A Review on the Effect of Employee Satisfaction on Human Resource Management Productivity and Cost Efficiency

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Abstract: Human resource is the key element in every organization. It signifies total attitude, knowledge, creative ability, talent, aptitude and belief of an individual involved in the affairs of an organization. Management of human resources is an essential part for every concern. The aim of this study is to review previous studies on effect of employee satisfaction on organization productivity and cost efficiency. Moreover methods and methodologies which are the most useful to examine relationships between variables in this study have been recommended for future works.

1. Introduction

Human resources are the key elements in every organization. It signifies total attitude, knowledge, creative ability, talent, aptitude and belief of an individual involved in the affairs of an organization. Management of human resources is an essential part for every concern. It is associated with the people at work and their relationships within and outside the enterprise (Dhamija, 2012). People are the key asset that is capable of growth and development. Though a company does not have absolute power over this asset, they can make use of certain tools and techniques to exert some vital influence over the way they perform towards achieving the mission of organization (Saari and Judge, 2004).

Recently, the field of human resources management has gone through numerous technological advancements. Electronic human resource management (e-HRM) is another face of human resource (HR) by over the past few years. This new face of human resource has been occurring based on internet and intranet technology. Undoubtedly, human resource functions become easier with the use of this new kind of human resource technology (HR) (Hooi, 2006) This study has two main objectives: 1. To review the effect of employee satisfaction on productivity. 2. To review the effect of employee satisfaction on cost efficiency.

Due to the best of author knowledge this study was the first research which investigates the wide range of e-activities on employee satisfaction leading HRM performances. Previous studies focused mostly on one or two items, but this study can cover the existing gap in literature to cover wide range of analyses all at once. This research also could provide a foundation for future research in this topic.Ribiere and Sitar (2003) observed a link between HRM productivity and the success of the firms by stating that business enterprises or any other institutions can only succeed by making human resources productive. Therefore, "to make work productive" is the essential task for the HRM practitioners (Breaugh, 2008).

Mestre *et al.* (1997) reported a national survey on the top concerns of HRM executives regarding HR work; the most important concerns identified were productivity, quality and service. Further, to HRM executives, "to improve productivity" has also become more critical and urgent when global competition has intensified along with the technology breakthroughs.

Mestre *et al.* (1997) further defines productivity as 'the amount of output per employee", while Werner *et al.* (2005) defines productivity as "a measure of how much value individual employees add to the goods or services that the organization produces", and label it as "the greatest organizational challenge for HRM managers"; the greater the output per individual, the higher the organizational productivity is. Especially in the "knowledge-based economy" we are living in, productivity is the primary key to organizational success because it is "a key indicator of an organization's economic health" (Cotton and Tuttle, 1986). Productivity is also related to the concept of efficiency.

Cotton and Tuttle (1986) stated that by making HRM itself more productive first, HRM will drive organization towards a more productive direction. According to Sunny Steadman, a recruiter for Management Recruiters of Boston, the primary reason people change jobs is to seek out new challenges and opportunities for development (Rosenwald, 2000). Companies can utilize the career planning process to become more adept in this area. Sears has found that supporting employees through career planning and development has made their work force more motivated and invested in the company meeting its business goals (O'Herron and Simonsen, 1995).

Cost-effectiveness is typically expressed as an incremental cost-effectiveness ratio (ICER), the ratio of change in costs to the change in effects. The cost-effectiveness of HRM's functional tasks getting done concerns the effect of breaking even, speed, cost savings, efficiency increases, and user satisfaction. The cost-saving effect has always been the strongest argument regarding HRM's use of IT. Numerous scholars and researchers report the HRM-generated cost goes down by completion of jobs sped up, time saved, headcounts cut, resources like paper and electricity saved. Mithas (2004) notes in a survey that companies that run world-class human resources operations spends around $1,390 on HR per employee on average versus the $1,892 of non-world-class companies; this means that world-class companies get to cut 27% spending on HR per employee when their spending on IT per employee is about the same as those with more humdrum operations. Mithas (2004) concludes that "a more proficient IT use lets these world-class companies operate with 35% fewer HR employees, while still providing improved productivity and strategic alignment across the enterprise".

2. Literature review

There are roughly eleven periods, up till now, in the development of Human Resources Management history. It began in 1800 when one-on-one vocational training provided only by large organization with abundant resources like Catholic churches, military and government. World War I made "personnel management" a helpful specialized function to organizations, while US government started taking an active role in supervising the HRM field at the post-war era. World War II changed the structure of American workforce; meanwhile, companies with resources and computer technology, like GE, pioneered the automation of the complicated and cumbersome payroll process. When environmental turbulences like foreign competition faced by the automobile industry began to surface in 1960s, HR became part of the management team. In 1970s, HRM

was officially recognized by the United States Department of Labour as a bona-fide profession; since then, HR has continued to transform to a strategic partner role, while IT has continued to play an increasingly important role in helping HRM practitioners doing their job. Currently, e-HR system, an intranet-based and self-service portal, is widely implemented among organizations.

Yet, with environmental turbulence changing constantly and drastically, impacting all aspects of business and workplace, it does not seem to be easy to predict the future of HRM. Scholars like Coughlan (2005) who holds an optimistic view predicts that, ultimately, IT will evolve into a more advanced level of "human capital management" (HCM) technologies when interacting with the HRM. In a HCM-environment, it is, within the company, everyone's responsibility to deliver the workforce support and management based on the needs of the business, and the majority of the company value will come from intangible assets like knowledge. This shift will eventually add enormous value to the total company value by having the HRM professionals go from "increasing efficiency and control", to "enabling insight", and finally to "creating strategic value" for the organizations.

Same rule applies to the performances of HRM: HRM practice can only earn managing power of a more significant level by proving it with quantifiable results delivered. Yet, it was not until 1984 that the American Society for Personnel Administration (the predecessor to Society for Human Resources Management), started developing the "professional standards along the line of generally accepted accounting principles" to measure the performances of HRM. It is widely accepted that there should be two essential dimensions of the HRM performances: the technical HRM which includes the delivery of HRM basics, and the strategic HRM which involves delivering those services to directly support the organizational performances.

Human Resource is the most important asset for any organization and it is the source of achieving competitive advantage. Managing human resources is very challenging as compared to managing technology or capital and for its effective management; organization requires effective HRM system (Tiwari and Saxena, 2012). Human Source Control (HRM) is the incorporated use by organizing of systems, guidelines and management methods to select and recruit, to develop talents and retain employees and to be ensure that the resources are applied towards the fulfilment of the objectives of the firms (Saxena and Tiwari, 2009). Therefore HRM performs a key role in ensuring employee satisfaction, improving performance and efficiency. This can

further be a company's competitive advantage, and directly promote the company's success (Cox and Blake, 1991).

Now it is considered that human resource management act as a strategic asset to the company Kazlauskaite and Buciuniene (2010) hence HRM is not just an issue for an organization's HRM department or for HR professionals. It is also the responsibility of leaders and managers, who exercise HR functions with their staff every day. HRM by providing skills and tools for managers enhance their own performance and also improve the performance of their employees. By using these tools and working closely with HR professionals, managers can help build their employees' capabilities and strengthen employee commitment to the organization. This in turn will enhance and improve individual and organizational performance, and further the organization's ability to meet its goals according to performance objectives and standards (Bell *et al.*, 2006).

The strategic processes include continuous progressions which are named irrespectively in the following: strategy formulation, strategy implementation, and the evaluation of strategy consequences. This process will occur again, if the outcomes do not achieve the goals (Marler *et al.*, 2009). Doing e-HRM is most related to HRM strategies implementation, policies and practices. By implementing particular e-HRM direction, achievements of specific goals are expected such as client satisfaction, decreasing cost, increasing efficiency and HR's strategic improvement.

As an effect of e-HRM, cost reduction and lessening the administrative tasks are in most studies mentioned, but we have to consider the extra time that is needed by employees and middle-managers to do their own administrative tasks. Most important e-HRM effect is the company strategy, culture and structure revising which leads to decentralization and standardization of HR process. For example, e-HRM brings changes for the employees and line managers. They get the opportunity to take part in the on-line discussions or to become up-dated in the organizational developments (Bondarouk and Ruël, 2009). On the one hand, as it was mentioned earlier, there is more time for strategic activities by releasing of administrative burdens.

On the other hand, according to Halbesleben and Buckley (2004), an investment in technology leads to downsizing staff and reducing employee turnover. There is a study which indicates the considerable relationship between HR practices and HRM outcomes, such as motivation, turnover, commitment, absenteeism and specially satisfaction. Also, it is substantiated the relationship between these outcomes

and general performance outcomes at the organizational level, like customer satisfaction, quality, and productivity (Savaneviciene and Stankeviciute, 2010).

Shilpa and Gopal (2011) illustrate the 10 important drivers to introduce e-HRM systems in companies. HR cost saving and control for both manufacturing and service company introduce as a top most driver for implementing e-HRM systems to companies. For both group (manufacturing and service company), reducing time on routine administrative tasks and paper transactions by HR staff are common drivers (Shilpa and Gopal, 2011).

Later in 2007, a study with innovative research methodology had conducted to explore the connection between supposed organizational performances and human resource management as an important source for creating firms' competitive advantages in both private and public European Union. Three HRM models become known, while there is no significant different in these two sectors. Some practices such as training and development have a strong correlation between the performances in these three models, while communication is only related to two models. The findings indicate the valuable influences of the new innovative techniques in the research with traditional methodology. Hence, universal connection between superior business performance and superior HRM is defined (Stavrou *et al.*, 2007).

Stavrou *et al.* (2007) conducted a study within Philips (Electronics). They distributed the questionnaires online between 257 employees and 99 managers. Employees and managers replied questions based on their experience. Ulrich's model based on HR roles and Davis' technology acceptance models are two theories, which model of research was explained according to them. They defined a research project on the way towards (e-HRM). Multi-functional framework was suggested in this research that enable organizations to understand and solve the difficulties of e-HRM adoption, like attitude is concerned towards these systems.

According to pervious related human resource management and strategy researches, the connection between human resource management, firm's strategy and performances were explored By Buller and McEvoy (2012). Firstly, the human resource role in creating firms' competitive advantages was exemplified based on relevant literature review. Their multi-level model showed the effects of human resource management on the organizational and individual factors on organization's strategy. The HR services within organizations have been transformed by Human resource information analytics and systems. There are limited researches which are related to the selection, application, managerial and it

is due to complexity of HR and its different rules. Therefore, the study was conducted in 2012 in order to provide a framework that describes the decision characteristics, data need, and HR metrics to decision making, and different levels of HR activity. A number of research propositions and model implications were provided (Stone and Dulebohn, 2013).

Performances include two variables, namely productivity and cost efficiency. As an effect of e-HRM, cost reduction and lessening the administrative tasks are in most studies mentioned, but we have to consider the extra time that is needed by employees and middle-managers to do their own administrative tasks. Most important e-HRM effect is the company strategy, culture and structure revising which leads to decentralization and standardization of HR process. For example, e-HRM brings changes for the employees and line managers. They get the opportunity to take part in the on-line discussions or to become up-dated in the organizational developments (Jackson and Parry, 2011; Ruël et al., 2004). On the one hand, as it was mentioned earlier in the literature, there is more time for strategic activities by releasing of administrative burdens.

On the other hand, according to Treadway et al. (2004), an investment in technology leads to downsizing staff and reducing employee turnover. There is a study which indicates the considerable relationship between HR practices and HRM outcomes, such as motivation, turnover, commitment, absenteeism and specially satisfaction. Also, it is substantiated the relationship between these outcomes and general performance outcomes at the organizational level, like customer satisfaction, quality, and productivity (Savaneviciene and Stankeviciute, 2010).

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Ruel et al. (2007) mentioned four possibilities which enable both HRM and e-HRM activities to attain their overall goals. Firstly, high commitment means workforce is motivated enough to interact with the manager about the changes that occur in the organizational environment. Secondly, High competence indicates the trustful relationship between workforce and management. Thirdly, "employees' turnover rate" and pay level competiveness are referred to cost effectiveness. Lastly, higher congruence is related to the internal organization, the

reward system and the "input, throughput and output" of personnel. These factors should be organized based on stakeholders' interest. Depending upon the way, outcomes will to some extend emerge if both individual and parties want to be affected by e-HRM, in line with the defined goals. The literature on e-HRM illustrate that the three important goals of e-HRM are improving HR services, cost reduction, and improving strategic orientation (Kassim et al., 2012; Ruel et al., 2007).

Moreover, four seemingly pressures are mentioned in the following but use of IT may enable the companies to overcome these pressures. Cost managing in HR department is one of this pressures which should be managed in a best way. Firstly, HRM department has to focus on strategic questions. Secondly, flexibility in terms of practices and policy making is necessary for this department. Thirdly, HRM department should be aware of the costs and works as efficient as possible. Finally, being service-oriented towards employee and management is the last important mentioned pressure (Bondarouk and Ruël, 2009).

All large organization are increasingly using electronic human resource systems to deliver manage employee performance, benefits systems, and training (as for development and training, e-learning and online- training make flexible and lower cost learning process as well as increase individual's learning ability) (Gueutal and Stone, 2006). To date, research has suggested that e-enabled systems and processes typically increase the efficiency of HR processes, reduce administrative costs, maximize the utilization of the organization's human capital, and decrease transaction times (Gueutal and Stone, 2006).

Yet, Hom et al. (1992) strongly advises that: because actual cost savings may in part rely on indirect savings and intangible benefits, it may be preferable to base justification on the need for better data, legal compliance, or provision of more information for management's decision making, instead of attempting to justify the e-HR on a 100 percent direct-saving basis.

As the return on investment is foundation of all business activities, Hawking et al. (2004) notes that it has become an article of faith that "HR technology reduces cost". Yet, as with most systems, e-HR systems tend to cost more than originally budgeted due to the unpredictable ongoing cost (Hawking et al., 2004). In addition, integrating multiple disparate systems has become the most common burden for organizations as well. For instance, General Motors consolidated some eighty-five separate websites containing various types of HR information into a single HR portal (Fisher and Howell, 2004).

Other than the above, facing users demanding new systems with more and faster sophisticated features like what Amazon or Yahoo has also put significant financial pressure on organizations. The average payback period for implementing e-HR systems, thus, has grown from twelve months in 2000 to twenty-two months in 2003 to thirty-six months in 2005 (Hawking *et al.*, 2004; Stein and Hawking, 2005). Hawking *et al.* (2004) provides several criteria to consider in terms of ROI and success metrics in measuring the e-HR-related cost-effectiveness, such as: Cost Per Transaction, Cycle Time, Headcount Changes, Return on Investment, Payback Period, Employee Satisfaction, Inquiries to the service Center, and Usage.

3. Proposed Methodology
3.1 Variables and Measures
3.1.1   Dependent Variables
Productivity

This study recommends five items for future studies in order to measure productivity. Scales are from study of Shane (2009). Five point likert scale will be used which measured from 1 = "strongly disagree" to 5 = "strongly agree". Table 1 represents the items for measuring productivity.

Table 1: Statements for measuring productivity

No.	Items	Source
1.	E-HRM tools can be used to improve underlying business processes.	Shane (2009)
2.	E-HRM tools have allowed for higher quality HR services.	
3.	E-HRM tools allow me to work more productively.	
4.	E-HRM tools improve quality of services.	
5.	HR services have been streamlined and standardized using information technology.	

Cost Efficiency

Recommended scales for measuring cost efficiency is from study of Shane (2009). Five point likert scale is recommended which measured from 1 = "strongly disagree" to 5 = "strongly agree". Table 2 represents the recommended items for measuring cost efficiency.

Table 2: Statements for measuring cost efficiency

No.	Items	Source
1.	E-HRM activities reduce cost spent on transactional tasks.	(Shane, 2009)
2.	E-HRM tools allow me to work more cost efficiently.	
3.	The use of e-HRM tools is more cost effective than traditional, manual HR practices.	
4.	More staff members are required when using e-HRM tools.	
5.	The advantages of e-HRM are outweighed by the cost implication.	

3.1.2. Dependent variable
Employee Satisfaction

The scale to measure employee satisfaction is suggested from Shane (2009), and contains 6 items as Table 3 shows. Five point likert scale is recommended which measured from 1 = "strongly disagree" to 5 = "strongly agree". Table 3 represents the items for measuring customer satisfaction.

Table 3: Statements for measuring employee satisfaction

No.	Items	Source
1.	E-HRM tools provide current information that is beneficial to employee related decision making.	Shane (2009)
2.	E-HRM tools are essential to the role of HR practitioners becoming more strategic.	
3.	Fewer errors occur when employee use e-HRM tools.	
4.	HR professionals, with the help of e-HRM tools, can play more of an advisory role to line management.	
5.	E-HRM information and decision-making tools restrict my ability to make decisions.	
6.	The use of e-HRM tools has led to the automation of routine HR work.	

4. Future works

Electronic human resource management has considerable impacts on industries' competiveness or major areas of e-HR use, namely, HR planning; acquiring HR (recruitment) (Girard and Fallery, 2011); HR evaluation (performance appraisal); communication; rewarding HR (performance appraisal, compensation and benefits); and developing HR (training and development, career management) (Hooi, 2006). So future studies are recommended to review effect of electronic human resource management on employee satisfaction.

Reference

1. Bell, B. S., Lee, S. W., and Yeung, S. K. (2006). The impact of e-HR on professional competence in HRM: Implications for the development of HR professionals. *Human Resource Management.* 45(3), 295-308.
2. Bondarouk, T., and Ruël, H. (2009). Electronic Human Resource Management: challenges in the digital era. *The International Journal of Human Resource Management.* 20(3), 505-514.
3. Breaugh, J. A. (2008). Employee recruitment: Current knowledge and important areas for future research. *Human Resource Management Review.* 18(3), 103-118.
4. Buller, P. F., and McEvoy, G. M. (2012). Strategy, human resource management and performance: Sharpening line of sight. *Human resource management review.* 22(1), 43-56.
5. Cotton, J. L., and Tuttle, J. M. (1986). Employee turnover: A meta-analysis and review with implications for research. *Academy of management Review.* 11(1), 55-70.
6. Coughlan, R. (2005). Employee loyalty as adherence to shared moral values. *Journal of Managerial Issues*, 43-57.
7. Cox, T. H., and Blake, S. (1991). Managing cultural diversity: Implications for organizational competitiveness. *The Executive*, 45-56.
8. Dhamija, P. (2012). E-RECRUITMENT: A ROADMAP TOWARDS E-HUMAN RESOURCE MANAGEMENT. *Researchers World: Journal of Arts, Science & Commerce.* 3(2).
9. Fisher, S. L., and Howell, A. W. (2004). Beyond user acceptance: An examination of employee reactions to information technology systems. *Human Resource Management.* 43(2-3), 243-258.
10. Girard, A., and Fallery, B. (2011). e-Recruitment: From transaction-based practices to relationship-based approaches. *Advanced Series in Management.* 8, 143-158.
11. Gueutal, H. G., and Stone, D. L. (2006). *The brave new world of eHR.* John Wiley & Sons.
12. Halbesleben, J. R., and Buckley, M. R. (2004). Burnout in organizational life. *Journal of management.* 30(6), 859-879.
13. Hawking, P., Stein, A., and Foster, S. (2004). e-HR and Employee Self Service: A Case Study of a Victorian Public Sector Organisation. *Issues in Informing Science & Information Technology.* 1.
14. Hom, P. W., Caranikas-Walker, F., Prussia, G. E., and Griffeth, R. W. (1992). A meta-analytical structural equations analysis of a model of employee turnover. *Journal of Applied Psychology.* 77(6), 890.
15. Hooi, L. W. (2006). Implementing e-HRM: the readiness of small and medium sized manufacturing companies in Malaysia. *Asia Pacific Business Review.* 12(4), 465-485.
16. Jackson, B., and Parry, K. (2011). *A very short fairly interesting and reasonably cheap book about studying leadership.* Sage.
17. Kassim, N. M., Ramayah, T., and Kurnia, S. (2012). Antecedents and outcomes of human resource information system (HRIS) use. *International Journal of Productivity and Performance Management.* 61(6), 603-623.
18. Kazlauskaite, R., and Buciuniene, I. (2010). HR function developments in Lithuania. *Baltic Journal of Management.* 5(2), 218-241.
19. Marler, J. H., Fisher, S. L., and Ke, W. (2009). EMPLOYEE SELF-SERVICE TECHNOLOGY ACCEPTANCE: A COMPARISON OF PRE-IMPLEMENTATION AND POST-IMPLEMENTATION RELATIONSHIPS. *Personnel Psychology.* 62(2), 327-358.
20. Mestre, M., Stainer, A., and Stainer, L. (1997). Employee orientation-the Japanese approach. *Employee Relations.* 19(5), 443-456.
21. Mithas, S. (2004). Returns to managerial and technical competencies of IT professionals: An empirical analysis.
22. O'Herron, P., and Simonsen, P. (1995). Career development gets a charge at Sears Credit. *Personnel Journal.* 74(5), 103-106.
23. Ribiere, V. M., and Sitar, A. S. (2003). Critical role of leadership in nurturing a knowledge-supporting culture. *Knowledge Management Research & Practice.* 1(1), 39-48.

24. Rosenwald, M. (2000). Working class: More companies are creating corporate universities to help employees sharpen skills and learn new ones. *Boston Globe H.* 1.

25. Ruël, H., Bondarouk, T., and Looise, J. K. (2004). E-HRM: Innovation or irritation. An explorative empirical study in five large companies on web-based HRM. *Management Revue*, 364-380.

26. Ruel, H. J., Bondarouk, T. V., and Van der Velde, M. (2007). The contribution of e-HRM to HRM effectiveness: Results from a quantitative study in a Dutch Ministry. *Employee Relations.* 29(3), 280-291.

27. Saari, L. M., and Judge, T. A. (2004). Employee attitudes and job satisfaction. *Human resource management.* 43(4), 395-407.

28. Savaneviciene, A., and Stankeviciute, Z. (2010). The Models Exploring the "Black Box" between HRM and Organizational Performance. *Inzinerine Ekonomika-Engineering Economics.* 21(4), 426-434.

29. Saxena, K., and Tiwari, P. (2009). HRD climate in selected public sector banks: an empirical study. *9th Global Conference on Business & Economics, UK.*

30. *Shane, L. (2009). Development and validation of a measure that examines attitudes towards e-HRM practices.*

31. Shilpa, V., and Gopal, R. (2011). THE IMPLICATIONS OF IMPLEMENTING ELECTRONIC-HUMAN RESOURCE MANAGEMENT (E-HRM) SYSTEMS IN COMPANIES. *Journal of Information Systems & Communication.* 2(1).

32. Stavrou, E. T., Charalambous, C., and Spiliotis, S. (2007). Human resource management and performance: A neural network analysis. *European Journal of Operational Research.* 181(1), 453-467.

33. Stein, A., and Hawking, P. (2005). Employee Self-Service HR Portal Case Study: Access, Content, & Application. *in e-Human Resources Management: Managing Knowledge People, Published in the USA and UK by Idea Group Publishing,* 101-121.

34. Stone, D. L., and Dulebohn, J. H. (2013). Emerging issues in theory and research on electronic human resource management (eHRM). *Human Resource Management Review.* 23(1), 1-5.

35. Tiwari, P., and Saxena, K. (2012). Human resource management practices: A comprehensive review. *Shri chimanbhai Patel Institute of management and research Ahmedabad-380051India.*

36. Treadway, D. C., Hochwarter, W. A., Ferris, G. R., Kacmar, C. J., Douglas, C., Ammeter, A. P., et al. (2004). Leader political skill and employee reactions. *The Leadership Quarterly.* 15(4), 493-513.

37. Werner, S., Tosi, H. L., and Gomez-Mejia, L. (2005). Organizational governance and employee pay: How ownership structure affects the firm's compensation strategy. *Strategic Management Journal.* 26(4), 377-384.

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