



### The 9<sup>th</sup> International Science, Social Science, Engineering and Energy Conference's e-Proceeding

## Information Technology in Human Resource Management for Small and Medium-sized Enterprises

Laksamee Thungwha<sup>1</sup>, Pranee Kongthanasamut<sup>2</sup>, Krod Songmuang<sup>3</sup> and Chanapai tanaram<sup>4</sup>

<sup>1,2,3</sup> Lecturer in Management, Faculty of Business Administration, Kasembundit University,

e-mail: [laksamee.thu@kbu.ac.th](mailto:laksamee.thu@kbu.ac.th), [Pranee.Kon@kbu.ac.th](mailto:Pranee.Kon@kbu.ac.th), [Krod.son@kbu.ac.th](mailto:Krod.son@kbu.ac.th)

<sup>4</sup>Disciplinary Research Center of Science, Faculty of Science and Technology, Kasembundit University, e-mail: [chanapai.tan@kbu.ac.th](mailto:chanapai.tan@kbu.ac.th)

### ABSTRACT

The objective of this research was to study the of Information technology (IT) in Human Resource Management (HRM) for Small and Medium-sized Enterprises (SME) and to suggest to the implementation Information technology in Human Resource for SME. Technology is primed for disrupting talent management and productivity, but improves the efficiency of the initial analysis that humans can do. The future of any human resource team is being connected to technological development and challenging, and it offers rooms for innovators inside and outside the industry to adapt new developments to create and redesign the workplace and employee experience. In this research, we endeavor to find the followings: IT in HRM for SME component of Human Resource Information Systems (HRIS), Electronic Human Resource Management (e-HRM) and Cloud Computing.

**Keywords:** *Information Technology, Human Resource Management, Small and Medium Enterprise*

### 1. Introduction

Human Resource Management is a process of making the efficient and effective use of human resources so that the set goals are achieved. Human Resource Management is “concerned with the people dimension in management. Since every organization is made up of people, acquiring their services, developing their skills, motivating them to high levels of performance and ensuring that they continue to maintain their commitment to the organization are essential for achieving organizational objectives. (Decenzo David A. &

Stephen Robbins,1994) Essentially, the Human Resource Management (HRM) is a management function that deals with recruiting, selecting, training and developing human resource in an organization. Human resource management functions play a major role in enhancing organizational performance. (Rebecca Mitchell, Shatha Obeidat, and Mark Bray (2013). Technology and HRM have a broad range of influences upon each other, because Technology has changed the business world many times over. In the Information Age, the appearance of computers and the Internet has increased that impact significantly. The impacts of IT is that it enables the creation of an IT- based workplace. Before the Internet, HR recruiters had to rely on print publications, such as newspapers, to post jobs and get prospects for open positions but in the present technology has made recruiting more efficient. Training Information technology makes it possible for human resources professionals to train new staff. Training in virtual classrooms makes it possible for the HR professionals to train a large number of employees quickly and to assess their progress through computerized testing programs. The substantial benefits of communication and information technologies use HR applications. Managing the human resource functions has not ignored such advice and, as a result, a widespread use of human resource information systems (HRIS) has taken place. Human resource management function also emerged as a dominant organizational function, which has a significant effect on organizational functions and performance [Zheng, 2009].

The problem of Human resource Management in SME is concern about system not clear a matter of employee recruitment and selection, training, salary management or compensation. The development of employees this problem occurs with the enterprise, mostly small is no policy or that will be invested to develop employees. Information and Communication Technology) has become a significant deficiency, which is impossible to do business. Especially with SME relies on communication technology as a mechanism to create a growing business.

Human Resource Information System (HRIS) is one of the major modern HR tools and implementation affects HR personnel job satisfaction and turnover intention. HRIS implementations influence the occupational identity of HR personnel. (Christian Maier Sven Laumer and Andreas Eckhardt, 2013). Technology has helped modify many HR processes, including human resource planning, recruitment, selection, performance management, workflow, and compensation.

SME (Small-Medium Enterprise) sector has been playing a significant role in strengthening country's economic progress. Managing talent in SMEs is another big challenge facing HR. Such as recruitment: recruiting the 'right' talent has emerged as one of the top challenges that HR has to face in their daily operations. Training and Development: for SMEs, relying on external vendors, is not always feasible mainly owing to budget constraints. Performance Appraisals: Performance appraisals are often not very structured or documented in SMEs mainly because of other structures like competency framework. Retention: In SMEs, retaining employees at the junior level is a challenge. HR needs to mainly focus on keeping employees engaged. Unclear role definitions, lack of career path or any perceived unfairness in the system can trigger thoughts of attrition among these employees.

### **Purposes of the study**

The purpose of this study was to

1. To study what are the information Technology and the process of creating sustainable development.
2. To suggest implementation Information Technology in Human Resource for SME

### **2. Review of Literature**

Enterprise systems consist of numerous integrated applications including manufacturing, logistics, distribution, accounting, marketing, finance, human resources, and others. In this paper, we propose to use e-HRM and HRIS technologies based on cloud computing to share computing resources and support advanced features such as on demand payments in human resource management (HRM).

Electronic Human Resource Management (e-HRM) is a reality today in many organizations, profit and non-profit, and is expected to create value for them. Understanding e-HRM as a concept that uses information technology for both networking and supporting different actors in their shared performing of HR tasks (Strohmeier,2007) allows us to classify ERM as one appropriate way of implementing e-HRM. In organization, managing human resources electronically become visible. It is obvious that HRM should react to such changes and align its strategies and activities , and search for adequate ways to recruit,

develop, compensate, etc. such “digital employees” and moreover to integrate them with previous generations of employees.

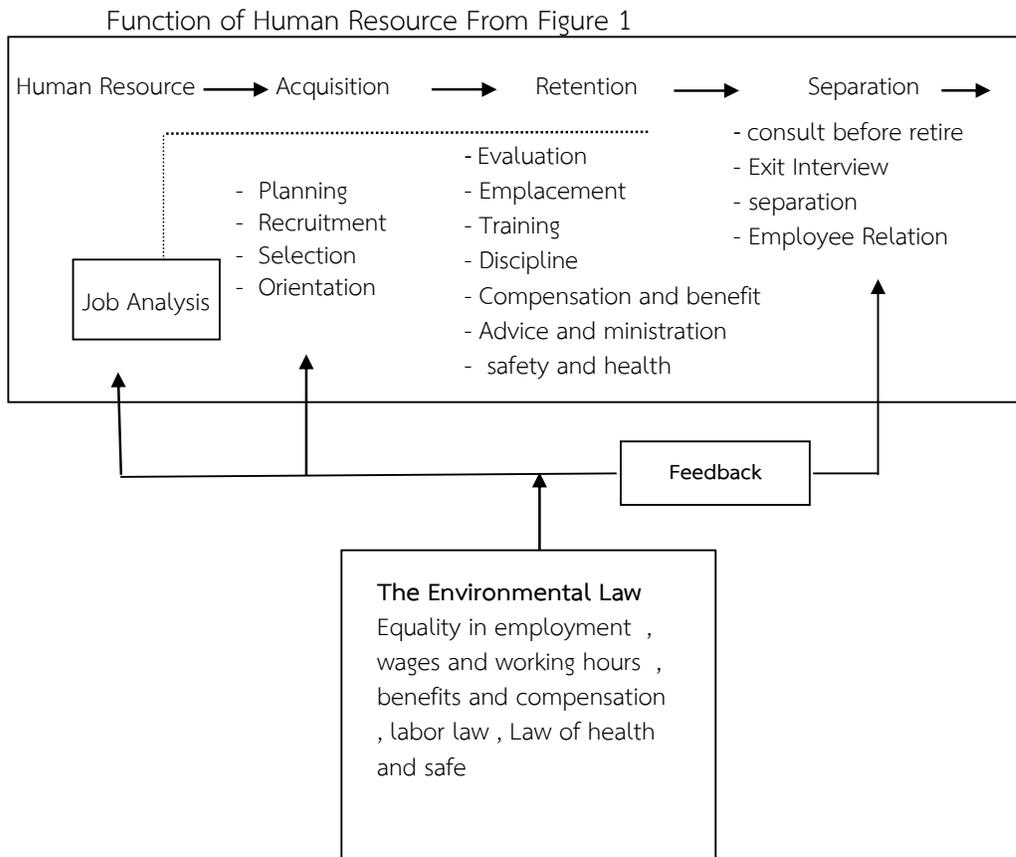
Value creation is a central concept in the management and organization literature (Lepak et al., 2007), but relatively new technology-driven phenomena such as e-HRM raise questions regarding value creation (Currie & Parikh, 2006) most importantly whether e-HRM creates value and how value created by e-HRM can be measured. Discuss a variety of aspects of HRM in this new digital age and therefore enhance the field by strengthening our knowledge on the factors affecting the use and outcomes of e-HRM and e-recruitment as well as considering the nature of the digital native workforce.

A Standard HRIS has the following applications and utilities

- People administration.
- Payroll.
- Compensation and benefit.
- Leave and absence.
- Performance evaluation.
- Recruitment.
- Personal self-service.
- Training & development

HRIS is essential for any good organization to ensure effective people management and to get a competitive edge in the corporate world

HRM concern the basis HR activities in the administrative area. One could think of personnel data administration and salary administration (payroll) Second area , relational HRM ,concern business process such as recruitment and the selection , training , performance management , appraisal , and rewards. Transformational HRM concern HRM activities with a strategic character.



**Figure 1** : Process and Activity of Human Resource Management

Apply from : Rakich, Longest, and Darr ,(1996) : Mondy ,(2015)

### 3. Conclusions

Summarizing theories on information technology component of Human Resource information system (HRIS), and electronic Human resource (e-HRM) base on cloud computing, the following conclusion is made.

1. e-HRM is, in essence, the devolution of HR functions to management and employees.
2. Cloud computing-based systems allow SMEs storing, accessing, and utilizing abundant data over clouds to improve the efficiencies of enterprise systems, reduce operational costs, and eventually achieve sustainability of manufacturing systems, Services system

This paper is an attempt to understand of how small and medium-sized enterprises to manage their employees. Technological capability in the preparation of the information systems, human resource management is not difficult and it can not keep up but the ability to present information to the system as a top priority. It refers to the value of existing information that is worth much. Information may reduce costs of the SME. Sometimes these things are worth more than the monetary calculation, we can bring in various fields were analyzed together. So you can see that the information to be considered the ultimate decision of the Human Resource Management. Due to a recent analysis, synthesis, and screening of links based on data obtained from all levels of the organization in line with business objectives to senior management.

From the literature review, it was found that the SME can be used IT for selecting information helpful. Whether it is in planning, recruitment, development, maintenance, management, labor relations, and decisions, strategies, and at the same time, information can be used by all, anytime with internet access.

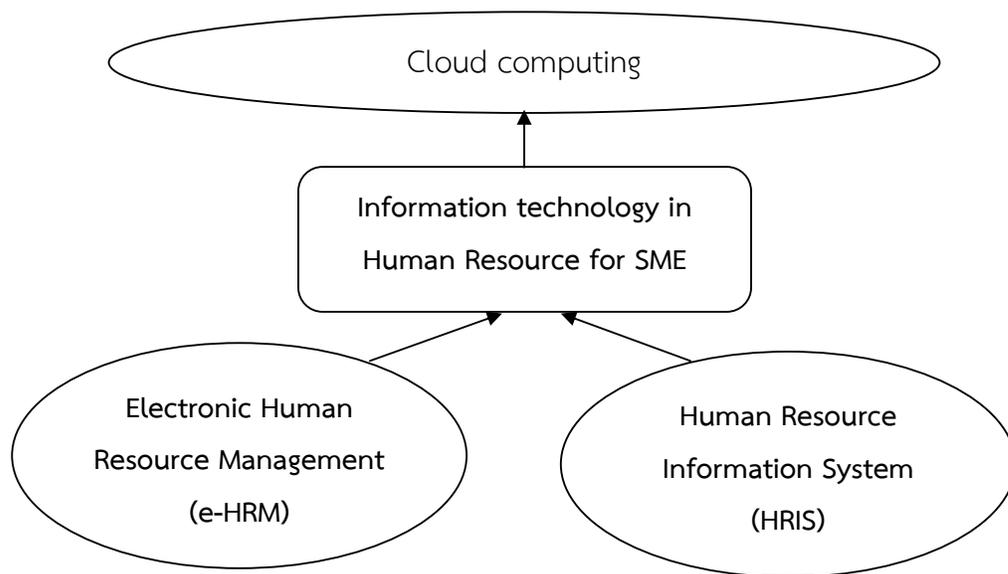


Figure 2 : Model of Information technology in Human Resource for SME

Information technology in Human resource for SME is concerned with Human resource information system that helps to access information quickly and timely .The data of information system assists in the planning and target in operation, because of the information is collected and managed systematically. e-HRM is, in essence, the devolution of HR functions to management and employees.e-HRM helps cost effective human resource agility , reduce cost , flexibility, safety and easy to use.

## References

- Aguinis, H. and Lawal, S.O. (2013). eLancing: a review and research agenda for bridging the science-practice gap. *Human Resource Management Review*, 23(1), 6-17.
- Bi ZM, Liu Y, Baumgartner B, Culver E, Sorokin N, Peters A, Cox B, Hunnicutt J, Yurek J, O'Shaughnessey S.(2015).*Reusing industrial robots to achieve sustainability in small and medium-sized enterprises (SMEs)*. *Int J Ind Robot* 42(3), 264–273.
- Bondarouk, T.V. and Ruël, H.J.M. (2009). Electronic human resource management: challenges in the digital era. *International Journal of Human Resource Management*, 20(3), 505-514.
- Christian Maier Sven Laumer and Andreas Eckhardt.(2014).The transformation of people, processes, and IT in e-recruiting Insights from an eight-year case study of a German media corporation.*Employee Relations*, 36(4), 415-431.
- Wendy L. Currie & Mihir A. Parikh.(2006). Value creation in web services: An integrative model. *Journal of Strategic Information Systems* ,15,153-174.
- Decenzo David A. & Stephen Robbins P.,(1994) *Human Resources Management*, John Wiley & Soans Inc.New York.
- Huub Ruël, Harry van der Kaap.(2012). E-HRM Usage and Value Creation. Does a Facilitating Context Matter. *German Journal of Research in Human Resource Management*, 26(3), 260-281.
- Kimia Ghaffari, Mohammad Soltani Delgosha and Neda Abdolvand Alzahra University, Tehran, Iran.(2014).*TOWARDS CLOUD COMPUTING: A SWOT ANALYSIS ON ITS ADOPTION IN SMES*. *International Journal of Information Technology Convergence and Services (IJITCS)*4(2),April 2014, 13-20.
- Parry, E. and Tyson, S. (2011), “Desired goals and actual outcomes of e-HRM”, *Human Resource Management Journal*, 21(3), 335-354.

- Rita Bissola & [Barbara Imperatori](#).(2013). *Facing e-HRM: the consequences on employee attitude towards the organisation and the HR department in Italian SMEs: [European Journal of International Management](#).7(4).*
- Rebecca Mitchell , Shatha Obeidat ,and Mark Bray (2013). Role of Human Resource Management Functions On Organizational Performance with reference to Kenya Power & Lighting Company – Nairobi West Region. *International Journal of Academic Research in Business and Social Sciences* April 2015, 5(4), 432-448.
- Rebecca Mitchell , Shatha Obeidat , Mark Bray.(2013).The Effect of Strategic Human Resource Management on Organizational Performance: The Mediating Role of High Performance Human Resource Practices.
- R. Wayne Dean Mondy.(2014). *Human Resource Management, 13th Edition* : Pearson.
- Stefan Strohmeier.(2013). Employee relationship management - Realizing competitive advantage through information technology. *Human Resource Management Review* 23, 93–104.
- Strohmeier.(2007).HRM in the digital age – digital changes and challenges of the HR profession. *Employee Relations*, 36(4) Suchon Tiptipakorn Jirawan Kongklay and Chalermchai Kittisakwin.(2018). Valaya Alongkorn Rajabhat University under the Royal Patronage. Vol.11,251-260
- Xiu Li Wang & Li Wang & Zhuming Bi & Yang Yang Li & Yingcheng Xu (2016). Cloud computing in human resource management (HRM) system for small and medium enterprises (SMEs). *The international Journal of advance manufacturing Technology* April 2016 , 84, 385 - 496.