



# A Study of E-Hrm and Its Benefits to Hospital Industry in Pune

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**Abstract :** A study of e-HRM & its benefits to hospital industry in Pune aims to understand current status of e-HRM in Hospitals in Pune. Further the research proposes model for the e-HRM benefits that leads to hospital performance. In this study we focus on various benefits of e-HRM such as cost effectiveness, timesaving, increase efficiency, increase accuracy, fast and easy communication, maintain confidentiality, reduce human intervention, easy to retrieve data and easy to backup data.

For this purpose non probability purposive sampling from various hospitals HR & IT managers and executives were chosen. Data was collected through the questionnaire as a data collection tool. Data was analyzed with SPSS software ver. 24. Friedman test was performed to study the benefits of e-HRM and path analysis for validation of the path model. Cronbach Alpha is used to confirm reliability of instruments. The benefits of e-HRM are easy to retrieve data, fast and easy communication and time saving. Finally model is proposed for benefits leads to hospital performance.

**Key words :** e-HRM, e-HRM tools, e-HRM benefits, level of e-HRM, e-HRM in Hospitals

## 1. INTRODUCTION

During the last decade, HRM has incorporated various developments in technology like Internet & IT tools which helps improve an organization. Implementation of electronic media like help of the web and other related electronic framework, programming to maximize HRM capacities. It is a computer based application for collecting, handling, investigating information. e-

e-HRM makes the organization work smoothly and efficiently to increases performance. With the Electronic Human Resource Management the organization opens up to automization, ease of work, paperless functioning etc. This is an approach to Human Resource Management with the assistance of the electronic media. e-HRM is use the data in an innovation manner. Because of Electronic Human Resource Management the organisation benefits from automization, efficiency, transparency, digitization and crucial selection of employees.

e-HRM is an idea that uses data innovatively to perform the human resource functions (Worldwide Jr. of Information, Business and Management, Vol. 7, No. 2, 2015). There are different kinds of e-HRM like - Operational e-HRM (Concern with managerial capacities, eg. Finance and worker individual information), Relational e-HRM (Concerns with supporting business forms, eg. Preparing, enlistment, execution administration), Transformational e-HRM (Concerns with the vital HR exercises, eg. Information administration, key introduction) <sup>(8)</sup>.

e-HRM process included applications and employments of all types with the

## 3. Definition of e-HRM

Strohmeier (2007), “e-HRM is the planning, implementation and application of information technology for both networking and supporting at

HRM can design information gathering instruments increase to capacity of investigation, help enhance assets for HR experts to contract, pay, advance, fire, allot, create, asses and remunerate workers. With the help of e-HRM, officials can contact valid arrangement and figures, make conclusion and speak with others.

e-HRM is characterized as a technique for executing the HRM methodologies, strategies and practices in association with the maximize utilization of web innovation based channels. It provides data to the principal fields of human asset administration to utilised the data for innovation. So e-HRM has to extend it grasp and conveyance to include basically all HR strategies. Workers can utilize e-HRM framework for their self-improvement, apply for advancement and new employments. e-HRM offers the possibility to deploy administrations for the benefit of the workers, build enhance proficiency and cost viability within the HR office.

## 2. History of e-HRM

Radical changes has been recorded in the world with the development in science and technology. Today technology plays an important role in industries and also in Human Resource Management. This term e-HRM came into force in 1990 when e-commerce progressed. By 1990 all HRM activities involved the Internet and industries increased their investment in technology for HRM. Traditional methods of HRM are based time consuming and people centric where as e-HRM is application of IT systems to carry out the functions of HRM.

incentive for focused workers and chiefs. <sup>(9)</sup>.

Sanchita Banerji (2013), depicts that test is updating and reengineering of HR capacities and issues are worker introduction, work culture, security concerns, cost factors, preparing and learning and specialized confinements <sup>(7)</sup>.

Parveen Kaur (2012), express the points of interest and burdens of e-HRM and prescribed that all organisations are utilize e-HRM innovation which

least two individual or collective actions in their shared performing of HR activities”<sup>(5)</sup>.

Bondarouk and Ruel (2009) stated, “e-HRM is an Umbrella term covering all possible integration mechanism and content between HRM and Information Technology aiming at creating value within and cross organizations for targeted employees and management” <sup>(1)</sup>.

## 4. Review of Literature

Parul Deshwal, (2015), demonstrated that e-HRM help for change in HR capacities into paperless, more adaptable and asset proficient and furthermore causes the organisation to enhance worker competence which brought about cost diminishment and lessening of the managerial weight too<sup>(4)</sup>. Abdul Aziz Alghafri (2015), portrays the favorable circumstances and hindrances for e-HRM execution in e-learning. Because of usage of e-HRM various benefits are set up like improve HR proficiency, spare time, lessen costs, and diminish managerial weight and appropriate HR arranging. Be that as it may, notwithstanding of focal points there are drawbacks too. e-learning is instruction or preparing conveyed to remote areas. The points of interest and inconveniences are there in e-learning innovation. So the conventional technique bolstered by innovation is the perfect path for good outcomes <sup>(1)</sup>.

T. V. Bondarouk & H.J.M. Ruel (2009), expressed the expanded utilization of e-HRM enables HR experts to accomplish enhanced execution. e-HRM is a joining of HRM and IT went for making an

execution concentrating on benefit conveyance and responsibility. Conclusion is that presentation or selection of e-HRM will build workers duty and administration conveyance, which consolidates the hierarchical execution<sup>(3)</sup>.

## 5. Objectives

1. To understand the benefits of e-HRM in hospitals

will give a valuable, productive and expanded execution through e-HRM however there are hindrances needs to confront <sup>(5)</sup>.

Davood Mehrjoo, Mehdi Noursina, (2013), assessed the viability of e-HRM as far as instruction administrations, wellbeing administrations and research benefits on enabling staff. e-HRM in term of wellbeing administrations, can engage human asset in benefit area <sup>(2)</sup>.

Shilpa, (2010),\_opined that e-HRM decrease reliance on tedious and mistake inclined Human Resource paper trail. It is critical to HR experts to get adjusted with the technology before they influence other individuals to see the estimation of such apparatuses. This framework can ease authoritative weight, upgrade in speed precision, less printed material and cost adequacy and straightforwardness in capacities<sup>(8)</sup>.

Rand H. Al Dmour, (2012), examined that the usage level of e-HRM is considerably more controlled by the organization's inside condition. Interior variables are organisation resources, commitment, culture, HR structure, IT benefits, barriers of e-HRM implementation. Outer components are industry qualities, macroeconomic variables, Govt. polices <sup>(6)</sup>.

Dr. Iyiola Oluwole Oladel, Dr. Osibanjo Adewale Omotayo, (2013) inspects the impacts of e-HRM on authoritative

e-HRM which were evaluated using a 5 point Likert scale i.e. not at all, to little extent, to some extent, to moderate extent and to large extent

2. To design e-HRM Benefits model for Hospital performance.

## 6. Hypotheses

**Null hypothesis (H<sub>0</sub>):** Benefits of e-HRM in Hospitals do not differ in magnitude.

**Alternate hypothesis (H<sub>1</sub>):** Benefits of e-HRM in Hospitals is significantly differ in magnitude.

## 7. Research Methodology

Type of research was descriptive and nature of research was quantitative. Structured questionnaire with 5 point likert scale was used for data collection. Sampling technique was non probability purposive sampling. Targeted population was Administrators, HR managers, HR executives, IT heads and IT executives were selected. The sample size was 170 out of which 164 were selected for data analysis from various hospitals and 6 were incomplete. The type of analysis was statistical. Data was analysed with SPSS ver. 24 software. Friedman test was performed to study the benefits of e-HRM and path analysis for validation of the path model. Cronbach Alpha is used to confirm reliability of instruments. It is highly reliable with 0.7.

## 8. Data Analysis and Interpretation

There are 9 common benefits of

**Table 1**

### Benefits of e-HRM

Name of factor	Not at all		To little extent		To some extent		To moderate extent		To large extent		Mean	Std. Dev
	F	%	F	%	F	%	F	%	F	%		
Cost effective	0	0	8	4.9	14	8.5	86	52.4	56	34.1	4.16	0.775
Time saving	8	4.9	0	0	8	4.9	70	42.7	78	47.6	4.28	0.943
Increase efficiency	0	0	4	2.4	24	14.6	98	59.8	38	23.2	4.04	0.691

Increase Accuracy	0	0	22	13.4	22	13.4	64	39	56	34.1	3.94	1.007
Fast & easy communication	0	0	2	1.2	12	7.3	84	51.2	64	39	4.30	0.658
Maintain confidentiality	0	0	0	0	14	8.5	96	58.5	52	31.7	4.23	0.595
Reduce human intervention	0	0	10	6.1	24	14.6	68	41.5	62	37.8	4.11	0.872
Easy to retrieve data	0	0	2	1.2	30	18.3	50	30.5	78	47.6	4.28	0.808
Easy to backup data	0	0	2	1.2	14	8.5	96	58.5	46	28	4.18	0.634

## Interpretation

### Cost effective

52.4% respondents said to a moderate extent, 34.1% said to the large extent, 8.5% said to some extent and 4.9% said to a little extent the e-HRM is cost effective in hospitals. Mean is 4.16 and standard deviation is .775. Based upon the mean it can be further concluded that majority of the respondents presume that e-HRM is cost effective to a moderate extent in hospitals.

### Time Saving

47.6% respondents said to a large extent, 42.7% said to moderate extent, 4.9% said to some extent and 4.9% said not at all e-HRM is time saving in hospitals. Mean is 4.28 and standard deviation is .943. Based upon the mean it can be concluded that moderate extent, 18.3% respondents said to some extent and 1.2% said to little extent that e-HRM has easy to retrieve data in hospitals. Mean is 4.28 and standard deviation is .808. Based upon the respondents opinion is that e-HRM has increase accuracy to a moderate extent in hospitals.

### Fast & Easy to Communicate

51.2% respondents said to a moderate extent, 39.0% respondents said to large extent, 7.3% respondents said to some extent and 1.2% said to little extent that e-HRM has fast & easy to communication in hospitals. Mean is 4.30 and standard deviation is .658. Based upon the mean it

majority of the respondents opinion is that e-HRM is time saving to a large extent in hospitals.

### Increase Efficiency

59.8% respondents said to a moderate extent, 23.2% said to large extent, 14.6% said to some extent and 2.4% said to little extent that e-HRM has increase efficiency in hospitals. Mean is 4.04 and standard deviation is .691. Based upon the mean it can be concluded that majority of the respondents opinion is that e-HRM has increase efficiency to a moderate extent in hospitals.

### Increase Accuracy

39.0% respondents said to a moderate extent, 34.1% said to large extent, 13.4% said to some extent and 13.4% said to little extent that e-HRM has increase accuracy in hospitals. Mean is 3.94 and standard deviation is 1.007. Based upon the mean it can be concluded that majority of the upon the mean it can be concluded that majority of the respondents opinion is that e-HRM has easy to retrieve data to a large extent in hospitals.

### Easy to back up data

58.5% respondents said to a moderate extent, 28.0% respondents said to large extent, 8.5% respondents said to some extent and 1.2% said to little extent that e-HRM has easy to back up data in hospitals. Mean is 4.18 and standard

can be concluded that majority of the respondents opinion is that e-HRM has fast & easy to communicate to a moderate extent in hospitals.

**Maintaining Confidentiality**

58.5% respondents said to a moderate extent, 31.7% respondents said to large extent, 8.5% respondents said to some extent that e-HRM has maintaining confidentiality in hospitals. Mean is 4.23 and standard deviation is .595. Based upon the mean it can be concluded that majority of the respondents opinion is that e-HRM has maintaining confidentiality to a moderate extent in hospitals.

**Reduce Human Intervention**

41.5% respondents said to a moderate extent, 37.8% respondents said to large extent, 14.6% said to some extent and 6.1% said to little extent that e-HRM has reduce human intervention in hospitals. Mean is 4.11 and standard deviation is .872. Based upon the mean it can be concluded that majority of the respondents opinion is that e-HRM has reduce human intervention to a moderate extent in hospitals.

**Easy to retrieve data**

47.6% respondents said to a large extent, 30.5% respondents said to moderate extent, 18.3% respondents said to some extent and 1.2% said to little extent that e-HRM has easy to retrieve data in hospitals. Mean is 4.28 and standard deviation is .808. Based

**Table 2**

Test Statistics	
N	156
Chi-Square	46.589
Df	8
Asymp. Sig.	.000

**Level of significance  $\alpha = 0.05$**

deviation is .634. Based upon the mean it can be concluded that the majority respondents opinion is that the e-HRM has easy to back up data to a moderate extent in hospitals.

**9. Hypothesis Testing**

**Objective 1**

To understand benefits of e-HRM in hospitals in Pune

**Hypothesis**

**Null hypothesis (H<sub>0</sub>):** Benefits of e-HRM in Hospitals do not differ in magnitude.

**Alternate hypothesis (H<sub>1</sub>):** Benefits of e-HRM in Hospitals is significantly differs in magnitude.

**Statistical Test – Friedman Test**

**Variables and Measurement :**

Respondents were offer following 9 common benefits of implementing e-HRM :

- Cost Effective
- Time saving
- Increase Efficiency
- Increase Accuracy
- Fast & Easy Communication
- Maintaining Confidentially
- Reduce Human Intervention
- Easy to Retrieve data
- Easy to back up data

extent, 41.5% e-HRM has reduce human intervention to moderate extent, 47.6% e-HRM is easy to retrieve data to large extent and 58.5% e-HRM is easy to backup data to moderate extent in hospitals.

$\alpha^2 (8) = 46.5, P=<0.001$

Since the Friedman Test is significant ( $P<0.001$ ), rejected the null hypothesis. So it is calculated that difference is significant in the magnitude of benefits of e-HRM. Following Rank Table has showed where the difference lie.

**Table 3**

<b>Ranks</b>	<b>Mean Rank</b>
e-HRM is Cost Effective in Hospital.	5.10
e-HRM is Time Saving in Hospital.	5.37
e-HRM has Increased Efficiency in Hospital.	4.33
e-HRM has Increased Accuracy in Hospital.	4.36
e-HRM is Fast & Easy to Communicate in Hospital.	5.53
e-HRM has Maintaining Confidentiality in Hospital.	5.01
e-HRM has Reduced Human Intervention in Hospital.	4.97
e-HRM is Easy to retrieve data in your Hospital	5.44
e-HRM is Easy to backup the data in Hospital.	4.90

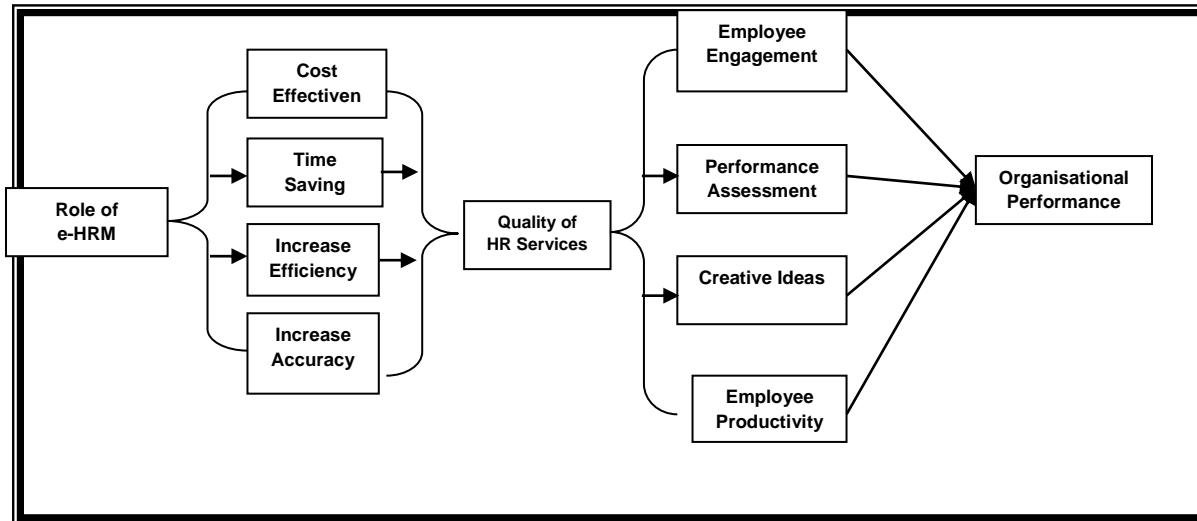
Hence the five major benefits of e-HRM are Easy and Fast Communicate, Easy to Retrieve Data, Time saving, Cost effective and Maintaining Confidentiality

### **11. Findings**

It was found that 52.4% e-HRM is cost effective to moderate extent, 47.6% e-HRM is time saving to large extent, 59.8% e-HRM has increased efficiency to moderate extent, 39.0% e-HRM has increase accuracy to moderate extent, 51.2% e-HRM is fast & easy communicate to moderate extent, 58.5% e-HRM is maintaining confidentiality to moderate

## Recommendations

### A model for e-HRM benefits leads to hospital performance



Through the above model it is proposed that e-HRM will lead to cost effectiveness, timesaving, increase efficiency and increase accuracy.

In the above model Cost effectiveness, timesaving, increase efficiency and increase accuracy will lead to quality of HR services. Quality of HR services will impact on employee engagement, performance assessment, creative ideas and employee productivity.

Employee engagement, performance assessment, creative ideas and employee productivity will lead to Organisational performance.

#### Assessing the path Model :

Assessment of the path model involved study of statistical fit between sample data and the hypothetical model. A good fit between sample data and Hypothetical model indicates that hypothesized model

proportion of what number of the inferred minutes and test minutes contrast. The more the implied and sample moments differ, the greater the chi-square statistic, and the more grounded the proof against the null hypothesis.

**DF** is the number of degrees of freedom for testing the model

$$df = d = p - q$$

**CFI :- Comparative Fit Index** – This index was first introduced by Bently (1990). This is perform well though the sample size is small.

**GFI:- "Goodness of Fit Index"**

is credible explanation of relationship between variables.

Four fit indices have been used to evaluate the model fit. CMIN/DF, CEF, GFI, RMR

**CMIN/DF :**

**CMIN (chi-square measurements ( $\chi^2$ ))** is the base estimation of the disparity. On account of greatest probability estimation, CMIN contains the chi-square statistic. The chi-square statistic is a general

(LISREL), like multiple r-squared, theoretically ranges from 0 (poor fit) to 1 (perfect fit), considered satisfactory when  $> .90$

**RMR :- Root Mean Square Residual –**

The range of RMR is calculated based upon scale of each indicator.

**Table :- 4**

**Fit Indices Measurement**

Fit indices	Observed	Criteria for acceptable fit	Result
CMIN/DF (Minimum discrepancy as indexed chi-square)	4.462	< 5	Acceptable fit
CFI (Comparative fit index)	0.835	> 0.9 for good fit, between 0.9 to 0.8 for borderline fit	Acceptable fit
GFI (Goodness of fit index)	0.9	> 0.9	Acceptable fit
RMR (Root Mean Residual)	0.052	< 0.08 for adequate fit, between 0.08 and < 0.1 for borderline fit	Acceptable fit

All the fit indices suggest a good fit between the hypothetical model and the sample data.

**Assessing the Hypothetical path :**

- e-HRM is significant predictor of Increase Efficiency (b=0.503, P<0.001)
- e-HRM is not a significant predictor of Time Saving. (b=0.158, P=0.412)
- Increase Efficiency is significant predictor of Time Saving (b=0.64, P<0.001)
- e-HRM is significant predictor of Cost Effectiveness (b=0.314 , P 0.038)
- Time Saving is significant predictor of Cost Effectiveness (b=0.254 ,
- of HR Services. [ (b=0.097, P=0.08, (<0.1)
- Increase Efficiency is not significant of Quality of HR services. (b=0.144, P = 0.121)
- Increase Accuracy is significant predictor of Quality of HR Services (b=0.338, P<0.001)
- e-HRM is significant predictor of Quality of HR Services (b=0.652, P<0.001)
- Quality of HR Services is significant predictor of Employee



P<0.001)

- e-HRM is significant predictor of Increase Accuracy (b=0.821, P<0.001)
- Increase efficiency is significant predictor of Increase Accuracy (b=0.889, P<0.001)
- Cost effectiveness is significant prediction of Increase Accuracy. (b=0.364, P<0.001)
- Cost effectiveness is not significant predictor of Quality of HR Services.( b=0.049, P=0.471)
- Time Saving is significant of Quality <0.1)
- e-HRM is significant predictor of fair Performance Assessment. (b=0.79, P<0.001)
- Increase Accuracy is significant predictor of Creative Ideas. (b=0.27, P<0.001)
- e-HRM is significant predictor of Employee Productivity. (b=0.618, P<0.001)
- Creative Ideas is significant predictor of Organizational Performance (b=0.278, P<0.001)
- Employee Productivity is significant predictor of Organizational Performance. (b=0.271, P<0.001)
- Fair Performance Assessment is significant predictor of Organizational Performance. (b=0.116, P=0.1) Partial significant.
- Employee Engagement is significant predictor of Organizational Performance (b=0.099, P=0.017)
- Increase Efficiency is significant predictor of Organizational Performance. (b=0.407, P<0.001)

## 12. Conclusion

This study has been conducted to identify the current status of e-HRM of hospitals

Engagement (b=0.607, P<0.001)

- e-HRM is significant predictor of Employee Engagement. (b=1.421, P<0.001)
  - Quality of HR Services is significant predictor of fair Performance Assessment. (b=0.232, P 0.006)
  - Quality of HR Services is the significant predictor of Creative Ideas. (b=0.235, P= 0.003)
  - Employee Engagement is significant predictor of fair Performance Assessment. (b=0.086, P>0.05, Organisation, E-Learning as an Example”, *American Journal of Economics*, Vol. 5(2), PP 51-55
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and its benefits which leads to hospitals performance. The study focuses the e-HRM benefits like easy to retrieve data, fast and easy communication and time saving. The suggested model will help the hospitals to improve quality of HR services which will lead to employee engagement, performance assessment, creative idea and employee productivity which will help to improve the hospital performance.

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