

**Exploring the Influence of Electronic Human Resource Management on the  
Role of Human Resource Function in a Developing Country, Pakistan**

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**By**

**Sameen Shakir**

**(274085)**

**NUST Business School**

**National University of Sciences & Technology (NUST)**

**Islamabad, Pakistan**

**(2022)**

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## Abstract

With technological primacy the influence of information technology has evolved Human Resource management to Electronic Human Resource Management (e-HRM). The aim of this study to explore the purpose of implementing e-HRM, its opportunities and challenges and its influence on the role of HR's function in the organizations of a developing country, Pakistan. Qualitative research methodology was adopted, and semi structured interviews were. This study revealed that organizations have several purposes for which they implement e-HRM including, meeting the needs of organization, achieving sequential objectives (operational, relational & transformational), and surviving in the competitive environment, The study also found that e-HRM has certain challenges and opportunities. The process of implementing e-HRM itself is challenge and involves decisions that are crucial. Stakeholder support is an additional challenge and sustaining the e-HRM in another. E-HRM offers many opportunities as well. Rightsizing is and quality of service are the ones revealed by this study. Lastly, the study revealed that e-HRM has influenced the role of HR. Although HR still performs all three roles (administrative, managerial, and strategic) to some extent, they fall more between managerial and strategic now. This study contributes to academia by providing a context specific study. It contributes practically as well as it is providing detailed study on e-HRM which can be used as a framework while implementing e-HRM.

## Chapter 1: Introduction

### 1.1 Introduction

The 4<sup>th</sup> industrial revolution began in the middle of 2016, observed a widespread increase in the use of digital industry by 2017, especially internet of things (Mahmood & Hussin, 2018). Ever since the way world functions have changed. The digitalizing has casted visible impact on the work and business world across Pakistan. The organizations now, involuntarily have to deal with tech innovation systems, speedy digitalization, and emerging demand of the human capital's skill set (Mazurchenko & Maršíková, 2019). The COVID'19 Pandemic, has made it even more evident that in order to survive in the world of technology, the adaption of technology is imminent (Li et al., 2020) A step forward in external pressure of technology innovation, globalization and smart working has made organizations strive to achieve competitive advantage to hold its position efficiently and effectively (Wang, 2010). With this inevitable incorporation of information technology in organization, an ongoing debate has been under consideration about what areas of an organization it influences (Sibanda & Ramrathan, 2017).

The parallel debate that goes along refers to the roles that Human Resource Management (HRM) plays in an organization. The substantial place that HRM plays in an organizations fortune has gone through tremendous improvisation with the organizations facing increased competition than ever (Caldwell, 2003). The roles now held by HRM are spread through a continuum with traditional bread and butter roles at one extreme and strategic roles at other extreme (Truss, Gratton, Hope-Hailey, Stiles, & Zaleska, 2002). A shift in more value-added roles, representing the strategic roles, has been witnessed over years and the emphasis on strategic importance for organization and HR has increased ever since (Ullah, 2012). HR being expected to look after

manifold roles ranging from daily tasks to strategic tasks puts an inevitable burden which limits HR's output (Fındıklı & beyza Bayarçelik, 2015; Som, 2008).

Information technology and computer aided learning appeared as a savior for both, HR and organization. Electronic Human Resource Management (e-HRM) which is also referred to digitalization of HR holds a central place when it comes to HRM and leading edge technology, While digitalization is the new era of technology following the 4<sup>th</sup> industrial revolution (Mahmood & Hussin, 2018), HRM's operations are digitalized resulting in reduced manual and paper work and increased productivity (Baykal, 2020). However, it has been argued that the scope of e-HRM is way beyond the goal to go for a paperless environment. The end results that come along with e-HRM are reflected at micro and macro level as operational, relational, or transformational consequences. Paperless environment only responds to the operational goals of e-HRM. The relational consequences refer to the ones emphasizing the interaction and networking while the transformational consequences contribute to the entire organization's performance by targeting at the fundamental transformation (Baykal, 2020; Strohmeier, 2007). Studies based on operational and relational goals are much established but studies on transformational goals have now taken over the research in e-HRM. Also since the way business operates now has evolved over years with technology embedded models, the inevitable need of novelty and pressure has made organizations upgrade their working (T. Bondarouk & Furtmueller, 2012).

Studies in the field of e-HRM and the HR's competencies have mostly been conducted in developed economies with the western lens of analysis. USA and Europe appears to have adopted digitalization and has already proceeded with extensive studies. It is, however still in implementation phase in most of the organization and when it comes to Pakistan. It is yet not

supported which makes it even more important to highlight and provide a context specific study (Iraqi & Zaheer, 2021). Though handful yet progressive number of studies have analyzed the influence of e-HRM on HR's competencies (Basu, 2019), A few, if any studies have been conducted in Pakistan to understand the influence e-HRM has on the role of HR. Besides, to the best of my knowledge, this is the first study to not only understand the goals of e-HRM and their respective influence on HR but also to understand the strategic potential that e-HRM offers to Human Resources. Pakistan appears to be a suitable site for study since the technology is being evolved where technology systems are gaining immense importance to retain the business.

The central focus of this dissertation is on the influence that e-HRM has on the role that HR plays in an organization. In addition to it, this study incorporates an exploration of strategic influence of e-HRM on the HR. While a few studies of e-HRM's impact on HR competencies has been found in the context of Pakistan (Iraqi & Zaheer, 2021; Waheed, Xiaoming, Waheed, Ahmad, & Tian-tian, 2020) but this study highlights the essence and purpose of adopting e-HRM along with its influence on the roles that HR plays in organizations with a qualitative lens. Besides this, the study provides an insight about the challenges and opportunities that come with e-HRM at micro as well as at macro level.

## **1.2 Problem Statement**

In an era of technology, time is money (Gonzalez, Koizumi, & Kusiak, 2011), hence the organizations idealize to create innovative processes to deal with the need of the swift and less time consuming operations. Electronic HRM has been one of the alternatives prevailing in organizations for decades. Gone are the days when the only advantage organizations looked forward through e-HRM was operational referring to efficiency. While operational, relational and transformational goals, all are prevalent in organizations, particularly in the western

developed countries, Pakistan still lacks established research as most of the organizations are still in implementing phase catering to operational goals with a few developed organizations who have moved to transformational goals (Ibrahim, 2021; Iqbal, Ahmad, Allen, & Raziq, 2018; Iraqi & Zaheer, 2021). Besides, with the accelerated globalization many MNC's have established offices in Pakistan. This brings with them the standard way of doing things from their home country. This has caused an inevitable influence on National organizations to keep up with the pace.

Therefore, it is crucial to explore the case of e-HRM in Pakistan. The problem aimed to be researched is whether the essence or purpose of e-HRM is operational, relational or transformational. Since the way HR functions, has evolved, the manifold roles of HR have also evolved. So, this study aimed at exploring in depth

whether e-HRM has casts positive influence on the role that HR plays in the organization. E-HRM appears to be inevitable as Gonzalez (2011) pointed out the years coming ahead to be exciting period to be in e-HRM. Additionally, the global pandemic, COVID 19, highlights its importance even more as E-learning has taken a toll over everything as everyday working follows computer adopted technology and internet (Al-Momani, 2021)

Hence the focus of this study revolves around the implementation of E-HRM, its purpose in the organizations, the modified role of Human Resources in digital age of e-HRM, its responsibilities now and arising opportunities. As in last decade most visible research in e-HRM has been on changes with relational e-HRM (Gonzalez et al., 2011). This thesis has focused on all three goals with a primary focus on transformational goal of e-HRM in the context of Pakistan.



### **1.3 Significance**

Amidst the covid pandemic, the influence of technology for organization increased drastically as work from home was the backbone of delivering services by organizations. Organizations with well-developed technology systems has better survival with work from home. Hence, this pandemic and inevitable need of technology, the future trends have reshaped and have emphasized the need of e-HRM (Przytuła, Strzelec, & Krysińska-Kościańska, 2020). This study has its significance as it provides an exploration of e-HRM holistically, understanding of its purpose, its opportunities, its challenged and its influence of HR's role in a developing country, Pakistan. It provides an in-depth understanding of the purpose that organizations can achieve by implementing e-HRM. It significantly provides an insight to e-HRM as a resource for organizations by emphasizing on its opportunities. It provides a detailed overview to the challenges of e-HRM which lays the basis for several decisions. At HR level, the study helps to provide a way forward of opportunities to be grabbed and worked upon to remain the mainstay of the organization. For organization it helps to convey the notion that utilizing the best of HR's abilities can take their business beyond expectation. Additionally, this study can further aid small and medium sized enterprises which are yet to move towards e-HRM with a detailed understanding, opportunities and challenges which comes with e-HRM and a chance to adopt a proactive approach when designing their implementation models.

The thesis begins with outlining a brief overview of the existing e-HRM understanding, its goals and benefits, followed by a brief overview about the roles of HR and an association between the influence of e-HRM on HR roles in the field of HRM literature and research. Following it a strategic potential for e-HRM helps in understanding how HR roles can be modified with e-HRM which is one of the objectives of this study as well.

#### **1,4 Objectives**

- To understand the purpose that organizations want to achieve by implementing e-HRM.
- To explore the opportunities and challenges that organizations face while implementing e-HRM
- To understand the influence of e-HRM on HR's role.

#### **1.5 Questions**

- What is the purpose for which organizations implement e-HRM in a developing country context?
- What are the opportunities and challenges that organizations face while implementing e-HRM in a developing country context?
- How the adoption of e-HRM has influenced the role of HR in organizations in a developing country context?

#### **1.6 Thesis Structure**

Chapter 1 of the thesis provides a brief overview of the topic which is to explore the influence that electronic HRM has on the roles that Human Resource plays in organization. It then outlines a brief relevance of topic to the field of Human Resource Management and briefly explains the contribution of this study to the field of HRM and its significance in current era.

Chapter 2 outlines a review of existing literature. This literature review reflects onto the objectives of the study. It revolves around 3 core sections including electronic Human Resource Management, its goals, opportunities and challenges and the diverse roles played by Human

Resource professionals. This review then leads to the objectives and questions of this study. It also reviews in detail the gap which emphasizes the need to conduct research on this area.

Chapter 3 runs through the discussion of the methodology that is undertaken in order to conduct this research. It sheds a light on philosophical grounds for following qualitative research and data collection tools and procedure. It then provides a brief discussion and the rationale for the organizations chosen for research followed by a brief introduction of the organizations them self.

Chapter 4 provides a detailed finding about the research conducted on electronic Human Resource Management and its influence on HR's role. These findings reflect upon the data collected.

Chapter 5 discussion provides a brief introduction about the organizations chosen for collecting data.

Chapter 6 provides the conclusion of the overall study and sheds light on the limitation and recommendations for future research. It is also followed by the thematic framework of this study.

This chapter has given a brief overview of the topic under research. It has established a basic understanding of Electronic Human Resource Management (e-HRM) and has shed a light on evolvement of e-HRM. It has further explained the need of conducting research on e-HRM in Pakistan through problem statement. It then proceeded with shedding a light on the significance of e-HRM especially in the context of Pakistan. It has outlined the objectives and questions that this study aimed at achieving. It has also given an insight about the contributions of this study to the academia as well as to the HR professionals.

## Chapter 2: Literature Review

### 2.1 Introduction

Despite immense research on electronic Human Resource Management, there remains a lack of research on the influence that e-HRM has on the roles that HR plays in organization. Literature talks about potential strategic influence that e-HRM might have on HR (T. Bondarouk & Ruël, 2013; Lepak & Snell, 1998; Marler & Parry, 2016), still there is a lack of empirical evidence about the influence of e-HRM on HR's roles..

The literature on Electronic Human Resource Management (e-HRM) stretches over a period of three decades but its evidence is found as back as 1950's when its origin was found in payroll systems used by the US firms. It was the same time when computers were first introduced in the world of business (Pant & Chatterjee, 2008). The advent of computers followed by dominance of information technology resulted in shift of delivery of Human Resource functions through electronic means. According to Mishra (2009) the implication of technology on HR function is still not clear. However, according to his study, next three years were considered as revolutionizing the function of HR. The following years witnessed a wide practice of introducing e-HRM in organizations. The most evident advancement took place in e-administration, e-job design, e-HR planning, e-recruitment and e-selection, e-compliance and what not. Basically e-HRM was used as a tool to shift responsibilities to digital base (Sinha & Mishra, 2014). Debate on e-HRM also entails the discussion about the purpose with which organizations adopts technology and implement e-HRM (Obeidat, 2016). The purpose of implement e-HRM reflects on the roles that HR plays and the influence that this implementation has on the roles played by HR.

This chapter aims at establishing the foundation based on which analysis will be conducted. It consists of 5 sections. The first section of this chapter will review the literature on the evolution of HRM to e-HRM. The second section reviews the literature to provide basic understanding of e-HRM alongside the difference and similarities of e-HRM with relevant concepts. The third section throws light on the goals with which e-HRM is implemented in organizations. The focus of this section will be on Lepak and Snell's framework of e-HRM's goals. According to this framework, the simple classification of e-HRM goals is operational, relational, or transformational. This section will also provide an insight into the goals and how these goals are executed through HR. The Fourth section will provide a detailed literature review discussing the opportunities and challenges that organizations face while implementing e-HRM. The fifth section will review the diverse role of Human Resource Management as present in literature. The focus of this section is to define boundaries between different types of roles that HR plays specially the difference between HR traditional roles and roles played by strategic HRM.

## **2.2 HRM to Electronic HRM**

Human Resource Management (HRM) has struggled for decades to make its way in the core of organizations. Gone are the days now when organizations took Human Resource (HR) as a liability, rather it is now viewed as one of the most important assets, considered as the backbone of any organization (Ahmed & Ogalo, 2019). Besides, HR has now been valued more than ever before because of the striving competitive advantage (T. V. Bondarouk & Ruël, 2009). The need for continuous innovation also demands HR to act proactive rather reactive. To compete in such an environment, continuous reengineering in business is a must. (Fındıklı & beyza Bayarçelik, 2015). So the inevitable competitive pressures have highlighted the role of HR for organization's

success and growth because HR is capable of bringing the opportunities for business (Gould-Williams, 2003; Olivas-Lujan, Ramirez, & Zapata-Cantu, 2007).

As the expectation from HR has advanced, the roles and responsibilities exhibited by HR personnel have also been modified. There are multifold roles expected to be played by HR, ranging from every day administrative task to strategic roles, which are explained in detail ahead. Hence, they now have to manage all administrative tasks and daily HR activities besides working on strategic issues (Ullah, 2012). The strategic issues include analyzing long term needs and devising respective actions and is an eye catching domain for HR and organizations in current era (Knies, Boselie, Gould-Williams, & Vandenabeele, 2017). These multifold responsibilities however have resulted in the increase of workload on Human Resources. As a result of which it is out of the blue for HR to look after operational, relational as well as strategic roles without any external aid. This calls for reengineering of HR (Yeung & Brockbank, 1995). The way HR function has to be transformed in order to be able to fulfill the expected responsibilities from HR.

Organizations have been investing in HR ever since the worth of HR in organizations is taken under consideration, (T. Bondarouk, Parry, & Furtmueller, 2017). The investment in HR, followed by the need to reduce the burden on HR is reflected with transformation of HR itself through advanced technology (Marler & Liang, 2012). The parallel progress in information technology (IT) system has also taken over the way the world operates. The need for HR to be transformed and the need to adapt with progressive technology has made evolution of HR to e-HRM inevitable. The scope of IT is way beyond merely the reduction of workload. Rather the increased reliance on technology as made it imminent for organizations to keep up with pace of the world (Croteau & Bergeron, 2001). Technology has left no field unaffected. To remain competitive and to stay up to date with the external environment, HR has to maintain a balance

between its macro and microenvironment. This balance has to be created by adapting with the relevant IT systems as per the need in environment. The use to IT to aid the business in enhancing its progress can also not be confined. IT has influenced the entire organizations (Melville, Kraemer, & Gurbaxani, 2004). For this research however we are only focused on the HR and through IT, the digitalization of HR.

The “digitalization” of Human Resource Management has brought a drastic change in business world over a period of last two decades (Mihova & Ivanova, 2020; Strohmeier & Kabst, 2014). It has shaped the way HR operates. Parry and Strohmeier (2014) considering the reliance of business and organizations on digital technologies, referred the current age as the digital era. The study emphasizes that the dominance of digital technologies has influenced the lives of not alone employees but also influenced HRM and its function. Literature labeled digital dominance in three focused areas classified as digital employees (Deal, Altman, & Rogelberg, 2010), digital work (Nawaz & Kundi, 2010) and digital employee management (T. V. Bondarouk & Ruël, 2009). This study focuses more on the digital employee management, which is the use of technologies in delivering HRM functions and its influence on the role that HR plays in organizations.

However, most of the studies showing the trend of progressive e-HRM are from US and Europe (Iraqi & Zaheer, 2021). This also leads to the fact that with accelerated globalization, inflow and outflow of capital has been witnessed. Organizations look for economies with cheap labor and establish its subsidiaries/offices/units in such countries (Cowie, 2019). So is the case for Pakistan as cheap labor is considered as the mainstay for the country’s economy (Akhlaq, 2009). So with the inflow of capital, organizations bring with them standard operating procedures. This

puts an additional pressure on host country to adapt with the technology to sustain the business (Iraqi & Zaheer, 2021)

Two things are emphasized here. First, the need to explore and study e-HRM is essential not only to sustain the business but also to keep up with the moving pace. Second, the study is even more crucial in the context of Pakistan where e-HRM is still in implementation phase (Iraqi & Zaheer, 2021). Another important factor derived from above literature is that with e-HRM being implemented, HR role has become crucial. The roles of HR must reflect with the e-HRM as well.

### **2.3 Understanding of e-HRM**

To understand e-HRM it is important to draw distinction among a few terms often mixed with e-HRM. Human Resource Information System (HRIS), virtual Human Resource, Human Resource Management system (HRMS) etc. are a few such terms mistakenly used in place of e-HRM. E-HRM is also often referred to information technology as it involves a wide use of IT for HR.

Exploration of electronic Human Resource Management (e-HRM), demands an understanding of e-HRM because it is comparatively a new term and therefore has chances to be misinterpreted (Gonzalez et al., 2011). Various journal articles have provided different explanations for e-HRM. Despite the widespread use of e-HRM, still no explicit definition exists (Lengnick-Hall & Moritz, 2003). However trackable definitions highlight the internet assisted way of executing HR operations (Ruël, Bondarouk, & Looise, 2004). Building on this foundation, e-HRM is defined in following ways. Parry and Strohmeier (2014) referred the digital employee management planning, implementing, or adapting relevant digital technologies to support the HR profession as well function. This phenomenon of digital employee management is called as Electronic Human Resource Management (e-HRM) (T. V. Bondarouk & Ruël, 2009; Strohmeier, 2007). E-



HRM is composed of particularly information technology in a way that technology makes the work of HR efficient and integrated. It is made of arrangements of hardware and software which helps carrying out HR activities through a resource of electronically working computers (Ahmed & Ogalo, 2019). Ruël et al. (2004), defined e-HRM as implementing and integrating HR strategies and practices through web based information technology systems, in order to support and comply the HR function. T. V. Bondarouk and Ruël (2009), Referred to e-HRM as an Umbrella term that covers all possible channels of connection between HRM and IT that aims at value creation for all stakeholders. Basu (2019), defined e-HRM as “a way of implementing integrated HR strategies, policies and practices through web technology based channels”. Voermans and van Veldhoven (2007), stated that e-HRM can be referred to an administrative support to the HR’s functions with help of IT. Information technology is referred broadly as using computer based tools and software for the processing of data (Mishra & Akman, 2010). Orlikowski and Scott (2008a) emphasized that technology is made up of both physical as well as operating elements. Information technology is thus considered as physical components including hardware, infrastructure of communication network and software. This technology, however, no matter how beneficial, will give no benefit unless used by an individual. In this study, this technology when used by HR professionals is termed as e-HRM.

HR function when delivered through IT is what makes HRM, e-HRM. What This intersection between technology and HRM has influenced not just HR professionals but IT has influenced the role of line managers as well as all the practices are delivered in integration (Ruël et al., 2004). When e-HRM is implemented, it modifies the way HR executes its functions for instance HR would recruit through a traditional process of recruitment and selection. Beginning from advertising position to manually shortlisting the candidates to running assessment centers or

conducting interviews to finally moving towards hiring. With e-HRM it is e- Recruitment, hiring usually takes place using internet. It is usually done with automated data base where resume is received, followed by e-Selection (Kushwah & Maheshwari, 2020). Similarly, through e-HRM, e-compensation would take place in a way compensation record of all employees across all geographical regions could be accessed in seconds. Not just that, even employees can access the compensation, change in compensation and every related query through online portal. In a similar manner through e-HRM, performance management, learning training etc takes place electronically (Kushwah & Maheshwari, 2020).

Digging into the literature of Electronic HRM, revealed that e-HRM is a reformed concept and is often used in replacement with other terms. Few terms are common with e-HRM while other terms are misinterpreted. When talking about e-HRM, “digitalization of HR” is repeatedly used in literature in replacement with e-HRM and posits the same phenomenon as e-HRM (Gueutal, Stone, & Salas, 2005; Mazurchenko & Maršíková, 2019). Other terms misinterpreted with e-HRM includes virtual HR (Snell, Stueber, & Lepak, 2002), computer based Human Resource Management, intranet based HRM (T. V. Bondarouk & Ruël, 2009)web-based HR (Ruël et al., 2004), HRIS, (Ngai & Wat, 2006), ERP based HR (Strohmeier, Bondarouk, & Konradt, 2012) and HR portal (Gonzalez et al., 2011). Gonzalez (2011) highlights the need to distinguish these concepts. However, the most evident misinterpretation is with the term HRIS, virtual HR and web based HR (Gonzalez et al., 2011; Strohmeier, 2007). HRIS refers to the automation of HR only for the benefit of HR department Virtual HR refers to technologically driven networks of internal and external vendors providing with HR services without its existence as a department (Snell et al., 2002). Web based HRM refers to internet technologies. In contrast, e-HRM is directed towards not alone HR but the entire organization including line managers and

employees as well. E-HRM not only aims at improving the systems with HR but organization wide. E-HRM technically in the unlocking the HRIS through IT's support for HR. In a nut shell the term e-HRM is used because all other terms although have little in common but distinctly they only exhibit a narrower concept of e-HRM (Ruël et al., 2004; Strohmeier, 2007). Technically it is assumed that there are endless possibilities of HRM from the context of IT that is E-HRM. E-HRM is said to be a new and updated term with multiple innovative elements from web based technology of the traditional HRM supported by the IT (Parry, 2011).

The technological primacy and dominance in e-HRM is also backed by management theories. The most dominant management theories in the field of e-HRM include the contingency theory and the resource-based theory. These theories, frame the basics of e-HRM as the decisions that organizations make are pertinent to a close relation between technology and the structure of organization. The contingency theory of organization has emerged from the studies pertaining to organizational technologies (Woodward, 1958). As emphasized by Ahmed and Ogalo (2019), Lawrence and Lorch's (1976) contingency theory explains the connection between structure of organization and the technologies that are used in the firm. The theory states that environment influences the organizations. Since environmental change because of the influence of IT on organization, the organization's success becomes contingent on it. The microenvironment of the organization refers to the close internal environment and includes factors such as organization itself customers and competitors while the macro environment on other hand refers to general environment that influences overall business such as technology (Mose, 2016). Organizations simply must achieve a fit between its micro and macro environment to achieve desired outcome.

As similar with contingency theory, the resource-based theory states that human capital is the most valuable and unique asset as it is one deriving competitive advantage. This competitive

advantage can only be reaped if the respective resources are available. Technology is another such resource which enables the human capital to execute the best (Yusliza, Othman, & Jabbour, 2017). Following this theory, Fındıklı and beyza Bayarçelik (2015) build on this theory and argued that in order to meet the needs of human capital e-HRM for example e-recruiting can serve the purpose. So, e-HRM is one such technology which proves itself as a resource for the organization which when used properly has the potential to derive efficiency and competitive advantage for the organization.

From these two theories we can derive two assumptions,

- 1- The adaption of organizational structure with reference to the external environment is evident to gain and sustain the competitive advantage.
- 2- E-HRM is a resource which can only be exploited when the internal structure of the organization adapts well to the external environment.

Digital technologies have hence affected business and to stay competitive in market, organizations have to adopt the technology. When particularly taking under consideration digital employee management, Information technology becomes inevitable and forms the basis for e-HRM. IT as a digital technology act as a resource which when adopted and exploited can benefit organizations beyond limits. The organizations can only reap the benefits of digital technologies if the organizations micro (internal) environment matches the organizations macro (external) environment. The benefits that organizations aim to reap out of this resource, especially in context of HR, could range in a continuum with administrative benefits at one extreme and managerial benefit on other extreme.

## **2.4 Goals of Electronic Human Resource Management**

Different organizations implement e-HRM with different goals. Every organization might seek different outcomes of e-HRM in their organizations. This section of the chapter will shed a light on goals of e-HRM from literature. It will discuss the different goals with which organizations implement e-HRM in their organizations. This section will reflect on the first objective of the study which is to explore the purpose and goals with which organization implements e-HRM. The kind of goals for which e-HRM is implemented will also reflect on the influence that HR roles have had on them

The literature talks about wide classification of goals with which organizations implements the e-HRM in organizations. Obeidat (2016) in the study presented that implementation of e-HRM in an organization provides positive support to organization's as well as HRM's effectiveness both at policy level and practice level. However, the intention or goal with which e-HRM is being implemented plays a vital role in determining the level of effectiveness. E-HRM when effectively implemented in an organization effects both efficiency and effectiveness of organization in a way that it reduces the transaction cost of HR, can be exploited at countless events with no marginal cost (Bissola & Imperatori, 2014). Above all it provides room for HR professionals to work on strategic input for organization (Heikkilä & Smale, 2011). This research will follow the framework of Lepak and Snell (1998) which classified three main goals of e-HRM. These include operational, relational and transformational goals (Bissola & Imperatori, 2014; Strohmeier & Kabst, 2014). Despite it being an old framework, it still provides great classification of consequences (Parry & Tyson, 2011; Reddick, 2009).

### **2.4.1 Operational goals**

Operational goals of e-HRM focus on increased effectiveness and efficiency, cost saving and increasing productivity (Marler & Fisher, 2013; Ruta, 2005). Ruël et al. (2004) referred operational goals to increase the efficiency of administrative tasks. The operational goals are reflected when the general data base for employees is set up. The data base includes variety of information from employee name, to contact information to workers history. E-HRM made that possible by storing the information through software. It helps in quick retrieval of data, and it helps to compare certain employees. Instead of maintaining excel sheets, the threat of data loss, corrupt files and high chances of manual error, the digitalized data provides organizations with authentic and error free data. It reduces the cost of organization as with digitalized data, less headcount is required to maintain it. It has been suggested in literature that one of the outcomes of e-HRM is operational benefits (Berber, Đorđević, & Milanović, 2018). Precisely, literature suggests that efficiency can be achieved through e-HRM by reducing HR headcount, expediting the HR processes, reduction in costs, and minimized administration tasks, (Strohmer 2007, Ruel et al). In fact, found that the evident most outcome of e-HRM is to cut cost and administrative burden off the- HR' shoulder.

### **2.4.2 Relational Goals**

Relational goals focus on improvement of service for internal and external clients, might help managers and employees to gain access to different information in the organization that can help them to be able to connect within and outside the organization, so that they can themselves execute HR activities (Parry & Tyson, 2011). These goals aim at the development, management and sustenance of employee relationship by engaging and empowering them (Ruël et al., 2004). Relational goals are a step forward to operational goals. The employee satisfaction is an

important factor reflecting in this goal. Organizations aim at relational goals for developing its employee. As employee satisfaction is at the heart of managing employees, through relational goals employees are encouraged. When achieved this goal, employees can access the information. The information which would take days to be accessed, now would be accessed in a matter of seconds. Since the data is available through software, the data can also be accessed across geographical regions. It helps in the efficiency of organization (Shah, Chalu, & Michael, 2020). So, relational goal of e-HRM is to provide managers as well as employees across the organization with information about HR and about themselves so they can execute HR activities themselves.

### **2.4.3 Transformational Goals**

Transformational goals have the strategic orientation as the aim at transforming the function of HR. The focus of this research is inclined towards transformational goals. Transformational goals allow employees to communicate across geographical areas and share information thereby playing a significant role in supporting network organizations and virtual teams (Parry & Tyson, 2011) . These consequences are reflected in change management and re-orientation through “outsourcing, Finally, in literature review section you mentioned E-HRM and gave various definitions, however, you just talk in broader terms you don't explicitly explain that what actually is E-HRM for example what kind of procedures do they have regarding recruitment and selection, training, performance management and how does it work. This is missing in the literature review section, and you need to address this properly. business partnering, restructuring HR service delivery and increased usage of service centers” (T. Bondarouk & Furtmueller, 2012). Transformational goals also provide strategic orientation to HR (Kwan, Hermawan, & Hafizhi, 2019). Transformational e-HRM signifies the change in business by developing business support strategies. Fındıklı and

beyza Bayarçelik (2015) Summarizing transformational consequences with more of strategic orientation where HR works at alignment and strategic issues. Research on e-HRM goals is more inclined towards operational and relational goals while little focus is given to the transformational aspect and its improvement in e-HRM (Bissola & Imperatori, 2014; T. Bondarouk & Ruël, 2013; Obeidat, 2016).

Accordingly, while literature sheds light on several goals of e-HRM, the empirical support is still less. The case is specifically particular for transformational goals of e-HRM (Marler & Fisher, 2013).

## **2.5 Opportunities of e-HRM**

Adoption of technology brings with it some opportunities as well as threats for the organization. Some of the goals mentioned above reflect to many opportunities of implementing e-HRM. Mishra (2009) Pointed out the fact that literature has talked about general use of information technology with respect to HR but here is little attention given to the impact of IT on Human Resource Management. This section of the literature will discuss this impact of IT on HRM (e-HRM) with respect to opportunities first and then the potential threats and/or challenges that adapting e-HRM may bring along. The second objective of this thesis which is to explore the opportunities, threats, and challenges of e-HRM in organizations, will reflect upon this section of literature.

Implementation of technology or any change in organization offers various opportunities. Obeidat (2016), used the terminologies of policy and practice level to refer the opportunities offered by e-HRM to the organizations. The e-HRM provides an opportunity of increased productivity and financial benefits as literature shed a light on reduction in HR headcount, cost



cutting, and reduced administrative tasks because of e-HRM. (Wilcox, 1997). Technological involvement also offers opportunity of simultaneously becoming more flexible, cost efficient and strategic (Snell et al., 2002). Proponents of information technology tools to deliver HR function argues that IT offers the potential to reduce administrative cost as well as burden by increasing quality and productivity, improving customer orientation, speedy response times, effective decision making and enhanced employee services all at the same time. Yeung and Brockbank (1995) highlighted three main factors which makes it imminent for the organizations to implement IT driven solutions for delivering HR practices. These factors include the need for cultural shifts, reduction in costs, and fine quality services. Another opportunity that IT offers in organization is the creation of IT based work environment that provides a chance of overcoming many future challenges such as recruiting and managing talent, employee motivation and meeting strategic orientation to remain competitive organization (Othman & Teh, 2003). The potential of delivering HR through IT cannot be emphasized enough as it not only supporting the achievement of high performance but also serves as means to exploit technological benefits by adding valued activities (Shrivastava & Shaw, 2003). E-HRM adoption provides an opportunity of making vital decisions regarding personnel such as hunting job information, employee choice and selection, training, compensation and managing performance (Chapman & Webster, 2003). Literature repeatedly emphasizes on strategic opportunity offered by e-HRM implementation to HR. it is through offloading HR's burden through technological involvement while freeing HR to concentrate more on strategic planning, implementation and development. (T. Bondarouk & Ruël, 2013; Marler & Parry, 2016). This strength of e-HRM also corresponds with the study of (Caudron, 2003). The study observed that use of information technology for delivering HR practices results in automation of activities such as payroll management, transaction as well as

administrative activities. Consequently, HR can work on matters such as increased productivity and efficiency. This reflects to the HR working on more strategic matters. Thus e-HRM provides several opportunities to HR function, above all is to work on strategic matters. Most organizations are benefiting themselves with this opportunity and as observed by Hussain, Wallace, and Cornelius (2007), strategic use of e-HRM is no less than a norm in business world now. No matter what the size and kind of organization is, e-HRM is used as an opportunity for HR to become strategic by adding value to the HR and organization as the whole, last but not the least, e-HRM provides HR professionals with an opportunity to enhance their perceived image as productive and value added by employing more strategic matters (Kulik & Perry, 2008).

## **2.6 Challenges of e-HRM**

Electronic Human Resource Management has certain challenges as well that are crucial to be addressed. The view that e-HRM serves as an opportunity to enhance HR professional's perceived image also leads to one of the challenges of e-HRM. This view is opposed by senior professionals of organizations which do not belong to HR. They perceive both implementation of e-HRM and devolution to line managers as inability of HR to rely on themselves for HR activities (Mishra, 2009). HR hence must fight against this challenge of e-HRM.

Among one of the biggest threat of e-HRM to organizations is that as a consequence of information technology, organizations are becoming more competitive increasing competition in environment and striving for edge and innovation more than ever before (Mishra, 2009). This is so because, technological involvement in business management is offering same benefits to organizations such as cost efficiency, efficient production, quality improvement and sustenance (T. Bondarouk & Ruël, 2013). Svoboda and Schröder (2001) highlighted alignment of processes in the Human Resource function as one of the future e-HRM challenge because of e-business

revolution. In addition to this, another challenge literature talked about is high costs involved in e-HRM implementation. Another challenge literature talked about is the acceptance of technology not just by organization or employees but the HR itself as change in not welcomed by anyone including HR. similarly through e-HR sometimes it becomes hard to deal with employees and their queries as when availability of data, questions increase. Another important challenge that comes with e-HRM is that when medium of internet is involved privacy of data and backup concerns arise. The risk of data loss or data theft also increases (Kushwah & Maheshwari, 2020). Besides, opportunities of e-HRM would only be enjoyed if the workforce is trained in a similar manner. This involves additional cost for the wiring of employees. At times, even the positive consequences of e-HRM turns into negative ones as reduction in the HR staff influences the image of the organization. Following is a summarized table of opportunities and challenges from literature

*2.a – Opportunities and Challenges of e-HRM*

<b>Opportunities</b>	<b>Challenges</b>
Increased Productivity	Inability of HR to meet their responsibilities
Reduced headcount	High Cost/Investment
Cost Cutting	Back up and concerns of security
Flexibility	Dealing with informed employees
Reduced administrative tasks	More competition
Effective decision making	Acceptance of technology

## **2.6 Roles of HR**

Parry and Strohmeier (2014), emphasized the influence of e-HRM on the roles played by HR in organizations. Their study entails that e-HRM is not only influencing the administrative tasks that HR plays which includes the processing of payroll, attendance management, maintaining records etc. but the managerial functions are dramatically affected by e-HRM including compensation management, performance management and organizational development. Managerial functions are more at the verge of influence because they are enabled and supported digitally. Because of dependence on digital support, managerial functions are also open to deep changes. The debate of influence of E-HRM on HR's role has taken a new turn in past few decades.

The focus of e-HRM is now shifting towards the strategic roles of HR such as change agent, business partner etc. (Ulrich, Younger, & Brockbank, 2008). The strategic roles of HR were rapidly evolved in last two decades when the traditional HR roles started transformation towards purely strategic. The focus of HRM research in last two decades has been on understanding the difference between HRM and SHRM. The worldwide accepted definition of HR given by Wright and McMahan (1992) is "pattern of planned HR activities which intend to make organization able to achieve its goals" HRM is concerned with the basic HR or personnel tasks such as recruiting and retaining the best employees, managing their training and development and compensation plans (Khan, 2014). On the contrary, SHRM takes HRM to next level by aligning HR goals with departmental goals as well as organizational goals. Precisely the essence of SHRM is integration and alignment. Integration such that consistent HR policies with respect to HR practices (horizontal fit) and alignment such that these policies and practices to be aligned with organizational policies (vertical fit). Lawler and Mohrman (2003) claimed that less attention

is paid to the strategic aspect of HR. he shed light on the phrase “to make HR more strategic” and drawing upon Ulrich’s model of SHRM said that it is way through which HR’s function shifts from administrative to more supporting strategic [process role as a strategic business partner.

Girisha and Nagendrababu provided a simplified classification of HR roles. This study classified HR’s role as Administrative which includes managing payroll, salary and employee data. Next is supporting business role which corresponds to managerial roles like recruitment, training, development, compensation and performance management. The third is strategic HR activities which include strategic reorientation, knowledge management, global talent management etc. Truss et al. (2002) distinguished HR roles with a metaphor of continuum with one extreme being traditional roles like data management, payroll processing etc. while other being strategic considering the factors such as extent of discretion, integration of business and HR strategy and long term focus. In the middle of two lies managerial roles like recruitment selection and compensation Literature also talks about certain indicators the presence of which makes HR strategic (Teo & Crawford, 2005). HR when playing a strategic role act as an integral part of the core team which formulates and implements strategies, has a boardroom representation status with disciplines such as marketing and finance, acts as governance, conciliator or regulator. SHRM shares comparable boardroom status with disciplines such as accounting, marketing, and finance, a positive relationship between the development of HRM as a strategic ally and company performance. Focuses on value added practices, multidisciplinary, business partner etc. (Cascio & Graham, 2016)

The study of Marler and Parry (2016) said that that in strategic management, HR works on business strategies in response with the external problems and challenges. HR then device

strategic response to these problems and challenges by formulating integrated strategies and policies and implements them. Similarly (Gavetti & Rivkin, 2007) said that SHRM is a product of large process which entails HR representation along with top management in strategy formulation and decision making which affects HR goals, policies and practices.

Ulrich (1997), claimed that organizations in which HR is playing administrative roles, their goals are limited to just administrative efficiencies such as managing employee payroll, compensation and employee relations, tracking job requisition and employee benefit and reward program. (Marler, 2009), while referring to Strategic roles classified them as involvement in transformational activities which include developing HR strategy that aligns with business strategy and works as a business partner.

Considering the above discussion and vague boundaries between roles that HR plays in an organization, following is a summarized simplistic classification of HR roles.

Roles	Administrative	Managerial	Strategic
Focused practices	Payroll processing, attendance management, maintaining records	compensation management, performance management and organizational development	Change agent, Business partner, Talent acquisition, global talent management
Reference	(Girisha & Nagendrababu; Parry & Strohmeier, 2014)	(Parry & Strohmeier, 2014)	(Cascio & Graham, 2016; Ulrich et al., 2008)

So, literature talks about certain classification about HR being strategic or just administrative. The more we penetrate literature the more distinctions we encounter. Considering the above discussions, the roles played by HR are sometimes referred to as continuum with at one extreme being administrative roles and on other extreme being strategic roles. For this research we take HR administrative roles as those dealing with traditional HR activities like recruitment and selection, payroll management, compensation and rewards, etc. while strategic HR as HR's involvement in business and HRM strategy and policy formulation as HR professionals. The talk about HR's role is important because Human Resource Management has struggled for years to prove its worth in an organization and is still struggling to bring in more and more for the success of the organization. The success that HRM has the ability to bring in organization is still contingent on the fact that what role it plays in an organization and that what level of integration it has in the organization. If the organization is desired to be a successful one, the integration of HR at strategic level is imminent (Kulik & Perry, 2008).

## **2.7 Research Gap**

Literature has discussed the research about various advantages of e-HRM however there is still a lack of study about the role that e-HRM plays in influencing the value of HR's role in organizations. (Obeidat, 2016). Literature has discussed about overall organizational benefits of e-HRM however, few studies has addressed the HRM outcomes of e-HRM (T. Bondarouk & Ruël, 2013). There is also a lack of research on strategic outcomes of e-HRM(T. V. Bondarouk & Ruël, 2009)

Lin (2011) in a study, showed a positive relation between e-HRM and increased organization creativity and innovation. This research only explored employee's creativity while suggests the

managements creativity also needs to be explored. Continuing the research on e-HRM, T. Bondarouk and Furtmueller (2012) reviewed the literature from 299 articles of past 4 decades and proposed that e-HRM has potential to transform HR into strategic business unit. Fındıklı and beyza Bayarçelik (2015) explored outcomes of e-HRM but the focus was preliminary on administrative outcomes as reduction of manpower, reduced cost, better communication, and reduction in processing time. The transformational outcomes still remained unexplored and strategic HRM is a component of transactional outcomes of e-HRM (Thite, Kavanagh, & Johnson, 2012)

The recent research on e-HRM conducted by Basu (2019), Ahmed and Ogalo (2019) and Kwan et al. (2019) emphasizes the need of exploring strategic component of e-HRM. Basu (2019) studied e-HRM implementation across certain countries and concluded two things. First that e-HRM does acts as proponent of organizational growth resulting in increased efficiency of organization. Second that e-HRM is context specific and purpose of adoption of e-HRM and outcomes varies from context to context. This research gives us two directions. First that e-HRM implementation and outcomes are context specific and second being the most important that this research has talked about e-HRM being a proponent of organizational growth. What remains unexplored is the strategic component of e-HRM. The other two studies of Ahmed and Ogalo (2019), and Kwan et al. (2019) provides more need to explore the strategic component by saying that these articles serves as guidelines for researchers to conduct research in area of e-HRM in particular with its strategic importance. At last the work of Khoreva, Vaiman, Bondarouk, and Salojärvi (2019) also provides supports with the above discussion. Their work explored the relation between digitalization and adoption of IT tools with global talent management. The research says that dealing GTM through IT tools provides an opportunity of competitive



advantage and better performance resulting in creation of uniqueness. Thus GTM is also considered as a strategic opportunity for HR that HR can look upon and address as a strategic gain (Schuler, Jackson, & Tarique, 2011).

Since literature has repeatedly emphasized on e-HRM and its context, a handful of a few studies in Pakistan on e-HRM are summarized. First of all, literature has emphasized on studying e-HRM for developing countries (Iraqi & Zaheer, 2021; Waheed et al., 2020). In a study conducted by (Ibrahim, 2021) impact of e-HRM including operational, relational and transformational, was studied the workers performance in rural areas of Pakistan. From this study two things can be interpreted. Firstly, the study found a positive relation between operational e-HRM and employee performance but for relational and transformational e-HRM, the results were not significant. Secondly, the study attributed lower understanding of transformational e-HRM to its less understanding in rural areas. This suggests a need of conducting study of e-HRM in urban areas of Pakistan. Other relevant studies on e-HRM in Pakistan were found to be on labor productivity, job satisfaction (Iqbal et al., 2018), quality of HR services (Iqbal, Ahmad, & Allen, 2019), organizations value creation (Sabir, Abrar, Bashir, Baig, & Kamran, 2015) etc. Little if any study has explored the influence of e-HRM on the role of HR functions and this is the originality of this research. Concisely, one of the weaknesses in literature is not to see the tendency of e-HRM as improving the HR's value in organizations.

The next section of this research will highlight the research philosophy continuing with the explanation of ontological and epistemological stances explaining why certain approach suits best for the research over other approaches. It further includes the research design and interview details

## Chapter 3: Research Methodology

This chapter of the research explains the methodology chosen for exploring the influence of electronic Human Resource Management (e-HRM) on HR's roles in organizations. It will justify the research strategy and it will compare the chosen philosophy with other philosophies and will expound the research strategy which includes the methodologies undertaken. This section will shed a light on the ontological and epistemological stances of research. It will then proceed with outlining the qualitative research adopted. It will provide an insight of the organizations from which the data was collected. Following would be the detailed data collection procedure. At last, this section will discuss the methods of data analysis to present the findings.

### 3.1 Research Philosophy

Before beginning with the research methodology and research strategy, this section introduces the philosophical views that have led to the informed methodology choices. It is essential as research validity increases when the research strategy is closely related with the philosophical views (Andersen & Wagtmann, 2004).

Research philosophy is referred to as a belief about a route through which data should be collected, analyzed and interpreted. Holden and Lynch (2004) referred to research philosophy as research strategy. Research philosophy acts as a research strategy and helps researcher in choosing appropriate methodology for conducting the research. It helps researcher to adopt the appropriate ontology, epistemology, methodology, tools and techniques and avoid the inappropriate ones. Western traditions of science have identified two domains of research philosophies. The first domain is positivist also known as scientific and the second domain is known as interpretivist, also known anti-positivist (Galliers & Land, 1987; Ryan, 2018).

Positivist research philosophy states that reality is stable and can be described objectively. (Abu-Alhajja, 2019; Galliers, 1990; Žukauskas, Vveinhardt, & Andriukaitienė, 2018). According to interpretivist paradigm researcher has firm belief that the world is subjective and socially constructed, and considering the context of this research, which is about an exploration of electronic-HRM based on the perception of experienced personal, the study entails interpretivist paradigm. Interpretivism posits that the world exists as how it is experienced, perceived and interpreted by people (Alharahsheh & Pius, 2020). It very well goes along with the requirement of this study where the research aims at studying the understanding that experience personnel has gained over years working with digitalization of HR. Additionally, research issues which are context specific such as e-HRM (Ruel, Bondarouk, & Van der Velde, 2007; Ryan, 2018), are better studied and explored through interpretivist paradigm as it allows the researcher to draw upon subjective perceptions Therefore, interpretivist paradigm best suits this study because this study aims at understanding the subjective perceptions of participants about the influence that electronic Human Resource Management (e-HRM) had on the roles played by HR, This philosophy will not only permit the researcher to increase the understanding of e-HRM, but also help in conducting a detailed analysis as it is quite useful for developing theories (Punch, 2013). In contrast with interpretivist philosophy, positivist philosophy is unlikely to be appropriate for this study because using it will limit the researcher to draw on conclusions based on the experience of respondents. As the essence of this study is to dig deep in the phenomenon of e-HRM to enhance the understanding that HR professionals has gained over years of digitalization and e-HRM, so, interpretivist paradigm is chosen over positivist paradigm for this study.

### **3.1.1 Ontological stance**

Ontology refers to philosophy that deals with over all nature of things. It deals with question of nature of existence and the philosophy of social world. It refers to the reality and its nature that is investigated by the researcher. (Holden & Lynch, 2004). It only and entirely answers the question of “what” by comparing the existence of entities. Although determining reality in its purest form is practically too ideal to be considered true, it can only be interpreted by the courtesy of individual’s own senses and experience (Vasilachis, 2009).

Ontology has usually two domains. It could be either objective or subjective. Objective ontology posits that reality exists, but it is only through experience. It assumes that “the existence of social entities are independent of social actors which are concerned with the existence” (Saunders, Lewis, & Thornhill, 2009). Objective ontology posits that reality exists out there independently. Subjective ontology claims that reality has to be experienced while objective ontology claims that it is independent of those experiencing it (Collis & Hussey, 2013; Ong, 2012)..

Since the study under consideration revolves around the concept of e-HRM and the experience of HR professionals in digitalization and automation of HR processes and the HR unit, therefore, subjective ontology was considered as relevant approach of ontology. Subjective ontology posits that there is a context, and the reality is bored by it. Also the phenomenon is a result of experience, perception and its corresponding actions which is highly dependent on the social actor (Bryman, 2006). The research gap also specified that more of qualitative and in-depth studies are required, which also supports the suitability of chosen philosophies (Berryman, 2019; Crossan, 2003).

### 3.1.2 Epistemological stance

Epistemology refers to our understanding of reality. It is concerned with the nature of knowledge. It deals with the study of knowledge. Epistemology is closely coupled with ontology, however, while ontology deals with what is true, epistemology deals with approaches to configure out that truth (Eriksson & Kovalainen, 2015). Ong (2012), claims that epistemology deals with how and possibility of what to know.

Like ontology, epistemology has a few assumptions or views. These include positivist, post-positivist, constructivism, interpretivist and pragmatism. Positivist epistemology states that world exists externally and is highly objective (Rhoads & Wilson, 2010). It posits that research and findings are independent of research process and experience and perceptions of researchers and is strongly based on empiricism (Joseph). It assumes that the world is orderly, predictable and consistent in cause and effect. Since the focus of this approach is on facts and figures, this cannot be used for exploring a subjective phenomenon of e-HRM (Bell, Bryman, & Harley, 2018). Post positivism posits that there is external reality, but we can never achieve a perfect knowledge. According to this paradigm, the world is strongly objective (Collis & Hussey, 2013). Hence this paradigm is also not suitable for the study at hand. Constructivism states that there is no bottom reality, and everything is constructed. We construct ourselves, our experience and interpretation. This paradigm is not suitable for this study because this research aims at studying the interpretations that people had through their experience (Bell et al., 2018). Pragmatism paradigm on other hand posits that there is no single reality in the world. This paradigm combines both, positivist and interpretivist paradigm. Since this research cannot follow positivist paradigm, hence pragmatism is not suitable for this study. As the scope of the study needs to have an interactive approach with the respondents to explore the influence of e-HRM on HR's role, none

of the approaches including positivist, post positivist, constructivism and pragmatism could be followed for this study. However, the interpretivist approach to epistemology is well suited for this research complimenting subjective ontology because the answers would mainly correspond to the “how” and “why” questions (Goldkuhl, 2012).

Interpretivist philosophy basis its foundation on the fact that human beings interact and hence these interaction develops meanings in association (Saunders, Lewis, & Thornhill, 2007). Hence, interpretivist research philosophy is suitable for this research.

### **3.2 Research Strategy and Design**

Identifying methodology, highlighting the strategy, design and the tools is significant in research because it determines the procedure to be followed to conduct research. It provides a path to be followed with logic. This section begins with explaining the suitability of qualitative research over quantitative for e-HRM. It proceeds with the detailed data collection tools and techniques. It explains the relevance of semi structured interviews with open ended questions following the interview guide over other qualitative data collection tools. It then follows a detailed description about data collection and interviews. Since the research was conducted amidst the global pandemic: COVID: 19, the methodology becomes even more crucial (Vindrola-Padros et al., 2020) and hence this section will also shed a light on conducting this research in COVID 19, global pandemic.

#### **3.2.1 Qualitative methods**

As a few studies in literature have referred that e-HRM is immature and at an early developing stage as a field of study, it exclaims for research that is in-depth, exploratory and qualitative in nature HYB (Iqbal et al., 2018; Strohmeier, 2007; Ziebell, Albors-Garrigos, Schoeneberg, &

Marin, 2019). When studying e-HRM it becomes difficult to quantify the study because it involves interaction among humans and with IT (Orlikowski & Scott, 2008b). When it comes to e-HRM Additionally, qualitative research methodology compliments interpretivist philosophy as it allows the researcher to explore the several perceptions about e-HRM and interpret them (Strohmeier & Kabst, 2014). Furthermore, the qualitative research methodology also compliments subjective ontology and interpretivist philosophy. Subjective ontology lets the researcher emphasize on the context specific studies and build on the experience and perception of the respondents (Bryman, 2006) and Interpretivist philosophy allows the researcher to develop meanings from human interaction. (Saunders et al., 2007). Therefore, exploratory research through qualitative methodology seemed appropriate for this study.

Qualitative methodology for research is interpretative by nature which aims at providing a deeper understanding of the issue under research. Qualitative methodology, according to Payne (2014), is attributed as the one that provides an understanding in a broader context through rich and reliable data which is due to its subjective interpretivism. Silverman (2016) also highlights that qualitative research design is most useful when studying in depth and uncovering and assimilating the data. Quantitative research methodology, in contrast, provides more of objective and quantifiable data and the conclusions hinder its ability to provide deeper understanding in wider context (Creswell & Creswell, 2017). So, when electronic Human Resource Management is concerned, it becomes specifically difficult and strenuous to quantify and measure e-HRM because it refers not only to a physical but to a practical phenomenon as well (Orlikowski & Scott, 2008c). Al though IT involves physical entities of software and networks but these physical entities are useless without human interaction (Marler & Fisher, 2013). Also while choosing the research methodology the most important question is that what the researcher aims

at achieving. For this research we idealize getting hands on rich data which could help us draw our own interpretations. To get an understanding on how e-HRM is modifying HR's role, it is important to understand the entire process and perception. The attributes of quantitative study just doesn't go along with the study of e-HRM as it becomes strenuous to analyze in numeric forms (Gonzalez et al., 2011). This makes the quantitative research philosophy in appropriate for exploring e-HRM. Hence the qualitative research methodology was appropriate for this study as it provided the researcher with an insight of the prevalent trends of target population while understanding and analyzing the experiences of the target individuals.

### **3.2.2 Data collection: Interviews**

Having decided with the research philosophy and the qualitative research methodology, the research proceeded with data collection tools that would help understand the purpose and challenges of e-HRM. The research opted for in depth study through semi structured interview with open ended questions. To fulfil the purpose of research and achieve the research objectives, researcher contacted with HR personal who have dealt with e-HRM directly. Reasons in support of the decisions are provided in the following discussion.

When it comes to qualitative research, interview itself is the most highlighted instrument for data collection. It is further referred to comparatively more personal than other qualitative data collection instruments. (Punch, 2013). The advantage of choosing this instrument for exploring e-HRM lies in that fact that it gives researcher an opportunity to make respondents give detailed insight into the topic (Peters & Halcomb, 2015). Interviews provide the researcher an opportunity to study and explore the issue deeply. It provides the interviewer with an opportunity to look into deeper insights of the respondent's perceptions(Knox & Burkard, 2009) It gives the respondents, the flexibility needed to dig into the details of research issue. Since the objective of



this research was to explore the influence of e-HRM on HR roles, therefore probing employees with HR department was very valuable for this research. Hence interviews were the sheer source of data collection.

To ensure the relevance of interviews for this study, let's shed light on inappropriateness of other data collection instruments that could be used alternatively for qualitative research. Other data collection techniques that compliment qualitative research design include case study, surveys, participant observation, and focus group interviews(Silverman, 2016). In contrast with semi structured interviews, case study methodology requires really extensive research over a long period of time because it is case dependent and requires long time to investigate. It being case specific acts as a hindrance in generalizing as well (DeMarrais & Lapan, 2003). Hence this methodology was not appropriate for studying influence of e-HRM on HR's role in organizations particularly because of time constraints at this level. On other hand, surveys were also inappropriate for this research because of their inefficiency for subjective research. Also surveys are better suitable in context where the topic under research has reached maturity and enough data is already available (Fowler Jr, 2013). Participant observation was also found in appropriate for this research because it also entails a lengthy and extensive examination. The researcher has to act as a participant, live within or around target population and observe things (Spradley, 2016). These attributes of participant observation are out of scope for tis research because experience of respondents was to explore in their own perspective. Focus group interviews were also found to be in appropriate because in focus group interviews, group of respondents participates and sometimes respondents hesitate to give their point of view or an opposing point of view. Also it creates a "groupthink" in which your opinion is influenced by the majority's opinion (Janis, 2008). Provided this all, the interviews best suited the purpose of this research.

When talking about interviews, there are three types of interview types including structured, semi structured and unstructured interviews (Saunders et al., 2009). The analysis of the three types lead to the suitability of semi-structured interviews for this study because unlike other two types, semi structured interviews give the researcher the appropriate level of flexibility while ensuring the interview to maintain its essence. It lets the interviewer have a little control to direct the interviews by probing with questions (Newcomer, Hatry, & Wholey, 2015).

In order to conduct semi structured interviews, an interview guide was developed. Interview guide aids in semi structured interview as it outlines the track of all essential questions catering to all research objectives and research questions. So it is essential to have made a well-composed interview guide that covers all aspects of the research (Lew, Yang, & Harklau, 2018; Schmidt, 2004). For the purpose of this research an interview guide was crafted. Research objectives and research questions were the foundation of interview guide. The study entailed three research questions that researcher wanted to explore and respectively the interview guide was divided in three sections. Each section had questions probing for each research question. The questions were open ended to moderate the flow of interview. Since semi structured interviews were chosen, the interviewer had an option of adding, omitting or modifying the sequence of questions (Saunders et al., 2007). After finalizing the interview guide, a pilot interview was conducted, and a few improvisations were made in the interview guide. Before moving on to the pilot study, let's take a brief look into the stages of research process. target organizations and the target population.

### **3.3 Stages of research process**

#### **3.3.1 Target Organizations**

The choice of organization for collecting the data is an essential part as the findings and the achievement of research objectives are influenced by the data. So, in initial phase of proposing the study, a few organizations were contacted to determine the relevance of e-HRM in the context of Pakistan. This was mainly to see if the researcher will be able to reach the relevant population. Also, it helped the researcher as there was no doubt left for the collection of relevant information. The organizations targeted were the ones where either e-HRM was already in function or where HR process and operations were in process of shifting to e-HRM or digitalization. (Galanaki, Lazazzara, & Parry, 2019); Parry and Tyson (2011) highlighted that it takes a year at least for the system to be embedded in organization that can be studied for results. In the context of Pakistan, mostly organizations facing resource shortage, shifts its HR to e-HRM module by module which takes significant amount of time. Hence, organizations with partially implemented e-HRM were also targeted. The target of organization was kept free from any specific industry. It was so because, in the context of Pakistan, HR in a lot of organizations is still working in a paper-based environment or are yet just in initial stage of implementation. This made it difficult to specify the industry. Therefore, the organizations for data collection were not confined to a particular industry or to a particular level of e-HRM in working. However, organizations with either fully or partial e-HRM were chosen to explore and understand the electronic Human Resource Management's (e-HRM) influence on HR's role in Pakistan. As the targeted organizations for this study were the ones with e-HRM, they were relatively developed ones. They had good number of employees starting from at least 100 and every organization had more than 1 geographical location.

Although industry was not specified, targeting the organizations with e-HRM was particularly challenging because of the reference-based system. Also because of the COVID 19 circumstances and work from home, senior managers were reluctant and procrastinating the interviews. Most of the interviews were conducted either between first and second wave of COVID or after second wave of COVID 19.

### **3.3.2 Target population and sample**

Previous research in e-HRM has mostly highlighted the middle HR managers when it comes to e-HRM. It is said that middle management is the one directly involved with dealing with digitalization as senior management approves or rejects while lower management mostly follow the direction. So it is middle management that deals with the process of digitalization and the one whose work is mostly digitalized (Al-Harazneh & Sila, 2021; Srivastava, 2010). For the study to be held in Pakistan, this question was particularly emphasized in pilot interview to confirm its relevance. Si in lieu of this the target population of this study was HR managers in organizations where electronic Human Resource Management (e-HRM) was implemented. The sample population only consisted of one category that was to be interviewed. Middle HR management were targeted to have a deep understanding of e-HRM's influence on HR's role. When it comes to the number of interviews to achieve the objectives of research, no ideal figure exists. Literature suggest that the interviews can vary from as low as 10 (Gonzalez et al., 2011) to as many as 30 (Morse, 2000). For this study although, the focus was on saturation point, but the proposed interviews range was between 12 to 20 interviews. For this study at the end, a total of 16 interviews were conducted excluding the pilot interview and all the interviews were conducted from middle HR managers. The following table represents summary of the

respondents and the organizations from where the data was collected. The names of respondents were kept hidden to cater the anonymity issues.

*3.a – Respondent Table*

<b>Respondent</b>	<b>CODE</b>	<b>DESIGNATION</b>	<b>Years of Experience</b>	<b>ORGANIZATION</b>
Pilot interview	P-1	HR Associate	3 years	S-E
1	R1	HR Executive	4 years	S-S
2	R2	Digital Marketing spec.	2 years	S-E
3	R2	Talent Expert	6 years	J-1
4	R4	Manager HR	5 years	L-O
5	R5	Senior Manager HR	11 years	E-D
6	R6	HR Manager	9 years	O-R
7	R7	Reward & OD – HR BP	7 years	W-L
8	R8	Senior HR generalist	6 years	C- S
9	R9	HR – BP	9 years	T – I
10	R-10	Assis. Sales	8 years	U-N

		training manager		
11	R-11	SHRP-CP	11 years	SP-G
12	R-12	HR Representative	9 years	SCH
13	R-13	Digital demand executive	7 Years	ABC
14	R-14	Technical Recruiter	5 years	SP-G
15	R-15	HCM & OD	10 years	ABC
16	R16	Recruiter	7 years	ABC

The sampling techniques used to reach the target audience included purposive and snow bowling sampling technique. These two suited best for targeting the audience for this study. At first purposive sampling was followed and a few managers were contacted. It is so because the managers who had experience with implementing this change can effectuate the whole implementation and results of implementation (Morra Imas & Rist, 2009). And then snow bowling technique was used to reach similar companies and managers who had experienced e-HRM's implementation and results. Snow bowling technique helped because the more references were asked from the interviewers and with them referring their peers and colleagues, data collection became less strenuous.

### **3.3.3 Pilot study**

When conducting research through qualitative methodology, pilot study holds an important place. Generally, it helps the researcher to conduct a preliminary research on a small scale to ensure the appropriateness of the target population, organizations and the research process (Beebe, 2007). Despite the limitations of pilot study, it proves very useful as a first step of data collection (Kim, 2011). Keeping in view the benefits of pilot research, a small-scale study was conducted to prepare for the main study. An interview was conducted following the interview guide. Questions were asked in a sequence. It helped in the improvisation of interview guide as well. a few questions were removed, and a few were added after the pilot study. Some questions regarding the goals of e-HRM for organizations were repeating, hence they were omitted to avoid time wastage and interviewee's stress. Secondly, a few questions regarding COVID's influence on e-HRM's implementation were added. The improvised interview guide was then ready for main interviews.

### **3.3.4 Conduct of interviews**

After pilot study, the interviews began. The interviews were either conducted face to face or via video conferencing. It was preferred to conduct interview face to face but since the research took place in an era of global pandemic hit by COVID 19, video conference interviews were the need of hour because face to face interviews were restricted. Face to face interview lasted for about as less as 40 minutes to as much as an hour. Interviews via video conference was done usually on zoom or MS teams and they exceeded the number as compared to face-to-face interviews. Video conference interviews were a little more challenging it was hard to observe environment or their face expressions. All interviews either face to face or video conferencing were recorded with prior permission from the interview except for one interview in which the respondent did not

allow the recording. For this interview where fast notes were written down and the interview was transcribed immediately to avoid any mistakes. However, all the respondents were ensured anonymity to make the conduct of interviews smooth and comfortable and even a few respondents asked for confidentiality insurance because of the sensitivity data of organization.

Time horizon is one thing to be considered while conducting research. However, time horizon is independent of the methodology chosen to conduct research. The data for this research was conducted at a given point in time which makes it a cross sectional study (Saunders et al., 2009).

### **3.3.5 COVID restrains**

Conducting research in a global pandemic itself appears to be really strenuous. Data collection, especially through qualitative methodology is in particular challenging (Vindrola-Padros et al., 2020). In literature about qualitative research, we often find a question on “qualitative rigor” which is that how to retain the novelty while having the potential to generate new concepts for which previous studies already exist. (Gioia, Corley, & Hamilton, 2013). So, qualitative rigor needs to be insured. Apart from this, amidst COVID 19, the data collection methodology has to follow some guidelines. A few guidelines identified include prioritizing accessibility during the specification of sample and tailoring of data collection in accordance with respondents’ preference and characteristics (Jairath, Benetato, O’Brien, & Agazio, 2021). In order to cater these while conducting research in pandemic, every possible challenge was taken. Since data was to be collected from HR managers from organizations with developing/developed HR’s technology, the managers must have had the required resources to be able to give interview. However, the challenge faced was scheduling the interview. Conduct of interview faced many rescheduling and hence was hard to keep a track of. Secondly, every respondent’s preference was to be catered. Some agreed on interviewing on Google meeting, some on MS teams and some on



Zoom, while a few were comfortable with WhatsApp call. In each situation however the interview was managed to be recorded with prior permission. The distortion in internet connection sometimes caused trouble but repetition of questions and respondents patience helped. The whole data collection process took more than expected time because in complete lockdown in wave 1, people were reluctant to give interviews as they had families around them.

However, after the lockdown was eased, the process was speeded, and interviews were conducted until the saturation was achieved. A total of 17 interviews were conducted including the pilot interview when saturation was achieved.

### **3.3.6 Data analysis**

Analyzing the data through qualitative research involves putting together all the data collected through the research process in a way that it makes sense (Creswell & Creswell, 2017). A challenging task as a researcher is to ensure that the analysis provides with the answers of questions and achieves the objectives of the research (Forman, Creswell, Damschroder, Kowalski, & Krein, 2008). Similar analysis process was adopted in several studies. (Saunders et al., 2007; Thomas, 2006). For the analysis of this study, thematic data analysis was used. Thematic data analysis helps in identification of themes and to arrange them in a way that it all makes sense (Vaismoradi, Turunen, & Bondas, 2013). Thematic data analysis compliments the qualitative research design and helps by organizing and explaining data (Braun & Clarke, 2012). But the analysis has to follow certain steps. For this research we decided to follow the path from the book “Educational research: planning, conducting, and evaluating quantitative and qualitative research” (Creswell, 2002; Gonzalez et al., 2011). Following the guidelines, data analysis for this study was conducted.

When dealing with qualitative research, its rigor is an important thing which researcher has to ensure. In fact, analysis is the first step where the qualitative rigor can be enhanced (Gioia et al., 2013). So, as a first step towards analysis, data has to be arranged in a way that can be retrieved when needed. For this study, each respondent was given a distinct code and each interview was transcribed word by word. After transcription, it has to be decided that whether the analysis should be done by computer aided software or manually by hand. Since the study had 17 interviews in total, analysis of data, manually was not very time consuming. The results could be derived without the interference of machines. The next step was to carry out “preliminary analysis” which is to go through the data by reading it a few times in order to get ideas from the data (Forman et al., 2008). Next the analysis was proceeded with assigning codes. A tabular format was used to identify first order codes, respective theme and a theoretical construct. The first order codes explode and adheres to the terms referred by informants. At this stage the information is overloaded, and researcher is sometimes lost. Second order themes further help streamlining the data. So once first and second order themes were generated, the findings’ structure was developed. Then the codes and themes and constructs were then put together in the findings in a way that it answers the research questions. In the end, the findings and literature from chapter 2 were presented in comparison in the discussion.

### **3.3.7 Credibility of Research**

The most crucial thing when conducting a research, in particular the qualitative research, is to prove the credibility of research as the researcher is the only instrument for conducting the research (Golafshani, 2003). Reliability and validity are terms prevalent for quantitative research but for qualitative research, they are put together as credibility or trustworthiness (Bashir, Afzal, & Azeem, 2008). Often it is said that reliability is not just irrelevant for qualitative research

rather it is misleading (Stenbacka, 2001). It is so because for qualitative research, the emphasis is not quality (Pandey & Patnaik, 2014).

Considering the above discussion, credibility of the study was essential concern for this research. As mentioned already, all the interviews were recorded and then transcribed face to face except for one. For this one exception, special care was observed, and the interview was transcribed using all the written notes and themes immediately after the interview in order to ensure the accuracy. The research relied on the experience and belief of HR personal which might vary from organizations belief but since the respondents came from within university, we relied on their experience and perceptions.

As the study was qualitative with semi structured questions, it was tried not to suggest the answers which usually is the case with closed ended questions where standardized answers are provided. The interview was conducted bilingually in both Urdu and English and was transcribed only in English word by word.

## Chapter 4: Findings

The aim of this chapter is to present the findings through analysis of data collected in the light of the research objectives and research questions. It begins with presenting the findings objective wise. First, this chapter throws a light on the purpose of implementing e-HRM. Study revealed several purposes for which e-HRM is implemented in organizations. Organizations can implement e-HRM with a vision of a few or several objectives and it entirely depends on organization. It then proceeds with shedding a light on opportunity and challenges in organizations revealed from the study. It briefly explains process of e-HRM as its implementation is referred as a challenge by the respondents. At last, this chapter builds on the findings to provide an understanding of the influence and modification that e-HRM has casted on the HR's role. Hence this chapter meets the objectives of this study by answering with facts the research questions that the study entails. Following is a summary of themes and sub themes that were developed in the light of the analysis

### *4.a – Themes*

<b>Codes</b>	<b>Sub Themes</b>	<b>Themes</b>
Employee Count, Maturity of organization,	Organizational needs	Purpose of implementing e-HRM
Operational, Relational & transformational objectives	Sequential objectives	
Internal & external environment of organization, technological pressure	Competitive environment	

Identification, streamlining, preliminary implementation, digitalization	The process of implementing e-HRM	Challenges
Ongoing process, continuous update in technology, module wise implementation	Sustained Digitalization	
Shareholders, managers, employees, customers	Organizational and Stakeholder support	
Downsizing, hiring for new skills and competencies,	Right Sizing	Opportunities
Productivity, Efficiency, effectiveness	Quality of Service	
Payroll processing, attendance management, data entry	Administrative Roles	Influence of e-HRM on traditional of HR
Flow of information, connectivity, Recruitment, Training,	Managerial Roles	
Value added role – forecasting – knowledge management	Center of Attention – Strategic roles	
Accuracy of data, fast decisions, strategic decisions	Informed Decisions	

#### **4.1 Purpose of Implementing E-HRM in organizations**

One of the central objectives for this study was to explore the purpose for implementing e-HRM in organizations of Pakistan. The questions to explore this began by probing into the purpose or the need for which the organizations made huge investment to transform the HR functions delivery method. Most of the respondents began by explaining the need of e-HRM to reduce

paperwork and eliminate repetitive task, to omit the human error, to limit person's dependability, to fasten and smoothen the process, to save time and to address the context of organization and so on. The research revealed that traditionally HR was involved with processing data manually but with HR's digitalization, the paperwork shifted to electronic means which in return saved time and made processing efficient. For example, the repetitive tasks like processing the salary at month end took a lot of time. So, after digitalization, time was saved. Another purpose discovered was to minimize errors. There are high chances of human error when the HR functions are delivered manually. With digitalization, the human errors are minimized. Additionally, digitalization decreases the person's dependability. For example, you no longer have to depend on sales force to make decisions because you don't have to get in touch with employees to acquire information rather through system you can access everything. If we reflect on these, the first few explained purpose by the respondents were the operational goals that organizations want to meet through e-HRM.

With further probing with the interviewees, it was discovered that the purpose of e-HRM is way beyond meeting the basic needs. Literature has categorized the organization's purpose to digitalize HR through e-HRM to be either operational, relational, or transformational and in accordance with literature, the study found that organizations objective while implementing e-HRM falls in one of the three categories. This study found that the purpose for investing in digitalizing of HR is not just confined to one of these objectives, rather it is sequential. It is discussed in detail below in the light of interviews conducted.

#### 4.1.1 Organizational Needs

One of the purposes to implement e-HRM in organizations revealed through this study is that organizations feel the need to implement electronic Human Resource Management (E-HRM) when they reach at a certain level of organization's maturity because managing organization otherwise would be not efficient. So, organizations proceed to implement e-HRM with a purpose of maintaining and proceeding with its growth. As the literature has highlighted that the study of e-HRM is already context specific to Pakistan, it was revealed that e-HRM is not context specific only to geographical context but organizational context as well. Not every organization aims to implement e-HRM. There were a few factors including nature of work, sort of industry, number of departments, HR responsibilities and liabilities, stakeholders in consideration, return on investment, number of employees and so on. So organizations proceed with e-HRM when these checklists are met. One of the respondents said that

*“So these factors that help organization decide its suitability for e-HRM include the returns that organizations make, its number of employees, its subsidiaries if any, diversification of its processes and number of department”*

(R6)

Among all the factors contributing in organizational context, two major factors were repeatedly mentioned by respondents. First was the employee number and second was the organization's maturity in terms of revenue.

### 4.1.1 Employee Count

Data leads us to understand that Employee number is important to be considered when deciding to implement e-HRM. A new startup or small firm with 20 employees makes no sense to implement e-HRM. So, when a startup is being established, its first goal is not to implement e-HRM. Initially it does not even have a proper HR department. As the business grows, the number of employees increase which proceeds to development of HR department. Its only with fully developed HR department that further digitalization can be taken action upon with e-HRM. So unless an organization has reached the point where it has a separate HR department who handle reasonable number of employees of organization, only then organizations proceed with digitalization of HR.

The employee number was the primary factor mentioned by almost all respondents. However, this varied from respondent to respondent. Some said that e-HRM should be implemented when the employee number exceeds 40 or 50

*Previously I was working at care exam which is a US based health care startup. We had two offices in Chicago and other at Lahore. We invented an HRMS when we touched 30 employees. If you would like to have a systematic approach to managing HR, you should have an HRMS implemented as soon as you reach 50 employees or even better if you implement it at 40 – 50 employees*

(R8)

However, a few respondents also mentioned the number of employees to exceed 50 or 100 for e-HRM implementation. As respondent 5 said that



*Now when your company reaches or crosses a headcount of 50 or 100 then you start looking at these things. So normally when a company reached a particular maturity level or revenue level, then it can afford to think about this stuff.*

(R5)

When it comes to employee number, the number of employees below 30 were not found suitable enough that HR should be transformed to e-HRM.

*If something is that simple and can be handled manually, there is no need to go digital. Also if the company has only 20 or 25 employees, again digitalization does not make sense. So it is a certain level of maturity in term of employees, revenue and processes that organizations go for digitalization.*

(R3)

So, the suitable head count in an organization considered appropriate of have its HR digitalized ranged between 40 to 100. Organizations who just out of competition implement e-HRM below the appropriate headcount are at verge of loss. Also organizations who do not consider digitalizing its HR even after reaching the appropriate headcount might lack behind in many things.

#### **4.1.2 Maturity of an organization**

Second most important thing to be considered before implementing e-HRM is that organizations need to consider its organizations maturity. If and organization is investing so much on its systems, is it going to be worth it. If an organization is hardly meeting its needs, it should not proceed with investment that it cannot afford. So, when organization is enough established, when

enough revenues are generated and a certain employee number is reached, then organizations proceed with e-HRM. one of the respondents said that

*See organizations appetite, organizations readiness, and organizations maturity, should be the basis for taking the decision that whether I need the digitalization or not.*

(R9)

Organization's employee headcount and organizations maturity plays as essential part while deciding to go for HR's digitalization.

We have seen how organizational context matter when deciding for digitalization. The study also found that why considering these factors are important. Why not organizations can just implement e-HRM without considering any other factor? So sometimes what happens is that organizations plan to implement certain software and digitalization tools just because other organizations in competition are doing that, but they fail to analyze even if it is going to be beneficial or not. So, return on investment should be taken in consideration along other organizational context before deciding for digitalization. As one of the respondents said

*“So many organizations are like if nestle or mydesk or national foods has launched the success factor, we should also do it. It should not be like this. I am utilizing so much cost and time and effort so is it going to pay back or not is most important thing. Otherwise, organization should be prepared for los”.*

(R11)

Another respondent gave a very interesting example to explain this by comparing the feasibility of same software in two different contexts. He said that

*“In my previous organization we took a system from third party which is performing good. There were 6 business units, and we probably gave them 1 million for a year that is one million is divided among 6 business units. If you derive the annual cost or per day cost that is some hundred rupees. But if I bring the same software here, and implement it in this company, then it will not be feasible. The reason is I will have to pay a million rupees and that will be charged only to one company. Instead, if I am developing an ERP team here, so included the team’s salary and benefits it is probably 6 to 7 lacs. So do remember this when you right that it is not necessary that every organization should go into automation. It depends on the appetite, maturity and the readiness and actually the need of the organization like if I only have a 50-employee organization why do I go for automation”*

(R9).

One of the respondents also explained the importance of organization’s context through Maslow’s hierarchy. According to Maslow’s hierarchy, you first look for basic needs and once you have achieved them then your needs change. So is the case. The organizations first meet the basic needs to survive and then proceeds. The respondent explained it in following words

*“In that, unless you have achieved your basic needs, you are not getting, food, water or sleep, but we say that we will lock you in room with iPhone X and we will give you 24-hours net, but you will not get food and water, then what will you do? Similarly, unless organizations you have checked the basic needs of organizations, you cannot advance it with digitalization”.*

(R9)

It was also discovered from this study that meeting the right needs of organization at appropriate time is challenging for organizations because they are usually occupied looking after what

happens in organization at one time. But if organizations meet the challenges proactively through need assessment now and then, it open avenues for opportunities for the entire organization.

One of the respondents said that

*“Meeting the required need of organization at appropriate time is challenging for organization but if right thing is done at right time, new avenues of opportunities open for organization and its employees (R16)*

The organizational context, its revenue, its maturity level, its number of employees, the complicity of its tasks etc. is what the decision about taking the struggle for e-HRM depends on. Unless the HR department itself is developed e-HRM cannot be implemented. As the development of HR department is the basic necessity of transforming to e-HRM. Unless organizational context is found appropriate for digitalization, all the effort and resources are in vain. Additionally, it is a challenge for organization take appropriate measures for advancement at right time. This is what makes the organizational context most important.

#### **4.1.2 Sequential Objectives**

The first purpose this study revealed was that the mentioned objectives (operational, relational and transformational) for organization implementing e-HRM are not independent of each other. Rather they have high influence on each other. The objectives act like steps, where one step leads to another. It was interesting to have noticed that although 80% of organizations in Pakistan are still dealing with operational goals, but the ones who are moving towards transformational goal for HR functions had been through operational and relational goals. So what it means is that there are high chances that when an organization decides to implement e-HRM or decides to digitalize its HR's functions, being operational or relational or transformational is not the

ultimate goal. Rather one step leads to another. When implementing e-HRM, organizations definitely want to reduce time, increase productivity and wants HR to save time. With time, having these objectives achieved, organizations proceed with further making the fruitful advantage of its investment. Organizations then moves to relational objectives. Ultimately as a need of hour organizations head towards transformation. For example, transferring data into digital format falls in operational goals. Then it is not confined to HR department only but to entire organization and here it is used for intra and inter-department communication which ascends it to relational goals. Then, using it all for analysis and making policies and decisions falls in the third category of re-orientation and transformation. It is possible that the first goal of e-HRM is not to transform the organization but with time, the ladder leads to the ultimate goal which is transformational.

One of the respondents summarized it as

*“You will never directly target HR to be transformational. You will go one step through another.*

*First you will achieve operational goals, then you will achieve relational goals and then transformational”.*

*(R14)*

Another respondent explained it through an example of final settlement. He mentioned that let say the final settlement has to be done within 15 days and on the 12<sup>th</sup> day system generates a ticket that xyz settlement is still pending and using proactive approach you get it settled within next 3 days. Also what else could be done is, considering the entire process, further streamlining it, the process time can be reduced. From 15 days with 5 departments involved, it could be reduced to 5 days with only 3 departments involved. being transformational also means that

organization might come up with an alternative where the process is not needed at all and hence employees can get their settlement done on their final day at office. So this is how one is able to retrieve the benefit when the operations are streamlined. You will be able to go transformational when on the basis of the results, using proactive approach you improvise things. So this is strategic.

One of the respondents said that

*“Being transformational I might come up with an alternative where the process is not needed at all and hence employees can get their settlement done on their final day at office. So one thing is, good to have and other thing is, best to have. So it will be the second scenario then. But for that what is required is that the operations will be digitalized then we will move to relational digitalization and then we will move to transformational. It can never happen in isolation”*

(R4)

At last, another respondent summarized it as

*“The starting goal for digitalization could be operational but it then definitely leads to the other two. Only one goal alone doesn't justify such a drastic change in organization. So I would say the organization has all these goals”*

(R6)

#### *Threefold objectives of e-HRM*

Another thing the research revealed was that despite the objectives of e-HRM for organizations being sequential, the organizations often have all three goals for e-HRM. It means that the organizations could have threefold objective for e-HR as organizations are achieving operational

goals which help them in cost saving, time saving and increasing productivity. Organizations at same time are also achieving relational goals as geographical spread has asked for fast and effective communication. Departmental distinction needs alignment as well and relational objective are hence met. Now with these objectives achieved, organizations move towards transformational objectives to bring more and more for the organizations well-being. Another perspective to look at this is that you can't use data smartly unless you have it. You can't act transformational unless you have the data a click away. All the analysis becomes easy to handle when you have all this data digitally

*“Not one but basically these all goals are there. Even what you said about forecasting and analytics, these are really important these days. If you don't have the data available in digitalized form, it is very hard for you to use it smartly. So yes all these three goals are involved in it. Specially in next 10 years, data and artificial intelligence is something that is going to be really useful”*

(R5)

#### *Initial VS End objectives*

This study revealed that when organizations implement e-HRM, the initial objective and the end objective usually varies. At certain point in time, the organization or its employees would respond to the current goal of e-HRM in their organization. A few organizations vision their HR and organization to be transformational. Most of the organizations begin with digitalization just to cater the over burden and as a need of hour to reduce the paperwork. So, most organizations begin with digitalization with having operational goals in target. But by the time the digitalized system is in working and gets mature, the objective keeps improvising. As organizations see the

benefits that can be reaped from digitalization, it never backs off. Hence the end objective usually is transformational. When organization has its operations streamlined and digitalized, it's inter and intra communication enhances. With having most of the functions from hire to fire digitalized, HR has the potential to become transformational and transform the organization.

*“See for example when you have made a software that handles the exit management and you have reduced the burden as well as a lot of things now will be taken care by the system. Now its integration with the ORACLE would help other departments to get their stuff done. As a result of which inter department integration also happens. Now since many things will be done by system in a smooth manner, HR can utilize that time in doing something different. So, although the first purpose was just to digitalize exit management, but the end result was different when HR used the time in something productive”*

(R6)

So once the organization has decided with its initial objective, there are certain things the organizations look for before beginning the process of digitalization. These things are explained below in the organization's context.

#### **4.1.3 Competitive Environment**

While exploring the purpose for which organizations implement e-HRM, it was also revealed that organizations do so to remain in the limelight of the competitive market. The external pressure on organizations which include the innovative technologies available in markets and competitors utilizing the benefits out of them, reflects to another purpose for which organizations implement e-HRM. Every organization strives to be best of its kind the market. They ensure that the organization is not just effective but efficient as well. The main asset an organization has is its employees. Organizations can't



be effective and efficient unless the employees are not effective or efficient. Hence, to continue the growth, organizations aim at developing their assets, the employees. In doing so Human Resources plays a vital role as it is HR that is in direct contact with the employees. employee satisfaction is a must case then. So, the holistic approach is that the external environment of an organization which is the market environment, has a competitive pressure on the organizations to update their systems to remain in the business. This is one purpose for which the organizations are investing in its systems and updating to e-HRM. While explaining the purpose and importance of external market, one of the respondents said that

*“For that I will narrate the example of Nokia here. Back in days, the organizations have a pressure to update the technologies. At that time most common cellular companies were Nokia, Samsung, Motorola etc. How important reading the sign of technology is, can be gathered from here as Samsung proceeded with android while market leader of that time did not timely respond to the technology and wrong choice took their name away from the market”*

*(R14)*

Developed organization or the ones expanding typically has different units within them often called the departments. If the departments are not integrated or are independent of each other, chaos is observed in the management. The entire organization as one unit is better to be managed. Although it entirely depends on organization structure but if the system is centralized, one data base solves many hurdles of the organization. So not just the external environment is up for consideration, the internal environment of the organization is equally important. As already explained in the organizational needs, internal synchronization limits the redundancy and smoothens the process.

Hence, the purpose of organization is not just to implement e-HRM for the sake of developing its HR or evolving the HR roles but also to meet the organizational needs and correct response to the market needs. At the end of the day, the purpose of organization is the organizational growth which is not possible without developing the employees and the systems for them.

## **4.2 Challenges**

Throughout the interviews, certain challenges were highlighted by the respondents. In addition to the challenges already highlighted in literature, the study revealed that the implementation of e-HRM is more challenging than how it appears. The process of digitalization, itself is a challenge not just for organization or HR but for the employees as well. The following challenges are pinned down from the analysis conducted.

### **4.2.1 Process of implementing e-HRM**

The process of digitalization sounds very fascinating, but it is easier said than done. One of the main challenges faced by organization is to decide the plan and streamline the digitalization process. There are no standard procedures of implementing e-HRM and organizations come up with the plan that suits them. Implementing e-HRM is challenging not only for organization or HR but for the employees as well. Each step of digitalization has its own challenges and mostly the challenges reflect in the decisions being taken, and choices being made to implement e-HRM. Before explaining the process of implementing e-HRM as a challenge, interviews briefed with the process of implementing e-HRM.

The process of digitalization of HR usually goes through 4 steps. The first step is where the process that needs to be digitalized is identified. The second is the streamlining of the identified process. The third is implementing the process and procuring the digitalization software and the.

fourth is when the digital system is live in organization. The entire process and the challenges corresponding is briefed by respondents is as follow.

### *Identification*

The first step towards digitalization of HR is the identification of the HR functions to be digitalized. It begins with identification of policies and procedures that has the most influence on employees and HR. These could be the policies or procedures that have no formal written way of getting them done but they do exist, for example, final settlement. For instance, employees know final settlement happens and they know who does that, but the process is not defined or streamlined. It is a challenge specifically for HR, as HR is the one who has to come up with the lists of policies or procedures. Now which policy to go first, how to weight the priority of procedure to be implemented is in the hands of HR. whether it gets approved or not is another thing. When talking about HR's function, there are functions which in HR are called as hire to retire. These begin from recruitment like job description, then advertisement, then interviews, compensation packages, then onboarding. Once the employees join, they have their orientation. After orientation, comes there daily HR practices like trainings, performance appraisals and things like that. And when they are leaving, their resignations, fund settlement and experience letters. So, it is possible that all these can be digitalized including payroll as well. But organizations need to identify the process that most influence their working and that influences maximum employees or stakeholders. The priority in identifying functions should be done arranging the most critical function that would best achieve the purpose.

One of the respondents, while sharing his experience with digitalization of HR said,

*“If I talk in the context of packages, we went to digitalization on 4<sup>th</sup> step, and it was not easy. The first challenge was to identify those policies and procedures that had direct influence. Those existed before but were not in written form. For example, final settlement process”*

(R4)

Another one of the respondents said

*“I have an experience of about 4 to 5 automation processes in different companies, so it is actually a challenging process. The best idea is that you identify one process, that is mainly the most time-consuming process, to be with, and when you have automated it so it will give you efficient benefits”.*

(R10)

*Huge costs attached with implementation of e-HRM is*

While organizations which can invest huge amount at one point in time can digitalize all its HR functions in a go but in the context of Pakistan from the findings it was not advisable to digitalize all functions. Although almost all respondents said that whether to digitalize HR functions one by one or to digitalize at one time is entirely a choice of organization, but none had digitalized all its HR functions altogether. So, it is advisable to make priority and digitalize operations one after another. One of the respondents shared her experience in following words

*“It is not advisable to digitalize entire HR operations at one time. It is not actually possible as well. Because if you do this, you will have to ignore all other transactional and operational tasks, so it is always advisable to go step by step”*

(R15)

### *Streamlining*

The identification of HR function to be digitalized leads to the second step where the streamlining of that function is done before implementation. What streamlining means is, for instance, let's take the example of hiring. The employee is selected, he is recruited, employee joins, and on the day of joining there are certain things that should be done. For example, the new hire's accommodation, transport, orientation, laptop etc. everything must be arranged. If these things don't happen on time, it means things are not streamline. So, the entire process has to be streamlined. However, if the process has been streamlined but HR personnel are unable to execute it because of time constrains then there is the need of digitalization. One of the respondents explained it in following words

*“There are some 6 to 7 things you have to take care of at the day of onboarding new employee. If those things are not streamlined in their execution, so must streamline them. But if you are aware of them but are so burdened that you don't find time to do it, then come the role of digitalization”.*

*(R4)*

Streamlining is not an easy task as it involves the basis of flow of the process. The process should be kept simple and short. It involves R&D before finalizing the process that will then be implemented through e-HRM.

Another respondent said that

*“so where HR processes and HR operations, because as you are doing this study in Pakistan, so will figure out that in organizations in Pakistan, 80% of the company's HR is operations so before digitalization operations should be streamlined”*

One of the respondents explained through an example of final settlement because it was easy explaining through numbers. So once final settlement was identified as function to be digitalized because it was very time consuming, it was proceeded with defining time limit to be done with final settlement. It was decided to have final settlement completed within 15 days after the completion of prerequisite on the part of the employee. When employee would complete the required checklist to initiate final settlement request, the departments involved will complete the settlement within the specified days. Now in these days the process will be streamlined that what will be the flow to follow the settlement. One department to another and all of this has to complete within 15 days. This would be the streamlining those days are specified, and the flow of process is specified. Now once the function to be digitalized is streamlined then the process moves towards implementation.

#### *Preliminary Implementation*

Next step begins with implementation of proposed streamlined process. While first and second step is hard, the third step is even harder. Once the function is identified, process is streamlined, the implementation of the process begins then. During the implementation stage, there are two important things that goes side by side. First is a trial of proposed streamlined process that is tracked manually for a while and second is the procuring of required infrastructure to get the process digitalized.

Implementation stage is challenging as the streamlined process is followed and tracked manually to analyze if the streamlining is fulfilling the purpose. At this stage, the process usually becomes hectic and time consuming and often people get to wonder what they are doing. But once after

the manual tracking of a few months, stats are made, things get easy to monitor and proceed with. Continuing with the example of final settlement, proposed streamlined process is used as a road map and final settlement is done in accordance with that. Basically, it is the time when still things are tracked manually to assess its feasibility before actually digitalizing it. At this point usually no one has idea that what they are doing it is even beneficial or not. But eventually, when at month end, at quarter end or semi-annually or annually, when is measured it, we get a stat. So, monitoring the cases, that in this year let say 50 people left, because the data is saved in excel file and the trend is tracked down that in how many days a person's settlement was done So if the duration of settlement surpassed the proposed days, for a few people, you get to know that the time has crossed our key performance indicator. Then color coding is done. That if the time is exceeding, is it because of the employee that he has not met the conditions or is it because of any department or is it because of HR. so doing it manually this way we reported it all. A few improvisations could be made in the process after this step.

As one of the respondents said

*“So in like a year or 6 months, whatever is your frequency, you measure them, make excel sheets. Sometimes it is very challenging as you must manage it manually for a while and you think that oh what I am doing with no idea that even if it going to be any beneficial or not. But eventually, when at month end, at quarter end or semi-annually or annually you get stats. You then work on the embedment into the organization”*

(R5)

Parallel to it goes procurement of infrastructure required to digitalize the process through information technology. So, the second important thing done during this stage is

developing/purchasing the required infrastructure/tools/software that would help the process to be digitalized. At this step the organization explores all the available options and chooses the one that best fulfills the purpose of digitalization. As one of the respondents said

*“We onboard the stakeholders. The IT team then plays a really vital role in the digitalization team. We briefed them with the entire process, and they help us with suitable infrastructure requirements to digitalize HR”*

(R1)

### *Procuring Infrastructure*

Besides the implementation of streamlined process and its manual tracking, the organization has to look for the IT help and procure the software to bring the digitalized system live. When organizations proceed with implementing technology, they need to have infrastructure that compliments the chosen technology. Because the aim is to have a smooth system with minimum glitches, so IT must be strong enough to compliment the organization’s needs. Since we only refer to digitalization of HR, so here the infrastructure is also refereed for HR’s digitalization only. It is at this stage that along with manually testing the streamlined process, the digitalization team has to decide with the question that which software will be used to bring this streamlined system digitally live where no excel sheets has to be maintained and no manual tracking is needed. The infrastructure that respondents referred included the human capital and the software required to execute the digitalization. Here the consensus of stakeholders to decide with appropriate software is an important thing for which several meetings are usually called back and forth followed by re-engineering before the required tools could be finalized. The study conducted in Pakistan revealed that organizations decide from three options. They can either



form a digitalization team and develop HR modules or HR software in-house, or they can outsource the software or go for an embedded approach by customizing the HR modules and embedding in the organization's software. One of the respondents said that

*There are three categories.*

*1- The one who spend on SAP or ORACLE, and they buy each and every module and the version that comes every year or after two years.*

*2- There are some companies who develop it in house, like I gave you an example of my running organization.*

*3- And third there are companies who go for third party Human Resource software and then they synch it with their internal software*

*(R11)*

Procuring infrastructure is followed with a series of decisions that needs to be taken. The decisions to be made are important because it involves huge cost and the technology that organizations adopt immensely effects the organizations. Now whether organization adopts outsourcing, in house production or third-party inclusion, decisions have to made and each decision is critical.

One of the respondents while talking about outsourcing said that

*“So normally companies go for outsourcing model first and evaluate 3 to 5 system. Because standard software is provided by every company, what you evaluate is its price and its suitability for your company. Then you look at the company's background and then you decide. And if it does not work properly, then eventually you develop it in house. The benefit of outsourcing model is that you tell the outsourcing firm that we need it in 3 months and since it is what they*

*specialize in, you get it in time. If you go for in house development, so the employee or the IT team that is involved in doing this task”,*

*(R4)*

Often the organization proceeds with outsourcing but until the execution is made, each step comes up with its own challenges. While describing the shift from outsourcing to inhouse production of software, one of the respondents said

*“Actually, first we tried to outsource the system of HRMS but what happens is that it is often hard to make the third party understand. Then what we did was, we have an in-house engineering department. So, through that department we got our HRMS production don”.*

*(R1)*

At the same time, as already discussed, in house production comes with a risk of utilizing the company’s IT team for digitalization. It can hence cost a lot to the company. Also, since the IT team is not experienced with the digitalization software, many challenges can be faced. Also, when HR’s digitalization is undergoing, organization has to make sure that other functions don’t get effected. For example, HR cannot do digitalization without the help of IT so as discussed either they get a solution from third party or they are producing the solution in house, they need to refer to IT. Besides that, even if an organization is selling a product or something and the employees are stuck in HR operations, they are not being productive then there could be the case that C level can come and question the implementation of change with organization’s productivity being suffered. So< organization has to be really careful with its decision about procuring software.

### *Embedded model*

The third option comes for the organizations who want to have perks of software from SAP, ORACLE etc. but don't have enough budget to have all modules of HR implemented. Mentioned organizations are multinational software corporation that provides organization the automation software and particularly specializes in ERP. So, a few organizations use SAP company wise but HR it develops or purchases modules such that it can be embedded with SAP which is an organization wide software. For instance, an organization developed time and attendance software in house and connected it with SAP which was used organization wide. Now the output from time and attendance would act as input for SAP. So, when integrating an HR module with organization wide software it is really important to evaluate the integration that whether or not the module will integrate with the system. Because if the output from HR module must be manually exported I to the organization's software, the purpose of digitalization fails.

One of the respondents explained the integration of HR module with organization wide SAP in following words

*“Now it depends on you that which and how many software you want to integrate. We made one stop shop portal for employees where an employee can see everything about him. It has all employee related policies; he can also see his leaves or OPD limit. It was developed in house, and it was integrated with SAP. For integration you always see the result. Because end result of that system, which is output, acts as an input for other. So, for base system, which was SAP, input was necessary for that. In case you manually transfer the data from one system to another, so the purpose of automation again goes in vain as you are on manual work again”*

(R4)

Another respondent shared her experience with multiple firms about embedded model for HR digitalization is in following words.

*“Whatever places I have worked at, mostly it was outsourced. I will be taking example from different organization. so, in Warid the base system that we had was from ORACLE but we had some internal systems also for example exit management system, and interview scheduling was produced separately. Base system for data base was ORACLE through which you can get all information from day of joining of employee till his last day with just a click. So that base system was external and separate systems were integrated. In Maldives we were using really extensive system developed by external vendors. So, it can be internal also but probably some systems can be made internally and then integrated with base system because that is the actual source of data. For example, performance management system, exit management system, can be made internally. But my recommendation is to get the software externally if it suits your need or otherwise develop it internally. Your whole company’s data has to go in it and it is like really sensitive data. Most of the companies has most of the systems externally like Coke, Warid, Jazz”*

(R6)

An interesting thing is that how these embedded model helps organization to organize its systems. One of the respondents shares an example where the organization had implemented ERP but that was outdated. The ERP could not be customized as per organizations need and in order to get it customized a lot of budgets was required. So besides using ERP organization wide, it developed in house software with minimum budget to meet the needs. One of the respondents explained it in following words.

*“It is possibility that organization will definitely have ORACLE, but it won’t be that optimized for example now a day ORACLE R14 is in working, so the organization might be at R10. They are not in need of moving to R11 or to get a new version, so they do is, they fulfill their main necessities from outdated software, and they purchase different software that is more efficient and give better results and is comparatively cheaper, much cost effective”*

(R11)

So once the organization has decided with implementation and procurement of software, it proceeds with the last step of digitalization software where the functions of HR are brought live through digital software.

### *Digitalization*

The last step is to actually digitalize the entire process and cut off the paperwork and track everything digitally. At this step usually re-engineering happens as when digitalizing, certain things are further streamlined.

*“Finally, when you digitalize and bring the system live, the challenges are yet not ended. There is further streamlining. I mean, what we are doing manually when done digitally, certain things are eliminated because they are not needed. So, in this phase, again re-engineering of the process happens. Base process remains the same, but you further streamline it”*

(R4)

The final step of digitalization seems simple but is one the hardest because bringing system live is challenging. You have to cater all employee and their questions, arrange pre and post digitalization trainings to create an understanding of the system, deal with the systems glitches if

any faced and so on. It takes a few months to completely bring the system live because it is hard so make employees switch to a new system at once. So what organizations do is, they specify a few months. For example, if leaves system is digitalized, HR would be directed to cater the employees for a month or two. This is the grace period where HR intimidates the employees that we are catering this time but next time you will have to follow the system. In change management there is always this grace period. So last step is equally challenging. One of the respondents summarized the entire process of digitalization in following words

*“What happens is at first your need is identified. For example, we need a system for performance management. Then from within your company, an employee will chart the entire process that this is the process that we need, these are the steps that we need in the system, here are the e-signatures that we need. Each and everything will be charted out. I have worked in the team in which you have to make the system in box and then also you have to write everything. from within the organization, somebody will make it, it will be approved by the management, after that you call the vendors. So, need is identified the process system is on chart, then you have to call the vendors and you have meetings with them. After the meetings the vendor will show you the initial structure. You do the testing then on behalf of the company. Then you tell them that which button is working, and which is not, this is happening and that is not happening. So there a lot of improvising. On the behalf of the company, you test it. After testing they go back and make the changes that you pointed out. So, there is a dedicated resource from your company at that time who is responsible to get it implemented and get it checked and do the testing of the system. So until it is checked, the dummy that you check, and 100% it is approved your external vendor you know cannot rule it out for you”*

(R6)

The entire process of digitalization as explained by respondents is summarized along with its key features in the following table. This summary provides the practitioners with a help to have an insight about what steps to follow while considering the implementation of e-HRM.

*4.b – The process of digitalizing HR*

<b>The Process</b>		<b>Key Features</b>	<b>Challenge</b>
Step 1	Identification	Identifying the HR functions that have the highest influence on most the stakeholder’s interest.	Prioritizing the process that will first go in for digitalization is a challenge as it involves a lot of time and a lot of costs.
Step 2	Streamlining	Deciding and analyzing the streamlined path to be followed for getting functions done digitally. Deciding what is practical to be done.	It is challenging as it founds the basis of entire digitalization process as how many steps suits the best, which step will take the lead and how short and efficient the process can be kept
Step 3	Implementation	A trial implementation before bringing the digital system live to cater the pros and cons and to further streamline the process followed by designing and/or procuring the suitable infrastructure required to digitalize the HR function	It is challenging as monitoring the system manually for a while through excel sheets to do the benefit analysis  Besides, deciding to procure IT help or software is another challenge.

Step 4	Digitalization	Bring the streamlined process live through HR software or modules and look forward to further streamlining in the process.	Requires further streamlining Revising the process
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**4.2.3 Sustained digitalization**

Digitalization of HR is one thing but sustaining it is another and one of the challenges that are faced. Most of the organizations digitalize HR’s function module by module, so it is evident that digitalization of HR is not a onetime thing. At first even one process to be fully digitalized take at least 6 months to a year depending upon the efficiency of the entire process. One of the respondents said that

*“For every process it is different but generally if your R&D was appropriate, and you have an objective so generally it takes at least 6 months for a process to become fully automated and mature because in six months you will also have your as is analysis that what you have in today’s date and you will decide “to be” which means what we what and in technical terms we call it “to be”*

(R7)

This is basically for digitalization of one process of HR. Even if all the functions of HR are digitalized, it is still not entirely done. Instead, you must sustain it because software and IT is something that needs update time in time. The requirement from the system can be modified or the system could be outdated, and it must be sustained then. The data leads us to



understand that sustaining the digitalization is not only important, but it is a challenge for both organization and HR.

*“e-HRM is not a one-time transformation but once you implement it, you have to stay updated with it otherwise you would fail the technological implementation”*

(R3)

Another respondent while talking about digitalization of HR’s function said that it is a continuous process and really a time consuming one. He said,

*“It is not that you suddenly think or doing digitalized, buy or develop software and shift everything to software. It is a time-consuming process and can take years to fully digitalize things. And it is an ongoing process. Even if you have digitalized entire HR operations there still is a need to look after and upgrade the system”*

(R14)

So, digitalization is important but sustaining it is even important and challenging. You must update and even replace the system if the system is not fulfilling the requirements. To address this, one of the respondents explained it through its organizations example the organization was using a local software and it was not up to mark, so it has to entirely change the system.

*“No, that’s the beauty of it. It never ends you keep a track of the system and update is required. I hope your data will remain confidential, but we have been using a local HRMS, Sidat Hyder, provided by a local company, and it was a failure for our organization. The quality of the product was not good, and the customer support was not good. And ultimately you know when*

*your HRMS gets stuck and if you are getting error, your employees suffer. At the end we had to go for Workday which is international software”*

(R8)

#### **4.2.4 Organizational and Stakeholder Support**

Gaining organization’s management and stakeholder support is one of the challenges for HR. Gaining organization’s management support is crucial because it is management of the organization that must provide support and resources and direction for the implementation of HR. First, if the management itself is not initiating the implementation of e-HRM, it is a challenge for HR to convey and convince the management about the need of HR’s digitalization. Even if the organization is supportive of implementing e-HRM, it has its own purpose which might not match HR’s capability and role enhancement.

Besides organization’s management, there are other multiple stakeholders that has to cater which makes it even more challenging for HR to bring everyone on board. Another most important stakeholder that HR has to deal with are the employees. Employee satisfaction is one of the most important things for the organization’s success. Employees are the resource that helps organization meet its objectives by producing and selling the product. So unless the employees are satisfied the purpose of digitalization can’t be achieved. If employees face hurdle accessing and using digitalized system, it affects their performance which organization can’t afford at all. Now HR acts as a bridge between top management and employees which makes it responsible for addressing the concerns of employees. While employee satisfaction is a challenge for HR, HR can overcome it through proactive approach. It can be handled with pre and post

implementation trainings through which HR can convey the purpose, its benefits, and associated opportunities to employees.

One of the respondents said that

*“When you bring change in organization, you go through resistance. Since we are talking about e-HRM implementation, if the resistance is from organization or HR personnel themselves, that is something you need to take under consideration. But if the resistance is by employees, that is pretty common. There are people of all age groups employed and training needs to be conducted to handle them. Nothing goes smooth but hurdles can be taken care of with time and before time”*

(R14)

Unless management and all stakeholders are at a consensus, the implementation of e-HRM cannot be a complete success. As the essence of e-HRM is organization wide integration. E-HRM not only digitalize HR, but it is executed in a way that entire system of organization integrates. All stakeholders hence face certain challenges with adapting change and accepted enhanced role of HR but only through proactive approach of HR, all concerns can be addressed, and all stakeholders can be brought at the same page.

One of the respondents summarized the importance of stakeholder’s consensus in following words

*“Most important is the stakeholder management. Organization, HR and employees all fall in this category. They all have stake in the organization’s success. Among initiative taken by HR, digitalization is one of them. your stakeholders include all heads of all the departments,*

*managers, key personnel and end users as well. So, anything that you want to change, you have to take them on board. Unless they are onboard, either the initiative is not accomplished and if accomplished it is all in vain. This is biggest challenge that HR has to take care of because HR is people's management so beside technicalities, how you manage people is really important”*

*(R13)*

## **4.5 Opportunities**

While e-HRM comes with certain challenges, it offers countless opportunities for the organizations as well. The study conducted many opportunities. A few of them were what the literature has already talked about, for example, efficient working, time saving and so on. The study revealed additional opportunities that the implementation of e-HRM offers to the organization. These are listed down below.

### **4.5.1 Right Sizing**

Often with digitalization taking place in organizations, one of the challenges that HR deals with and one of the fears that employees go through is to deal with the question that whether the employees will be downsized or not. As a matter of fact, employees believe that since the functions are going to be digitalized, their services will no longer be needed by the employers. They believe that they will be downsized. As a result of which often the employees resists the implementation of digital system. They hold the information required to process the digitalization.

As one of the respondents said that

*“There could be a sense of insecurity within the HR as well like you know if our process is automated so they might not need us, but you create software to aid humans, not replace them. with digitalization I will be wanting my employees to enhance their HR skills so I will make things better not that I will want to let go of my resources I will rather utilize my resources to other domains. Like you have mentioned in transformational stuff”*

(R8)

However, the study revealed that it is a myth. While in real the only downsizing could be in number of interns. No employees are downsized. In fact, the resources are used elsewhere. As when a function is digitalized the burden is reduced, but at the same time there are new opportunities emerging that organization has to look after.

Dealing with the employees fear of job loss remains a challenge for HR as it is HR who is directly dealing and managing employees. HR will not be able to make the use of digitalized system if at the end of the day employees are again coming in person for queries or are still following traditional system. HR can, however, cater this challenge by conveying to the employees that there could be new roles they work but no downsizing. One of the respondents explained it through an example. He said for instance, if there are 15 people in HR and then digitalization hits, HR wouldn't need a person to run payroll individually. It is possible that this job gets clubbed. So yes, it involves transformation. Then organization will involve that person in some other work. There could be more development work that comes when HR become business partners. When HR become business partner, the requirement from is that HR understand the challenges of business and not only HR. So, when business challenges are put forward, then HR utilize the person who probably was always into files and report generation,

and he never had time to think anything else. Now the employee can be employed to collaborate with the business and to achieve the business objectives. The respondent summarized it as follow

*“Not exactly because new things are coming in and they are used as a resource for something different and digitalization takes time. Often it does not even feel like any difference in the team because everybody gets along with new roles so well, but it is challenging as employees do feel insecure”*

(R7)

#### **4.5.2 Quality of Service**

The literature emphasized much on cost cutting and financial opportunities provided by e-HRM. The study revealed an interesting opportunity in the given context. Although organizations look forward to cost saving opportunities, it was found that the benefit of e-HRM should not be directly taken as a financial one. E-HRM instead, offers organizations an opportunity to be provider of high-quality services. The success of technology implementation is reflected in improved service, cost cutting, and more time allocation for high value tasks.

One of the respondents said that,

*“yes, definitely e-HRM has positive relation with the general effectiveness of HR. You see, in my previous organization when we implemented time and leave module, though initially we faced criticism as the system was new, but once it was implemented smoothly and employees understood the system, we were given recognition as one main issue of employees were solved. So, e-HRM definitely has a potential for delivering quality service”*

The improvement in quality of service is a result of the accuracy of data along with simplified processes. Accurate data is the basis of e-HRM. With accurate data you can generate reports and in short you rely on data fearlessly. With that, correct actions are taken, and quality of service of HR is enhanced.

#### **4.6 Modified role of HR**

One of the central objectives for this study was to explore the influence of implementing e-HRM on the role of HR in the developing country – Pakistan. The study revealed that with implementing e-HRM without a doubt the role of HR had been modified. Although over decades the roles and responsibilities of HR have been modified, but e-HRM has appeared to be most evident in the transformation of HR's role in organizations. The reason is that it is only with digitalization that HR's burden is reduced, and that HR has been able to investigate matters other than mere operations. Although over years the expectations from HR by organizations widely enhanced but HR remained unable to perform all the expected roles. With digitalization only had HR been able to manage time for being proactive.

One of the respondents explained it as

*“See when beside looking after important activities as I mentioned, engagement, career counseling etc., when HR has to ensure daily operations which manually are really time consuming, one of both or sometimes both parts suffer. How things have changed after digitalization is that since manual work is minimal now, HR looks after other important issues”*

(R12)

Previous research entails the discussion about HR roles and as discussed in literature the roles were classified in a continuum with administrative roles at one end and strategic roles at another. The study found that it is not possible to just classify HR role as administrative, managerial, or strategic. Even if the organization has fully implemented e-HRM, HR still must look after the daily operations. The difference is that traditionally it looked after operations manually which was very time consuming but now it is done digitally which is much faster, smoother, and the chances of error are minimal. One of the respondents from organization who recently implemented e-HRM said that

*“Even after complete digitalization, some of the operational tasks might still be played by HR.*

*For instance, despite the system shifting to software, employees keep coming to us for little things which make us do operational things. Yes, if we talk about the continuum, more roles are mostly between relational and transformational”*

(R16)

One of the respondents when probed about how massive the change in HR’s role has been with e-HRM’s implementation said that

*“Yes, HR definitely goes through massive change with its role. But it is on organization that how effective this change can be for them. if I talk about this organization the employee data management remains operational and looked after HR. for managerial roles, again HR has to work on communication apart from system as well. And for strategic roles, I would say it comes strategic reorientation because if it a large-scale transformation, orientation is inevitable”.*

(R2)



Hence the findings present that HR role has been improvised over years and now HR is expected to be more of a strategic partner than just merely being HR personnel. Let's see what sort of roles HR is performing in organizations after the implementation of e-HRM.

#### **4.6.1 Administrative Roles**

Administrative roles are the most common roles that HR executes even after the implementation of e-HRM. As organizations introduce e-HRM to reduce headcount or cost, it does not mean the organizations don't need HR to look after administrative tasks at all. The HR is still expected to perform administrative tasks. With implementation of e-HRM, the dynamics of HR function has changed. Although HR is still performing some administrative tasks, but the nature of tasks and time allocated has changed drastically. HR is no longer maintain data in excel sheets. HR is no longer maintaining archives and employee files. The employee record itself is in the system and a click away. HR does not have to go through tones of files and piles of documents to find one relevant document. Instead, by going to workers profile in the system being used, HR can track workers history in seconds. Similarly, HR doesn't not have to make and update the excel sheets time to time. Instead, reports are available in system that can be run and updated within system and even downloaded for further investigation.

One of the respondents said that

*“For example, before digitalization we had piles of resumes, the recruiting process was very hectic. You know the one we used to use to study in books. It was the same. We had to advertise positions, then short list resumes then manually keep a track of them. After e-HRM we still have to initiate the process. We have to create the position in Workday then create a job requisition.*

*Which is then followed by other steps. What I mean is, we still have to initiate the process and do some administrative tasks as well “*

*(R11)*

Similarly, traditional HR would manually process the payroll every month end. That is one hectic task as it involves finances and HR has to ensure it is not messed up. It would result in a very busy HR schedule for the month end as it a repetitive task that must take place every month. It is hectic one as new hire must be taken care of, and individual target and bonus marks another factor. With digitalized HR, the system is updated and by running reports you can retrieve the data and payroll can be processed with just one click. Attendance management is one more administrative task that traditional HR would execute manually. But with e-HRM, the attendance record is maintained by the system and HR literally has little to no responsibility for that except for.

One of the respondents said that

*“Oh yes, previously administrative tasks were time consuming and hectic. For example, attendance management. We had to look after that manually. With that came plenty of questions regarding time and much more human error. Now the system is configured in a way that even employees working from home can check in and check out their time and we have very less burden left “*

*(r14)*

This is how HR’s administrative role is modified. HR is still executing administrative tasks, but nature of tasks and the delivery method is entirely different.

#### **4.6.2 Managerial Roles**

Now moving towards managerial roles, like administrative role of HR, the managerial role of HR has also seen modification. As explained in administrative roles, the HR also played managerial roles, but the nature of tasks and the method of delivery is influenced by e-HRM. Traditionally HR would perform the task of compensation management in a manner that would involve hustle. Without systemized process, it was a challenge for HR to maintain internal and external parity. The compensation would be in documentation and for every query related to compensation, piles of files and documents would need exploration. Even if employees would want to access data that would be one hectic task to track down the files. With e-HRM, both HR and employee has everything in front of them in system. Instead of long hectic process, employees can request compensation change or track their compensation history. Even the managers of the employees can access the data.

One of the respondents said that

*“Yes, HR executes management roles. You see when we have to overlook the flow of information and what sort of employee access what information, it falls ion the managerial roles”*

(R8)

#### **4.6.3 Center of Attention – Strategic Role**

The study revealed that with e-HRM the role of HR is influenced and is now more towards the strategic roles. The research further probed that what exactly the HR role to be strategic is like. It was discovered that strategic role of HR represents the transformational goal of e-HRM as when HR acts as strategic, they transform the organization and the business. Whether it is the organizations culture, the way of carrying out business, approaches to manage future challenges

and looking into more business opportunities, HR has the potential to transform it if it acts as strategic. When probing about how HR is strategic in their organization, one of the respondents said that

*“Yes, exactly, strategic issues as forecasting future needs, acting proactive, bringing new opportunities. It also includes creating a positive work environment and a word of mouth regarding the company”*

(R13)

Another respondent said that

*“This strategic HR business partners that you are talking about with strategic orientation, in this era this is the core of HR. so because of transactions, we were not improvising the business with support that it needs so when we talk about transformation, the transformation actually is for this reason and when we do the transformation the structure goes lean. We don't need a team of 12 13 people to run the HR. Maybe a few persons are enough who is literate with the system and with HR is good enough to run a few things while rest can be employed in new roles like data analytics and artificial intelligence”*

(R10)

The study found that organizations where HR plays strategic role are better able to deal with the future challenges and crisis proactively. Instead of being reactive as in case of COVID Pandemic, and taking measures once the tough situation hits, HR forecasts the future and take appropriate measure before time. IT gives HR an opportunity to help build and sustain the position of organization in the market. It is very important provided the market is competitive

more than ever before. The study also found that HR plays a strategic role now in developing and managing the core competencies. It not only plays a part in helping organization develop its core objectives but ensures the objectives are achieved by analyzing that the employee's competencies meet the organization's competencies. Core competencies in return are crucial to sustain the competitive advantage of organization as well. Hence, now HR plays a strategic role in organization wide strategy formulation, developing core competencies of organization, meet the objectives of organization, bring future business opportunities and what not. Evidently achieves the mentioned goals by participating in the planning of organization, develop core competencies which are realistic to achieve, and ensuring the achievement of everything panned through acquiring capable human capital for organization which compliments the competencies of organization.

One of the respondents explained how crucial the strategic role of HR and organizations transformation is if organizations want to sustain privilege in market following words.

*“I would say that yes organizations do transform them self, and HR does play a strategic and proactive role in that but not all or many organizations are there yet. those organizations who have made their way there are reaping benefits of competitive edge. And therefore, some organizations are so hard to compete with. They always maintain the edge somehow”*

(R12)

This shows that e-HRM had influence of the role that HR plays. HR executing strategic roles sounds really fascinating but when it has several avenues for growth it goes through many challenges and unless it addresses the challenges proactively and smartly, the entire process of digitalization can go in vain. Although it depends on organization how it proceeds with it how it

equips its HR after its digitalization. HR will not be able to work on its transformed roles unless and until supported by organization. In order to actually execute the modified role that literature talks about,

#### **4.6.4 HR and Informed Decision**

As discussed in literature, HR back in time struggled for its worth. It never had enough resources and time to come up with an agenda or strategic planning which would help them being at a place to be heard. Another thing it struggled with was not just its representation, but it's said along with the C level of the organization. C level of the organization is composed of the key organization's personal that altogether make decisions for key objectives and corresponding policies. HR lacked its representation there. Even if being physically there, it was not considered capable enough to have a say. So, over the decades, studies on HR's digitalization has presented that the HR's involvement in the decision making for organizations key decision making has improved more than ever before. Not just its representation in C level but its capability of making informed decision is no more a question mark. This study however, found another direction for this debate. It was an interesting thing to discover that over years although the HR's role in making informed decisions for key organizational objectives has empowered but it has little to do with digitalization of HR or e-HRM. HR now definitely has equal say as other departments when it comes to key decisions. Let's look at the reasons respondents mentioned for this shift. One reason is that over years, overall HR has gained power in organization. As discussed in literature, HR has passed through the mere administrative stage to now having its visibility as Human Resource department. The second reason is because of data available and data being just a click away, HR can present logical arguments to back their statements.

However, e-HRM's direct influence on in. Third is that e-HRM or HR's digitalization as helped in digitalizing the organizations data.

*“Okay so this thing does not have direct link with digitalization as organizations had realized that maybe our work is to look after manufacturing and sales. But to deal with capital that how many resources to hire, what amount to hire on, when to promote. Initially business used to look after this. But then HR was there to support the business that you do your work, let us do our work. So, these things came with HR's realization. Digitalization did not have vast impact because of it. Yes, how it supports, HR is ready decisions becomes easy”*

(R8)

So, e-HRM supports HR in making informed decisions with accuracy and availability of data and helps save time but beyond that e-HRM has nothing to do with HR in decision making. How it supports HR in its decisions is that, let us take an example. If an organization wants to expand a business and has called for meeting to analyze the headcount, current and required. This meeting does not conclude to next meeting. Instead, HR manager will open the system right there and make ready-made statement about its headcount. So, it will save time and HR will be able to present facts. But whether or not HR is present in this meeting has nothing to do with E-HRM.

Another respondent said that

*“Well HR has always been involved in decision making with top management and heads of other departments for a while now but how it has changed with e-HRM, and automation is that we now have error free statistical data and finding relation with this data becomes hundred times easier and firm”*

(R2)

As the study found that e-HRM has little influence with HR's involvement in decision making, It also found that e-HRM supports decision making by enabling HR to make informed decision through access of digitalized data. The study also found that that e-HRM appears as an opportunity that HR can utilize to make informed decisions and enhance its worth in decision making. As said the purpose that e-HRM can serve are endless and enhancing HR's role in decision making is an opportunity that HR can utilize with its system being digital. It can present facts and make decisions on the facts in meetings with a few clicks. Instead of calling the meeting again, it has an opportunity through e-HRM to make informed decisions in time.

*“Okay so another point that arises from here is that what the benefit is. Now when you go towards digitalization, you start receiving stats. Then you are able to make better decisions. On the base of these facts and numbers, HR has the ability to make what we call as “informed decisions”. And HR should use this as strength to make decisions confidentially”*

(R4)

Another respondent said that

*“Well HR has always been involved in decision making with top management and heads of other departments for a while now but how it has changed with e-HRM, and automation is that we now have error free statistical data and finding relation with this data becomes hundred times easier and firm.”*

(R2)



So, what we can extract from this is that e-HRM has no direct influence on HR's involvement in organizations decision. However, e-HRM supports HR in decision making by enabling them to make informed decisions through error free stats. So, e-HRM supports HR in informed decisions and provides an opportunity to make well informed decisions which otherwise would not be possible, but whether or not to have HR in key organizations decision is beyond the scope of e-HRM

## Chapter 5- Discussion

The literature highlighted that electronic Human Resource Management (e-HRM) is often misunderstood with concepts like HRIS, HRMS, virtual HRM and so on (Gonzalez et al., 2011; Ngai & Wat, 2006; Strohmeier et al., 2012; Valcik, Sabharwal, & Benavides, 2021). This study revealed that it is no longer the case as most of the respondents were aware of the concept of e-HRM means. One reason for this could be the fact that organizations with implemented e-HRM were chosen and hence personnel were aware of the concept. Another reason could be the interview guide was shared with the respondents before scheduling the interview and hence they had a chance to go through it and understand the concept. As literature talked about concepts misunderstood with e-HRM, similarly, literature talks about concepts that are relevant with e-HRM and terms used in place of e-HRM such as digitalization or automation of HR (; Gueutal et al., 2005; Mazurchenko & Maršíková, 2019; Mihova & Ivanova, 2020). From this study it was discovered that although most personnel were aware of the concept of e-HRM, they were at ease using the term “digitalization” in place of e-HRM. The evident reason was that digitalization was easy to pronounce and was a simple term. A few respondents however also used the term “automation” but the use was very little. Overall, the study found out that organizations and personnel are familiar with the concept of e-HRM and as discussed in literature the e-HRM is in the implementation phase with a lot of potential that still needs to be discovered.

In depth study revealed that e-HRM is a dynamic concept with multiple objectives that it offers to organizations. This study about e-HRM entailed three objectives to understand e-HRM in the context of Pakistan. The first objective this research had was to explore the purpose of e-HRM in organizations. The second objective was to explore the opportunities and challenges of e-HRM

for organizations. And the third was to explore the influence, if any, of e-HRM on HR's role in organization. This chapter will provide a brief discussion for each objective of this study.

The literature discussed purpose of implementing e-HRM in reference to Lepak and Snell framework. The study found that, beside categorizing the purpose with reference to Lepak and Snell's operational relational and transformational goals (Alam, 2021), there are certain other purpose as well. At first this study revealed is that organizations implement e-HRM in response to the needs of organization. When organizations reach at a certain level of maturity, has certain employee count, has certain revenues, managing employees and processes manually would not have good outcomes. Organizations then have a purpose to cater the needs of its organization with implementing e-HRM. Similarly, literature referred e-HRM as a context specific when it comes to developed or deviling countries (Waheed et al., 2020). However, it was found that e-HRM is context specific not only according to geographical regions only but also according to organizations demographics. Whatever the purpose organizations begin with implementing e-HRM, the context of organization in which it is being implemented plays a crucial role. Not every organization is encouraged to implement e-HRM unless they make enough revenues to bear the expense or unless they have enough employees to make a use of digitalized system or unless they have enough diversification of roles and departments in organizations. So once organization meets the context appropriate for e-HRM only then it is advised to begin digitalization. Otherwise, it is advised not to waste resources and time on something that is not needed.

As the literature highlighted that in accordance with Lepak and Snell, the organization usually have three goals to implement e-HRM framework. These include operational, relational and transformational goals (Alam, 2021; Bissola & Imperatori, 2014; Lepak & Snell, 1998). Our study concluded that the purpose with which organizations implement e-HRM entirely depends on organization. This study found that the three mentioned goals are not independent of each other. Rather they are highly influenced by each other. Organizations first and foremost purpose to implement e-HRM and invest so much to make HR digitalized is to make everyday operations smooth, efficient and paperless (Ruta, 2005). Organizations want to save its personnel's time and minimize the person's dependability for processes. These purpose falls in operational goals of e-HRM. Moving further once organizations have achieved this, the purpose improvises where organizations begin to make e-HRM more useful. It is done by moving to the relational objectives where HR is supposed to bring functions like recruitment and selection, performance management and exit management digitalized (Parry & Tyson, 2011). Here organization's purpose is not to digitalize these operations but to integrate them in a way that organization wide communication is enhanced. With further establishment of e-HRM, the organization's purpose improvises to transformational goal of e-HRM where organization aims at transforming organization and the way things operate through HR (Fındıklı & beyza Bayarçelik, 2015). Here HR is supposed to act proactively and implement organization wide change. Interestingly most respondents emphasized on either operational or transformational goals. This study found that the purpose of e-HRM is sequential where the aim to achieve operational objectives leads to relational and relational leads to transformational objectives. Practically it is also possible that organizations can have all three goals in mind while implementing e-HRM. Additionally, the study found that sometimes the initial objective to implement e-HRM and the end object could

be different. The organization could begin implementing e-HRM to meet basic needs but eventually utilizing the technology achieves much more than the basics.

Additionally, organizations implement e-HRM to meet the competition. Competitive environment puts an emphasis on organizations to update the systems as well. Otherwise, organizations will face hard time meeting their competitors. This reflects to the emphasizes by Ahmed and Ogalo (2019) on Lawrence and Lorch's (1976) Contingency theory which explains the influence of environment on the organization. Secondly it can be concluded that E-HRM will only act as a resource for organization through which organizations achieve certain objectives but that is only possible when organization adapts well to the environment's need.

So basically, an addition in literature is that the goals of e-HRM can't be confined to one. There are many things organization can achieve through e-HRM. organizations can even be utilizing all three, operational, relational, and transformational goals altogether. An interesting thing found was that whatever the purpose organization aims at achieving through e-HRM, eventually they proceed to transformation, sooner or later. So, organizations should look for maximum support for HR and organization overall and make the best use of the investment in digitalization.

The second objective of this study was to explore the challenges and opportunities that come along when organizations are digitalizing HR's functions by implementing e-HRM. Literature talks about the challenges of e-HRM as high costs, complex situations, increased competition cost of workforce wiring and the opportunities as productivity, ROI, employee communication, quality enhancer etc.(Ramya & Neelima, 2017; SADIQ & JACULIN). The study found several additional challenges and opportunities of e-HRM. Talking about the challenges first, study found the process of e-HRM itself is a challenge. When organizations begin implementing e-

HRM, they go through a process which consists of four steps. Each step offers certain challenges and are crucial to be addressed as how effective the implementation of e-HRM is going to be depends on those steps. The first is to identify the function that needs to be digitalized as many functions are there, but it is a challenge to prioritize the process to be digitalized. The second step is to streamline the process. It proceeds with the next step where the organization tracks the proposed streamline route and further streamlines it along with procuring the required software to digitalize the function. Moving forward to the last step for digitalization is when the software is fully implemented, and the entire function is shifted to the process digitally. The process of implementing e-HRM is particularly challenging as deciding the right route is what the success of implementation depends on. Another interesting thing discovered from this study is that digitalization is given a lot of emphasis when sustaining digitalization is equally important and challenging. Digitalization is not a one time, thing, rather it is an ongoing process that organizations have to adapt with time in time to sustain the purpose. Additionally, stakeholders are an important asset for organization, and it is a challenging task to bring the stakeholders on similar grounds for implementing e-HRM.

E-HRM not only comes with challenges but there are endless opportunities as well. This study revealed that through e-HRM HR could right size the employees. HR plays the most crucial role when it comes to talent acquisition and talent management. To attract and sustain the talent in current era of globalization and competition, HR has much more to do than to mere recruit talent. They have to keep them engaged and sustain as well. They have to place the right employee in right position to maximize the outcomes. Since human capital is what makes organization meet their business objective and HR could access the capabilities of employees and right size the employees. HR only can fulfil all the roles required of them in this era if they invest their time on

worthy things and not just operations. So, if organization's management has a vision, it invests in HR and make it digitalized. So, organization has an opportunity to meet and exceed its organizations objectives and not only sustain but expand the business. Similarly, HR has the opportunity through e-HRM to provide quality of service to the employees. The foremost opportunity it gives to HR is to provide quality services to its employees and customers of organization. Additionally, it provides an opportunity to HR to adapt with new roles and offer much more to organization by saving its time and working on strategic tasks.

The analysis discovered that opportunities outgrow the challenges. As with any change being implemented in an organization, challenges to be faced are evident. The thing is how the challenges are faced and dealt with to provide support to the change. This study found that not just HR but organization and employees all face challenges. Though it is HR that faces the most crucial challenges because it not only has to incorporate change in its function but bring all stakeholders on board and smoothen the process with minimal hurdles possible. The most organizations face are budget and resource challenges. Once passed that stage, it is on HR to work the plan out. Most employees face includes the unease of the new system, the fear of a job at stake, and the anxiety of being capable to adapt with new system. Now when it comes to HR, they not only have to work out the plan with the organization's management but face, answer and mitigate the fears of employees as well. Because the digitalized system is going to provide support to HR, but it is employees who have to use it as well. Unless they are well equipped in using the software and keep going to HR for everything personally, the purpose of implementing HR can't be achieved. Besides addressing all these challenges, HR department is under pressure to incorporate the change while fulfilling all functions simultaneously. So, while digitalization sounds appealing, it is easier said than done.

Literature talked about the challenges and opportunities and not any difference was found in this aspect. What can be extracted from this is that the opportunities the e-HRM offers to organization, HR and employees, exceeds much from the challenges that are faced. Just like any other change being implemented, e-HRM faces initial resistance but once incorporated, the opportunities can transform the entire organization and its processing.

Moving towards the last objective of this study which was to explore the influence of e-HRM on HR's role in organizations. The literature highlighted that with e-HRM the role that HR plays in organization has been modified. It has shifted from administrative roles to more strategic roles (Iraqi & Zaheer, 2021; Ullah, 2012; Ulrich et al., 2008). It now instead of dealing with payroll and time and attendance, works as strategic business partner and executes strategic roles by grabbing opportunities proactively for organization. In accordance with literature, the study found that HR definitely has moved towards a strategic role over years and the digitalization of HR has not only supported this shift but is the most evident factor influencing the role. The study however also discovered that with e-HRM implementation, it is not that HR is free of operational tasks. At the end of the day, HR still has to look into certain operational tasks, but the system makes the functions and processing much, much, faster. The faster processing and access of data makes HR save its time and utilize this time in strategic opportunities and exhibit strategic roles.

Literature also explained the roles played by HR's through a continuum where left extreme has operational the roles and right extreme has strategic role and in the middle of two extremes lies the managerial roles (Truss et al., 2002). This study acknowledged this continuum but added that unlike traditional roles of HR which were more towards operational extreme on continuum, now the roles played by HR are tilted towards strategic and are somewhat between relational and transformational. The HR is supposed to still execute a little of administrative roles but now it is



more towards strategic roles. Instead of spending days on one task, one command to the system helps them get the work done which has shifted their role to be strategic. The strategic role demands them to be proactive and smart to look for future opportunities for business. It demands HR to forecast the future and proactively address the future needs before time.

Both, the literature has talked about, and this study have revealed about goals of e-HRM and the roles of HR. The study has also revealed that e-HRM influences the role of HR and modifies the execution of its tasks. Interested thing that emerged through analysis is that goals that e-HRM offers and the roles that HR plays has a connection between them. For instance, the administrative role of HR includes manual payroll processing, attendance management, maintaining records and data base, compliance etc. Similarly, the operational goal of e-HRM is electronically execute these processes to increase productivity, save time as well as cost. When talking about managerial roles of HR, HR executed recruitment, compensation, performance management and so on. Relational goal of e-HRM is to execute these process electronically which results in increased connectivity of employees, increased transparency, and better access to the data required. Last, strategic HR executes change management, knowledge management etc proactively and similarly, transformational goal of e-HRM is to strategically align the organization with long term planning, future forecasting, and connecting the organizations across geographical regions. The following table summarize this all.

5.a – Goals of e-HRM and Roles of HJR

	<b>Administrative roles</b>	<b>Managerial Roles</b>	<b>Strategic Roles</b>
<b>Operational Goals</b>	Payroll & attendance management, maintaining records, compliance		
	Increased productivity, cost saving, efficiency		
<b>Relational Goal</b>		Compensation & benefits, PMS, R&S, OD	
		Increased connectivity, employee engagement, and sustaining employees	
<b>Strategic Goals</b>			Talent acquisition, global talent management, change management
			Communication across geographical regions, strategic orientation, long term planning, future forecasting

In conclusion, HR still performs its roles be it administrative or managerial but with e-HRM the nature of execution of the roles is influenced because of which HR is moving towards its strategic role.

When it comes to HR's role, the literature further highlighted that with e-HRM being implemented, HR has been seen with an increase in its representation and say in key organizations decisions (Al Mashrafi, 2020; Gavetti & Rivkin, 2007). What this study found is that e-HRM has less to do with HR's involvement in key decisions. However, it only supports HR with making informed decisions which in return supports the HR when they add their statement for the decisions of the organization. The study found that over years HR had witnessed its importance increasing and e-HRM has given it an opportunity to reduce its burden and completely transform it. But still when it comes to involvement in key decisions of organization along with C level of organization, e-HRM did little. With e-HRM HR has been able to make quick analyses. Rather than spending weeks on making reports and tracking everything manually, with digitalization HR has been able to make and compare reports in minutes if not seconds with minimal errors. Now this is how it supports the HR's involvement in decision making. Besides it really did not make HR involved with C level for organizations key discussion and decisions. It has however helped HR in improving its perceived image in organization by providing facts in time and helping organization and other departments achieve its objectives.

So overall, the role that HR plays in organizations has been modified with e-HRM. There can be more factors contributing to this, but our study points that e-HRM has been the most evident. It has not only helped organizations achieve its purpose of implementing it but has helped HR in transforming its role in organization.

## **5.1 Conclusion**

The thesis concludes by providing an in-depth analysis of the understanding of electronic Human Resource Management (e-HRM) and its influence on HR's role in the organizations of Pakistan.

Literature referred to the study of e-HRM as highly context specific. The study found that the phenomenon of e-HRM is not only context specific country wise but also organization wise. Not all organizations qualify or should implement e-HRM unless it meets the need of e-HRM. Additionally, it was found that even a few organizations who meet the need of digitalizing its HR will not do it because of its culture. So, whether to implement e-HRM or not and when is a question that the organization context, its culture and management decides with. The literature highlighted the concept of e-HRM and its misunderstanding with relevant concepts like HRIS, HRMS etc. and its similarity with a few terms like digitalization and automation of HR. No major differences were observed here because all organizations had e-HRM implemented or in process and were well aware of the concept of e-HRM. Interesting thing however was that all respondents only referred to digitalization of HR, but one respondent also referred to it as automation of HR. What can be concluded is that in organizations of Pakistan, digital HR is mostly used when talking about e-HRM.

The organizations basically implement e-HRM with the purpose to achieve either of the three goals of e-HRM, operational, relational or transformational. This study has similar findings in addition to a few things. This study adds to this that the purpose of organizations could not be just one of these goals but all goals. It further added that usually the purpose of implementing e-HRM is progressive where the organizations begin with purpose to achieve operational goals which leads to relational which leads to transformational. Literature indicated the phenomenon of e-HRM to be developed in developed countries like in the US and Europe and still in the implementation phase in countries like Pakistan. The study had similar findings. None of the organizations interviewed had fully matured digital HR systems. In fact, most of the organizations were still implementing or shifting or updating the digitalization of HR. It implies

that digitalization of HR is still in the implementation phase and there is much more yet to be explored for e-HRM in Pakistan.

The study further explored the challenges and opportunities of e-HRM. Most of the challenges and opportunities discussed by respondents were similar to what literature highlighted. What this study discovered is that the opportunities of e-HRM outweighs the challenges. The initial challenges and resistance of organizations to implement change should not affect the implementation of e-HRM. Instead, challenges should be faced and addressed in a way that eliminates all fears. Stakeholders should be taken on board. Meetings should be held with management to keep them on board. HR should stay motivated because their hard days will be over with e-HRM. Training should be conducted for employees to address their concerns. Instead of leaving employees and stakeholders on their own to figure out the new system, consensus should be achieved by addressing everyone's concerns.

With e-HRM implementation in organizations, the role played by HR has also been modified. The literature classified the roles of HR in a continuum with operational and strategic being on left and right extremes respectively with managerial roles in the middle of the continuum. With the implementation of e-HRM, literature says that the roles of HR are more strategic now. In accordance with literature, the study concludes that e-HRM has influenced the role of HR. Referring to the continuum, the roles of HR now lie between relational and strategic. However, a few roles of HR remain operational as well. Implementing e-HRM does not completely cut off the administrative role. Rather it supports HR to be strategic while looking after operational tasks digitally. The evident thing is it enables HR to work strategically while not neglecting any of its responsibility. One thing the literature highlighted is that e-HRM helps HR in making key decisions for organizations objectives with C level. What this study found is that e-HRM only

supports HR in making informed decisions but whether or not HR is involved in decision making is beyond the scope of e-HRM.

The thesis also concludes that e-HRM is imminent soon. It would be hard for organizations to survive or remain successful unless it digitalizes not just HR but other departments in a way that everything integrates well. The importance of e-HRM and digitalization and integration is evident in the COVID pandemic. Organizations who had its functions digitalized managed to escape or minimize the effects of pandemic by encouraging employees to work from home while others suffered and as a reaction went to adapt technology. So in a competitive market, organizations should look for adaptation with technology, implement e-HRM and digitalize not just HR but all departments and integrate them. Organizations should also invest in HR and make them sufficiently equipped and capable to be strategic business partners.

## Chapter 6- Contribution

Research on electronic Human Resource Management (e-HRM) is trailing behind when it comes to the consideration of the influence on HR's role and potential strategic direction for HR. So the study contributes by advancing the understanding of e-HRM in the organization focusing at HR and organizational level. The essence of e-HRM is analyzed in organizations of Pakistan without limiting the sector because not many organizations have hand on the e-HRM. Therefore, the research contributes to the field of academia by putting together the leading-edge technology and HR. It contributes to academia by giving an enhanced direction providing new opportunities for HR. This appears to be providing new channels for further research considering the research in e-HRM and transformational HR directing further avenues for research. Advancement in understanding of e-HRM and potential influence on HR roles in academic literature would also help organizations as well as the Human Resources to make use of e-HRM by modifying their practices and roles. Besides all, the research fills the existing gap in literature by undertaking an in depth study of strategic potential of transforming HR roles (Ahmed & Ogalo, 2019) from the perspective of HR as the roles from employees perspective has been studied before (Al-Harazneh & Sila, 2021). Hence in-depth study followed by semi structured interviews from HR professionals helped making these contributions in literature and for practitioners possible.

### 6.1 Limitation

The study tried to include several avenues to explore the phenomenon of electronic Human Resource Management (e-HRM) in the context of Pakistan and its influence on HR's role but there were to be certain limitations in the study. First, the study targeted only those organizations where e-HRM was already implemented or under implementation so the organizations that are

yet to implement e-HRM are beyond the scope of this study. This limits the possible number of organizations to be studied. Secondly the study interviewed a total of 17 respondents including the pilot study from 15 organizations and hence it can't be generalized. Thirdly, the study was conducted amid the first and third wave of COVID 19, the global pandemic. Although the researcher tried not to let the pandemic affect the study, but certain things were beyond the control of the researcher. The interviews were mostly conducted online and hence the organization's environment and respondent's expressions were not possible to be noticed. These factors help in relating the organization's context for the research and being in person there, researcher might get access to some documents through respondents.

Lastly, the study had time constraints. First the data collection took much more time than expected because of COVID 19, reaching the respondents and scheduling the interviews were hard. Secondly, the time to conduct the research was specified and the scope of study and objectives were specified, hence all organizations, and sector wise analysis was not practically possible.

The mentioned limitations open avenues for future research to be conducted to explore and study e-HRM in the context of Pakistan

## **6.2 Implication for future research**

Considering the limitations discussed, this section proceeds with proposing future recommendations. First of all, as discussed in the literature and discussion chapters, the concept of electronic Human Resource Management is dynamic. With little previous research on e-HRM in Pakistan, this study just acts as a road map for further researchers to explore more about e-HRM in Pakistan. So first of all since 15 organizations were targeted, it was practically not



possible to consider every organization with e-HRM implemented which provides an opportunity for future research to explore more organizations with e-HRM implemented. So it is recommended to study more organizations and generalize the findings. Secondly because of time constraints and scope of the study, individual sectors were not studied. So it is recommended that e-HRM be compared sector wise. It is also recommended to compare and contrast e-HRM in foreign subsidiaries and local organizations as well. Further the number of respondents included in the study were 17 including the pilot study, comprising the middle HR personnel. Due to the time constraints, it was not possible to engage larger a sample size. So, it is recommended that future research employ a longitudinal study to better understand the influence that e-HRM has on the roles of HR. Moreover, longitudinal research will help in having a holistic view about e-HRM, the process, the challenges and overcoming them, the opportunities and exploiting them and modification of HR role over a period.

There are a few implications for the organizations that have implemented or are about to implement e-HRM. First of all, it is advised not to implement e-HRM just because everyone in market the is doing it. Because competitors are doing something doesn't make you alleged to do it. Organizations look into its organization's needs and suitability before implementing e-HRM. At the same time, it is also recommended not to procrastinate the adaptation of technology. A vigilant and proactive approach is advised to organizations when implementing e-HRM. Secondly, procuring the appropriate software has a lot to do with success in digitalization. Much attention should be given when implementing software. Inappropriate software is a setback for organizations as huge investment has to be made. So it is advised to save time and cost by evaluating the software first and then implementing it. Thirdly organizations are also recommended to give room to HR to work on modified roles and do much more than mere

operations. It is really important because in the current competitive era those organizations are successful who not only are productive but who work smart. Lastly organizations are recommended to involve HR with input when making organizations objectives and respective decisions because HR knows the capability of the human capital of organization and can better help in making realistic objectives and informed decisions. Furthermore, there are a few recommendations for HR managers as well. First, HR managers are advised to take the first step in convincing the organization's management to invest in HR if they are not already doing it. It helps HR with beginning digitalization and then they can enjoy all the benefits that come with e-HRM. Secondly, HR is recommended to face all the challenges and stay motivated because once the hard part is gone, HR is going to have many advantages. It is also advised that HR should keep utilizing its time more on activities that bring more opportunities for organization and sustain its importance in organization. At last, HR is advised to be adaptable with its roles and should go an extra mile to learn and adopt new roles that are required of them to achieve the strategic importance.

Last recommendation suggested for future research is to study e-HRM pre and post COVID'19, global pandemic. Since pandemic has affected business hard, so every organization sooner or later will have to digitalize it's systems so it can be accessed remotely and allow its employees to work from home. So it is recommended to study organizations who implemented e-HRM as a need in global pandemic.

## Reference.

- Abu-Alhaja, A. S. (2019). From Epistemology to Structural Equation Modeling: An Essential Guide in Understanding the Principles of Research Philosophy in Selecting the Appropriate Methodology. *Australian Journal of Basic and Applied Sciences*, 13(9), 122-128.
- Ahmed, A., & Ogalo, H. (2019). From HRM to E-HRM: Contemporary Developments from Scholarly Work. *Annals of Contemporary Developments in Management & HR*, 1, 1-6.  
doi:10.33166/ACDMHR.2019.01.001
- Akhlaq, M. A. (2009). SWOT analysis of the textile industry of Pakistan. *Pakistan Textile Journal*, 37-39.
- Al-Harazneh, Y. M., & Sila, I. (2021). The Impact of E-HRM Usage on HRM Effectiveness: Highlighting the Roles of Top Management Support, HR Professionals, and Line Managers. *Journal of Global Information Management (JGIM)*, 29(2), 118-147.
- Al-Momani, M. M. (2021). THE ROLE OF E-HR SYSTEM IN FACILITATING THE WORK OF THE ORGANIZATION: APPLIED MODEL, AND ASSESSMENT. *International Journal of Management*, 12(1), 15-20.
- Al Mashrafi, K. A. S. (2020). Human Resource Management and The Electronic Human Resource (E-HRM): A Literature Review. *International Journal of Management and Human Science (IJMHS)*, 4(2), 44-53.
- Alam, S. S., & Islam, K. Z. . (2021). Examining adoption of Electronic Human Resource Management from the perspective of Technology Organization Environment Framework. *IEEE Engineering Management Review*.
- Alharahsheh, H. H., & Pius, A. (2020). A review of key paradigms: Positivism VS interpretivism. *Global Academic Journal of Humanities and Social Sciences*, 2(3), 39-43.
- Andersen, P. H., & Wagtmann, M. A. (2004). Ensuring validity in qualitative international business research. In *Handbook of Qualitative Research Methods for International Business* (pp. 464-485): Edward Elgar Publishing.
- Bashir, M., Afzal, M. T., & Azeem, M. (2008). Reliability and validity of qualitative and operational research paradigm. *Pakistan journal of statistics and operation research*, 35-45.
- Basu, M. (2019). Implementing E-HRM in Cross-Country Environment: The Key to Organizational Growth. Available at SSRN 3309284.
- Baykal, E. (2020). Digitalization of human resources: E-HR. In *Tools and Techniques for Implementing International E-Trading Tactics for Competitive Advantage* (pp. 268-286): IGI Global.
- Beebe, L. H. (2007). What can we learn from pilot studies? *Perspectives in psychiatric care*, 43(4), 213-218.
- Bell, E., Bryman, A., & Harley, B. (2018). *Business research methods*: Oxford university press.
- Berber, N., Đorđević, B., & Milanović, S. (2018). Electronic Human Resource Management (e-HRM): A New Concept for Digital Age. *Strategic Management-International Journal of Strategic Management and Decision Support Systems in Strategic Management*, 23(2).
- Berryman, D. R. (2019). Ontology, epistemology, methodology, and methods: Information for librarian researchers. *Medical reference services quarterly*, 38(3), 271-279.
- Bissola, R., & Imperatori, B. (2014). The unexpected side of relational e-HRM: Developing trust in the HR department. *Employee relations*, 36(4), 376-397.
- Bondarouk, T., & Furtmueller, E. (2012). *Electronic human resource management: Four decades of empirical evidence*. Paper presented at the Academy of Management Proceedings.
- Bondarouk, T., Parry, E., & Furtmueller, E. (2017). Electronic HRM: four decades of research on adoption and consequences. *The International Journal of Human Resource Management*, 28(1), 98-131.
- Bondarouk, T., & Ruël, H. (2013). The strategic value of e-HRM: results from an exploratory study in a governmental organization. *The International Journal of Human Resource Management*, 24(2), 391-414.

- Bondarouk, T. V., & Ruël, H. J. (2009). Electronic Human Resource Management: challenges in the digital era. *The International Journal of Human Resource Management*, 20(3), 505-514.
- Braun, V., & Clarke, V. (2012). Thematic analysis.
- Bryman, A. (2006). Integrating quantitative and qualitative research: how is it done? *Qualitative research*, 6(1), 97-113.
- Caldwell, R. (2003). The changing roles of personnel managers: old ambiguities, new uncertainties. *Journal of management Studies*, 40(4), 983-1004.
- Cascio, W. F., & Graham, B. Z. (2016). New strategic role for HR: Leading the employer-branding process. *Organization Management Journal*, 13(4), 182-192.
- Caudron, C. (2003). Counting heads and hiring, firing and managing them too. *PROFIT Oracle's e-business magazine*, 79-80.
- Chapman, D. S., & Webster, J. (2003). The use of technologies in the recruiting, screening, and selection processes for job candidates. *International journal of selection and assessment*, 11(2-3), 113-120.
- Collis, J., & Hussey, R. (2013). *Business research: A practical guide for undergraduate and postgraduate students*: Macmillan International Higher Education.
- Cowie, J. (2019). *Capital moves*: Cornell University Press.
- Creswell, J. W. (2002). *Educational research: Planning, conducting, and evaluating quantitative*: Prentice Hall Upper Saddle River, NJ.
- Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*: Sage publications.
- Crossan, F. (2003). Research philosophy: towards an understanding. *Nurse Researcher (through 2013)*, 11(1), 46.
- Croteau, A.-M., & Bergeron, F. (2001). An information technology trilogy: business strategy, technological deployment and organizational performance. *The journal of strategic information systems*, 10(2), 77-99.
- Deal, J. J., Altman, D. G., & Rogelberg, S. G. (2010). Millennials at work: What we know and what we need to do (if anything). *Journal of Business and Psychology*, 25(2), 191-199.
- DeMarrais, K. B., & Lapan, S. D. (2003). *Foundations for research: Methods of inquiry in education and the social sciences*: Routledge.
- Eriksson, P., & Kovalainen, A. (2015). *Qualitative methods in business research: A practical guide to social research*: Sage.
- Findikli, M. A., & beyza Bayarçelik, E. (2015). Exploring the outcomes of Electronic Human Resource Management (E-HRM)? *Procedia-Social and Behavioral Sciences*, 207, 424-431.
- Forman, J., Creswell, J. W., Damschroder, L., Kowalski, C. P., & Krein, S. L. (2008). Qualitative research methods: key features and insights gained from use in infection prevention research. *American journal of infection control*, 36(10), 764-771.
- Fowler Jr, F. J. (2013). *Survey research methods*: Sage publications.
- Galanaki, E., Lazazzara, A., & Parry, E. (2019). A cross-national analysis of e-HRM configurations: integrating the information technology and HRM perspectives. In *Organizing for digital innovation* (pp. 261-276): Springer.
- Galliers, R. D. (1990). *Choosing appropriate information systems research approaches: a revised taxonomy*. Paper presented at the In Proceedings of the IFIP TC8 WG8. 2.
- Galliers, R. D., & Land, F. F. (1987). Choosing appropriate information systems research methodologies. *Communications of the ACM*, 30(11), 901-902.
- Gavetti, G., & Rivkin, J. W. (2007). On the origin of strategy: Action and cognition over time. *Organization Science*, 18(3), 420-439.

- Gioia, D. A., Corley, K. G., & Hamilton, A. L. (2013). Seeking qualitative rigor in inductive research: Notes on the Gioia methodology. *Organizational research methods, 16*(1), 15-31.
- Girisha, M., & Nagendrababu, K. E-Human Resource Management (E-HRM): A Growing Role In Organizations.
- Golafshani, N. (2003). Understanding reliability and validity in qualitative research. *The qualitative report, 8*(4), 597-607.
- Goldkuhl, G. (2012). Pragmatism vs interpretivism in qualitative information systems research. *European journal of information systems, 21*(2), 135-146.
- Gonzalez, R., Koizumi, D., & Kusiak, K. (2011). E-HRM and its outcomes.: A study of relational e-HRM in multinational companies. In.
- Gould-Williams, J. (2003). The importance of HR practices and workplace trust in achieving superior performance: a study of public-sector organizations. *International journal of human resource management, 14*(1), 28-54.
- Gueutal, H., Stone, D. L., & Salas, E. (2005). The brave new world of eHR: Human resources management in the digital age.
- Heikkilä, J.-P., & Smale, A. (2011). The effects of 'language standardization' on the acceptance and use of e-HRM systems in foreign subsidiaries. *Journal of World Business, 46*(3), 305-313.
- Holden, M. T., & Lynch, P. (2004). Choosing the appropriate methodology: Understanding research philosophy. *The marketing review, 4*(4), 397-409.
- Hussain, Z., Wallace, J., & Cornelius, N. E. (2007). The use and impact of human resource information systems on human resource management professionals. *information & Management, 44*(1), 74-89.
- Ibrahim, H. (2021). Study of The Interactions of Human Resource Performance and Electronic Human Resource Management in Small Companies. *Journal Of Humanities Insights, 5*(01), 24-32.
- Iqbal, N., Ahmad, M., & Allen, M. M. (2019). Unveiling the relationship between e-HRM, impersonal trust and employee productivity. *Management Research Review.*
- Iqbal, N., Ahmad, M., Allen, M. M., & Raziq, M. M. (2018). Does e-HRM improve labour productivity? A study of commercial bank workplaces in Pakistan. *Employee relations.*
- Iraqi, K. M., & Zaheer, S. Y. (2021). The Impact Of E-Hrm On The Roles And Competencies Of Hr. *Psychology and Education Journal, 58*(3), 1753-1766.
- Jairath, N. N., Benetato, B. B., O'Brien, S. L., & Agazio, J. B. G. (2021). Just-in-Time Qualitative Research: Methodological Guidelines Based on the COVID-19 Pandemic Experience. *Nursing Research, 70*(3), 215-221.
- Janis, I. L. (2008). Groupthink. *IEEE Engineering Management Review, 36*(1), 36.
- Joseph, B. POSITIVISM:-RESEARCH PHILOSOPHY.
- Khoreva, V., Vaiman, V., Bondarouk, T., & Salojärvi, S. (2019). *Exploring the Influence of Digitalization on Global Talent Management.* Paper presented at the Academy of Management Proceedings.
- Kim, Y. (2011). The pilot study in qualitative inquiry: Identifying issues and learning lessons for culturally competent research. *Qualitative Social Work, 10*(2), 190-206.
- Knies, E., Boselie, P., Gould-Williams, J., & Vandenabeele, W. (2017). Strategic human resource management and public sector performance: context matters. In: Taylor & Francis.
- Knox, S., & Burkard, A. W. (2009). Qualitative research interviews. *Psychotherapy research, 19*(4-5), 566-575.
- Kulik, C. T., & Perry, E. L. (2008). When less is more: The effect of devolution on HR's strategic role and construed image. *Human Resource Management: Published in Cooperation with the School of Business Administration, The University of Michigan and in alliance with the Society of Human Resources Management, 47*(3), 541-558.

- Kushwah, B. S., & Maheshwari, P. (2020). A Study on Shift of HRM Practices to E-HRM Practices. *Index/AZwH \$ \_oUH \$ m*.
- Kwan, F. P., Hermawan, L. R., & Hafizhi, N. (2019). E-HRM: PAIN OR GAIN FOR HRM EFFECTIVENESS. *Jurnal TAM (Technology Acceptance Model)*, 1(1), 22-32.
- Lawler, E. E., & Mohrman, S. A. (2003). HR as a strategic partner: what does it take to make it happen? *Human Resource Planning*, 26(3), 15-29.
- Lengnick-Hall, M. L., & Moritz, S. (2003). The impact of e-HR on the human resource management function. *Journal of labor research*, 24(3), 365-379.
- Lepak, D. P., & Snell, S. A. (1998). Virtual HR: Strategic human resource management in the 21st century. *Human Resource Management Review*, 8(3), 215-234.
- Lew, S., Yang, A. H., & Harklau, L. (2018). Qualitative methodology. In *The Palgrave handbook of applied linguistics research methodology* (pp. 79-101): Springer.
- Li, G., Yin, C., Zhou, Y., Wang, T., Chen, J., Liu, Y., . . . Chen, X. (2020). Digitalized adaptation of oncology trials during and after COVID-19. *Cancer cell*, 38(2), 148-149.
- Lin, L.-H. (2011). Electronic human resource management and organizational innovation: the roles of information technology and virtual organizational structure. *The International Journal of Human Resource Management*, 22(02), 235-257.
- Mahmood, M. F., & Hussin, N. (2018). Information in conversion era: Impact and influence from 4th industrial revolution. *International Journal of Academic Research in Business and Social Sciences*, 8(9), 320-328.
- Marler, J. H. (2009). Making human resources strategic by going to the Net: reality or myth? *The International Journal of Human Resource Management*, 20(3), 515-527.
- Marler, J. H., & Fisher, S. L. (2013). An evidence-based review of e-HRM and strategic human resource management. *Human Resource Management Review*, 23(1), 18-36.
- Marler, J. H., & Liang, X. (2012). Information technology change, work complexity and service jobs: a contingent perspective. *New Technology, Work and Employment*, 27(2), 133-146.
- Marler, J. H., & Parry, E. (2016). Human resource management, strategic involvement and e-HRM technology. *The International Journal of Human Resource Management*, 27(19), 2233-2253.
- Mazurchenko, A., & Maršíková, K. (2019). Digitally-Powered Human Resource Management: Skills and Roles in the Digital Era. *Acta Informatica Pragensia*, 8(2), 72-87.
- Melville, N., Kraemer, K., & Gurbaxani, V. (2004). Information technology and organizational performance: An integrative model of IT business value. *MIS quarterly*, 28(2), 283-322.
- Mihova, T., & Ivanova, I. (2020). *Digitalization of HR activities in industrial enterprises*. Paper presented at the IOP Conference Series: Materials Science and Engineering.
- Mishra, A. (2009). E-HRM Challenges and Opportunities. In.
- Mishra, A., & Akman, I. (2010). Information technology in human resource management: an empirical assessment. *Public Personnel Management*, 39(3), 271-290.
- Morra Imas, L. G., & Rist, R. (2009). *The road to results: Designing and conducting effective development evaluations*: The World Bank.
- Morse, J. M. (2000). Determining sample size. In: Sage Publications Sage CA: Thousand Oaks, CA.
- Mose, A. (2016). Analysis of Macro and Micro Environment on the Marketing Strategy Formulation and the Influence to the Competitive Advantage (Case Study). *Academy of Strategic Management Journal*, 15, 35-41.
- Nawaz, A., & Kundi, G. M. (2010). Digital literacy: An analysis of the contemporary paradigms. *Journal of Science and Technology Education Research*, 1(2), 19-29.
- Newcomer, K. E., Hatry, H. P., & Wholey, J. S. (2015). Conducting semi-structured interviews. *Handbook of practical program evaluation*, 492.

- Ngai, E., & Wat, F. (2006). Human resource information systems: a review and empirical analysis. *Personnel Review*.
- Obeidat, S. M. (2016). The link between e-HRM use and HRM effectiveness: An empirical study. *Personnel Review*.
- Olivas-Lujan, M. R., Ramirez, J., & Zapata-Cantu, L. (2007). e-HRM in Mexico: adapting innovations for global competitiveness. *International Journal of Manpower*, 28(5), 418-434.
- Ong, B. K. (2012). Grounded Theory Method (GTM) and the Abductive Research Strategy (ARS): a critical analysis of their differences. *International Journal of Social Research Methodology*, 15(5), 417-432.
- Orlikowski, W. J., & Scott, S. V. (2008a). 10 sociomateriality: challenging the separation of technology, work and organization. *The academy of management annals*, 2(1), 433-474.
- Orlikowski, W. J., & Scott, S. V. (2008b). 10 sociomateriality: challenging the separation of technology, work and organization. *Academy of Management annals*, 2(1), 433-474.
- Orlikowski, W. J., & Scott, S. V. (2008c). The entanglement of technology and work in organizations.
- Othman, R., & Teh, C. (2003). On developing the informed work place: HRM issues in Malaysia. *Human Resource Management Review*, 13(3), 393-406.
- Pandey, S. C., & Patnaik, S. (2014). Establishing reliability and validity in qualitative inquiry: A critical examination. *Jharkhand journal of development and management studies*, 12(1), 5743-5753.
- Pant, S., & Chatterjee, A. (2008). e-HR systems implementation: a conceptual framework. *AMCIS 2008 Proceedings*, 338.
- Parry, E. (2011). An examination of e-HRM as a means to increase the value of the HR function. *The International Journal of Human Resource Management*, 22(05), 1146-1162.
- Parry, E., & Strohmeier, S. (2014). HRM in the digital age—digital changes and challenges of the HR profession. *Employee relations*.
- Parry, E., & Tyson, S. (2011). Desired goals and actual outcomes of e-HRM. *Human Resource Management Journal*, 21(3), 335-354.
- Payne, G. (2014). Research methodology in sociology. In *The Palgrave Handbook of Sociology in Britain* (pp. 413-436): Springer.
- Peters, K., & Halcomb, E. (2015). Interviews in qualitative research. *Nurse Researcher (2014+)*, 22(4), 6.
- Przytuła, S., Strzelec, G., & Krysińska-Kościańska, K. (2020). Re-vision of future trends in human resource management (HRM) after COVID-19. *Journal of Intercultural Management*, 12(4), 70-90.
- Punch, K. F. (2013). *Introduction to social research: Quantitative and qualitative approaches*: sage.
- Ramya, P., & Neelima, P. (2017). e-HRM boon or bane'. *HUMAN RESOURCE MANAGEMENT: NEW HORIZONS*, 1.
- Reddick, C. G. (2009). Human resources information systems in Texas City governments: Scope and perception of its effectiveness. *Public Personnel Management*, 38(4), 19-34.
- Rhoads, B. L., & Wilson, D. (2010). *Observing our world*: Wiley-Blackwell, Chichester.
- Ruël, H., Bondarouk, T., & Looise, J. K. (2004). E-HRM: Innovation or irritation. An explorative empirical study in five large companies on web-based HRM. *Management revue*, 364-380.
- Ruel, H. J., Bondarouk, T. V., & Van der Velde, M. (2007). The contribution of e-HRM to HRM effectiveness: Results from a quantitative study in a Dutch Ministry. *Employee relations*.
- Ruta, C. D. (2005). The application of change management theory to HR portal implementation in subsidiaries of multinational corporations. *Human resource management*, 44(1), 35-53.
- Ryan, G. (2018). Introduction to positivism, interpretivism and critical theory. *Nurse researcher*, 25(4), 41-49.
- Sabir, F., Abrar, M., Bashir, M., Baig, S. A., & Kamran, R. (2015). E-HRM impact towards company's value creation: Evidence from banking sector of Pakistan. *International Journal of Information, Business and Management*, 7(2), 123.

- SADIQ, M. J. J., & JACULIN, I. S. I. OPPORTUNITIES AND CHALLENGES OF AN E-HRM-THE EXECUTIVE FRAMEWORK IN A DIGITAL ERA.
- Saunders, M., Lewis, P., & Thornhill, A. (2007). Research methods. *Business Students*.
- Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students*: Pearson education.
- Schmidt, C. (2004). The analysis of semi-structured interviews. *A companion to qualitative research*, 253, 258.
- Schuler, R. S., Jackson, S. E., & Tarique, I. (2011). Global talent management and global talent challenges: Strategic opportunities for IHRM. *Journal of World Business*, 46(4), 506-516.
- Shah, N., Chalu, H., & Michael, F. (2020). Effect of E-HRM on HR Efficiency in Private Commercial Banks of Tanzania. *ORSEA JOURNAL*, 10(1).
- Shrivastava, S., & Shaw, J. B. (2003). Liberating HR through technology. *Human Resource Management: Published in Cooperation with the School of Business Administration, The University of Michigan and in alliance with the Society of Human Resources Management*, 42(3), 201-222.
- Sibanda, M., & Ramrathan, D. (2017). Influence of information technology on organization strategy. *Foundations of Management*, 9(1), 191-202.
- Silverman, D. (2016). *Qualitative research*: Sage.
- Sinha, B. C., & Mishra, M. (2014). E-HRM tools: An empirical study in select Indian organizations. *International Journal of Business and Management Invention*, 3(9), 71-83.
- Snell, S. A., Stueber, D., & Lepak, D. P. (2002). Virtual HR departments. *Human resource management in virtual organizations*, 81.
- Som, A. (2008). Innovative human resource management and corporate performance in the context of economic liberalization in India. *The International Journal of Human Resource Management*, 19(7), 1278-1297.
- Spradley, J. P. (2016). *Participant observation*: Waveland Press.
- Srivastava, S. K. (2010). Shaping Organization with e-HRM. *International Journal of Innovation, Management and Technology*, 1(1), 47.
- Stenbacka, C. (2001). Qualitative research requires quality concepts of its own. *Management decision*.
- Strohmeier, S. (2007). Research in e-HRM: Review and implications. *Human Resource Management Review*, 17(1), 19-37.
- Strohmeier, S., Bondarouk, T., & Konradt, U. (2012). Electronic human resource management: Transformation of HRM? In: SAGE Publications Sage UK: London, England.
- Strohmeier, S., & Kabst, R. (2014). Configurations of e-HRM-an empirical exploration. *Employee relations*, 36(4), 333-353.
- Svoboda, M., & Schröder, S. (2001). Transforming human resources in the new economy: Developing the next generation of global HR managers at Deutsche Bank AG. *Human Resource Management: Published in Cooperation with the School of Business Administration, The University of Michigan and in alliance with the Society of Human Resources Management*, 40(3), 261-273.
- Teo, S. T., & Crawford, J. (2005). Indicators of strategic HRM effectiveness: A case study of an Australian public sector agency during commercialization. *Public Personnel Management*, 34(1), 1-16.
- Thite, M., Kavanagh, M. J., & Johnson, R. D. (2012). Evolution of human resource management and human resource information systems. *INTRODUCTION TO HUMAN RESOURCE MANAGEMENT*, 2-34.
- Thomas, D. R. (2006). A general inductive approach for analyzing qualitative evaluation data. *American journal of evaluation*, 27(2), 237-246.
- Truss, C., Gratton, L., Hope-Hailey, V., Stiles, P., & Zaleska, J. (2002). Paying the piper: choice and constraint in changing HR functional roles. *Human Resource Management Journal*, 12(2), 39-63.



- Ullah, M. (2012). The emerging roles of HR professionals in driving organizational change. *Journal of knowledge management, economics and information technology*, 2(3), 121-123.
- Ulrich, D. (1997). *Human Resource Champions* Harvard Business School Press. Boston, MA.
- Ulrich, D., Younger, J., & Brockbank, W. (2008). The twenty-first-century HR organization. *Human resource management*, 47(4), 829-850.
- Vaismoradi, M., Turunen, H., & Bondas, T. (2013). Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study. *Nursing & health sciences*, 15(3), 398-405.
- Valcik, N. A., Sabharwal, M., & Benavides, T. J. (2021). Existing Research on HRIS in Public Organizations. In *Human Resources Information Systems* (pp. 33-45): Springer.
- Vasilachis, I. (2009). Ontological and epistemological foundations of qualitative research.
- Vindrola-Padros, C., Chisnall, G., Cooper, S., Dowrick, A., Djellouli, N., Symmons, S. M., . . . Vera, N. (2020). Carrying out rapid qualitative research during a pandemic: emerging lessons from COVID-19. *Qualitative health research*, 30(14), 2192-2204.
- Voermans, M., & van Veldhoven, M. (2007). Attitude towards E-HRM: an empirical study at Philips. *Personnel Review*, 36(6), 887-902.
- Waheed, A., Xiaoming, M., Waheed, S., Ahmad, N., & Tian-tian, S. (2020). E-HRM implementation, adoption and its predictors: a case of small and medium enterprises of Pakistan. *International Journal of Information Technology and Management*, 19(2-3), 162-180.
- Wang, P. (2010). Chasing the hottest IT: effects of information technology fashion on organizations. *MIS quarterly*, 63-85.
- Wilcox, J. (1997). The evolution of human resources technology. *Strategic Finance*, 3.
- Woodward, J. (1958). *Management and technology*: HM Stationery Off.
- Wright, P. M., & McMahan, G. C. (1992). Theoretical perspectives for strategic human resource management. *Journal of management*, 18(2), 295-320.
- Yeung, A., & Brockbank, W. (1995). Reengineering HR through information technology. *Human Resource Planning*, 18(2).
- Yusliza, M.-Y., Othman, N. Z., & Jabbour, C. J. C. (2017). Deciphering the implementation of green human resource management in an emerging economy. *Journal of Management Development*.
- Ziebell, R.-C., Albors-Garrigos, J., Schoeneberg, K.-P., & Marin, M. R. P. (2019). Adoption and success of e-HRM in a cloud computing environment: a field study. *International Journal of Cloud Applications and Computing (IJCAC)*, 9(2), 1-27.
- Žukauskas, P., Vveinhardt, J., & Andriukaitienė, R. (2018). Philosophy and paradigm of scientific research. *Management Culture and Corporate Social Responsibility*, 121.

## Appendix

### Interview Guide

#### Research Objectives

- To explore the purpose that organization want to achieve by implementing e-HRM
- To explore the opportunities and challenges that organizations face while implementing e-HRM
- To understand the influence of e-HRM on HR's Strategic role.

#### Research Questions

- For which purpose do organizations implement e-HRM and why?
- Which are the opportunities and challenges that organizations face while implementing e-HRM?
- Whether and how the adoption of e-HRM has influenced the strategic role of HRM?

#### Sub-Questions

##### For Objective 1

- 1- When and why did the organization decide to implement e-HRM?
- 2- In which HR processes and activities was e-HRM implemented and why?
- 3- Which tools / programs / IT infrastructure was acquired to implement e-HRM?
- 4- For which purpose was e-HRM implemented in your organization?
- 5- How long did the implementation take and why?
- 6- Would you classify the purpose of e-HRM adoption as operational? For example, to increase productivity, cost saving and efficiency?

- 7- Would you classify the purpose of e-HRM as relational? For example, to increase connectivity within and outside the organization?
- 8- Would you classify the purpose of e-HRM adoption as transformational? For example, for restricting or reorientation as per the future needs?

For objective 2

- 1- Which type of challenges, if any, did the organization face in implementing e-HRM and why? Can you please share some examples?
- 2- Which challenges, if any, did the HR function face while implementing e-HRM and why? Can you please brief a few examples?
- 3- Which challenges, if any, did employees had to face while implementing e-HRM and why? Can you brief a few examples?
- 4- How supportive or restraining were employees while implementing e-HRM? Why?
- 5- Which were the factors that facilitated e-HRM's implementation at organizational level and why? Can you please share any examples?
- 6- Which were the factors that facilitated e-HRM's implementation at HR functions level and why? Can you please share any examples?
- 7- Which were the factors that facilitated e-HRM's implementation at individual employee level and why? Can you please share any examples?

For objective 3

- 1- Define the role and scope of HR in organization?
- 2- How is your organization affected by the role that HR plays in your organization?

- 3- If you were to categories percentage of roles in administrative, managerial or strategic, what percentage would you assign to each and why?
- 4- Why and what percentage would you assign to administrative roles of HR, for example everyday tasks of payroll and employee personal data management?
- 5- Why and what percentage would you assign to managerial roles of HR for example recruitment, training and performance management?
- 6- Why and what percentage would you assign to strategic roles of HR for example knowledge management and strategic re-orientation?
- 7- Would you say HR's role is more administrative or strategic? Why?
- 8- According to HR's perspective, has the role of middle managers changed after adoption of e-HRM? If so, how?
- 9- According to HR's perspective, has the role for senior management changed after adoption of e-HRM? If so, how?
- 10- According to HR's perspective, has the role of low line HR employees changed after adoption of e-HRM? If so, how?
- 11- To what extent HR's roles has been, if any, influenced by adoption of e-HRM vs other initiatives and why?
- 12- To what extent was HR involved in key decision making before and after e-HRM's implementation?
- 13- To what extent was HR involved in key decision making before and after e-HRM's implementation?

Do you want to add anything more regarding HR's role and e-HRM's influence on it?

Thanks