

# The Relationship Between Digital Human Resource Management and Organizational Performance

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**Abstract—** Digital Human Resource Management (HRM) is a digital transformation of HR practices and processes through the use of electronic media, mobile, analytics and information technology (IT) to make HRM more efficient. In other words, digital HRM is basically doing or managing all the human resource work using soft technologies, applications and internet. Digitization or digital transformation is something that all the organizations have to bring in order to be efficient and relevance in future. Otherwise they will lag behind other organizations in the market industry. This study reviews of several studies and discuss about the concept and various aspects of the digital HRM. This study mainly relied on secondary data only. The findings would be important for organization in assisting them to implement digital HRM effectively and thus improve their performance. In addition, the findings would be able to help researchers by providing the basis to understand the impact of digital HR on organizational performance.

**Keywords:** *Digital Human Research Management, E-HRM, Human Resource Management, digitalization, technology*

## I. INTRODUCTION

The rapidly technological advancement has increasing proliferation results in digitalization of the society and continues to impact and change the way organizations work. The digital revolution has an impact on organizations at all levels. Furthermore, it puts pressure on organizations and its employee to adapt to the rapid-changing world and the increasing of digital technology. Digitalization has become a buzzword in the business world, and recognised as something organizations must embrace in order to stay relevant [1, 2, 3,4].

Nowadays, technology in computers has replaced all manual work [5]. Smart computer programs such as Artificial Intelligence (AI), also has replaced non-repetitive intellectual tasks which can access to a bigger amount of information, commonly known as ‘Big data’ [6,7]. The traceability also increases as more digital tools are connected to the internet, ‘Internet of Things’ [8]. Digitalization pervades everything that can be digitized [9]. not only changes how people communicate and interact as humans, but in turn also transforms how organizations operate [10].

Previous research focuses on digitalization for marketing and business performance such as customer

preferences, buying behaviour and customer relationship management. However, how it affects the organization internally is less discussed in the field of academic research, especially in relation to HRM. Therefore, the objective of this study is to investigate deeper into HRM in the digital age. More specifically, the aim of this study is to gain a deeper understanding of HRM digital research field and relationship with organizational performance.

## II. MATERIALS AND METHODS

The study consists of review of articles and journals on HR and Technology. We analysed literature, draw the findings and further research directions. To achieve the stated purposes and answer the research questions, a systematic review of literature was conducted by using an archival method. This study employs a methodology to review the articles cited in the databases such as Taylor and Francis Online, Sage, Science Direct, Springer link, Emerald and Wiley Online Library with the current topic of Human Resource Management, digital Human Research Management and E-HRM. These studies were categorised into research areas, some of the findings of which are presented in the literature discussed above and further highlighted in the following section.

## III. LITERATURE REVIEW AND DISCUSSION

### A. Digital Human Resource Management (HRM)

To get a deeper understanding of what is digital HRM, it is necessary to define the meaning of HRM. According to Huselid [11], the best HRM practices areas are “recruitment and selection, socialization, job design, training and development, participation, career development, performance appraisal, employee reward and job security”. Moreover, Bredin & Suderland [12] explained HRM as practices relating to the relationship between the employees and the organization in which they work. In addition, HRM can be explained as the managing of HR in order to enable the organization to growth [13].

The development of information technology has played a key role in the evolution of HRM [14]. In the business world, digital technologies are transforming every aspect of HRM from attracting & recruitment of new employee, training and development, performance appraisal and

compensation and reward [15]. A comprehensive transformation from traditional to digital is required in terms of policies and strategies and the way to execute the HRM practices. According to Maditheti [16] digital HRM is basically managing all the HRM work through technologies, applications and internet. Innovations also are required to be brought in the HRM practices for attracting, rewarding and evaluating employees. Nowadays, social or virtual media is acceptable for retaining valuable employee. Digital HRM has also impact on the way employees are been trained.

Iwu [17] conducted study at sub-Saharan African universities found that maximum percentage of employees agreed that E-HRM would increase their performance. [18] also studied the impact of digitization on HR development, talent management and performance at work. The findings of research indicate that there is a positive impact of digital transformation on all variables. Tripathi & Kushwaha [19], strongly recommended that organizations to bring forward digitization in the HRM practices as it has become very significant these days. Recent study by Fedorova et al. [20], shown that digitization of HRM processes enable to remove many routine tasks, to reduce the risk of human error and empower experts to solve important issues, enabling them to use their knowledge and skills more effectively in solving business problems.

Therefore, based on previous research it shows that execution of digital HRM is important for organization to improve their performance and maintain relevant in digital era.

#### *B. How Digital HRM work?*

Schwab [21], described in the “Fourth Industrial Revolution,” how digital technologies have radically changed individual and societies life, working style, and how organization operate their organization and business. Thus, in order to be relevant in this era, digitization is something that organization has to bring in specifically in managing HR. For example traditional methods of recruitment and selection cannot reach wide geography of millions people at once. However, technology has made recruiting more efficient and effective to distribute information in more attractive way [22]. For example, Unilever one of global company radically changing its recruiting and hiring process. The company is experimenting with among other things such using social media, online games, and artificial intelligent to further digitalize how they are recruiting [23, 24].

Another example is relating to employee training and development; employee can access information about training programs from remote locations, attend training in virtual classrooms and assess progress through system or portal. Furthermore, in the research of Nawaz & Gomes [25], reported that the HR information systems is useful in HR processes and also acts as a strategic tool for organizational development. Anthony [26], also explained that the technology acting as an enabler for perform the better through “cloud based services, decision enabling analytics, borderless teams and real time talent management across the organization”.

Besides that, according to Larkin [10], the transformations in the HR can be categorized in three main groups; “inward, outward and across”. For example, if organization looks “inward” it means a digitally enabled office; the employer and the employee communicate electronically and all information disseminate in the form of video/audio or through mobile device [16]. In addition employee performance management also carried out in a digital way [16].

Secondly is “outward”; it involved employee or the management level which digitally enabling the employee and the management. They will use mobile devices to allow the employees perform their work in a better and efficient way [16]. Employee will be more informed, more engaged and alert as they can handle and perform their task anywhere and anytime, thus it will brings real-time feedback to the management [16].

The third is “across” which means changes to the organization at large. Digitization will bring new innovation, collaborations and new strategies throughout the organization [16]. The employees will become global employees as they will share and bring their knowledge and ideas at global level [16].

#### *C. Elements of Digital HRM*

In the era of technology, HRM has been changed to match the competitive and dynamic world. HRM has been to transform from traditional to digital. The following elements are required to make a transformation in HRM:

##### *Digital workforce*

In the millennials era, current generations are considered the digital workforce, they have internet-connected devices and web-based applications and services have always fascinated their everyday lives. By having these employees, the organization needs to be digital in order to engage with digital employee [27]. Therefore, the digital HRM are embedded with mobile apps, design thinking, video, behavioral economics and the use of system analytics [15].

##### *Digital work and task*

The contents of work become digital through usage of technology in work activity and management function. Organizations need to integrate digital elements into work processes and changing routine manual work into digital work [27]. Organizations also need to use digital tools and media to connect and communication with employee. Work and task in organization also need to organize digitally.

##### *Digital support management*

This involves planning, implementing and using digital technologies to support HRM activities such as payroll processing, reward and compensation, performance management, training and development and etc [27].

##### *Updated HR technology*

There is tremendous shift away from traditional HR software moving toward modern such as cloud based systems. Recently, HR applications move to mobile

devices and may shift to mobile platforms in the future. Mobile and social functionality both are standard requirement in technology vendor selection. The decision enabling analytics, measuring and predicting employee performance, mobile apps these are facilitating the real time employee across borders and in remote geography [15].

#### *D. Benefits of Digital Human Resource Management*

The digital world is changing how we live, work and how business is organized and conducted. E-HR can have an impact on every area of HRM. First, digital HRM can help business leaders and employees shift to a digital mindset, a digital way of managing, organizing, and leading change. [28] Highlights that digitalization changes the way employees communicate and interact in the workplace, what they expect from their employer and careers, where work location is and when work is conducted. Since, the evolution of digitalization impacts organizations at many levels, thus it needs development and adaption of new knowledge and new ways of working [29].

Kiesler et al. [30] Argued that technology mediates the relationship between “individuals and organizations, and subordinates and supervisors.” Hence, it has also reduced the distance in organizations so that employees can work from home and interact with other across geographical area. Furthermore, Heracleous [31] also emphasizes “the importance of investing in the development of required new skills especially if the change involves new technology and new roles”. Therefore, digital technology will continuously changes how organizations hire, manage and support people [29].

Besides that, HRM has the opportunity to revolutionize the entire employee experience by transforming HRM processes and systems through digital platforms, apps, and ways of delivering HR services. In addition, application digital HRM consider as green HRM concept which also can contribute to organization environmental performance [32]. Some of previous studies indicate that today’s HR-work involves simplifying and improving the employee experience by integrating digital technology [1,2,4].

#### *E. Challenges for HR professionals*

In the era of digital transformation, the organizations need to adapt themselves with the changing HRM practices. According Das & Sureshkrishna [33] the HR managers perceived that digitalization as an external pressure for change, creates challenges for them in many ways through the need for new HR competencies due to digitalization and flexible ways of working. Das & Sureshkrishna [33] also highlight several challenges:

1. Understanding digitalization,
2. Adaptability to new roles
3. Agility
4. Exploring and developing digital competencies
5. Meeting changed organizational expectations
6. Implementing organizational change
7. Dealing with new employment forms

#### IV. CONCLUSION

Digital HRM is become need of today’s businesses world. Organizations have to go for digital transformation in order to gain competitive advantage and relevance in industry. This study provided the reader with an overview of the HR digital and the findings of this study would be important for organization in assisting them to implement digital HR effectively and thus improve their performance. The findings can hopefully act as a foundation for researchers for further research in digital HRM and it will be assist other researchers in the identification of related studies in the literature review phase of their work. In addition, the findings would be able to help researchers by providing the basis to understand the impact of digital HRM on organizational performance.

Nowadays, the digital HRM is very crucial and it has a growing concern for the organizations as well. It is recommended that the researchers study deeper on how the performance has changed from the past to the present, how much it has affected the organizations, role of HR manager and evaluation on investment of the implementation.

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