Chapter - I

INTRODUCTION AND BACKGROUND OF THE STUDY

1.1: Introduction

This word E-HRM was earliest coined in the 1990s.E-HRM, as defines, is a combination of two words, first 'E', which stands for Electronic and 'HRM,' is Human Resource Management. E-HRM referred to Human resource management (HRM) departments that are utilizing ICT. E-HRM suggests planning, involvement, and implementation of IT in the allocation of HR activities through supporting and networking performance activities (Strohmeier, 2009).

In recent decades, a trend has been profound, which is from labor-intensive to technology demanding (Florkowski & Olivas-Luján, 2006). Maximum transactional activities are conveyed with the help of software applications rather than by HR professionals. In reality, the utilization of E-HRM practice has swiftly increased day by day (Graeme Martin, Reddington, & Alexander, 2008a).Indian organizations are undergoing rapid changes as a result of technological advancement. New organizational formation and Technological advancement affect how and where people work (Allcorn, 1997; Dambra & Potter, 1999; West & Berman, 2001). HRM is also going to be the same where the changes are profound. Recently several software and new technology, such as the HRIS system, helping HRM to accomplish its interior work (West & Berman, 2001). It also allows HRM to communicate with other department easily (Sukarni, 2017).

The transformation and improvement from traditional practice to ITC have gradually shown when we look at the past years (Stone & Gueutal, 2005). Globalization, technological advance creates a rapid diffusion of ICT in all sectors. In the case of business, unpredictable changes, advancement, and multidimensional improvement have been facets (Erdoğmu & Esen, 2011). Information technology has been leading most of the functions of the organization from a

traditional paper written condition to click of mouse and touch screen. This technology has sophistically helps to improve the analysis that arises due to the complex nature of work. Growing ITC lingering the challenges such as a rapid change in work technology, frequent change in the business cycle, the unification of world economy, e-business, wireless communication, economic restructure, and a new code of employment. Traditional HR practices are shifted into an automatic HR practices means paper work, labour concentrated HR task transformedtowards avaluable and quick replayable task to achieve a cutthroat advantage in the interior of the organization (Marler & Fisher, 2013). The initial expectation is that E-HRM will help the HR departments enlightened from administrative burden works to spotlight more on budding social and intellectual capital to establish an organization (Lengnick-Hall & Moritz, 2003). E-HRM performs will leads to an universal competitive advantage under the impact of technology and globalization. Nonetheless, there is a shred of emerging evidence that E-HRM has a reliable outcome on global recruitment and selection for its similar ITs (Puck, Holtbrügge, & Mohr, 2009). According to Strohmeier (2009), the utilization of technology in HRM differently influenced in efficiency and effectiveness of the organization.

Technology has great importance on HR processes and HR transactions, which gives a new management direction. For example, WWW has facilitated to modernize numerous HR functions such as recruitment & selection, training & development, performance appraisal, and management, etc. In particular, E-recruitment and E-selection, e-training, e-compensation systems have facilitated HR executives to afford enhanced services, and it helps to reduce administrative burdens through the reduction of the transactional time. These changes make them a better opportunity to look at the HR strategy for their organizational profit and help them to become the right corporate partner (Erdoğmu & Esen, 2011; D. L. Stone & Gueutal, 2005;

Dianna L. Stone & Dulebohn, 2013). Most of the organizations are using technology for efficiently and effectively the administration of their HR.E-HRM probably can develop transactional effectiveness and make possible a deliberate role (Parry & Tyson, 2011). The emergent literature has conferred primarily objectives for E-HRM preface (H. Ruël, Bondarouk, & Looise, 2004; Marler & Fisher, 2013), counting transactional cost and savings, deliberate goals and enhancements in customer services.

On the other hand, some studies trying to find out the impact of E-HRM on accomplishing the organizational goals (Strohmeier, 2009). The introduction of E-HRM is undoubtedly in favor of efficient service deliverance and a planned HR function for organizations. So that companies appreciate the reimbursements and efficiency of new IT, rather than traditional management of their HRs on establishing E-HRM in a manner that will not facilitate them to accomplish the organizational aspirations (Lepak & Snell, 1998).

From the beginning of personnel management and welfare, throughout phases when employment and legal law came in light, at present, E-HRM appears to have taken center stage (Lengnick-Hall & Moritz, 2003). E-HRM has momentous connotations for HRM and the office of HR functions (Voermans & Van Veldhoven, 2006). In most developing countries, E-HRM is still at its early development stage, as it is still unknown or underdeveloped. Recent years is the right time for those countries to make academic involvement in this field so that the best of this facility can be taken out (Sanayei & Mirzaei, 2012).

There is a growing use of web-based tools for HRM laws and policies within the organization (Erdoğmu & Esen, 2011). Much is debated about the advantages of E-HRM operation, but there is insufficient empirical proof of these benefits. There is no concrete evidence to state the

obvious as to whether the implementation of E-HRM contributes to the productivity of HRM. Academia's participation in this subject is more recent and has not yet given rise to serious responses. Research on E-HRM is not reached to its sufficient level, its potential is still probable, and therefore needs to develop academic participation in the issue. **Sinha, 2015** on his thesis, highlights several points regarding the managerial implications of E-HRM. According to him, E-HRM has a huge impact on the contentment of internal investors and leads to the availability of E-HRM facilities on a global platform. E-HRM services have been showcasing some challenges and opportunities to the HR practitioner. To fulfill the present generations demand E-HRM practice is mostly required. So, HR practitioners should be ready to adopt the new technology (social networking/ web2.0) and other changes. He concluded that E-HRM practice might be the most successful strategy if the HR practitioners implemented it in right approach.

Right from the establishment of the monetary movement system, labour has been acknowledged as a primary variable in the production system. Economic activity generally consisted of four production factors. It's land, labour, capital, and organization. In economic activity, energy has assumed a vital role. So, increasing skilled and competent labour is essential in order to achieve organizational goals and maximize profit. HR is the vital factors of production because efficient labour or human resource utilization can make a difference in different operation (Rao, 2000). Earlier, businessmen thought of most critical factors of production was capital, but the thought changed in light of they saw that without optimum use of human resources in an organization leads to unavailability of desired goals (Fred, 1975). Well into the circumstance of production, employees are the main production factor because employees can make adequate use of physical resources such as raw materials, land, and machinery (Ganesan, 2010). With the advent of time, Human Resource function not only consisted within one dimension, but it also becomes

multidimensional (D. I. Lepak & Snell, 1998). HR function becomes the most valuable asset in the development of the organization (Sareen & Subramanian, 2012).

Employees are the central pillar of the organizations. If employees do not exist, then organization's existence cannot be possible. Machinery and materials are gathered, manages, and uses equipment and resources through the man. The goal can't be met without human resources in the organizations. Managing people is, therefore, the essence of being a director (Ganesan, 2010).

Human resource managers are done the most challenging work that is "Management of Man." It becomes complicated because the characteristics of the people are dynamic and complex. People are sensitive, not like a machine. They can feel, realize, think, but the computer cannot. So, their needs personnel management for properly guide the people (Ganesan, 2010).

1.2: Evolution of HR

Over the past hundred years, the function of HR executives has changed dramatically, and the HRM has come into contact with a major crossroad. To better understand the current situation of HR, HR professionals need to study the history or evolution of the HRM. The evolution study can help the HR professional to make the necessary transformations that may contribute to HR functional feasibility and organizational improvement. There is an issue in front of us that whether we will adopt with the gradual changes that arise from the business models or, we will delineate that potential (Vosburgh, 2007). Another study showcased that the lack of measurement to evident the HR is totaling value (Vosburgh, 2007). Kahnweiler (2006) pinpointed five key challenges facing successful HR managers. Those are as follows: (i) short of

power. (ii) Under own steam a tightrope. (iii) Dealing with the cynical client who views HR pessimistically. (iv) Susceptibility. (v) Being plagued.

The evolution of HR/personnel management has been discussed with the help of four steps:

1. **The Industrial Revolution:** In this phase, technological progress was rapid; machinery was implemented in the HR sector, diversification and specification were also performed. However, workers treated as machine tools, so employers did not focus on employee satisfaction.
2. **Scientific Management:** F.W Taylor is the founder of the management of science. He advocated for the first time the systematic analysis and work description. In that way, specific employees are involved in a particular task. Employees should be trained accordingly by the trainer so that they perform their tasks comfortably and accurately.
3. **Trade Unionism:** To protect the employer's exploitative nature, unfair labour practices, and different wage issues, the concept of trade unionism has arisen with the help of the togetherness of the employees. Trade unions are tried to improve the employee's condition through different practices such as collective bargaining, pay, and benefits, resolving grievances, disciplinary actions, etc.
4. **The Human Relations Movement:** This movement mainly the extension of the growing strength of trade unions in the 1930s and 1940s. The movement for human relations mainly involves the implementation of behavioral science methods in the organization. This movement includes supervisory primarily training programs, programs to strengthen the relations among employees, management and employers, efficiently support and apprehension for employees, quality of working life, counseling programs to resolve the personal and work-related problems.

5. **Individualism:** In this phase, employees are considered as an individual. Organizations are now concentrated on their different needs, wants, and values because every employee's nature is different from each other. The identification of different needs and values became complex for that motivation, and satisfaction level also became different for each employee. Now organizations treated their employees as human resources rather than labour because they understood that employees are the central pillar of the organizations. So, their satisfaction and motivation for work are highly agreeable.

The evolution of HR over the last hundred years are as follows (Vosburgh, 2007)-

In the **Pre 1900s**, business practicality was a small laffair where employers handled the HR issues because in that period HR did not come into the light.

In the **1900s**, business practicality was gone through the industrial revolution phase where employees are working in transposable parts. In this phase the name of HR was "Labour Relations."

In the **1920s**, business practicality was shifted from the industrial revolution to civil service and WWI. The fundamental focus of this phase was labour rights and further dignified process. In that phase the name of HR was "Industrial Relations."

In the **1940s**, business practicality was scientific management and WWII where the fundamental issues are competent experts and changing the HR processes. In that phase the name of HR was "Personnel Administration."

In the **1960s**, business practicality was social rights, and observance where the primary issues are legal observance and exposure. In that phase the name of HR was "Personnel."

In the **1980s**, business practicality was human relations, Mergers & Acquisitions, and knowledge service financial system. In this phase, the fundamental issues are significant in drastically revolutionize world, human relations theories proliferate, and motivation. The name of HR was "Human Resources People."

In the **2000s**, the concept of the modern organization comes into the light. In this phase, the transactional elements are subcontracted by lots of "morphing". No new official names were there, but the transformational elements get defined as "organizational capability," "organization effectiveness," "Human Capital."

In the 2010s, the business realities are E-enabled technologies and the Global economy. The fundamental issues of this phase focused on capabilities, talent, and culture. This phase is still evolving. The main challenge of this phase is to become a competent internal consulting organization. The name of HR in this phase is "TBD."

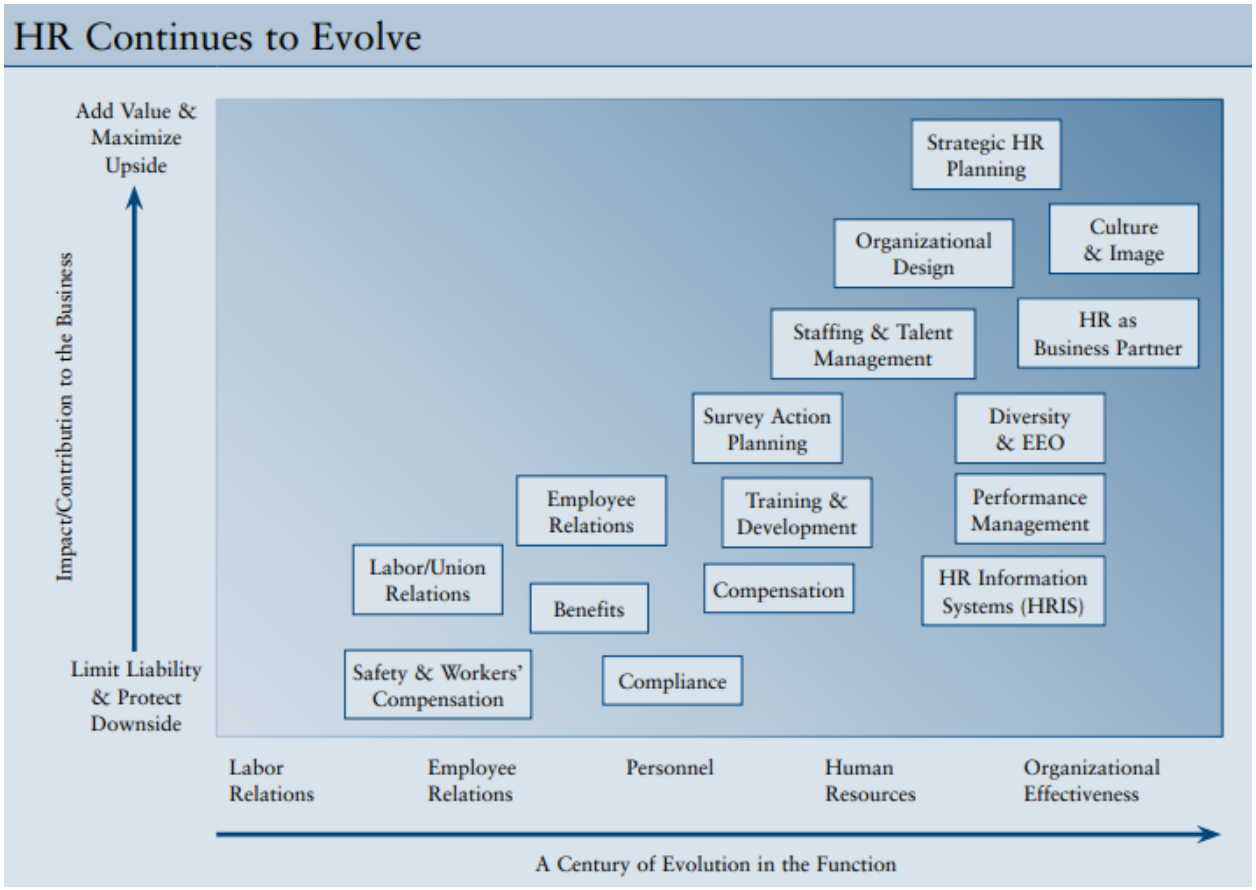

Figure 1.1: Continuous Evolution of HR **Collected from: (Vosburgh, 2007)**

1.3: Evolution of the Concept of HRM

From the ancient to modern period, the evolution of HRM has been profound. In early phase of the century there was a major concern about the design of work to improve the efficiency and effectiveness of work. In the middle stage, more emphasis was shifted towards the employee productivity and personnel management. Recent decades have focused explicitly on the QWL, TQM, Governmental new rules, regulations and policies, technical personnel management, etc. (Rao & Krishna, 2009).

A brief evolutionary history has been discussed below:

1. **Early Phase:** Although we considered the growth of HRM/PM discipline to be a recent phenomenon, it already began in 1800 B.C. For instance, in the Babylonian period, the minimum wage rate and incentive wage plan were established by the Babylonian king Hammurabi. In the early 1650 B.C., Chinese have originated the concept of division of labour, and they built a clear idea about labour turnover in 400 B.C. In 1200 B.C, Moses developed the organizational approaches and the span of management style. Chaldeans formed a real incentive wages plan around 400 B.C. Kautilya gave several concepts about task evaluation, executive growth, selection process, performance assessment, and incentive structure of India in his book “Arthashastra”.
2. **Welfare Phase:** In this phase (during the 1960s), work welfare, industrial harmony, collective governance was mainly discussed. The movement in human relations was originated during the 1930s by Hawthorne, who examined the influence of social relations, employee satisfaction, and employee motivation in productivity. This movement had a significant impact on the Indian organizational system. This movement drives towards good HR practices and making harmony within the organization.
3. **Developmental Phase:** In this phase (the 1960s and 70s), the HR professional mainly focused on human resource development. HR professionals are trying to make a balanced between an organizational goal and employee's demands. In this phase, academics play a crucial role in their HRD research, conference, and meetings.
4. **LPG Era:** In the 1990s, LPG (liberalization, privatization, and globalization) has a significant influence on the change of management style. Due to global competition cost and profit analysis and Organizational restructuring has highlighted most important in

this phase. HR professionals are forcing companies to focus and give more impression on the service quality, employee's capability, customer satisfaction, employee's skill, knowledge, and ability. The workforce diversity also came into great importance in the view of the religious, cultural, social, and regional diversity, especially for global and multinational companies.

Oswal & Narayanappa, 2014 studied HRM's evolution and analyzed HRM's modifying role over time as well. They proposed that thirteen ways with the aid of sustainable E-HRM will increase the operational operation of the HRM department and enhance organizational efficiency (OE). The thirteen ways are follows: (i) scrutinizing and sustain the HR demand and supply. (ii) Integration of up to date data availability that helps in strategic planning of the organization. (iii) Automatization in keeping each employee records. (iv) Sustaining data privacy, security, and accuracy. (v) Speediness in data generation. (vi) Nippy adoptability in customer handling. (vii) Broad accessibility in e-recruitment process. (viii) Simple and translucent process in selection. (ix) Unbiased appraisal system where each employee is participated and updates their information by themselves. (x) Automatization process can reduce cost, labour, and transactional time. (xi) Sustaining the personnel database records without any anarchy. (xii) Sudden and acceptable retrieving of data. (xiii) Integrating different departments in the enterprise. Organizations also need to adopt other key components to take advantage of E-HRM's. Those are follows: (i) organizations need to update and maintain the E-HRM applications according to its requirement. (ii) Provide buoyancy to employees about the privacy and safety regarding their personnel database. (iii) Organizations highly secured data is need to preserve under password protective IT department and the access authority will be given only some higher authority of the organization. (iv) Duplicate data need to remove. (v) Preferring the flexible and changing

environmental adoptable software for operating system. (vi) Keeping backup system for highly important data for any accidental crash of system.

1.4: Paradigm Shift

Technological advancement in all aspects of business is lingering to capricious revolutionize. The nature of the work (except manufacturing and operations) has been changed from paper and pen to click on the mouse or touch screen. The quality of work became complex due to rapid changes in the functions of the organizations. Due to constant changes in the infrastructure and the dynamic quality of the work, workers face numerous problems. The most significant breaking point in this arena is modernization, digitization, and automatization, which lingering towards scientific progress of the organizations. Key confronts are a rapid change of technology in the workplace, unique functions in transactions, wireless communication, economic restructuring, and change in e-business and management style. Differences with the organizational functions HR practices also changed with time, and HR professionals also went with vibrant changes in their workplace and tried to adopt new emerging functions or methods. With the improvement of HR functions, HR professionals reduce their transactional time and given more emphasis on the strategic development of the organizations. They can become the right partner of the industry with the help of the service delivery mechanism. HRM has functions parallel within and outside of the organizations to communicate with their employees and employers. HRM is a continuous process, which plays a proactive and reactive role to control dynamic functions of commercial background. The new emergent, flexible, versatile, automatic technique helps to resolve HR problems in practices, helps to reduce HR issues, methods, and policies.

A paradigm shift has a significant influence on the business environment at the national and international levels. The internal business environment of Indian organizations has also experienced the same vibrant changes and goes towards digital functions (Tapscott & Caston, 1993). They identified three significant changes in the appliance of IT that are primarily utilizing for eight technological transformations. Three changes in the appliance of IT are as follows: (i) from personal work out to workgroup computing. (ii) From an isolated to the integrated system. (iii) From internal work out to inter-enterprise computing system. Another eight shifts are as follows: (i) shift from semiconductors to microprocessor function. (ii) A shift from host-based system to a network-based system. (iii) From merchant based software to an open software environment. (iv) A shift from single to multimedia function. (v) The transformation from account control to a vendor-customer partnership. (vi) A shift from profession to the factory-based application progress system. (vii) The transformation from numerical to graphical interfaces. (viii) The transformation from impartial to an integrated software system.

1.5: Concept of Various Terms Related to HR

HR is the process of men and their qualities in the workplace at an organizational level or national level from the overall point of view. HR evolution stages have evolved with various terms such as “Personnel Management,” “Personnel Administration,” “Staff Management,” “Manpower Management,” “Labour Relations,” “Industrial Relations,” and recently the term coin by many experts is “Knowledge Management.” Each term has some unique functions which have changed to some degree with the change of the end. However, PM and HRM are mostly useful at the organizational level.

1.5.1: Personnel Management

According to Edwin B. Filppo, “Personnel Management is the planning, organizing, directing, and controlling of the procurement, development, compensation, integration, maintenance, and separation of human resources to the end that individual, organizational and social objectives are accomplished” (Prasad, 2006).

C.H. Northcott says that “Personnel management is an extension of general management, that of promoting and stimulating every employee to make his fullest contribution to the purpose of the business.” From his viewpoint, personnel management a part of the managerial function, which promotes employees through their development, and it leads to achieving organizational goals.

The personnel management primarily includes three objectives. Those are as follows:

I. **Enterprise Objectives:** Enterprise objectives are the achievement of economic and practical organizational goals. Employee's and employer's co-operation is highly required to achieve organizational goals. So, capable employees needed to complete the organizational goals. In that case, training and development, the suitable policy of recruitment and selection are necessary to make more efficient employees. Personnel management always trying to satisfy the workers because if employees are satisfied, then they ensure their wholehearted co-operation. However, Personnel managers are offering the most attractive financial and other incentives to meet their employees. Enterprise objectives achievement is only possible if every employee contributes their level best.

II. **Personnel Objectives:** Personnel objectives primarily include allocating the highest possible satisfaction of individuals. Personnel management aims to improve the employee’s mental and physical pleasure in the organization. The comfort is possible when the employees provide a proper working environment. The working environment

should be maintained according to the laws such as adequate ventilation system, clean working place, etc. Other influencing factors related to job satisfaction may be jobbing security, reasonable remuneration, attractive financial incentives, which ultimately lingering performance.

III. **Social Objectives:** Social objectives are primarily involved in the development of society. The organization has been directly contributing to the community through corporate social responsibility. Indirectly helps them creating more employment opportunities or minimizing their profit.

Academically personal management has three aspects and all those aspects related to human resources:

I. **The Welfare Aspect** which concerned with the development of the quality of working life such as crèches, canteen, drinking water, housing, recreation, etc.

II. **The Personal Aspect** deals with the recruitment, selection, incentives, remuneration, productivity, etc.

III. **The IR Component** covers labour union, workplace dispute settlement, arbitration, unionization, etc.

1.5.2: Human Resource Management

The term HRM was defined in the 1900s but over the 1960s it was extensively urbanized. HRM made up of three terms: Human refers to an organization's skilled workforce, Resource relates to finite, and management refers to making the best use of the limited resources to achieve organizational goals. HRM is, therefore, the suitable use of limited resources and skilled workforce management to achieve the purpose of the company.

According to the NIPM of India, "Human resource management is the part management concerned with the people at work and with their relationships within the organization. It seeks to bring together men and women who make up an enterprise, enabling each to make their own best contribution to its success both as an individual and as a member of a working group".

HRM is primarily considered employees as an asset and maintain the employees for giving their satisfaction. In this context, employees became human capital. So, HRM looks towards the effective utilization of employees, maximizing ROI (Return on investment), and reduces risk.

The objectives of HRM as follows:

I. **Societal Objectives:** Social objectives mainly look to fulfill the social needs of the employees and their organizations. Social goals include government policies and practices such as equal wages for equal work, similar facilities for all, etc.

II. **Organizational Objectives:** Organizational objectives deal with the development of the organizations, and it enhances organizational efficiency. This goal includes training and development, recruitment and selection, payroll, etc.

III. **Functional Objectives:** Functional objectives mainly deal with the HR functions of the organizations. The primary objective is to make accurate use of HR in an organization.

IV. **Personal Objectives:** This objective helps to achieve the particular goal of the employees. This objective includes the benefits, development, and welfare of the employees, which leads to their satisfaction.

1.5.3: Human Capital Management

The HCM tackles information acquisition by people, skill, and experience that have an economic value of the organizations. It has recently been applied in the field of training and development,

recruiting, and managing human resources, etc. (Snell & Dean, 1992). Sumantra Ghoshal identified three forms of capital: social capital, intellectual capital, and psychological capital (Gupta, 2008).

i. **Social Capital** deals with the sociability, relationship, and trustworthiness within the employees and employers.
ii. **Intellectual Capital** deals with knowledge, skill, ability, attitude, cognitive complexity, etc.
iii. **Emotional Capital** is about aspirations, soul-efficacy, self-confidence, and bravery, and so on.

1.6: Changes in HR with Technology

The advancement of technology is creating a rapid change in each organization sector. The HR department also not excluded from the changes. The influence of technology in HR sector helps to modify the HR tasks, HR transactions, and HR adopt new approaches based on the changes. Computer-based "management information system" comes into the light, which electronically helps to communicate, analyze, and interpret bulk data into just a click. This MIS system has been improved the speed of work and reduces the transactional time. Electronic Data Interchange (EDI) system resolves the geographical barriers, paperless working system, integrate all the order within the organization.

Computer application in HRM is popularly known as HRIS. The computer helped managers to analyze the data quickly and provided information, which leads to making decisions, control, and planning. The ability of the manager to process, obtain, and retrieve the data, by proper analyzing the data helps to make the right decision.

In the modern era, knowledge is escalating with remarkable rapidity, which leads to flare-up of expertise. To make good choices at the proper time, up-to-date information is therefore very relevant. As far as computers are concerned, speed and accuracy is the main feature that gives competitive advantage to others. Another thing is that the machine did not feel fatigued, and it can handle a massive amount of data according to its capacity. So, the computer reduces the transactional time and other operational work. The network provides a sophisticated database management system which let managers make the best decision at the right moment.

The modern computer is becoming more user-friendly, allowing HR executives to amass knowledge and experience in a short period of time. The laptop becomes a time saver device that lingering towards less cost-effective.

Decision Support System (DSS) has been lingering HR professionals to make the right decisions in the right place. In view of R. H. Sprague and E. D. Karlson, the framework of DSS is “an interactive computer-based system that helps decision-makers utilizes data and models to solve unstructured problems.” DSS helps administrator to make decisions quickly and helps to reduce HR issues in a company. The DSS program has the advantage of being user-friendly and having ample information for future planning.

Database Management System (DBMS) is an information management and processing software set. In the case of a large organization, extensive bottom-line human resource information collection, processing, analyzing becomes more comfortable with the help of DBMS. With the help of DBMS, the integration rate becomes high. The activities of the bottom line should be integrated with the help of software. Many applications can be used to storage real-time data. DBMS is enabling users to create, manipulate, retrieve, modification, addition,

and deletion of recorded data with the help of specialized computer programmed. It helps users to print and produces the desired sequence as per the requirement.

MIS is an ancient concept, whereas the new concept is computerized MIS. Computerized MIS provides HR practitioners with greater speed and accuracy in their scheduling. The utilization of computers in MIS becomes easier for HR professionals or executives and gives competitive advantage than old MIS. Employees can perform some tasks correctly, but some tasks need a computer to perform accurately and speedily.

The MIS is "an integrated, user-machine system for providing information to support operations, management and decision making functions in an organization. The system utilizes computer hardware and software; manual procedures; models for analysis, planning, control, and decision making; and a database"(G. B. Davis & Olson, 1984).

MIS help executives to integrate all HR information. The ability to handle the software is essential to analyze, retrieve, and modification of the data. MIS incorporates all practical tasks for flat jobs such as Staff, Manufacturing, Marketing, Banking, Distribution, Accounting, Materials, etc.

1.7: Utilizations of Computer in Human Resource Management

Advancement of modern technology brought rapid changes in organizational structure, culture, and working place. The machine has a significant influence on the organizations for automatization. In the case of HRM, the computer rapidly utilized for quick and accurate work.

1.7.1: HR Planning

The bulk amount of data is required for long term HR planning. Human Resource Information system (HRIS) helps to provide such kind data for proper planning and make projections for the future. This information system helps to acquire, analyze, process, modification, manipulation of

data, which meets the requirement of HR professionals. This information system also helps to analyze job performance, evaluation, promotion, transfer, and career planning speedily and accurately.

1.7.2: Recruitment and Selection

Human resources are recruited through the process of recruitment and selection. HRIS is a tool that helps to analyze the internal posting of the job through the selection and recruitment process. It is a part of an internal recruitment process. Proper abilities, expertise, education, experience, gender, age, etc. information is available to managers through the HRIS process, leading to proper transition and promotion management. External recruitment was becoming easier with the help of HRIS. However, an existing database was made up of the organizations for keeping a track record of the applicants. Some employment organizations maintain a bulk database to provide information for other organizations according to their requirements. The lengthy and tricky selection process becomes more manageable with the help of HRIS. The entire test and scanning of applicants have been done through a computer, which gives an accurate result with less time and cost also reduced.

1.7.3: Training and Development

The machine has a more considerable influence on training and development. Recently computer-based training technique is highly accepted and popular. Computer Assisted Instructions (CAI) is the programmed learning method that is widely used for training. The computer creates a virtual situation looking like the same as real with the help of programming. This type of programming computer utilized forgiven the preparation of jobholders such as pilots, clerks, mechanics, executives, etc. It is a form of on-the-job training that gives practical experience to trainees. The computer-based training method provides an adequate measurement

of training efficiency and effectiveness. If the exercise becomes not efficient to the trainee, the trainer needs to modify the content to satisfy the needs of the trainee. Computer-managed instructions and software-aided information are combined in machine-based training. Comprehensiveness provides trainees many advantages in active learning, and it offers immediate feedback. CBT (computer-based training) provides more reliable training than classroom training because of its accessibility. CBT can provide training in trainees assemble place or in the workplace with a cost-effective price. It minimizes, or no trainers cost because CBT is program based training method. Video-based and CD-ROM based training becomes attractive to the trainees and trainers also. Organizations need to choose the appropriate training program for executives and employers training. The initial cost of the computer-based training method is high than the traditional training method. However, once purchased, then it becomes cost-effective than conventional training. CBT can provide immediately available training techniques, which is impossible under conventional training techniques.

The computer can hoard bulk information in its hard disk concerning trainee's needs, performance, training effectiveness record, etc. This bulk storage of up to date information helps the HR professionals or executives to make a proper idea about the employees and helps to identify their needs. HRIS help managers to monitor and create a balance between training effectiveness level and cost-effectiveness. For the development of the organization, always employee's knowledge and skill up-gradation are required to achieve organizational goals. CBT helps to fulfill these requirements of the organization.

1.7.4: Career & Succession Planning

Career planning mainly deals with personal knowledge, skill, ability, competence, values for matching the job requirement in the organization. The Computer can quickly and precisely do

with his DBMS system and help executives, personal, and organizational for planning. The organization always maintains and updates the track of motivated executives and employees. Determined employees are more cognizant about their work and their career. So, the organizations still need to focus on them because they did not hesitate to leave their job when they have a better opportunity. The computer helps HR professional to keep the track record (job details) and analyze (job evaluation) that information within a computer. Computer application and career planning are made for each other.

Succession planning is one of the leading processes of identifying and making future leaders or prospects who are capable of handling the place of the aged when they abscond the organization due to resignation, transfer, retirement, promotion. Executives or HR professionals were always trying to determine how and where existing employees will fit during vacant positions. It becomes a part of HR planning, which concedes that all employees may or may not job with the organization in the future. Succession planning helps the organization from affection, job requirements, and handling the present situation when others in left.

1.7.5: Compensation

The compensation system is the other area of computer application in the HR field. Compensation mainly includes wages, salary, and other benefits. To make payroll and financial records HRIS system helps the HR professionals. The computer applications (like HRIS) assist executives to in wage and salary administration effectively. Several computer applications are available to monitor the compensation system. Employees also get up to date information about their salary deduction, incentives, and leave records through computer applications. So, computer application in HR reduces labour cost in preserving the large ledger book. The computer applications also help to maintain and monitor the provident fund at regular intervals.

1.7.6: Performance Appraisal

There are several methods to evaluate performance appraisal. Every process has some advantages and disadvantages for individuals' partiality. Computer applications can do the performance appraisal unbiased because of its non-human being. The computer provides an impartial performance appraisal to resolve the scope for an enthusiastic attitude. There are numerous applications in sensitive recital areas to measure the quality of managers and workers using several rating scales. The organization may choose the appropriate methods or scales for assessing the concert of its employees. The computer applications can categorize their employees in a variety of positions and ranks with the help of their scorecard.

1.7.7: Safety and Health

Health and safety in the workplace are fundamental. Health and safety provide the workers with more satisfaction in their work life. It also helps to increase the QWL. Because of their physical and mental satisfaction in the workplace, the quality of healthy and security workers is growing. Proper execution of employees is always profitable for an organization. Health and safety depend on the provisions that the organization has adopted. Excellent arrangements related to health and safety always lead the employee's satisfaction and the organization also deserve the credit for such kind of regulations.

It is a vision away from essentials. However, the organization can pay attention to its employee's custody of information on occupational diseases. The organization's duty to aware the employees about the occupational disease and provide proper guidelines related to the work.

In that case, EHRM lets executives keep records and provide up-to-date information on the employees. Human Resource Information System can develop an application or software for

maintaining various types of occupational diseases, injuries, hazards, safety measures at the workplace, remedial treatment, how employees endure from them, the concerns to be taken.

The computer can help the employees, through a robust computer network at the standard interval, attentive to their work-related disease, and can warn them after dangerous effects.

1.7.8: Human Relations

Human relations maintaining is one of the most intricate works due to the complex nature of human beings. Many organizations have faced the problem of maintaining Human relations. Every organization is trying to build better human relations for smooth functioning in the organization. For better human relations, the relationships between management and union should be supportive and harmonious. The computer can help the executives to keep all the records of negotiations and agreements between management and unions.

With the help of a computer network, the executives can understand previous agreements; remind the earlier negotiations between the union and management. This understanding helps the management and union team to make a useful industrial relation. The computer system can help to make transparent human relations with the help of an accessible system which are convenient to both employees and employers. This software will help the employees and employers to appreciate positive and oppose.

In modern times large corporate organizations are doing business throughout the world with tremendous employees and staff around the globe. An efficient system is required to maintain diversified employee's satisfaction and requirements in the organization. This expert system will enable them to record their perceptions, opinions, and advice. The computer helps to modernize the whole process.

This expert system will help the executives to keep the employees up to date information all the branches of the organization and also help to close contact with the employees at any time. The executives will improve from this type of system to resolve the problem arise at any time anywhere. The expert system can record qualitative and quantitative data. In this way, computer applications are acting as a crucial function in the management of human resources. Computer applications are always facilitating the stress-free environment with smooth functioning at the organization. The computer's aid is ultimately lingering to achieve the organizational goal through building harmony and industrial peace.

1.8: Trends of Information Technology on HRM

1.8.1: HRIS

HRIS provides IT-based HRM roles. In the 1980s first attempt was made through standalone software packages. The standalone application was prepared to afford automatic managerial tasks (related to HR tasks) such as performance appraisal, applicant tracking, training, and development. The utilization of IT in HRM is increasing day by day. These new software-based systems were called HRIS. However, the HRIS system utilized to obtain, collect, operate, examine, recover, validate, and assign organizational appropriate HR-related data (Hendrickson, 2003a; J. W. Walker, 1980). HRIS helps to merge the HR activities with information technology, and ERP (Enterprise Resource Planning) applications provide a standard routine for data structuring and programming.

The crucial role of HRIS has been discussed below:

- Collecting and managing all worker’s/employee's information.
- Analysis of employees of activities.

- HRIS provides safety and health guideline.
- Employee's personnel information enrollment, updating, changes.
- It provides a comprehensive integration system that helps to integrate payroll, other HR processes, and financial functions.

HRIS system assists the HR functions smooth and more comfortable. Modern HRM practices maximize integration, QWL, health and safety, employee commitment, flexibility in work, organizational performance (Javid, Bashir, Tariq, & Awais, 2016).

1.8.2: ERP System

ERP (Enterprise Resource Planning) is a structure that utilized for automation and integration of several working processes, access and sharing of organizations' real-time data (Peng, 2009). ERP system has been trying to integrate all the processes and data into a conventional system. HR modules are utilized to track numerous kinds of people-oriented functions, such as hiring, payroll, administration, planning, training, development. Different business functions also integrated through one module of ERP, such as job posting, news, forums, standard operating procedures (SOP), work hours tracking, and benefits. In this way, ERP provides easier management and decision-making system. ERP has numerous benefits; some of them are vouches in below:

Automatization leads to free up management: ERP helps to integrate the functions or processes, which helps the HR professional to develop a report in less time. Data entry and reporting become easier due to the integration of the functions. HR professionals spent this time for another work that lingering organizational profitability and sustainability (Oswal & Narayanappa, 2014).

Improved collaboration and information share: Human resource management playing as a central pillar or crucial role in collaboration with other departments. ERP provides sophisticated function, which helps the executives to collect real-time data and also helps to share those data with other departments.

Sharpness in the system: An ERP system provides real-time data, and that is accessible for everyone. This system provides a clear portrait of the management about all the functions or processes. ERP helps to identify better potential resource shortfalls (such as latecomer's employees, holidays double booking, etc.), and it also gives suggestions that where improvement is required (such as HR professionals can track overtime hours and receive the threshold limits of the overtime). If HR professionals look that any department regularly stores overtime hours, they can efficiently address this problem.

Real-time data availability: HR departments always involve data from different departments or branches. Data availability and data accuracy are required to speed up the decision-making system. An ERP system provides correct and not duplicated data, which ultimately speeds up decision making and improve towards better decision-making system.

Cost reduction: HR departments need five or more applications to track everything, where ERP provides all in one application system. An ERP system provides all in one or an integrated solution system. ERP helps to reduce the extra licensing cost or reduced extra investment. Organizations need to pay for one license to all the functions. ERP system ultimately reduced overall expenses and also easier to sustain. One of the main reason for adopt ERP system is that it integrates different HR functions (Keebler & Rhodes, 2002; Tsamantanis & Kogetsidis, 2006).

However, an ERP system has several advantages and some significant disadvantages in implementing it into organizations (Kamhawi, 2008). Kamhawi (2008) point out some important reasons why the companies do not adopt ERP; those are

- It requires substantial capital investment for the implementation of an ERP system.
- Too much training required for the effective utilization of ERP systems.
- The more significant priority now.
- The solutions provided by the ERP vendors are not satisfied with the organization's needs.
- The existing system is better than the ERP system.
- The organizations can think that the ERP system is not much valuable.
- The ERP system does not help in increasing productivity.
- The ERP system does not provide reliable, real-time, and integrated data that are needed for faster decision making.

1.9: E-HRM

E-HRM is a cloud-based technology that helps executives conduct HR-related work efficiently, such as organizational guidelines, plans, and procedures. The concept of E-HRM can, therefore, be like this “a way of doing HRM.” E-HRM is especially the compatibility of all HR activities and systems through internet-based systems. If software or web-based technology is used by HR executives for their decisions, processes, procedures, it is called E-HRM.

E-HR is the software system based on digital technology which helps the executives to access real-time HR information and provides a better opportunity in managing and decision-making system.

The first extensive web-based technology was used in recruitment and learning purposes in the organization, which is called e-recruitment and e-learning. From this point of view, E-HRM has been started the journey and expanding it into the entire HR-related task. E-HRM helps the line managers to arrange and carry out the appraisals, evaluate labour cost, arrangement training, and development, examine the absenteeism and turnover. E-HRM also helps to manage the career development of workers, apply for advancement and new opportunities, and make HR policies. The E-HRM systems are immense growth by fanatical applications (software) developed by private providers.

EHRM is the IT device for networking theater as well as supporting HR activities. E-HRM is not, as we know, just like HRIS and V-HRM. While HRIS is the HR department's use of ICT, and V-HRM is a web-based system used to collect, develop, and organize the academic capital. However, E-HRM includes both of them.

E-HRM is an employee and management outsourcing of HR roles. HR managers use E-HRM for intranet or web networks to accept HR functions. E-HRM helps with efficient HR functions to reduce HR staff and significantly reduces the regulatory burden. E-HRM also provides a sophisticated system in operational services, which ultimately satisfies the HR executives in more participation in strategic management within the organization. It is also predicted that, as E-HRM becomes more popular as well as well-established in the modern business culture, the revolution will suit additional evident, but they are a more noticeable degree of significance needed. However, many research visible that E-HR has the comparatively lower brunt on cost and staff member.

With the advent of time and modernization, ICT has evolved. The impact of IT provides sophisticated applications through which traditional practices are converted into automated,

electronic methods. This transformation (traditional to modernization) could primarily substitute the organizational function. The Human Resource Management department is also no exclusion from the others. When IT intermingled with HR functions, then the concept of E-HR has come into the light. Utilization of E-HRM functions changed the transactional activities of the HR department with the help of internet and IT (Fletcher, 2005; Lengnick-Hall & Moritz, 2003; Stanton & Coovert, 2004). However, Intranet facilities are playing vital role for HR department to communicate in the inner part of large organizations (Wyatt, 2000). The software companies are building several automated HR services to help the executives make the functions more comfortable. Therefore, not only the large software companies but also small companies are offering different task-related packages and making a large business from the products. The software is primarily incorporated recruitment, performance appraisal, training, payroll management, benefits management, career planning, etc. Indian firms also participate in this development. So, the utilization of information technology is the prime member of the expansion and operations of E-HR in organizations.

In the early stages of the 1960s, the availability and deployment of computer and computer applications are very limited in the HR department. In this period, the computer is utilized to scrutinize employees ' up to date information and payroll management.

In the 1970s, some workers in the U.S.A were trying to develop a different form of the DBMS (DeSanctis, 1986). Computer cost reduction may be directly or indirectly encourage the utilization of computers in HR practices.

In the phase of 1980s, United States (US), more than forty percent of organizations applied HRIS application for their HR activities (Richards-Carpenter, 1982).

In the latest phase, the organizations are utilizing HRIS functions as a decision-making tool for gaining sustained competitive advantages in the market (Broderick & Boudreau, 1992).

With the advent of time, the field of HRM goes through several changes with the help of technological advancement. These embrace the HRIS, E-HR, and VHR respectively. However, HRIS is the application utilized for collecting, maintaining and analyzing the data. E-HR deals with the versatile field of HR such as the production report, worker's self-service, information shared, and management functions (Pass, 2002). Virtual Human Resource is a web-based configuration fabricate by IT to aid the organization collect, analyze, and organize the intellectual capital (D. I. Lepak & Snell, 1998). However, progressive HR practices assist in organizational and personnel performance improvement in the manufacturing industry (Pass, 2002). These three IT innovations changed the way of HR practices in the organizations. Several researchers consider the impact of information technology (IT), but they overlooked the applications of these IT innovations in HR practices (Feldman & Klaas, 2002; Gascó, Llopis, & Reyes González, 2004; Salas, DeRouin, & Littrell, 2005). Hoobler & Brown Johnson (2004) pointed out that more focus is required in the implementation and academic research methodology of the HR practices and its functions.

In this decade, proficient HR practice in organizations become a primary source of competitiveness in the market in acquiring information (Porter & Millar, 1985; Ulrich, 1987). Technological advancement and its application provide a competitive advantage in the market (Pfeffer, 2005). The employers also appreciated that after employees, information and technology is the most crucial advantage for the organization (Jenkins & Lloyd, 1985). From the past decades, information technology has a significant influence on business management. Previous research papers have already spotlight how IT helps to sustain advantage on the

marketplace, and it also abundant that IT is the central pillar for changing the HR practices(Broderick & Boudreau, 1992; Kossek, Young, Gash, & Nichol, 1994).

1.9.1: Effectiveness of E-HRM System

Since its implementation, the utility of the E-HRM model is debited (around the mid-1990s) (Hailey, Farndale, & Truss, 2005). However, many studies attempting to assess the effectiveness of E-HRM and organizational quality in different ways (Becker & Gerhart, 1996; Boselie, Paauwe, & Jansen, 2001; Bowen & Ostroff, 2004; Delaney & Huselid, 1996; Dineen, Ash, & Noe, 2002; Halbesleben & Buckley, 2004; Hustad & Munkvold, 2005; Keebler & Rhodes, 2002; Williamson, Lepak, & King, 2003).

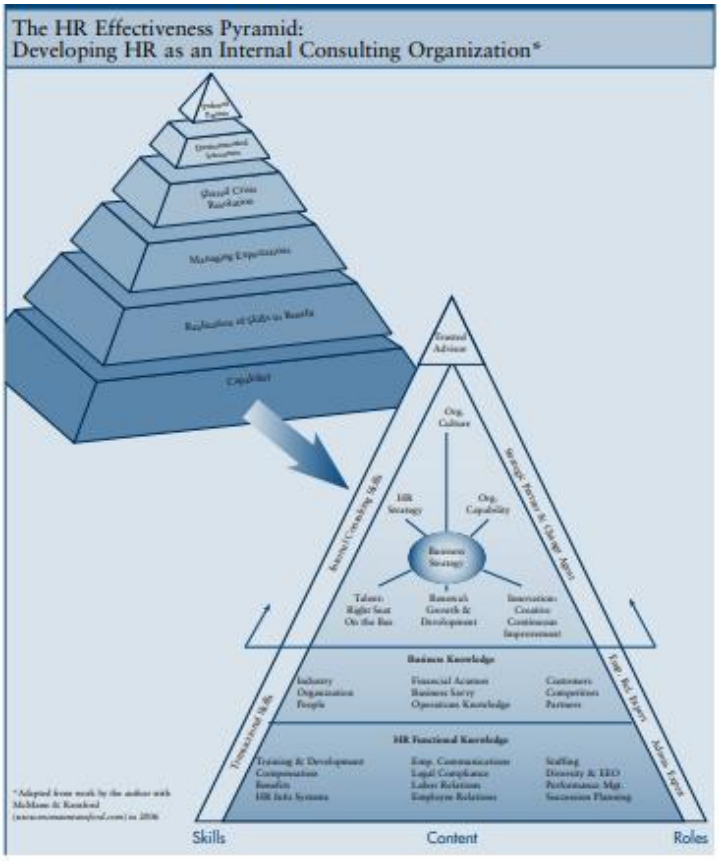

Figure1. 2: The HR Effectiveness Pyramid

Collected from: McMann & Ransford (www.mcmannransford.com) in

A similar sophisticated method of E-HRM effectiveness measurement has not developed yet. Several researchers point out that E-HRM has a potential gain, but in how E-HRM impacts organizational functions there is a discrepancy between research work and fact. The study focused maximally about the use of E-HRM functions (Ball, 2001; Bassett, Campbell, & Licciardi, 2003; Brockbank, 1999; Broderick & Boudreau, 1992; Hall & Torrington, 1986; Hussain, Wallace, & Cornelius, 2007; Ulrich, Brockbank, Yeung, & Lake, 1995; Yeung, Woolcock, & Sullivan, 1996) and HR applications in Human Resource activities (R. A. Noe, Hollenbeck, Gerhart, & Wright, 2017; H. Ruël et al., 2004). The rate and pattern is used as a result of convenience is exhaustive. While higher utilization indicates higher effectiveness and higher contribution to organizational performance. E-HRM mainly speeds up the transactions, improves the HR tasks, and reduces error, which helps executives to improve their performance. This is the primary reason why E-HRM was easily introduced in HR training. Reports on the efficacy of E-HRM, mainly concentrate on some specific areas, such as the aspects of implementation, relations with demographic factors, utilization of technology, ease of use, IT experience of the employees, etc. The utilization of E-HRM, therefore, has a major influence on HR executives as well as the HRM unit (H. Ruël et al., 2004). Several works on the E-HRM effectiveness has been published well into the quantity meal approach in requirements of this collision (Gardner, Lepak, & Bartol, 2003; Lengnick-Hall & Moritz, 2003; LeTart, 1998).Some research also spotlights the efficacy of E-HRM over the entire organizational performance and HR praxis (H. J. Ruël et al., 2007; Voermans & van Veldhoven, 2007b). However, the method to measure E-HRM effectiveness is mostly required (Lengnick-Hall & Moritz, 2003). The HR effectiveness pyramid was developed to showcase the HR as an internal consulting organization (Vosburgh, 2007). He also remarked that the HR professionals need more investment of time on

strategy, skill, and structure making processes rather than transactional and officially mandated parts.

In physics, electricity always seeks out and flows towards the least confrontation. Employee's behavior also likes the same. They choose E-HRM for their least resistance rather than traditional HRM (Keebler & Rhodes, 2002). The shift from conventional HRM to E-HRM gave several advantages and the least effort on the HRM practice (H. J. Ruël et al., 2007). E-HRM is not only providing benefits on time management, cost reduction, and transaction improvement but also assists in becoming the right strategic business cohort. The use of E-HRM aids the executives to give more emphasis on recruitment, training and development, and talent retention for improving the organizational performance (Ensher, Nielson, & Grant-Vallone, 2002). The E-HRM's major influence is that it eliminates administrative burdens and less paperwork, which makes executives become more interested in strategic planning.

On the other hand, fewer professional is required to handle E-HRM applications, and E-HR works like the "HR middleman" (H. Ruël et al., 2004). For both HR managers and whole organizations, it was important to determine the potential or risk of E-HRM efficacy and performance. E-HRM helps to integrate all the functions despite different managerial functions related to the HR manager's activities. HR practitioners will, therefore, have more time to engage in project planning and the competition for talent. Therefore, E-HRM integration would lead the HR practitioners in the company to play a much more pragmatic and understanding role. Another work advocates that instead of HR managers doing work, the E-HRM system plays a vital role and led to radical changes in the work distributions within the organization that HR executives employed to do. E-HRM system led to performing line managers many HR activities or reporting activities (such as performance appraisal, turnover, absenteeism, employee cost

evaluation, oversee competence management, training request) which formerly executed by the HR executives (Fernando Martin-Alcazar, Romero-Fernandez, & Sánchez-Gardey, 2005; H. Ruël et al., 2004; Ruta, 2005). Employees also handle their profile for planning their development, modify their files, evaluation of financial transactions, browse and look for better job (Roehling et al., 2005). Because of all this, the measurement techniques of E-HRM effectiveness are complicated. The review of literature advocated that E-HRM utilization lingering service delivery, better strategic management, and effective HRM processes. The primary outcomes of E-HRM utilization can put in a nutshell that is E-HRM effectiveness. The perception in measuring effectiveness can vary from organization to organization and individuals to individuals. The investment in E-HRM applications, organizations always looks and expects significant changes in the Return on Investment (ROI) and organizational culture. However, main expectation of E-HRM effectiveness is how much it influences to accomplishing organizations goals.

1.9.2: The difficulties in measuring effectiveness

The effectiveness concept has an extensive complicated dilemma for the human-computer interface society. However, the interaction is not always measured directly. Helander (1988), in his book "Handbook of Human-Computer Interaction" doesn't include the indices such as "efficiency" and "effectiveness." The model establishment of human-computer interaction is more comfortable in the case of low-level aspects (such as efficiency pointing using Fitts Law) (Fitts, 1954; MacKenzie, 1992; MacKenzie & Buxton, 1992). In the case of higher-level aspects, non-motor actions, effectiveness measurement is more complicated. Task-based interaction effectiveness can be measured by the help of task outcome and time taken in completion of the particular task (Marshall & Novick, 1995; Novick, 1997). The quality of interaction is an issue,

and it is one of the crucial limitations of this approach. However, time-to-completion of task is another method for measuring the effectiveness, but in that case use of interface has small impact on the completion of that particular task. Recently, effectiveness measurement is done through indirect measurement procedures. Current methods tend to more indirect rather direct measurement of effectiveness. Current effectiveness measure approaches are involved with the rudiments of effectiveness rather than itself. There are two primary mistakes in these approaches; those are as follows: (i) The approaches are mainly dealt with the professional ratings of performance rather than direct numerical measurement. (ii) The approaches deal with the inputs rather than the output. The approach is un-useful because of its input determination process. The efficacy can be calculated, however, through the new guidelines and implementations that these implicit "input" elements can define. The "input" and "output" function may be utilized for validating the relationship and interfaces may be formed based on the study. So, design of interfaces is most important to study the effectiveness. The effectiveness measurement may be mesmerized by exploiting the probably useless inputs as a substitute for productivity effectiveness. The deceiving design of interfaces may produce an impending sub-optimal-domain-task where a keen pubic interest exists and probably a horrible interface for the users. The questionnaire method for measuring effectiveness also infers. In the case of questionnaire method, first, it is not apparent that the addicts are unavoidably good juries at effectiveness measurement; they also may consider the secondary indices. Secondly, the effectiveness measurement should be subject-specific. In conclusion, the problem behind effectiveness measurement through recent approaches is as follows: (i) Direct measurement of the effectiveness is contrary to the reason that approximately all the assignment upshots are successful. (ii) Indirect measurement procedure mainly associated with the professional's

judgment and is susceptible to feeble relations between the “input” and “output.” (iii) Individual measurements are unreliable and subject-specific. There is a need for reliable e-HRM effectiveness measurement procedure, the study trying to identify the effectiveness measurement procedure that is theoretical and practical both.

1.10: Conclusion

HRM may be typified as the imaginative capacities, aggregate learning, abilities, and aptitudes of organizations personnel. HRM is the management activities which principally responsible for proceedings and conclusion that have an impact on the relations between the employees and the organizations. The HRM integrate job analysis, recruitment & selection, use of the workforce, execution, staffing, and professional development of employees, and retention of the workforce.

With the advent of time, organizations' environments are rapid changes to compete with the market. Different technological improvements and development have been done to accomplish the demand of organizations and employee's satisfaction. E-HRM is something that helps advance technology to lengthen the efficiency of the enterprise. There are several applications like HRIS, ERP and others are used to integrate all the functions of the organization with less transactional time. E-HRM also helps HR executives to reduce administrative burden and helps to integrate more strategic participation to become the right partner of the organizations.

As discussed earlier, the paradigm shifts assist in changing the nature and role of every business process, perception, and functionality. IT and HRM are now the principal contributors to improving productivity and organizational performance. Advancement of IT prolonging the performance of the tasks and processes of HRM to achieve the organizational objectives.

Organizations adopt different technology-oriented technologies to their employees in order to improve operational performance. These applications are benefits in several functions to meet

the expectations of HRM such as recruitment and selection, training and development, talent management, work efficiency, transparency in work, and eco-friendliness, etc.

Background of the study

1.11: Review of Related Literature

In the modern era, traditional HRM practice has been transferring into the electronic HRM in the different industrial sector. The review of the literature has led towards a basic framework for the construction of the research methodology. An e-HRM literature review is a crucial aspect of the assessment of information and work done by the previous researcher in this specific area of study, and it helps to identify the research gap. The main goal of this literature review is to summarize and integrate previous researchers' thoughts and opinions in the E-HRM area. In the field of E-HRM efficacy, various research studies have already been carried out worldwide and incorporated by various academics. The study part's context starts with the concept of E-HRM and continues with an assessment of E-HRM from various perspectives. The evaluation continues the findings from general to more specific issues to find out the existing state of the domain of research and endow with the detail of research gap identification.

1.12: Definition of E-HRM

Broderick & Boudreau (1992) "Human resource information systems (HRIS) as the combination of data-centric computer applications and hardware and software that are required to compile, documentation, store, manage, deliver, present and contrive data for human resources."

Lepak & Snell (1998) "Virtual HR, to express a network-supported arrangement built on partnerships and mediated by information technologies to help the institution, obtain, develop, and set up intellectual capital."

Watson (2000) "E-HR implies comprehensive access to data, tools and operations of human resources accessible explicitly on the internet in many other offices nowadays. This shows the

"net effect" of the boom of web technologies and the dramatic impact this development has had on how the workforce I accessing job related information through automated soul-service software".

Walker (2001) "E-HRM is widely used,but a unanimously accepted definition is still undecided. It is over and over again used tantamount with related terms such as web-based human resources. E-HRM is also seen as a compilation of facts, principles and best-practice approaches to effective human resource management."

Kovach, Hughes, Fagan, & Maggitti (2002) "Define e-HRM as a web-technology-based conduit; offer the managers and the workforce of the organization with information as well with the capability to finish HR-related transactions."

Kettley & Reilly (2003) E-HRM is a "Computerized human resource information system (CHRIS) and consists of a fully integrated, company-wide network of HR-related data, information, services, databases, tools, and transactions. Such a system can be described as e-HR, meaning the use of traditional, web and voice technologies to develop the HR administration, transactions,and process deliverance."

Lengnick-Hall & Moritz, (2003) "HRIS was directed to help the HR experts in delivering their HR tasks, electronic HRM (e-HRM) applications are, besidesled to carry HR professionals in performing their HR tasks and also led to support managers and employees completion of their HR jobs. EHRM implies to conducting business transactions - in this case, HR using the internet."

Ruël, Bondarouk, & Looise (2004) "E-HRM as an approach of executing human resource management (HRM) strategies, policies, and practices in establishments through deliberate and directed support of, and with the full use of, web technology-based conduits."

Noe, Hollenbeck, Gerhart, & Wright (2006) "Electronic human resource management (e-HRM) implies processing and communication of digitized information used in HRM, together with text, audio, video, visual images, from one computer to a different electronic appliance."

Uman (2006) "Electronic human resource management system (e-HRM) is a revamp and automation procedure by which the HRM function can pay attention to delivering value to the business. It is a perception through which HR information and process support self-service mode of service delivery, and is made accessible over the internet or intranet so that workforce can utilize and inform".

Strohmeier, (2007) "E-HRM is the planning, execution, and implementation of information technology for both networking and supporting at least two people or unified actors in their shared performing of HR actions."

Voermans & Van Veldhoven (2007) "E-HRM could be intently defined as the administrative support of the HR department in business by using internet technology, but also emphasize the significance of understanding that the beginning of E-HRM may lead to alteration in fact and positioning of the HR function."

Bulmash (2008) "Human resource technology can be elaborated as any technical know-how that is used to attract, recruit, retain, and maintain human resources, facilitate HR administration, and optimize HRM."

Bondarouk & Ruël (2008) "E-HRM, where electronically employees and employers can communicate about HR content more effectively."

Shane (2009) "Electronic human resource management system (e-HRM) is seen as the connection between human resource management and information technology.It mingles HRM as a discipline, and inparticular, its basic HR activities and processes with the information technology function."

T. V. Bondarouk & Ruël (2009) "An umbrella term encompassing all possible integration mechanisms and contents between HRM and information technologies, intending at generating value within and across the organization for targeted workforce and management."

Shilpa & Gopal (2011) "In cases where a business deliberately and in a focused way prefers to put in place web technology for HRM purpose, based upon the thought that management and workforce should co-operate and play an active role in delivering out HR work, we can have a thought of e-HRM."

1.13: Types of E-HRM

Researchers	year	Level-I	Level-II	Level-III
Lepak & Snell	1998	Operational	Relational	Transformational
Wright & Dyer	2000	Transactional	Traditional	Transformational
Lengnick-Hall & Moritz	2003	Publishing	Automation	Transformation
Bieasalski	2003	Web-presence	Web-enabled	Web-energized
Bondarouk &Ruël	2006	Operational	Relational	Transformational

Strohmeier	2007	Operational	Relational	Transformational
Martin, Reddington & Alexander	2008	Operational	Relational	Transformational

1.14: A general overview

Irving, Higgins, & Safayeni (1986)researched "Computerized performance monitoring systems: use and abuse." In the early stage, organizations are utilized software systems to acquire information of employees about their different levels of performance, such as standard time, error calculation, engagement time in different work, etc. This information helps to analyze the employee's performance and feedback to the managers.

Tannenbaum (1990) in his article highlights the fastest-growing computer application in the HRIS. The HRIS provides information services and HR expert analyzed this information for better HR planning, strategic management, policy implementation, etc. Recently, the trends are begun to hire the HR specialists to retrieve, manipulate, and to analyze the information. HRIS recently improved the decentralization aspect within the organization, which creates a more magnificent diverse user pool.

Milgrom & Roberts (1990) studied the economics of modern manufacturing. They find out that to adopt current dynamic market conditions, utilization of information technology is crucial, which lingering organizational strength.

Morton & Thurow (1991) in their book "*The corporation of the 1990s: Information technology and organizational transformation,"* discussed the influencing factors that lead the

organizational transformation process. They also find out that ICT plays a crucial role in the capability and recent developments of the organization.

Tapscott & Caston (1993) spoke in their book about the paradigm shift, namely "*Paradigm shift: The new promise of information technology."* They identified three significant changes in the appliance of IT that are primarily utilizing for eight technological transformations. Three changes in the appliance of IT are as follows: (i) from personal work out to workgroup computing. (ii) From an isolated to the integrated system. (iii) From internal work out to inter-enterprise computing system.

Another eight shifts are as follows: (i) shift from semiconductors to microprocessor function. (ii) Shift from a host to a network-based system. (iii) From merchant based software to an open software environment. (iv) A shift from single to multimedia function. (v) The transformation from account control to a vendor-customer partnership. (vi) A shift from profession to the factory-based application progress system. (vii) The transformation from numerical to graphical interfaces. (viii) The transformation from impartial to an integrated software system.

Brynjolfsson (1993) in his article discussed the impact of IT on productivity. He suggests that the measurement of productivity is the fundamental economic measurement procedure to evaluate the influence of automation. In the case of technology implementation, there is a significant success, and a failure story subsists. They find out that the previous research on IT and productivity is disappointed because numerous researchers find out a negative relation between the IT implementation investment and productivity. He suggests that the only causes of the productivity paradox can give an excellent way to remove the obstacles behind the maximum productivity growth.

Hannon, Jelf, & Brandes (1996) in their article, remarked that e-HRM gives the impressions to be standardization of HR practice. Its integrated software application system provides to defeat obstacles of different languages and cultures.

Thomas & Dent-Micallef (1997) research on "Information technology as competitive advantage: The role of human, business, and technology resources" aims to explore the relationship between Information Technology (IT) and organizational recital. They find out that IT implementation improved firm performance, but the influences are varying between the organizations. They conclude that only technology is not enough to improve firm performance.

Lepak & Snell (1998) research on "Virtual HR: Strategic human resource management in the 21st century" bought forward qualitative study that indicates the rise of digital HR in companies. They examine the motivational factors that are sophistically influenced HR managers to implement the E-HRM practice. They perform an architectural framework to understand the principal structure of V-HRM. The automated HRM system charged the HR depts. with increasing efficient and effective. E-HR enhanced human resources, economical transaction costs, business asset view. They concluded that HR managers were engaged in searching for new methods to become more agile, more effective, more sensitive and more pragmatic. A virtual HR system helps to meet the future demands of the firms.

Akinuli (1999) found that for taking competitive advantages banking sector also trying to adopt ICT to clutch the market. ICT has a revolutionary impact on significant transformation, cost reduction, and reduce operational transaction time. The information technology rapidly grasps the entire banking sector, and its proper utilization is required to get benefitted from IT.

Tansley & Watson (2000) found that for numerous reasons, the potential of the HRIS system has not realized. With the advent of time, organizational situations become gradually complicated. They find out that IT helps in the fight for organizational survival and also lingering strategic positioning to improve the relationship with the external parties.

West & Berman (2001) studied the importance of technology in an organization. They surveyed only large cities where famous is more than 50,000 and find out that IT has a crucial role in HRM. Information technologies are extensively utilized in benefits management, Payroll, and online recruitment. They also highlighted that the attitude of managers towards IT is essential for its extensive utilization.

Kovach et al. (2002) observed that HRIS becoming more effective than the ninetieth century with the advent of time. HRIS is the principal resource for the HR and Strategic Management sector because it helps in the decision-making system. HRIS becomes a decision analysis tool of E-HRM practice.

Lengnick-Hall & Moritz (2003) observed "The impact of e-HR on HRM function" bought forward a quantitative study that indicated the advantages of using web-based HRM over general HRM functions. They concluded that the E-HR helps the HR professional in sophisticated designing.

Hendrickson (2003) found that HR is one of the earliest professions where information technology has been adopting for the utilization of their transactional functions. In future, technology has also become a part of the resource like another land, capital, and labour. IT can help HR professionals to sustain future challenges and lingering one more step towards success.

Ruël et al. (2004) in their study, "E-HRM: Innovation or Irritation: An explorative empirical study in five large companies on web-based HRM," targets to demystify E-HRM; addresses the key questions: what is E-HRM? Which style can be differentiated? In fact, what are the effects of E-HRM? The study also identifies these technological optimistic voices believing that the It possibilities of HRM are limitless from a technical point of view: in theory, it can help all HR processes. E-HRM was largely driven by the use of cloud technology.

Wright, Gardner, Moynihan, & Allen (2004) examine the partnership between HR and company management activity. They took HR as a causal variable. The result showcased that HR practice, past, and future performances of the firms are positively related to each other.

Stone & Gueutal (2005) highlight in their article that web-based HR significantly reduces the workload in the sector and provides better support to stakeholders. They believe that perhaps the improvements (traditional HR practice to E-HR practice) offer greater efficiency in becoming the right partner of the organizations.

Hooi (2006) in his study "Implementing e-HRM: the readiness of small and medium-sized manufacturing companies in Malaysia," aim is to examine the readiness of various organizations to implement the E-HRM model. The significant findings revealed that the four forms of readiness for technology had varying impacts on apparent utility and potential E-HRM convenience usage.Technology aspects of optimism and creativity had positive outcomes on potential versatility and presumed efficiency usage. Similar to previous research, these results. On an alternative, it was found that the dimentions of discomfort and uncertanity did not affect the expected utility and easy of use substantially. This was seperate from the results of other

earlier studies. Prior studies stated that the effect of distress and anxiety on presumed utility and subjective convenience of both is generally negative.

Gibson & Gibbs (2006) in their study investigate the role of virtuality in the organization's development in their research. They unpack four characteristics of virtuality such asspatial Dispersion, digital Dependence, complex Structure, and group innovation national diversity. The correlation result finds out that four factors are not strongly correlated with each other, but they have a differential relation with innovation. They conclude that virtuality provides an environment of emotionally healthy interaction that improves alleviate the organization's challenge.

Voermans & Van Veldhoven (2006) in his study "Attitude towards E-HRM: An empirical study at Philips" implement a research model and hypothesis to evaluate the relationship between IT interactions, favorite HR positions, control variables and E-HRM attitudes. From their analysis, they find out two main factors, such as a) favorable interactions with the IT system (especially its established user-friendliness). b) The preferences of the employees' about the function of HR in the enterprise (notably the tactical decision). The first point highlights that for an E-HRM practice IT environment should be taken into deliberation as a broader perspective. The second point stresses that if workers want a proactive position for HR, then employees will be more in favor of E-HRM.

Alleyne, Kakabadse, & Kakabadse (2007) research on the utilization of HR intranet at administrative purpose and endeavor to assess the effect of HR intranet on the happiness of existing users. They utilized a single-case pilot study methodology and role theory to examine the dynamic role of managers as an interior service provider. They find out that the satisfaction

on HR function depends on the met of expectation. If the expectation met then the satisfaction level also becomes high. They also find out some mediating effects which are influencing manager's satisfaction, such as concerning effective communication with the new technology. They conclude that HR intranet should collaborate with HR as a powerful tool for building a real and rewarding customer relationship to accomplish the organizational profit.

Strohmeier (2007) highlights the review of existing international peer-reviewed journals and discussed various empirical studies from different disciplines. He believes that E-HRM is creative which contributes favorably to managing the essence of workplace diversity.

Ruël, Bondarouk, & Van Der Velde (2007) in their study "The contribution of e-HRM to HRM effectiveness: Result from a quantitative study in a Dutch Ministry", goal is to analyze whether or not the use of web-based HRM software, E-HRM tools for fact-to-face HRM operations in both business and non-profit organizations is beneficial to an organization. The study carried out in the Netherlands Ministry of Internal Affairs, where e-HRM was implemented as a self-service application for employees.

Voermans & Van Veldhoven (2007) were studied "attitude towards E-HRM" with the help of Ulrich and Davis TAM. From their online questionnaire survey (99 manager and 257 employees), they find out that HR prefers role and IT experience has a positive attitude towards E-HRM practice.

Allen, Mahto, & Otondo (2007) studied a web-based recruitment system, while recruitment is the crucial antecedent of OE. They find out that organizational familiarity does not any influence on attraction of the applicant. Work knowledge and organizational behavior (OB) have a significant impact on work intension. However, the website mindset has a positive influence on

organizational attitude. They concluded that in the recruitment process, a recruitment source (websites) has a significant influence on the attraction towards organizations rather than the recruiter.

Laumer, Eckhardt, & Weitzel (2010) in their article highlight the particular E-HRM problems in the e-Business environment. They mainly find out that staff retention and employer branding (both internal and external) are the most burning challenges for HR managers. They conclude that E-HRM activities have contributed to efficient use of HR's and increased the filling of organizational vacancies.

Parry & Tyson (2011) in their study "Desired goals and actual outcomes of e- HRM," found that the company adopted E-HRM to increase efficiency and procurement, increase the functional focus of the HR system, encourage standardization, and organizational identity and motivate managers. Evidence has shown that E-HRM results are primarily related to performance, service delivery and reliability, logical outcomes, and future organizational image changes. The study presented some indications for the E-HRM's strategic effects by allowing HR to benefit the company by enhancing efficiency and effectiveness in achieving its strategic goals.

Dosajh & Sujlana (2012) in their work-study "New E-HRM model, based on the technology acceptance model," assembled a summary of E-HRM and TAM. The research paper suggested a selection of HR positions that would influence the attitude towards E-HRM most profoundly. These are administrative professionals, champions of employees, agents for change, and strategic partner. A research framework to investigate the relationships between HR positions and attitudes towards E-HRM was suggested and delineated in their study. The potential outcome of

their research is aimed at providing valuable information which can be used to manage and maintain E-HR to facilitate the well-being of individuals and organizations.

Geffen (2012) find out that maximum researches on E-HRM are done by the HR professionals and business department scholars. The prime motive of their research is the application of E-HRM, where the specific study on IS may provide the new scope of E-HRM study.

Stone & Dulebohn (2013) in their work "Emerging issues in theory and research on electronic human resource management (E-HRM)" highlights the new E-HRM problems. WWW helps to modify the HR traditional practices such as HR planning, recruiting, selection, Workflow,etc. They find out three major issues: (a) advancement in research and theory on HRMS and E-HRM, (b) E-HRM provides new directions on research, and (c) E-HRM has strengthened HR's efficiency and organizational practices. Finally, they conclude that, rather than conventional HR services, E-HRM delivers the best solutions to all its stakeholders.

Marler & Fisher (2013) found from his evidence-based review that the crucial functions of E-HRM are the strategic management and organizations trying to apply it. They were trying to identify the relationship between E-HRM and SHRM. They found that there is a shortage of evidence-based study (study period 1999-2011). In the study period, not sufficient study was happened to draw the relation, but some studies established that SHRM could predict E-HRM upshots. They suggested that more empirical study (micro-level) required establishing the relationship between E-HRM and SHRM.

Oswal & Narayanappa (2014) researched HRM's evolution and examined HRM's evolving position over time as well. They proposed that thirteen ways with the aid of sustainable E-HRM would boost the operational operation of the HRM department and help improve OE. The

thirteen ways are the following: (i) scrutinizing and sustain the HR demand and supply. (ii) Integration of up to date data availability that helps in strategic planning of the organization. (iii) Automatization in keeping each employee records. (iv) Sustaining data privacy, security, and accuracy. (v) Speediness in data generation. (vi) Nippy adaptability in customer handling. (vii) Broad accessibility in the e-recruitment process. (viii) Transparent and straightforward process in selection. (ix) Unbiased appraisal system where each employee is participated and updates their information by themselves. (x) Automatization process can reduce cost, labour, and transactional time. (xi) Sustaining the personnel database records without any anarchy. (xii) Sudden and acceptable retrieving of data. (xiii) Integrating different departments within the organization.

Ryan & Wessel (2015) in their study "Implications of a changing workforce and workplace for justice perceptions and expectations," showed that virtual technology improved the virtual communication between employers and employees although indeedtechnology is cost-effective. Technology helps in the automatic evaluation process which showcases the fairness performance of the employees. Technology helps in rapid feedback and informational justice, which leads individuals to communicate decisions rapidly. They conclude that technological change and globalization lead towards the more exceptional communication system, and this interconnectedness leads towards fairness in the workplace.

Wali, Miah, Wali, & Karim (2015) in their study showcase the comparison between local and foreign FMCG companies about the HRM practices in Bangladesh. They selected companies for sample collection, which companies completed ten years with a minimum of 500 employees and 2% business growth. After eight months of qualitative data collection and analysis, they conclude that foreign FMCG companies are a focus on standard HRM practices. Standard HRM activities have a key role to play in the organization's employee satisfaction and development.

Cleveland, Byrne, & Cavanagh (2015) in their study showcases that Human Resource Management is entrenching within several layers of context, and HRM must be responsive to those layers. A) Organizational structure, culture, diversity, leadership, and social responsibility influenced by HRM practices. B) HRM bi-directional influences the society from which employees, managers, and job applicants are drowning. C) Dynamic environment. They are applied the ecological model to find out multi-directional influencing factors. Finally, suggest for long term development goals and humanity at the workplace.

Cohen (2015) in his article highlights some recommendations regarding the HR practitioners, students, professional associations, and faculty. HR strengths, he argues, are HR skills, practices, professional development, standardized training, and analysis. Future of the HR will be more effective when all the categories (like HR practitioners) are worked together to chart a consistent pathway. HR practitioners must need competence in transactional and transformational tasks to effective the HR system.

Sinha (2015) on his thesis highlights several points regarding the managerial implications of E-HRM. According to him, E-HRM has a considerable impact on the satisfaction of internal clients, contributing to the use of E-HRM products on a global platform. E-HRM services have been showcases some challenges and opportunities for the HR practitioner. E-HRM practice is mostly required to accomplish modern demand. So, HR practitioners should be ready to adopt new technology (social networking/ web2.0) and other changes. He concluded that E-HRM practice might be the most successful strategy if the HR practitioners implemented it in the right approach.

Bharti (2016) revealed in her thesis that the banking sector has successfully embraced the efficacy of E-HRM and that it promptly helps to efficiently enhance HR services. In the case of banking sector recruitment, training, performance management, payroll, leave management, learning, retirement, attendance management, compensation management, etc.are tratedexpertly using E-HRM procedures.

Sukarni (2017) stated that the HRIS is a crucial factor in E-HRM services. Technology helps HR professional to handle the internal and external operations efficiently. HRIS efficiently improves the communication between the employer and employees and contributes to HR stuff for additional strategic functions. The HR professional is enabled to showcase workers' updates, training, and employee's development and manage their careers with the help of HRIS.

Ulrich, (2019) discussed the preamble and future-thinking of HR. In the modern period, nothing any doubt that with the help of digital tsunami the business context becomes technology-oriented. To create a business agenda, HR professionals need to play four crucial roles; those are as follows: A) Business case building. B) Assist the digital business group. C) Eloquent business upshots. D) Appraisal present business digital position. If these four roles accomplished properly it creates immense value. These four stages for the HR implications for accomplishing the business agenda are as follows: A) Utilization of technology to make more efficient administrative work. B) Utilize IT for innovative HR practices. C) Utilization of technology to get real time information. D) Utilize technology for excellent communication and social experience. He concludes that HR executives need more understanding of technology that may assist them in conveying value to human resources.

1.15: Drivers of E-HRM

1.15.1: The Operational Driver

Operational E-HRM technologies can be termed as transactional e-HRM (Bondarouk & Ruël, 2005)or administrative e-HRM (Ball, 2001), to increase the organizational and functional performance of the HRM system, HRM operations are mainly automated. Because it is based on an 'automate style' of information management (Tansley, Newell, & Williams, 2001; Zuboff, 1988), which is about standardizing HRM's abundant administrative functions to deliver regulatory burdens, cut cost and improve profitability (Strohmeier & Kabst, 2014). It, therefore, facilitates the regular day-to-day transactional HRM operations, which include simple business functions including payroll and staff data-keeping and management, monitoring of time and presence, and e-access control (Takeuchi, Tesluk, Yun, & Lepak, 2005). This type of technology is expected to create value by making the delivery of HR services more cost efficient and effective. Lengnick-Hall & Moritz (2003) agrees, as they suggest that the efficient HR can reduce costs in organizations by reducing the costs of providing these services through headcount reductions and reducing the cost of HR administration by undertaking HR activities and storing HR information electronically. By using 'Operational' e-HRM technology, it is believed that staff, managers', and HR practitioners will be able to acquire information required for smooth and efficient implementation of their day-to-day HRM. Meijerink, Bondarouk, & Kees Looise (2012) suggest that the 'use value' of transactional/operational e-HRM technology (i.e. the degree to which it serves the desires of users), is the extent to which the technology delivers timely, accurate, and standardized HR services in a consistent manner. As a result, the software needs to contain the information needed to carry out HRM operations, making the process quicker, faster, more effective and more productive. For a technology to be classified as

an ‘Operational’ e-HRM technology, it means that it is not only used to ensure the flow of HRM activities, but also authorize the recording of the details of HRM activities in a standardized way as they are undertaken and used to recover the data needed for HRM transactions when needed (i.e. a form of bookkeeping) (Hyde & Shafritz, 1977). Strohmeier & Kabst (2014), however, argued that mere automation of HRM tasks does not allow HR to reap the benefits of the automation as it goes beyond mere automation of HRM tasks to provide knowledge that drives organizational decisions. Since taking full advantage of an information system which lie in using it to ‘automate’ organizational processes(i.e. a form of bookkeeping) and using it to provide ‘information’ that can be used to drive organizational decisions and enables organizations to develop and sustain their comparative advantage and overtime efficiency (i.e. a form of management science). Make HR value-effective by increasing the HR staffing, decreasing transaction fees, and achieving productivity. Several researchers supported the idea of an efficient driver with efficiencies or reduced transactional costs (Marler & Fisher, 2013; H. Ruël et al., 2004). While the utilization of E-HRM for an operational task has some operational advantages that recommended as an authentic product of E-HRM experience (Parry & Tyson, 2011). (Hendrickson, 2003b) suggested that the reduction of transactional time and cost improves the E-HRM efficacy. This is close to E-HRM’s transactional result (G Martin, Reddington, &Alexander, 2008). Empirical data confirmed the of efficiencies through E-HRM by decreasing HR personnel’s staff numbers, cost reduction, increasing system speed and freeing workers from clerical work (H. Ruël et al., 2004; Ruta, 2005; Strohmeier, 2007b). However, H. Ruël et al. (2004), noticed that the most important E-HRM findings were cost reduction and administrative burden on HR practitioners, although these results were not commonly calculated.

1.15.2: The Relational Driver

Relational E-HRM technology is the study aimed with providing better interactions between HR and across professionals and their service users (such as- managers, employees and job seekers)- using web-based technologies, aiming to improve HR customer service and employee relationship management (Strohmeier, 2013). It is essentially supports a transactional directory to the warehouse and identify all the different files of everyone working in an organization so that all employee-related information can be monitored from any corporation location, merely by accessing the worker ID (Shani & Tesone, 2010). This stresses the use of self service capabilities, which enables the use of HR software to go beyond HR department (Karakanian, 2000; Oiry, 2009) and can be accessed anywhere whenever required. By using soul-service structures, managers and employees are allowed to have direct access to their personal HRM-related information, which will allow them to individually handle their HRM transactions that were formerly handled only by HR professionals. Managers and their departments will also have information access relevant to HR, to enable them to manage the performance of the members of their teams more efficiently and effectively. Extending from the CRM domain to ERP the concept of service-based communication (Strohmeier, 2013). And it aims to enable HR to provide transparency in their relations with employees, which not only lead to improving the levels of trust employees have for management (Bissola & Imperatori, 2014) but also giving freedom and committed towards work. These are, however, also highly transitive ingredients as they are closely connected to everyday human resources management processes. The relational drivers were specially used to tackle the increased anxiety of administrators, staff and business partners and to improve service rates. The relational driver helps to build an efficient communication system, which reduces the time-space barrier with other departments and outside

of the organizations. So, HR activities become more accessible and comfortable. H. Ruël et al. (2004) related the program, which means that E-HRM is used for enhancing HRM systems, including employees and managers. The relational goal and efficient service delivery may enhance HRM function by authorizing managers to take responsibilities in their work (Lepak & Snell, 1998). However, it has a deciding effect on the development of worldwide delivering services and indirect influences on the effectiveness of HRM function (H. Ruël et al., 2004). E-HRM enhances the HR service delivery through software to automate data entry processes and accuracy (Gardner et al., 2003; H. J. Ruël et al., 2007). They also noticed that the utilization of E-HRM in line managers and employees was positively linked to impressions of general effectiveness of HRM. Similarly, Payne, Horner, Boswell, Schroeder, & Stine-Cheyne (2009) notice feedback on an internet monitoring system to be advantageous than feedback on a traditional method of the same attempt.

1.15.3: The Transformational Driver

Transformational e-HRM is also known as *informational e-HRM* (Strohmeier & Kabst, 2014) or *decision-support e-HRM* (Sanchez & Aguayo, 2007)- is *diagnostic* (analytical) in nature and used to increase the quality of HR related decisions (Strohmeier & Kabst, 2014). Since it is based on an 'informate style' of information management (Zuboff, 1988) that provides a richer environment from which organizations can draw strategically relevant HR information that can be used to drive organizational decisions and facilitate business success (Tansley et al., 2001). Sometimes it is concerned with strategic HR activities which help in strategic reorientation. Thus, it is expected to facilitate HR's move to being a value-adding component of the Business Strategy (i.e. a *strategic partner*) that contributes to business success (organizational performance) (Rogers & Wright, 1998). It is this sort of E-HRM innovation

that the inquiry centered on E-HRM software that is generally implemented by organizations to facilitate a strategic approach to HRM, towards improving HR's strategic orientation and its contribution to organizational performance (Reddington, Martin, & Bondarouk, 2011). As a strategic oriented e-HRM technology deals with non-routine and non-administrative HR activities that are aimed at implementing strategy, building culture or accomplishing business goals (D. I. Lepak & Snell, 1998). However, the information it uses is derived from operational processes, which leads it to depend heavily on the efficiency and effectiveness of those processes. What allows the HR role to enhance its strategic focus and its commitment is believed to be its ability to release HR professionals from their daily operational duties, so that they can devote more time to strategically important activities (Gainey & Klaas, 2008). From the technological point, this technology is expected to bring improvements to HR's strategic orientation and its contribution to organizational performance through its ability to make HR information to become strategically relevant (Tansley et al., 2001). This stems mainly from the fact that this technology goes beyond the 'automation' of existing HRM activities which provides an advanced electronic system that allows the 'integration' of business activities to an integrated HRM system (thus, ensuring both horizontal integration across HR processes and the vertical integration of HRM processes with the Business Strategy), so that the HR information that are combined, analyzed and retrieved from these systems can be strategically relevant (informational), andhelp to improve HR's contribution to strategic decision-making and business performance. Thereby, improving HR's strategic orientation *and* its ability to contribute to organizational performance (Esther Njoku, Ruël, Rowlands, Evans, & Murdoch, 2019). Bondarouk (2011) supports this, as it suggests that when e-HRM technologies are combined or integrated, they encourage the use of e-HRM as Business Intelligence applications to support

informed managerial decision-making. Shani & Tesone (2010) add that 'Transformational' e-HRM will allow HR professionals to measure their own operational efficiency, e.g. by measuring investment returns on training, profit margin costs, and human value-added, allowing the HR to provide proof that it is a valid major trading partner and essential to attaining ethical institutional objectives. Within the context of managing HRM activities in the front-line, 'Transformational' e-HRM is expected to help remove some of the bureaucratic processes in organizations, which will allow the HR function to create flexible organizations. As a result, it encourages the decentralization and delegation of HR decision-making to the front-line (Reddington et al., 2011), that should help businesses become flexible and able to respond quickly to changes in business needs (E Njoku & Ebie, 2015). Since it is expected that 'Transformational' EHRM would encourage executives to align their HR-oriented goals with broader organizational ambitions (Tansley et al., 2001), aiming to ensure that they can use the HR information provided by the technology to make front-line HR decisions that will enable them to ensure that their staff can respond quickly to changes in business needs. For a technology to be classified as 'Transformational' e-HRM technology, it means that it does not only support the flow of HRM activities, it goes further to allow the HRM department and Line managers to acquire strategically relevant HR information for managerial decision-making. Because with easy access to information and report-generating tools, 'Transformational' E-HRM is expected to include the HRM department as well as frontline managers with an overview that gives them new perspectives for HR analysis and decision-making within their teams (Line managers) and the department (HRM) (Reddington et al., 2011). For 'Transformational' E-HRM to contribute to organizational performance, Bondarouk (2011) argues that, in as much as the typology of e-HRM used in enterprises matter, what is critical is the need to expand the use of E-HRM from

technical applications to strategic applications. Reddington et al. (2011) stress that without this progressive development of e-HRM from an 'automate' style system into the use of sophisticated IT applications in organizations; modern HR service systems are not going to be as successful. That's why Foster (2010) argues that 'Operational' e-HRM should be a precondition for 'Domain-specific' and 'Metamorphosis' E-HRM, and moving from autonomous to the transactional and transformation stages of e-HRM will enable organizations to develop a more 'strategic capability'. The most important solution for the HR role is to first get the exploit of E-HRM for its administrative activities right before it can successfully transit enables the 'Transformational' E-HRM technologies. Because it is also assumed that if the HR feature is unable to collect, store, manage, evaluate, retrieve and distribute appropriate human resources data effectively, it will be less able to use the information within the 'operational' E-HRM software to facilitate the use of more advanced E-HRM technology such as 'Transformational' E-HRM technology (CIPD, 2006). The transformational function removes space-time barriers and facilitates connectivity and information sharing across geographical boundaries, thereby playing an integral role in supporting digital teams and network entities H. Ruël et al. (2004) proposed that e-HRM might capable of improving the HR functions with the help of strategic orientation. Better strategic management function leads a company towards its competitive advantage in the market (Wright & McMahan, 1992). E-HRM provides an orchestrated array of practices and policies to enforce the tacit or formal corporate strategy of the organization by controlling the human capital of the enterprise (F Martin-Alcazar & Romero-Fernandez, 2005). Several researchers have indicated that E-HRM practice reduces the transactional time and improves strategy that can allow the HR role to becoming an organization's best business associate (H. Ruël et al., 2004; Ruta, 2005) while others indicated that E-HRM had not noticed

its ability to facilitate the HRM work in a more proactive way (Tansley et al., 2001). H. Ruël et al., (2004) and Olivas-Lujan, Ramirez, & Zapata-Cantu, (2007) presented facts that E-HRM communicates with others department so carefully that it helps to integrate HRM strategically and leads to the achievement of organizational strategy. Emma Parry (2011) has built a positive connection between E-HRM uses though pragmatic HR works. However, Burbach & Dundon (2005), establish that E-HRM is customarily used for managerial purposes to reduce regulatory burdens instead of a tactical judgment-making process; while they found that businesses with E-HRM practices had a better intelligence system than non E-HRM practices. Gardner et al. (2003) suggested that the emergence of E-HRM resulted in replacing regulatory practices with pursuits related to technology. Therefore, it is not clear that E-HRM has an influence on the transformative HR structure and its effect on HR strategy. A strategy is often "emergent" and continues steps of consistent growth, a condition in which the chaos of organizational mechanisms is essential in order to respond quickly to new certainty (Mintzberg, Ghoshal, Lampel, & Quinn, 2003; Mintzberg & Waters, 1985). The competence and effectiveness of management processes are as critical in this understanding of strategy as any other strategic goal. There are some facts that multiple organizational planning processes enable companies to execute well (Hart & Banbury, 1994). H. Ruël et al. (2004), an academic study mentioned E-HRM's fourth objective: to improve the company's global orientation by standardizing HR systems. By "global orientation," H. Ruël et al. (2004) referred not only across geographical boundaries for standardization across divisions or departments.

1.16: E-HRM Technology

The global application of e-enablement of HRM activities began with the provision of read-only standard information on handbook, notices and personal information, which included pay slips

and employee data (Kettley & Reilly, 2003). A little way in a particular direction to a more interactive option supported by soul-service facilities for employees and managers (Payne et al., 2009). The power to shape managers and employees who initiate or amend HR processes using the internet, including employment and training information, access to e-learning opportunities, holidays, attendance, expenses, performance management and appraisal - without consulting the HR department, unless they consider it necessary to do so (Lengnick-Hall & Moritz, 2003; D. P. Lepak & Snell, 1998; C. A. Martin, 2005; Ruta, 2005). This interactive option gives employees and managers the right to keep their personal information, ensure enhanced data quality and reduce the time spent by HR practitioners administrative duties (C. A. Martin, 2005; Tansley et al., 2001). Manager's can also empower and monitor their teams more efficiently and effectively using this option. As a result, E-HRM has contributed to the shift of administrative tasks and duties of HRM from the HR sector in the frontline (Karakanian, 2000; Oiry, 2009). Strohmeier (2007a) explains that E-HRM consists of front-end and back-end systems in order to accomplish this (Panayotopoulou, Galanaki, & Papalexandris, 2010). These include HR portal, wireless or mobile HR applications, Human Resource Self-Service systems (i.e. ESS and MSS) or interactive response systems (such as, IVRs) (Olivas-Lujan et al., 2007). The front-end services require assistance from different back-end systems, such as HR data warehouses or ERP HR modules, which are used for data storage, processing, and recovery. The front-end systems present opportunities to streamline HR's administrative/transactions for operational HRM activities and for streamlining the transactional-side of strategic HRM activities. While, the back-end systems provide the platform for which HR information centers or ERP HR modules are integrated to the entire organization through possible IT-enabled integrating mechanisms to interact freely by transcending boundaries. This is being achieved when organizations have their

ESS and MSS systems (that is, their interactive web-based front-end) connected through an integration interface with either Payroll software, Performance Management software, and Time and Attendance software or connected to more HR solution modules (such as, Recruitment, Training and Development, Talent Management) to form a complete HRIS, to have a fully incorporated web-based front-end. This integrated web-based front-end becomes integrated to the entire organization at the back-end using possible integrating mechanisms that authorize an organization's HRIS to become integrated with other IT systems at the back-end. That is, possible integrating mechanisms, such as- an organization's ERP system. Because ERP systems are software packages that, through standardizing work activities, allow the convergence of a number of separate IT systems from the various functional areas of an organization (which include: Distribution, Sales, manufacturing, Finance, and Human Resources) to form a single unifying back-end repository that will be accessible throughout the business and modified in real tour (Lengnick-Hall & Lengnick-Hall, 2006; A. J. Walker, 2001). Therefore, the HRM department can use E-HRM for a wide range of its operations, including: workforce preparation, hiring, and selection, management of employee data throughout the job process, performance management and assessment, learning and development, compensation and benefits, customer relations, retention, safety and health, and job-life balance policies (Parry & Tyson, 2010). However, choices have to be made regarding which HR actions will be existing solely through web-based HRM, which will be offered face-to-face, with some support of a HR software system and all other possible integrating mechanisms that allow the integration of corporate HRIS to further IT systems back-end provides the backbone for an enterprise-wide information system (Saloner & Spence, 2001), that gives E-HRM the opportunity to integrate HRM processes and information with other organizational processes and information to ensure consistency of HR

policies and practices, and ensure the efficient and effective management of an organization's HRIS that enhanced to drive organizational decisions and facilitate business success (Srinivasan & Dey, 2014). This is expected to enable HR to improve its capability to assume a more strategic role and improve its capacity to contribute to creating and sustaining an organization's competitive advantage (Graeme Martin, Reddington, & Alexander, 2008b), just as Jackson (2010) states. Since Jackson (2010) states that ERP systems enable a company's strategic goals to be arranged, as information flows from one central core to all units within the organization and by streamlining business processes and integrating data from multiple systems and sources, ERP systems also facilitate the attainment of competitive advantage. ERP systems and all other possible back-end IT-enabled integrating mechanisms are therefore believed to have helped E-HRM align the HRM technique of an organization with its corporate strategy, aimed to enable the HRM department to acquire, manage, develop, and retain people in line with an organization's strategic choices to enable it to achieve pre-determined business outcomes through their employees (Holbeche, 2009). Whether this can be achieved or not is argued to depend not only on the aspect of e-HRM technology that an organization adopts but also on the implication, perception, and recycling of the technology (Reddington et al., 2011; Voermans & van Veldhoven, 2007b). Which led the research to also investigate: 'the type of technology adopted', 'users' comprehending of technology, perception of the automation, and 'how the technology is used in the organization studied'? Additionally, MSS and ESS systems of an e-HRM system is described as just the key concepts of E-HRM (Lengnick-Hall & Moritz, 2003), because they both create a trend of delegating HR administrative responsibilities that were once considered to be the domain of HR, directly to employees and managers in the front-line (Shani & Tesone, 2010). The assignment or transfer of HRM administrative tasks to the frontend is

significant to the ability of E-HRM to add to organizational success because it enables the attainment of the three main expectations of e-HRM, which include: HR administrative cost reduction(i.e. Lessen cost through increased efficiency by using digital transformation); HR operational improvement levels(i.e. having better employee relations and communication); and freeing of HR practitioners from daily administrative works, allowing them to devote quality time to improve their strategic contribution in organizations (C. A. Martin, 2005; Tansley et al., 2001). These key concepts of e-HRM have, however, been criticized of dehumanizing the personnel department (Graeme Martin et al., 2008b; Olivas-Lujan et al., 2007), because utilizing self-service approaches to undertake HR activities is said to have removed the human from HRM (Shani & Tesone, 2010). In relation to this, Francis & Keegan (2006) argues that the insistence on the role of the HR strategic partner underlined by the adoption of e-HRM in organizations has its associated costs of shrinking the role of the HR employee champion and costs to the well-being of employees. On the flip side what N J Kinnie, Swart, & Purcell, (2005) suggest as the way strategic HRM should be designed because by emphasizing the 'HR strategic partner role' that focuses on processes, it implies that the HR function will completely absorbed with the issues related to the tactical partnering of the HR processes with Line managers, aiming to enable HR to meet its aims by successful policy design and execution of the strategy (Ulrich et al., 1995). As a outcome, the position of HR employee advocate who is people focused on getting workers engaged and dedicated to their company is also diminished in relative importance (Ulrich, 1997). Thus, as the HR function works towards becoming a business function, this is said to put a greater distance between HR and the people it serves (Reilly & Williams, 2006). To address this, N J Kinnie et al. (2005) suggests that the design of strategic HRM needs to integrate both 'Business Strategy' and 'employee objectives', because the achievement of

business goals depends on the alignment between the individual objectives of the workforce to organizational outcome goals. A notion supported by Purcell & Hutchinson (2007)and Boxall & Purcell (2008) who similarly argue that the conversation among HRM and business success results from appropriate behaviors and performance of employees, which is influenced by high levels of employees' organizational commitment and engagement. As HR's link to business performance results from employee commitment in terms of their willingness to stay with an organization and employee engagement which is their desires to make special efforts to accomplish their tasks (Boselie, Dietz, & Boon, 2005). Voermans & van Veldhoven (2007), who investigated this, reveal that workers and managers who favor a strategic position for the HR feature are more optimistic about E-HRM being implemented in their organization. Whereas it has been found that, those who prefer the position of HR employee leader have a more hostile attitude towards E-HRM adoption. In relation to this, Baldwin (2007) explain that employees who expect that the HR function should provide their administrative and transactional duties smoothly also anticipate this to be done at a personal level because they want to feel respected, recognized, involved and assisted by HR. Linked to this, (Ulrich, 1997)book on Human Resource Champions emphasizes that a HR business partner adds value to an organization by playing multiple roles. This includes: strategic partner, regulatory analyst, staff champion and changing agent at the same time, delivering strategy implementation, production efficiency, employee engagement and social change to the organization. Lemmergaard (2009), however, sees the need for HR to carry out these multiple roles as a source of tension due to inherent paradoxes between the planned, perceived and implemented HR roles. To encourage a more focused and critical debate in this area of E-HRM research, the research investigated how these inherent paradoxes can be overcome as E-HRM is used to form strategic value. In doing this, the

research contributed to moving the discourse in E-HRM debate beyond issues related to e-HRM's promises to facilitate the strategic partner role to one which encompasses how e-HRM can sustain the HR role to simultaneously carry out its multiple contradictory roles as it creates strategic value and contributes to organizational performance. A supporting view from the CIPD adds weight to this line of reasoning by arguing that the relevance of the HR function relies fundamentally on its strategic contribution in addition to its administrative and relational roles in organizations(CIPD, 2006).

1.17: Researched on the Adaptation of E-HRM

Maximum researchers showed concern in the E-HRM implementation inquiry. Almost forty percent study were predestining on the E-HRM implementation issues (E Njoku, 2016; Esther Njoku et al., 2019). The area of this study mainly incorporates the facts which influencing E-HRM adoption, acceptance, diffusion, and utilization. In this field prime researchers are as follows: (Basu, 2019; Bondarouk, Ruël, & Roeleveld, 2019; Farndale & Brewster, 2019; Florkowski & Olivas-Luján, 2006; Galanaki, Lazazzara, & Parry, 2019; Haines & Petit, 1997; Heikkilä & Smale, 2011a, 2011b; Hooi, 2006; Marler, 2009; Rodger, Pendharkar, Paper, & Molnar, 1998; Strohmeier & Kabst, 2009; Thite, 2019; Voermans & van Veldhoven, 2007b; Ziebell, Albors-Garrigos, Schoeneberg, & Perello-Martin, 2019). The research area also concerns the efficacy of E-HRM system and how it can be enhanced (Bondarouk & Ruël, 2005; Bondarouk, Ruël, & van der Heijden, 2009; Burbach, 2019; Lather & Kaur, 2019; Maatman, 2006; Parry & Tyson, 2011; H. J. Ruël et al., 2007; Sawant & Vernekar, 2019; Thite & Bhatta, 2019; Wright, McMahan, Snell, & Gerhart, 2001; Ziebell, Albors-Garrigos, Schoeneberg, & Marin, 2019) and researched that E-HRM adoption and utilization athwart different organizations (Ahmer, 2013; Bharati & Chaudhury, 2015; Chakraborty & Mansor, 2013; El

Talla, FarajAllah, Abu-Naser, & Al Shobaki, 2019; Fobang, Wamba, & Kamdjoug, 2019; Galanaki et al., 2019; Teo, Lim, & Fedric, 2007; Teo, Soon, & Fedric, 2001; Wolfe, 1995; Yong, Yusliza, Ramayah, & Fawehinmi, 2019). The term implementation and adoption of E-HRM were used interchangeably. However, Strohmeier & Kabst (2009) depict E-HRM adoption as *"the process of initiating and implementing IT, to network and support diverse actors in their shared performing of HR tasks"* (p.484), although Tanya Bondarouk (2011) describes E-HRM implementation as: "*the adoption of an [e-HRM] application during the transition period between the technical installation of a new e-HRM system and its skilful and task-consistent use by employees, line managers and HR professionals"* (p.16). Since the mid-1900s, the E-HRM adoption has raised day by day (Bondarouk & Ruël, 2009a; Nicholas J Kinnie & Arthurs, 1996; Martinsons, 1995; Tansley & Watson, 2000), the adoption as well as depth in use of HR practices also significantly increases (Heikkilä & Smale, 2011a, 2011b; Kashive, 2011; Strohmeier, 2009). The technological development is greatly influencing the HR functions to successfully draw, develop and preserve experts (E Njoku, 2016). Although, the prime aim of the organization to implement E-HRM is the reduction of transactional cost, to enable the errands of their personal information, better communication system, improvement in time management and quality of services, transforming HR tasks into a customer-friendly role (Kettley & Reilly, 2003). Several researchers support the significant integration of E-HRM with cost control; improvement of transactional, operational and relational drivers; improvement in strategic management in the organization (Graeme Martin & Reddington, 2009; Graeme Martin, Reddington, & Kneafsey, 2009; Olivas-Lujan et al., 2007; Panayotopoulou, Bourantas, & Papalexandris, 2003; Panayotopoulou, Vakola, & Galanaki, 2007; Parry & Tyson, 2010; H. Ruël et al., 2004; H. J. Ruël et al., 2007). Portrayal from information technology (IT) studies (F. D. Davis, 1993; F. D.

Davis, Bagozzi, & Warshaw, 1989), the progressive work has concentrated extensively on the implementation and use of E-HRM, as it is claimed that it takes into account issues that discourage potential consumers from using IT in order to achieve corporate objectives in detecting and solving problems (E Njoku, 2016). However, the significant causes of E-HRM implementation failure are incorporating with the proper utilization of IT and the attitude towards acceptance of technology (H. J. Ruël et al., 2007; Voermans & van Veldhoven, 2007a).

1.18: Confronts in E-HRM Implementation

There are mainly four factors that influence the organization's adoption of E-HRM (E Njoku, 2016). Four factors are discussed below:

A) User acceptance factors: user recognition factors are mainly incorporated with IT projects. According to Marler (2009), user acceptance factors required to be measured to apprehend the reimbursements of E-HRM implementation. Rodger et al. (1998) research in this area significantly assists these factors by signifying the unawareness of the value-added potentiality of newly adopting E-HRM by the intentional users, devoted the function from endowing recovered HRM in the enterprise. Accordingly, Voermans & Van Veldhoven (2007) revision of the mindset towards E-HRM establish that the perception of IT utilization is the dominating factor to adoption of E-HRM in the organization. However, Graeme Martin & Reddington (2009) find out the moderate relationship in user acceptance between architecture and performance of E-HRM. While, Parry & Tyson (2011) defines the factors that contributes to employee training in the use of E-HRM, the software, acceptance of the E-HRM system, friendliness with IT in organizations, employees involvement with E-HRM system, HR skills in technology handling. These factors are the significant barriers in accomplishing the E-HRM

outcomes. Some other articles reveal the importance of communication reimbursement of E-HRM in the dealing, adoption practice of the intentional users, flourishing E-HRM implementation (Hooi, 2006; Troshani, Jerram, & Rao Hill, 2011). As stated in, H. Ruël et al., (2004) suggest that to improve users' level of approval for use with E-HRM, organizations need to change the employees' mind-set because E-HRM adoption will require and imply that employees' will need to do their work differently and efficiently. This should be the case because the adoption of E-HRM is commonly associated with increased responsibilities for managers and employees, in terms of their increased involvement in carrying out their HR tasks and responsibilities, which will require readiness and willingness to adjust to these changes for a successful adoption of the technology (Hooi, 2006).

B) Technological context factors: Panayotopoulou et al. (2007) study found technology awareness, such as individual employee IT competence and collaboration between HR and IT to be the evaluative factors for successful E-HRM adoption. While, Troshani et al. (2011) developed usability, user-friendliness, availability, performance, and hardware compatibility to confidently influence E-HRM adoption in public sector organizations in Australia. Shilpa & Gopal (2011) also argued that there is the need for the presence of IT culture already in existence in the organization and the need to have security of the information held in the system. While, Haines & Petit (1997) work found "system conditions" (such as training and documentation- i.e. data quality); 'on-line apps presence'; 'the number of human 48 resource management applications'; 'facility of use'; 'the perceived value of the program' and 'user support' to represent antecedents of successful E-HRM adoption. This, Voermans & Van Veldhoven (2007) strengthen, since they similarly find 'user support' is an indicator of 'positive mindset towards E-HRM' and 'its use in organizations'?

C) Organizational readiness factors: Since e-HRM is an IT-enabled phenomenon which depends on having adequate IT infrastructure in place, the accessibility of PCs for administrators and workers in all sections of the business and ample computer skills was suggested by H. Ruël et al., (2004), as pre-requisites for successful E-HRM adoption. Organizational size was emphasized by Panayotopoulou, Galanaki, & Papalexandris (2010) as an analyst of e-HRM adoption, because they argue that increasing organizational size produces a critical mass that supports invention procurement and requires actions in adoption. Burbach & Royle (2014) advocate this, by demonstrating that e-HRM diffusion usually depends on organizational size and structure to ensure the diffusion of business practices.

D) Resources Issue: Ngai & Wat, (2006) study undertaken in Hong Kong reveals that insufficient financial support is the greatest barrier to e-HRM implementation. A study on SMEs in Malaysia (Hooi, 2006) support this, as it also demonstrates that the shortage of financial capital in most of the organizations studied serves as an obstacle to the adoption of E-HRM. This led the companies instead of using standard HRM, practices E-HRM. Indicating that, E-HRM may fail to deliver meaningful savings for HR or provide quality improvements for customers without proper investment towards its adoption (Florkowski & Olivas-Luján, 2006).

E) Underutilization: Oiry (2009) continues to repeatedly struggle to focus entirely on the valuation-adding ability of E-HRM and was seen to use it for transactional activities instead. Burbach & Royle (2014) add that successful application in the sense of E-HRM delivery is crucial and point out that underuse tends to result from inadequate implementation management. Burbach & Royle (2014) often helps to promote the successful implementation of some E-HRM activities than others, depending on the organizational and institutional fit of the discipline to be communicated. They further emphasized the significance of using a completely functional

framework instead of using a plethora of sub-and-existing systems. But they also observed that using a multitude of sub and legacy systems just causes problems for people and technology, and it diminishes the potential of a company to leverage the e-system's strategic advantages.

1.19: E-HRM Functionality Research

This category of research includes e-HRM studies centered on E-HRM's functionality, including the advantages of utilizing E-HRM across various HRM activities. The studies could reveal that E-HRM supports recruitment and selection processes (Girard & Fallery, 2010) to enable organizations to operate as office-less firms (Lai & Burchell, 2008)to support staff appraisals by operating as an online appraisal system which leads to significant increase in the levels of ratters accountability and employee participation in appraisals (Payne et al., 2009). It was also reported to contribute to the retention of workers, particularly by enabling organizations to align activities of their personnel with their individual preferences and skills (Beulen, 2009); used for information sharing and employee learning (Chae, Prince, Katz, & Kabst, 2011), and reported to have the potential to enable the HR feature to satisfy the changing business requirements of organizations faced with a dynamic business environment (H. Zafar, 2013; J. Zafar, Shaukat, & Mat, 2010).

1.20: The Effect of E-HRM on HR Research

Associated with the assumption that E-HRM implementation would contribute to the transition to managers and employees of unique HRM tasks (C. A. Martin, 2005; Tansley et al., 2001), it has been observed to have affected the HR architecture by affecting the responsibilities of different HR stakeholders performing HRM activities (Oiry, 2009). And it has led to a radical transformation of HR processes and capabilities, since new efficiency are required for HR

professionals to apply the technologies and operate administratively, relationally and strategically (Reddington et al., 2011). In combination with this, H. Ruël et al., (2004)state that e-HRM is a driving in transforming HRM from a centralized approach to a market approach within an enterprise. While, Alleyne et al. (2007) add that using e-HRM to sustain Line managers has positively impacted their role, because e-HRM has helped to improve communications between managers and their teams; improve the way they carry out their HR activities through well-designed intranet communication systems; improve the employee data gathering system; increases HR knowledge used for the consistency of strategic decision-making; and it provides managers' self-service which has been a welcome replacement for cumbersome paper-based administrative systems. In investigating customers' perception of the HR function; Alleyne et al. (2007) could reveal that the HR intranet applications to conduct HR functions influences the perceived satisfaction of the HR function by its service users. Ngai & Wat (2006) who investigated the perceptions of the internet's value to HR professionals in Hong Kong found the most likely reason for implementing E-HRM to be related to helping managers to stay informed and dynamic. Besides this, Bondarouk & Ruël (2009b) helps us to understand that HR practitioners and Line managers varying views of HRM technologies makes them to use it differently and come out of the box. Since the expectations, perceptions, and understanding of HRM laws and policies, and the consequent application of HRM innovations by HR professionals' will be based on the strategic significance of the HRM laws and policies. Whereas, Line managers who see people management tasks as extra work, may not to apply HRM innovations correctly and positively, because of their perceptions towards HRM laws and policies. This led Bondarouk & Ruël (2009b) to state that how HRM policies and practices work in reality is not predetermined, rather HR Min-practice will be affected by the intended actors'

expectations, opinions, and understanding of the HRM laws and policies, which draws largely on their HRM frame of reference.

Halim & Ha (2010) reveal that almost all the firms continue to outsource their recruiting and training processes, and find that outsourcing enables businesses to enhance competence, enhance the quality of HR services, and provide a competitive advantage. Sheehan & Cooper, (2011) find the relationship between 'HRM outsourcing' and 'perceived financial performance' to be 'positive for smaller companies' and 'negative for larger companies', while, the positive relationship between 'HR engagement' and 'organizational productivity' was shown to be improved 'when HRM operations were held in-house', rather than 'when they were relocated' because of flexibility in nature. While, Veenendaal & Bondarouk (2015) identified 'HRM strength' (i.e. 'HRM distinctiveness' and 'HRM consistency') to be the main antecedent of HRM service quality'.

1.21: E-HRM's impact on HRM effectiveness research

H. J. Ruël et al. (2007) assume that the E-HRM affects the efficacy of HRM (i.e. HRM's contribution to an organization's performance), as their study reveals that E-HRM impacts the 'technical' and 'strategic' quality of HRM. Dickson & Nusair (2010) helps to support the notion that E-HRM will boost the HR function's productivity and efficiency. Because factories are built by men but not by God that is they not only works on the efficiency but also adds value. While, Bondarouk & Ruël (2009b) study suggests that for e-HRM to affect or influence HR's effectiveness the perception of the different user groups need to be considered during the design stage. Besides this, Parry & Tyson (2011) illustrates that E-HRM's quality, procurement, standardization objectives are commonly achieved in organizations, as well as,

some transformational effect on the HR process. But on the other side, the use of E-HRM for HR outsourcing as an opportunity for the HR process, as well as a threat, since the use of E-HRM is usually associated with HR headcount reduction. Dery & Wailes (2005) investigated the association between 'E-HRM' and 'HR becoming more strategic' and initiate E-HRM to be necessary for HR to operate a more deliberate responsibility, but not sufficient to make this a reality. This led them to conclude that e-HRM is simply an enabler for that change to take place, but not sufficient for it to take place. To become more strategic, Dery & Wailes (2005)suggest that HR needed to be clever to use information from their E-HRM function to initiate as well as support strategic decisions, designed to position their organization to gain competitive advantage. Ruta (2005) supports this, by demonstrating that e-HRM can be a strategic resource which can enable HR executives to undertake their position in a more efficient manner, through easier contact to a significant amount of information and expertise, and through incorporation, functionality and communication qualities. Finally, our economy has been witnessing an upswing record of impressive growth in all sectors. Graeme Martin & Reddington (2010) add that 'E-HRM outcomes' are dependent on the E-HRM architecture an organization adopts and uses to deliver its HR services. They, however, point out that some 'e-HRM outcomes' can be perceived as intended and others as unintended. Since undesired and unintended outcomes may also occur alongside the desired and intended outcomes. The authors ended by arguing that the issue of unintended outcomes may result from 'poor management of transition' and 'Acceptance of technology by device users'. Parry (2011) helps to provide evidence that E-HRM makes it possible for the HR role to become more strategic by serving as a way of redistributing HR professionals from transactional work to more strategic and value adding tasks in organizations. While, H. Ruël & Van der Kaap, (2012) provides some evidence which suggests that the

correlation between 'E-HRM usage' and 'HRM value creation' does exist. It finds that 'e-HRM usage' is positively linked to 'HRM value creation' (i.e. 'HR's effectiveness', 'efficiency' and 'service quality') in accordance with all its primary purpose. Wahyudi & Park (2014) also consider that 'E-HRM usage' is a reliable predictor of 'perceived HR service quality', but not yet a predictor of 'creating a strategic role for HR feature'. This is where e-HRM comes into the picture. Bondarouk & Ruël (2013) study could not convincingly provide evidence for e-HRM's relationship to 'creating strategic value for HR', as they found that the promised strategic e-HRM outcomes studied could not be convincingly realized. Nonetheless, Bondarouk and Ruel's study reinforces Dery & Wailes (2005) findings, as it similarly argues that e-HRM may be necessary but not enough to build 'dynamic' and 'operational' skills for the HR role. Which led Bondarouk and Ruel to conclude that the discussion on E-HRM and its strategic importance has yet to achieve a meaningful conclusion, and finalized their work by asking the question: "does e-HRM create strategic value and if so how?" Strohmeier & Kabst (2014) explored E-HRM's 'forms', 'context' and 'consequences' to gain a broader appreciation of the causes, styles and failures of the various E-HRM models. The study identified three forms of e-HRM users (with respect to organizations), which include: the 'non-user' (organizations that do not employ e-functions), the 'operational users'(organizations that employ e-functions for operational e-HRM), and the 'power users'(organizations use E-HRM tools 'Operational', 'Relational' and 'Transformational'). The study could demonstrate that the type of e-HRM in use is linked to company and HRM's 'organizational context', the 'organizational size', and the 'strategic orientation.' 'Non-users' were revealed to be organizations with a small number of employees, while, the 'power users' were large organizations with a huge no of staff and a strategic orientation in business and HRM. Additionally, the 'power users' of E-HRM configuration was

observed to exceed success contributions of other E-HRM configurations. Regarding how e-HRM relates to HR's strategic orientation, the study adds to Dery & Wailes (2005)findings, as it finds 'Transformational' E-HRM is a significant facilitator instead of the ensuing strategic HRM catalyst. A more recent study, Marler & Parry (2016) found that both explicitly and reciprocally relate to strategic HR engagement and greater E-HRM efficiency. Overall, multiple studies indicate that E-HRM may help to make HR more efficient, whereas, others were not able to provide evidence to support this. However, studies indicating that E-HRM can build strategic significance have not been able to put forward a unifying understanding of how this takes place. As such, it remains unclear if E-HRM can build strategic interest, and if it can, the question is: how can this are achieved? Have examined the status of e-HRM value creation research, this section sets out a critical examination of the theories, the variables, and the previous research findings provide a chronological description of the review and offers a comprehensive picture about the people in the organization. This section therefore, provides the details of how the issues or gaps in this area of e-HRM research were identified.

Research on E-HRM value creation was largely based on Resource-based view (RBV) (Wernerfelt, 1984); followed by the Dynamic capabilities theory (DCT) (Teece, Pisano, & Shuen, 1997); the Contingency perception(Lawrence & Lorsh, 1967). This is not surprising because these theories are Business strategy/Strategic Management theories commonly used to provide explanations as to how 'HR policies and practices' relate to 'organizational performance' in HRM and performance studies and RBV is the dominant research paradigm used to provide explanations as to how 'IT' relates to 'organizational performance' in IT business value research (Liang, You, & Liu, 2010; Pérez-Aróstegui & Martínez-López, 2014).

Using these theories to clarify how 'E-HRM' relates to 'organizational performance' in e-HRM value creation research is expected, because IT and HRM processes and procedures are integrated in E-HRM (Bondarouk, 2011; Bondarouk, Ruël, & Kees Looise, 2011) and e-HRM value creation research is particularly about providing knowledge on how E-HRM will allow HR to become a value-added component of the Business Strategy (i.e. a strategic partner) that contributes to facilitating business success (organizational profitability) and also revolutionized the ways of managing people, cash, operations and marketing have given place for newer methods and practices and thus conceived e-HRM as retention strategies.

1.22: Gap Analysis

With the advancement in the field of IT, the effectiveness of an organization has moved one step forward and has taken up the adaptation of technology by an organization to improve its effectiveness rather than only taking into consideration the employee's effectiveness to perform work while uplifting the organization.

From the literature review it has been observed that not only developed countries, developing countries also rapidly adopting technology and gaining competitive advantage from the use of technology in the organizations. The literature also indicates the E-HRM's understanding and use benefits.

The study also exposed that research gap exist in evaluating the impact of e-HRM on transactional functions of HRM in general; and its special reference to its impact in FMCG organization in exacting. Several studies exist on numerous frontages but the effect of E-HRM on HRM's transactional roles on FMCG organizations of India has not been established. The survey also exposed that the efficiency and utilization benefits E-HRM in West Bengal, India.

1.23: Conclusion

The literature review on the subject specifies that the use of E-HRM plays an effective role in the success of the company. Nevertheless, the introduction and acceptance of E-HRM was affected by several factors. A widespread literature review indicates, paradigm shift, competitive advantage in the era liberalization, privatization and globalization (LPG), technological advancement, transactional time reduction, towards true strategic partnership of human resource department in the organization, HR driver's improvement, functions of HR, and technology utilization. The competitive advantage can only be taken in the enterprise with the aid of technical use. To accomplish the objectives trained human resources are required who accept the technology as confront and contend it with full interest. Consequently, the principal responsibility comes on HR executives to handle the paradigm shift sophistically. E-HRM implementation and benefit from it in transactional functions only possible if the end-users are be satisfied. Hence, a study is needed to examine the effect of E-HRM on transactional functions of HRM. This study therefore begins with the goal of filling the research gap, which is mainly concerned with the effect of E-HRM on HRM's transactional functions in general; and its particular relation to its influence in West Bengal's FMCG Company.

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