An Exploratory Study of e HRM Practices in Educational Institutions

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ABSTRACT

The rapid development in information and communication technology (ICT) has resulted in changes in the working patterns and processes in companies. This has led to greater adoption of Internet based working processes and advanced version of electronic technologies for generating fast and efficient outputs. Organisations are progressively incorporating new technologies such as web based processes and information systems in their various functions. As human resources are one of the major assets of an organisation, they need to be effectively managed. The human resource management practices adopted by the organisation play a vital role in acquiring sustainable competitive advantage and achieving success. HRM works as a catalyst that enhances and bridges the policies and practices of the company with its people (Pearlson, 2009). In today's competitive and dynamic environment, it is crucial for every organisation to transform HRM practices into electronic HRM (e-HRM) for effective management of its people.

The main objective of this paper is to study the extent to which various universities and their affiliated colleges are using e HRM practices and are benefited thereof. The study provides some insights into the application and implementation of e HRM in private or state owned Universities and help HRM practitioners to get better understanding of the uses, benefits and problems in its adoption.

Keywords : *e HRM, E-coaching, Competency Management, E learning.*

INTRODUCTION

The term e HRM refers to conducting HR activities using the internet or the intranet. It is a web based tool to automate and support HR processes. It can be defined as the application of information technology for networking and supporting at least two individuals or collective actors in their shard performance of HRM activities (Strohmeier, 2007). E HRM can also be explained as a technology that serves both as a medium for connecting spatially segregated actors and as a tool for completing tasks. It supports actors by substituting for them in executing HRM activities to facilitate smooth decision making. E-HRM is defined as interrelated components working together to collect, process, store and disseminated information to support decision making, coordination, control, analysis and utilization of an organisation's human resources management activities (Laudon and Laudon, 1998). The purpose of adopting or implementing e HRM differs according to the demand of the organisation. Largely four types of goals were identified for implementation of e HRM technologies in an organisation (Ruel, et al. 2004): Reduce cost and improving efficiency, Improving client service or facilitating management and employees, improving strategic orientation of HRM, allowing integration of HRM aspects i.e. Content of e-HRM, Implementation of e- HRM, Targeted employees and managers and e-HRM consequences.

The concept has three stages of development: the first stage is automatic processing of the organisation; the second stage of Management Information System (MIS) involves detailed inquiry and report generation flexibility; the third stage is Decision Support System which facilitates decisions at higher levels in the organisation. Hence e-HRM is considered as a systematic producer for collecting, storing, maintaining and recovering data required by the organisations about their human resources' personal activities and organisational characteristics (Kovach et al., 2002).

Any degree-granting institution that is dedicated to research and education is generally considered an academic institution. Such institutions range from primary and secondary schools to post-secondary schools such as colleges and universities, and they are generally populated with a body of faculty who guide students through research and degree acquisition. An academic institution can provide a board education of variety of subjects or be subject-specific and cater to only one field of study. Higher Education sector is one of the major contributors to the GDP of Indian economy. The higher education scenario in India shows that a number of central, state, deemed and private universities are entering into the education sector. The government is also facilitating the growth of this sector by giving various grants and facilities to the researchers and budding entrepreneurs. The focus of the economy towards building human capital has also contributed towards the rise of this sector through the introduction of skill development program. In making higher education sector a success the major role player is faculty involved in higher education. The quality and potential of higher education faculty, influences the quality of workforce available in the future. About 150mn population is in the 18-23years age group (ESG, MHRD, 2014), showing the level of responsibility on higher education institutions and ultimately on higher education faculty.

Faculty shortages and the inability of the state educational system to attract and retain well-qualified teachers have been posing challenges to quality education for many years. The quality of teaching is also often poor and there are constraints faced in training the faculty as well. Hence the quality of education is deteriorating due to unavailability of trained faculty. Many institutes pay less attention to the basic issue like e-HRM and talk of cutting-edge human strategies. In the absence of appropriate information flow, many faculty related decisions are taken in a subjective and ad-hoc manner. Due to this, institutes not only fail to realize their human potential but also de-motivate their employees with subjective and unsystematic decisions. Now a days, higher education institutions face significant task of improving learning environment at the same time, reducing administrative operating cost. The ability to effectively manage different categories of academicians and non academicians, their recruitment and retention requires full integration of HR data with student information systems. So with so many demands, higher education institutions need a powerful business solution that will help them in managing students (graduates and post graduates both), employment information and financial data. Applications of e-HRM in higher educational institutions provide the utmost updating, use of resources, speed, compatibility, accessibility, data integrity, privacy and security.

ITERATURE REVIEW

It is commonly known that the quality of human resources is the most determinant factor in achieving economic progress, not only because it is one of the four productive resources available in any society, but also because it is the most dynamic one. Thus, the development of human resources has become the most popular approach adopted by many countries of the world economic progress. To maintain a competitive advantage, institutions need to balance the resources available to achieve the desired results. The available resources fall into three categories: physical organisational and human. Poter (1990) stated that the management of the human resources is the most critical of the three. Therefore, HR practitioners were encouraging innovations in their information technology usage (Ball, 2001). So there was a significant growth of HR department and computer technology and advanced to the point where it was beginning to be used. Practically, organisations are hesitating to apply E-HRM unless they are practically convinced of the benefits that it would bring to their organisations (Ngai and Wat, 2006). The purpose of e-HRM is to provide service in the form of accurate timely information to the users. As there are a variety of potential users of HR information, it may be used for strategic, tactical and operational decision making. The most common benefits of e-HRM include better synergies, more independence in terms of accessing information and making modifications to their own data without the assistance of

either the IT or HR professionals, more administrative efficiency in terms of maintaining employees' basic information, payroll and attendance management, and updating company related information such as disciplinary rules, health/safety guidelines, and welfare facilities, enhancement in organisational learning by providing better platform for knowledge sharing also enables an organisation to perform position management (Lederer, 1984; and Ngai and Wat, 2006).

The ability of the firms to harness the potential of e-HRM depends on a variety of factors such as the ability and capability of employees in adopting change (Gautham, Sarkar. 2010). In modern business practice manual work has been replaced by new technical devices and requires an integrated human resource system for the maintaining good employee relations. Although paperwork has not been totally reduced, HR managers can spend more time on administrative tasks. There are many companies that have automated routine HR administrative tasks, especially those in payroll and benefits administration, resulting in a reduction of HR headcount, as well as freeing up of functional resources for attention to more strategic matters (Gore et al., 1996).

Universally, there is no standard e-HRM application as the modules for application are customised to every organisation. The e-HRM applications are able to produce more effective and faster outcomes than manual. Most of the small business houses devote great amount of time in performing clerical employee related tasks (Blog, 2012). The efficiency of E-HRM is measured when the system is able to produce more effective and faster outcomes than the manual system. The research study by Krishnan and Singh (2006) aimed at exploring the issues and barriers faced by sample Indian organisations in implementing and managing e-HRM. The problems which companies were facing- lack of knowledge about e-HRM and lack of importance given to HR departments in the organisations as well as freeing up of functional resources for attention to more strategic matter (Gore et al,. 1996) another concern is the level of cooperation which is required across various divisions of an organisation for proper implementation of e-HRM.

Before implementation every system is visualised for its immediate and long-term benefits to the organisation. In assessing the benefits and impact of an e-HRM to an organisation, typical accounting methods do not work. (Ulrich and Smallwood, 2005) There are several intangible or hidden benefits as well of e-HRM (Robert, 1999) like speedy information process, information accuracy, improved planning and program development and enhanced employee communication (Overman,1992)

According to Ball (2001) and Ngai and Wat (2006), e-HRM supports all human-related activities. Implementation and use of e-HRM is being associated with people management and managing user acceptance of the change associated with the system. The primary reason for delay in e-HRM implementation is “fear psychosis” created by 'technology' and 'IT' in the minds of senior management (Rao, 2009). Lippert Susan k. (2005) examined that HRIS implementation success may be influenced by increasing the degree of trust an individual places in the technology. As a consequence of this theory development effort, a number of conclusions emerge. Further, Altarawneh (2010) says that organizations face problems in implementing new technologies because of lack of sufficient capital and skill, high cost of setting up and maintaining e-HRM (Beckers and Bsat, 2002), lack of employee support and commitment, lack of HR Knowledge of system designers, lack of application for HR users (Kovach and Chathcart, 1999), lack of qualified HR staff, lack of HR Budget , lack of cooperation with other departments, and lack of information technology support (Institute of Management and Administration, 2002).

Problem Statement:

Technical education in India contributes a major share to the overall education system and plays a vital role in the social and economic development of our nation. In India, technical education is imparted at various levels such as: craftsmanship, diploma, degree, post-graduate and research in specialized fields, catering to various aspects of technological development and economic progress. For the proper regulation of Academic institutions, All India Council for Technical Education (AICTE) was set-up in November 1945 as a national level Apex Advisory Body to conduct survey on the facilities on technical education and to promote development in the country in a coordinated and integrated manner. And to ensure the same, as stipulated in, the National Policy of Education (1986), AICTE be vested with statutory authority for planning, formulation and maintenance of norms and standards, quality assurance through accreditation, funding in priority areas, monitoring and evaluation, maintaining parity of certification and awards and ensuring coordinated and integrated development and management of technical education in the country but subsequent to recognition, monitoring was not very satisfactory (Prasad, 2011). It resulted in a number of private institutions defaulting in the quality education system. AICTE's main mission was transparent governance and accountable approach towards the society, planned and coordinated development of technical education in the country by ensuring world-class standards of institutions through accreditation. But because of lenient attitude of this authority, many institutes have become teaching shops and reasons other than merit have started ruling the rest. This growing competition especially in the field of professional education, quality of delivery lies in the efficiency and effectiveness of the staff. e-HRM enables universities to format the profile of their staff to identify the strengths and weaknesses. This provides an opportunity to organise various staff developmental activities (Rawat,2008) at district, state and national level. In the metropolitan cities, most of the colleges are affiliated and the faculty of those colleges is recruited by the expert committee constituted by the adequate university authorities, so that the right people can be placed at the right time.

Objectives:

In relation to the problem statement followings are the objectives of the study:

- To explore the issues surrounding the uses, benefits and barriers of e-HRM practices in academic institutions.
- To examine the extent to which universities and affiliated colleges have adopted e-HRM practices.
- To examine statistically whether or not e-HRM benefits and barriers vary among the universities.

Hypotheses

Based on the above objectives, the following hypotheses were formulated:

- There is no significant variation in the perception of the respondent regarding the e-HRM application.
- There is no significant variation in the perception of the respondent regarding the benefits achievable through the adoption of e-HRM.
- There is no significant variation in the perception of the respondent regarding the barriers for the adoption of e-HRM.

ESEARCH METHODOLOGY

In NCR, there are number of management and technical institutes imparting professional graduates and postgraduate courses like B.A, B.Com, BBA, MBA, MCA, B.Tech., M.Tech etc. In spite of the fact that Faridabad is the technology hub, most of the engineering and MBA colleges have a number of seats lying vacant (www.aicte.earnet.in). Data was collected from five private universities located in Delhi and NCR. Out of the selected universities one university is ranked number one university has a number one ranking in category of private universities (India Today Survey 2015) and another is ranked one private university in placements (India education.net, 2015). Sample population includes principals, administrators, office bearers, departmental heads and faculty members of these universities.

For data collection purpose a self-administered structured questionnaire was prepared using Five point Likert scale. The reliability of the questions was tested using Cronbach's alpha test and test results of the statements (15) related to application of e-HRM is 0.953, clearly indicating that the questions were highly reliable, followed by adoption of e-HRM Cronbach's alpha for 11 questions has a value of 0.963, and finally for 10 questions related to barriers of e-HRM is 0.896. Based on the respondents' suggestions, a modified questionnaire was prepared and distributed. Sample size was restricted to 100 respondents 80 were returned, with an effective response rate of 80%.

Data Analysis and Interpretation:

Demographic Analysis:

Out of the 80 respondents, 75% use computer on daily basis at work. Interestingly, 35% of them are master's degree holders, 25% have doctorate degree in their respective fields, 20% have bachelor's degree and 10% are diploma holders. In respect to experience, 45% of the respondents have less than 5 years of experience, 25% respondents having 10-15 years of experience, 15% have 16-20 years of experience, 10% of the respondents have between 5-10 years of experience and rest 5% have more than 20 years of experience.

Table 1: Profile of the Participants

			Frequency	Percentage
1.	Computer Usage for HR related activities	Yes	60	75
		No	20	25
		Total	**80**	**100**
2.	Qualification	Matric	8	10
		Graduation	16	20
		Post Graduation	28	35
		Doctorate	20	25
		Diploma Holders	8	10
		Total	**80**	**100**
3.	Total Experience	Less than 5 years	36	45
		5-10 years	8	10
		10-15years	20	25
		16-20 years	12	15
		More Than 20 Years	4	5
		Total	**80**	**100**
4.	Separate HR Department	Yes	52	65
		No	25	35
		Total	**80**	**100**

65% of the respondents reported that they have separate HR department, and 35% of respondents reported that they do not have separate HR department.

Descriptive Analysis:

e-HRM as become integral part of universities' HRM processes. They provide faculty with a process for evaluating, motivating and managing performance outcomes at one or multiple levels (individual, group and organisational). The e appraisal system refers to the monitoring of faculty in the institute using technologically mediated systems and devices, and involves the tracking of many aspects of faulty job through telephone calls, performance metrics, and screen sharing capability and video camera observations. Compensation systems are integrated with some other HR or non HR systems within the institute. A salary head need to track up to date attendance information or performance review to make

corresponding changes in the compensation. Effective faculty tend to have good coaching and mentoring skills as they try to bring out the best from their students. Through coaching and mentoring, faculty educate, guide, counsel and train their students to enable them to perform effectively and groom them for future growth as well. Similar to the traditional mentoring system, e coaching is the mentoring and supervision of the faculty by mentors with the use of web enabled programmes and devices.

Table 2 indicates the major functions performed through e-HRM applications by various academic institutions. It is clearly indicated in the following table that e-HRM performs various functions in universities.

Table 2: Components/Functions Performed through HRIS

S. No.	Activity	N	Mean	Standard Deviation
1.	Salary Calculation	80	2.5	1.23
2.	Reward Management	80	2.7	0.98
3.	Performance Management	80	2.7	0.92
4.	Job analysis and Evaluation	80	3.05	0.88
5.	Manpower Planning	80	2.7	0.92
6.	Employee Hiring and Staffing	80	3.05	0.88
7.	Succession and Career Planning	80	2.8	1.05
8.	e- Training and e Learning	80	2.95	0.94
9.	Disciplinary Procedure	80	3.1	0.98
10.	Leave Record Maintenance	80	3.1	0.93
11.	Absence Monitoring	80	3.2	0.96
12.	e- Coaching	80	3.2	0.89
13.	Maintenance of skill inventory	80	3.2	0.83

e HRM is used for managing salaries, reward management, performance management, job analysis and evaluation, for planning manpower, hiring and staffing, maintaining discipline, leave record, skill inventory and e coaching (Mean values varies from 2.5 to 3.2 for these activities). Most of the universities applies e HRM practices for monitoring absence, imparting coaching to students and for maintaining skill inventory ($\bar{x}$ = 3.2) followed by its practice in maintaining leave records, tracking disciplinary procedures ($\bar{x}$ = 3.1) and employee hiring/staffing, Job Analysis and evaluation ($\bar{x}$ = 3.05). Very less number of universities are using e HRM for reward and compensation management purpose ($\bar{x}$ = 2.5).

Benefits of e-HRM adoption to Educational Institutions:

Table 3 indicates that after adopting, e-HRM, various HR processes of educational institutions have streamlined ($\bar{x}$ = 3.70) also employment systems have also improved ($\bar{x}$ = 3.65). However, they indicated moderate improvement in data control and accuracy, helpful in making decisions and reduction in data entry and its re usage ($\bar{x}$ = 3.55).

Table 3: Benefits of e-HRM Adoption

S. No.	Benefits	N	Mean	Standard Deviation
1	System Standardisation	80	3.30	1.41
2	Reduction in paperwork	80	3.35	1.34
3	Less Manpower requirement	80	3.45	1.23
4	Reduction in Errors	80	3.45	1.46
5	Fast access to Information	80	3.45	1.47
6	Helps in Data accuracy or Control	80	3.55	1.46
7	Reduces Data Re-entry and its re usability	80	3.55	1.43
8	Helps in making quick decisions	80	3.55	1.50
9	Improves HR Services	80	3.65	1.26
10	Helps in Formalisation of HR Process	80	3.70	1.12

Barriers in e-HRM Adoption:

Following table (Table 4) indicates the various problems educational institutes' faces while adopting e-HRM practices. Mean scores and standard deviation are calculated for each barrier. Table 4 clearly depicts that the major barrier in adopting the e-HRM services is employee generated i.e. employees' shows lack of commitment and involvement ($\bar{x}$ = 4.10) towards its adoption. They feel that if they will adopt the same and start working on it they may lose their job as e-HRM adoption will replace them over a period of time as well as their work will get noticed. Also, lack of their expertise in computers, Financial as well as top management support further lower down their morale level in adopting the e-HRM practices. It is clearly indicated by the mean score variation from $\bar{x}$ = 2.85 to $\bar{x}$ = 2.40.

Table 4: Barriers in adopting e-HRM practices

S. No.	Barriers	N	Mean	Standard Deviation
1	Difficulty in Changing Organisation Culture	80	2.40	1.41
2	Difficulty in converting entire manual documentation in computerised form.	80	2.40	1.27
3	Lack of knowledge of e-HRM implementation	80	2.40	1.27
4	Lack of expertise in computers	80	2.45	0.99
5	Lack of awareness on benefits of e-HRM implementation	80	2.50	1.27
6	Insufficient Financial Support	80	2.55	1.43
7	Lack of support from the top management	80	2.70	1.34
8	Fear of losing the job as well of get noticed	80	2.70	1.30
9	Non availability of suitable software	80	2.85	1.22
10	Lack of commitment and involvement	80	4.10	6.90

Perceived benefits and barriers of IT applications among the staff of university affiliated colleges:

One of the study objectives was to accesses the differences among the staff of various university-affiliated colleges in terms of perceived IT applications, benefits and barriers. To assess the differences based on college size, ANOVA test was applied to compare the means also to determine if there were any significant differences among various affiliated colleges.

Table 5 indicates that there were no significant differences among the perceived benefits and barriers in terms of IT applications except in HR planning (0.002) and transfer of the staff (0.046).

The main purpose of the study was to explore the extent to which the staff of the university-affiliated colleges has adopted e-HRM practices and to examine the current application of e-HRM practices, its benefits and barriers. The results shown in Table 1 indicates that majority of colleges have employees having less than five years of experience. This could be explained by the fact that in NCR, Noida and Faridabad is an education hub. A majority of the participants also indicated that they have separate HR department performing various roles, activities and functions, as it is expected that as the organisations become larger the functions of HR departments should also become more complex.

Table 5: Perceived differences among the benefits and barriers in terms of IT applications

S. No.	Activity	f-value	Sig. Value
1	Record Maintenance	2.034	1.161
2	No Monitoring Required	3.314	0.401
3	Compensation Administration	3.314	0.061
4	Maintenance of Leave Record	1.250	0.312
6	Job and Role Analysis	0.670	0.525
7	Career Planning	2.474	0.119
8	Staffing	3.360	0.059
9	Manpower Planning	9.025	0.002*
10	Employee Transfers	3.706	0.046*
11	Performance Appraisal	3.566	0.051
12	Training and Development	2.091	0.154
14	HR Job Budgets	2.620	0.102
15	Employee Reward Planning	1.857	0.186

**Indicates significant at 0.05 level*

Significantly, a majority of the participants indicated that e-HRM applications were adopted for general information, and for monitoring absenteeism and payments. As also indicated by the previous studies, e-HRM is applied for the computerisation of different HR activities rather than for supporting decisions (Kovach and Cathcart (1999); Ball, (2001); Delorme and Archand (2010). The findings from Table 2 pertaining to its application highlight the fact that a majority of the universities and affiliated colleges use e-HRM for some simple routine administrative help in saving cost and increasing competitiveness. Ball (2001) and N Gai and Wat (2006) also mentioned that e-HRM should not only be designed for automation of but also for providing strategic advantages to organisations. Based on the results from Table 5, the major benefits were standardizing the programs and controlling different HR functions were perceived as less important benefits of e-HRM implementation. However, it is important to mention that perceived e-HRM benefits reflect the respondent's personal opinions or not the actual achievement benefits of e-HRM in their colleges.

Table 4 depicts that the main barriers in the implementation of e-HRM were: difficulty in changing the organisational culture, more paperwork which is difficult to computerise, and inadequate computer knowledge. This could be explained by the fact that most of the affiliated colleges under different have their own work culture, systems, principles and policies and it is difficult to change them immediately also they have so many

constraints. Top management support is also one of the most important factors for implementation of e-HRM (Kovach and Cathcart, 1999). A complete implementation of e-HRM requires a sizable budget also until and unless the top management understand the benefits it brings to an organisation, they will not be willing to allocate valuable resources (N.Gai and Wat. 2006).

ONCLUSION

Based on the research findings it can be concluded e-HRM is very useful to the administrators for planning and implementing e-HRM where extensive attention needs to be given to the applications of e-HRM. The HR Department of an organisation should play a proactive role in supporting e-HRM implementation in the organisation also need to be convinced by the strategic benefits of e-HRM.

As far as India is concerned, due to shortage of high quality trained manpower the professional education system has a long way to go. Academically, the present study has important implications. This study provides more insights into the implementation of e-HRM by universities and their affiliated colleges, which should help the HR department acquire better understanding of the e-HRM applications, benefits and barriers. In nutshell, in a globalised world, to face the new challenges and competition it is necessary to adopt e-HRM. To maintain transparency in all areas in relation to staff, students, and administration it is necessary for college and universities to adopt e-HRM so that all academic activities can be streamlined.

REFERENCES

1 *Altarawneh I (2010), "Human Resource Development in Arab Organizations: The Case of Jordanian Organizations, International Journal of Business Management and Social Sciences, Vol.1, pp. 41-54.*

2 *Ball K S (2001), "The Use of Human Resources Information System: A survey", Personnel Review, Vol. 30 (6), pp. 677-693.*

3 *Beckers A M and Bsat MZ (2002), "A DSS Classification Model for Research in Human Resource Information System," Information System Management, 19 (3), pp. 41-50.*

4 *Delorme M and Archand M (2010), "E-HRM Implementation and Development: A Conceptual Framework of the New Roles, Responsibilities and Competencies for HR Professionals", International Journal of Business Information System, Vol.5, pp. 148-161.*

5 *Flecther P (2005), "From Personnel Administration to Business- Driven Human Capital Management: The Transformation Role of the HR in the Digital Age", General and Stone, The Brave New World of Her, pp. 1-12, Jossey-Bass, San Francisco, CA.*

6 *Gauthamsakar (2010), "A Text Book of Information Practices, Central Board of Secondary Education, pp. 275-315.*

7 *Hussain Z, Wallace J and Cornelius N E (2007), "The Use and Impact of E-HRM of Human Resource Management Professionals", Information and Management, Vol. 44, pp. 74-89.*

8 *Kovach K A and Cathcart C E (1999), "E-HRM Providing Business with Rapid Data Access, Information exchange and Strategic Advantage", Public Personnel Management, Vol. 28, pp. 275-281.*

9 *Kovach K A, Hughes A A, Fagan p and Maggitti P G (2002), "Administrative Strategic Advantages of E-HRM," Employment Relations Today, Vol. 29, pp. 43-48.*

10 *Krishnan S and Singh M (2006), "Issues and Concerns in the Implementation and Maintenance of E-HRM, Institute of Management Ahmadabad," Research Publication Department in its series, IIMA Working Papers with Number WP 2006-07-01.*

11 *Laudon K and Laudon J (1998), Management Information Systems: New Approaches to Organizations and Technology, Upper Middle River, Prentice Hall, NJ.*

12 *Lederer A L (1984), "Planning and Developing a Human Resource Information System", The Personnel Administrator, Vol. 29, pp. 27-39.*

13 *Lee A (2008), "Relationship Between the Use of Information Technology and Performances of Human Resource Management", Ph.D Thesis, Alliant International University, San Diego, USA.*

14 *Langnick-Hall C A and Lengnick-Hall M L (2006), "HR, EPR, and knowledge for Competitive advantage", HRM, 45 (2), pp. 179-194.*

15 *Ngai E W and Wat F K (2006), "E-HRM: A Review and Empirical analysis", Human Resource Information System, Vol. 35, pp. 298-314.*

16 *Prasad V R K (2011), The Business of HR in Business Schools, Viva Books.*

17 *Robert Schuthesis (1999), Management Information System, Tata Mac-Graw Hill Publishing Company, New Delhi, pp. 4-12.*

18 *Ron Garland (1991), "The Mid-Point on a Rating Scale: Is It Desirable?" The Marketing Bulletin, Vol.2, Research Note 3, pp.66-70.*

19 *Rao Rama V S (200), E-HRM Implementation Pitfalls, available at www.cite.com/author/v-s-RamaRao.*

20 *Rawat M (2008), "Applications of Human Resource Information System in Higher Education: Holistic approach", in Kota Bharu, Trusting Islam, Knowledge and Professionalism in ECER Development Conference, pp. 15-17.*

21 *Ruel, H., Bondarouk, T., and Looise, J. (2004), "E HRM innovation or irritation: An Explorative Empirical Study In Five Large Companies On Web Based HRM, Management Review, Vol. 15, pp. 364-80*

22 *Strohmeier, S.(2007), Research in e HRM: Review and Implication, Human Resource Management Review, Vol. 17, pp. 19-37*

23 *Thomas E Nichols and Andrew P Holmes (2001)., "Non-parametric Permutation Tests for Functional Neuroimaging: A Prime with Example", Human Brain Mapping, 15 (1), pp. 1-25.*

24 *Ulrich D and Smallwood N (2005), "HR's New ROI Return on Tangibles", HRM, 44(2), pp 137-142.*

www.aicte.ernet.in, 2012

25 *www.highereducationin india.com/india/mbainstitutesHyderabad, 2012.*