalization skills within HR management. This research is specifically aimed at accomplishing the following objectives:

- i. Describing government policies regarding the digitalization of Human Resource Management (HRM).
- ii. Identify the main obstacles that hinder the digitalization of HRM.
- iii. Addressing the various components involved : technological infrastructure, employee skills and training policy.

1.5 Research Questions

Here are some potential research questions that could be formulated to address different aspects of the topic The Challenges of Digitalizing Human Resources Practices in Sudan at the Ministry of Higher Education and Scientific Research:

- i. What is the impact of government policies on the digitalization processes within the Ministry of Higher Education and Scientific Research?
- ii. What are the primary challenges faced by the Ministry of Higher Education and Scientific Research in digitalizing HRM?
- iii. How does digitalizing HRM affect technological infrastructure, employee skills, and training policies?

1.6 Scope of the Study

The scope of this study encompassed an in-depth analysis of Sudan's public sector institutions, with a specific focus on the Ministry of Higher Education and Scientific Research. The study scrutinised the ministry's human resource management processes, practices, and policies. The timeframe for the study was dedicated to examining the historical or current challenges and efforts associated with digitalization.

1.7 Significance of the Study

The literature on the difficulties faced when implementing digital HRM is important because it can help facilitate organizational modernization, performance enhancement, resource allocation optimization, skill development, employee and policy and regulation. The study breakdown highlights the potential significance of the following aspects:

1. Increasing workforce experiences: Digital HRM systems may improve the general satisfaction of workers by making information more accessible, facilitating collaboration, and offering independent service choices. Resolving implementation issues can help create a public sector employment atmosphere for Sudanese residents.
2. Implementing effective HR procedures is of utmost importance in providing high-quality services to Sudanese citizens. Digitizing HR procedures can indirectly enhance service delivery by ensuring appropriate management, training, and motivation of personnel.

3. Modernising HRM policies: Public sector organisations in Sudan, like many others worldwide, are increasingly realising how important it is to digitise HR procedures. To modernise HR procedures and achieve greater efficiency, commitment, and accessibility, it is imperative to comprehend the obstacles in this particular environment.
4. HR management often needs to learn new skills to effectively implement digital HRM in Sudanese government institutions that are adequately trained to use digital skills capacities.
5. The study identifies and analyzes the specific problems that Sudan's Ministry of Higher Education and Scientific Research has in its efforts to digitalize human resource management. This covers technological, organizational, and cultural challenges that can inhibit the adoption of digital solutions.
6. The study contributes to the broader literature on human resource management by investigating how digitalization might improve HR procedures like recruitment, training, performance management, and employee engagement. This can result in better resource allocation, increased transparency, and higher employee satisfaction.
7. The findings from the study can serve as a benchmark for other public sector entities in Sudan and similar contexts. Lessons learned and best practices identified can be applied to other ministries and sectors, facilitating a broader digital transformation across the government.