HRM in the Digital Age: Consequences and Performance

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ABSTRACT

The digital transformation significantly changes the traditional way of how organizations manage their human resources. Besides the automation of HRM processes, information technologies also have increasing impact on the talent management process, such as employee attraction, selection and hiring, workforce planning, engagement and performance management, training and development, health and safety, and retention management, all prompting a focus on redesigning the organization around teams, implementing analytics and organizational network analysis and driving a global focus on diversity, culture, learning, and careers. The aim of this study is to get insights in the consequences of a digital HRM solution for an organization and its business performance. A structured questionnaire was used for the study. Data was collected from 75 respondents. The findings of the study conclude that on the 15 statements which were identified the responses to majority of these factors showed a significant difference.

Keywords-- E-HRM, Information Technology, e-recruitment, digital Age, Employee-Employer Relationships

I. INTRODUCTION

Due to the development of Information Technology, the adoption of Electronic Human Resource Management has increased rapidly in the last decade. The rapid growth of e-commerce, global commerce and e-technology are all part of managing skilled workers providing services. The world has undergone far reaching political, societal, cultural and economical changes based on the increasing dominance of digital media and tools. This has led to the current period being characterized as the "digital age or smart age". Digital HR is built on innovation and experimentation. Moreover, software as a service and cloud-based computing solutions are increasingly implemented to manage employee relationships. For instance, online social networks can be used for applicant attraction and job referrals. The field is developing very quickly and increasingly more organizations are investing further into e-HRM (Bondarouk and Ruel, 2009). Some organizations are successful in managing the implementation of the digital HRM solution and let it contribute to HRM- and business performance, whereas other organizations are less or not successful in managing the implementation to the benefit of the organization. The application of information technologies involves an ever increasing mass of data that accrues. Successful HRM of the future depends on the ability to exploit these data.

In the past few years, the term e-HRM was used under different names, such as HR Information System (HRIS), Intranet-based HRM, Computerized Information Systems in Personnel, Virtual HRM, Personnel Systems, HR Portals or web-based HRM (Bondarouk & Furtmueller, 2012; Bondarouk & Ruël, 2009; Ruël et al., 2004). From all these different terms, HRIS is most intensively discussed (Ruël et al., 2004; Johnson et al., 2015). The most terms, it is noted that HRIS is a concept that was been given significant importance. But in the corporate world, today, the focus has shifted from HRIS to e-HRM. This difference shows that in the last few years there has been a shift from the automation of HRM services towards the support of information through the use of IT (Ruël et al., 2004).

In Human Resource Management, technology helps in all forms of work processes i.e., from hiring to firing or recruit to retire functions and has changed the way employees and managers get access to the human resource data. How to use technology in a human resource perspective to connect people and information is the challenge faced by the business leaders presently. E-HRM has achieved much importance now because of its use in most of the organizations to increase the productivity through maximizing the value of the organization's most significant asset, namely its people/employees. In this digital era, it is imperative to train a human resource base who are capable to handle large amounts of information and subsequently transfer the same information, after processing and repackaging the formation, efficiently, faster and effectively.

II. RESEARCH QUESTIONS

The questions that revolved around the study are:

- What are the consequences of an e-HRM implementation?
- What are the benefits involved in the development of e-HRM from the past decade?

III.   METHODOLOGY

The survey research design was utilized for this study. The sample for this study consisted of 75 employees from Noida employed in IT sector. The questionnaire was divided into two parts; the first part was designed to capture the demographic responses. Demographical characteristics of the employees were categorized as Personal attributes, comprising age, gender, marital status, number of dependants, educational qualification; The second part was the structured questionnaire consisting of 15 questions on e-HRM and its implementation.

IV.   THE CONSEQUENCES OF AN E-HRM IMPLEMENTATION: LITERATURE REVIEW

E-HRM is the use of web-based technologies to provide HRM services within employing organisations. Since the 1940s, HRM is using IT but IT has only significantly affected the HRM processes and practices for the last 20 years, through the growing importance of IT (Johnson et al., 2015; Ruël et al., 2011). It is said that the most important asset of any business organisation walk in and out the door of the business organisation each day (Boxall et al., 2005). According to Michael Armstrong (2003) e-HRM provides the required information to manage HR processes such as recruitment, e-learning, performance management and reward. The system may be web-based, enabling access to be remote or online and at any time. The information provided by the e-HR process can communicated across organizations. The existing literature on E-HRM suggests that, overall, the three goals of e-HRM are cost reduction, improving HR services, and improving strategic orientation (Brockbank, 1997; Lepak and Snell, 1998; Stanton and Coovert, 2004)

During the 1940s – 1980s, the digital HRM solutions were primarily implemented for the basic HRM-functions such as payroll and recordkeeping of the employees (Bondarouk & Ruël, 2009; Johnson et al., 2015). The focus during this period was on the operational consequences, which implies that digital HRM resulted in cost savings, capabilities for faster reporting, improved precision, increased workload without recruit more staff, generating information of reports previously unprocurable, and a decrease of the administrative burdens of the HRM departments

(Tomeski & Lazarus, 1974; Bondarouk & Furtmueller, 2012; Johnson et al., 2015).

During the 1980s – 1990s, the adoption of the delivery of business applications commenced. These applications enabled HRM to provide important data for HR planning and crucial employment decisions to managers and HR professionals (Johnson et al., 2015). Similarly, the focus during this period was on the operational consequences. This resulted in decreased administrative burdens for the HRM departments, improvement in the service delivery to managers and employees and integration of decentralized units (Lepak & Snell, 1998; Reddick, 2009; Bondarouk & Furtmueller, 2012; Johnson et al., 2015).

During 1990-2010, web-based enterprise resource planning systems which helped the HRM department in recruitment, selection, training, performance management and compensation. (Johnson et al., 2015).

In the past 7 years since 2010-2017, the Cloud-Based applications are being used. This transition to cloud computing has resulted in an increased use of mobile and social technologies and applications by organizations. As a consequence, the selection of potential employees is shifted to an electronic selection, with the increased use of social media (Johnson et al, 2015).

Reddick (2009) found in his study that the use of e-HRM results in an increase of HR operating efficiency, an increase in automated routine aspects of different HRM duties, a decrease in administrative burdens, and the productivity of the HR employees increased. Buckley et al., 2004 study found evidence that the use of e-HRM results in a reduction of the costs for HRM. Beulen (2009) documented that e-HRM is important and contributes positively to the retention of talented employees in the organization. Feldman and Klaas (2002) reported that e-HRM positively and indirectly influenced the branding of the organization and so improved the attractiveness of the company for employees. Furthermore, reduced response times to serve customers and clients, received HR staff acceptance of the IT systems, and improved quality and timeliness of services to employees was found in the study of Reddick (2009). Other researchers state that the use of e-HRM results in more and improved communication between employees and the HRM department (Ruël et al., 2004). In addition, e-HRM offers HRM tools and instruments that give employees the opportunity to participate in online-discussions and to be more updated about the developments and changes in the organization, for example via the use of an intranet tool (Ruël et al., 2004). Reddick (2009) observed improvements in the working relationship of HR with the upper management in the organization.

V.   DATA ANALYSIS AND RESEARCH IMPLICATIONS

The benefits involved in the development of e-HRM from the past decade

Table 1: Table showing the frequency and percent analysis of various statements on e-HRM and results of chi-square tests.

For the purpose of the study, 5 point scale is used which indicates 1= strongly disagree, 2= disagree, 3= neutral, 4= agree, 5 = strongly agree.

Sl. No	Statement		Responses					X^2
			1	2	3	4	5	
1.	e-HRM has increased self-service for employees and managers	F	15	20	18	22	25	22.1
		%	15%	20%	18%	22%	25%	
2	e-HRM gives a look into future insights of the organisation(eg. Succession planning…)	F	18	11	21	19	31	33.2
		%	18%	11%	21%	19%	31%	
3	e-HRM increases the responsibility of employees and managers	F	13	6	48	13	20	26.4
		%	13%	6%	48%	13%	20%	
4	e-HRM leads to impersonalization	F	35	15	21	29	-	0.64 (P=.72)
		%	35%	15%	21%	29%	-	
5	More steps/actions required for managers to deal with e-HRM	F	20	24	33	11	12	18.2
		%	20%	24%	33%	11%	12%	
6	Longitudinal and long term insights in data due to e-HRM	F	-	48	26	18	8	42.6
		%	-	48%	26%	18%	8%	
7	Does e-HRM lead to cost saving	F	-	21	12	38	29	37.8
		%	-	21%	12%	38%	29%	
8	Is e-HRM service driven	F	31	11	25	07	26	12.5
		%	31%	11%	25%	07%	26%	
9	Does e-HRM call for high-grade new competences	F	-	12	28	31	29	27.6
		%	-	12%	28%	31%	29%	
10	Has e-HRM increased interaction between employees and managers	F	17	11	21	38	13	12.5
		%	17%	11%	21%	38%	13%	
11	e-HRM has decreased administrative burden on the employees	F	14	18	22	26	20	0.78 (P=.91)
		%	14%	18%	22%	26%	20%	
12	Disappearing of HR business partner	F	19	-	27	23	31	36.1
		%	19%	-	27%	23%	31%	
13	Observance of transparency and openness in e-HRM processes	F	-	14	55	21	10	29.8
		%	-	14%	55%	21%	10%	
14	Automation becomes increasingly important for the HR strategy due to e-HRM	F	05	-	21	36	38	14.2
		%	05%	-	21%	36%	38%	
15	Does e-HRM provide different learning opportunities for employees to expand their knowledge and skills.	F	18	12	41	16	13	32.6
		%	18%	12%	41%	16%	13%	

(Source: Field Survey)

P indicates the degree of significance at 95 % confidence level.

Chi-square tests revealed significant differences between responses of respondents for all the statements, except Sl.No 4 with P value 0.728, Sl.No 11 with P value of 0.91 at 95% significance level.

From the table it is clear that the respondents have rated high for statements such as – 74% have agreed that Automation becomes increasingly important for the HR strategy due to e-HRM, 67% agree that e-HRM lead to cost saving, 60% agree e-HRM call for high-grade new competences 54% opine that e-HRM has Disappearing of HR business partner 51% agree on e-HRM increased interaction between employees and managers, 50% agree that e-HRM gives a look into future insights of the organisation and 46% view e-HRM has decreased administrative burden on the employees.

Some of the statements have been rated high on disagreeing with certain benefits of e-HRM such as 50% of the respondents have said that e-HRM leads to impersonalization, 48% are of he view that Longitudinal and long term insights in data due to e-HRM 44% say that More steps/actions required for managers to deal with e-HRM, 42% e-HRM service driven.

Three statements have been rated high on the grounds of being neutral by the repondents namely- 55% Observance of transparency and openness in e-HRM processes, 48% e-HRM increases the responsibility of employees and managers 41% e-HRM provide different learning opportunities for employees to expand their knowledge and skills.

The respondents in all groups had different views and opinions on whether digital HRM made the HRM processes easier, faster and more simplified. Moreover, some of the respondents, who recognized the consequence efficiency, mention that the HRM process is easier, simplified, more flexible, and that the administrative burden is decreased, what corresponds with the findings of Ruël et al. (2004). Other respondents argue that the digital HRM system is not flexible and

intuitive and so the usability for the employees and managers has decreased.

There are also voices of respondents who say that managers must run through more steps/ actions in the HRM process. This supports the results of the study of Martin and Reddington (2010), who found that more administrative steps shift to the line managers in the organization and so the workload increases. This is in

contrast with the voices saying that the system is easier, simplified, and more flexible.

In addition, the respondents in this study state that despite the fact that their organization has saved a lot of costs, the quality of HRM remains the same. In contrast, they say that the digital HRM solution was only cost-driven and not service-driven. They state that HRM has not focused enough attention to what is important for the business and what their important questions are.

Table 2: Table showing Demographic variables for the study

Mean, standard deviation and ANOVA results for demographic variables (Is there a significant impact of e-HRM on employee job satisfaction)

		Mean	SD	F Value	P Value
Gender	Male	3.23	1.31	19.21	.056
	Female	2.48	1.925		
Age	<35	2.11	1.421	4.255	.004
	35-50	3.96	1.816		
	>50	3.08	1.140		
Qualification	Bachelor's	3.92	1.68	5.362	.001
	Master	2.97	.454		
	Others	1.73	1.621		
Income (inRs.pa)	<4,00,000	2.22	1.84	3.671	.048
	4,00,001-6,00,000	3.05	1.36		
	>6,00,000	3.67	1.53		
Service (in yrs)	< 3	2.14	1.52	2.736	.008
	3-6	2.86	1.68		
	> 6	3.21	1.87		
Marital Status	Married	3.71	1.36	3.45	.000
	Unmarried	2.46	.892		

From the above table it is observed that there is no significant difference between the responses of male and female respondents. The mean score of male respondents is 3.23 and the mean score for female respondents is 2.48 with f value 19.21 and P value .056. It is clear from the above that it is known that male employees have a higher impact on E-HRM compared to female employees.

With regard to the age of the respondents it is observed that there is a significant difference between the responses of the respondents of different age groups with F value 4.255 and P value .004 .The employees with the age group of < 35 yrs showed a mean score of 2.11, 35-50 years showed the mean score 3.96 and employees with the age group of > 50 years is 3.08. Thus we can say that employees in the age group of 35-50 years have a high impact of E-HRM.

In terms of the qualification it is observed that there is a significant difference between the responses of the respondents with P value 5.362 and F value .001. It is clear from the results that that the lower the qualification, lower is the impact of e-HRM on employees.

There is no significant difference between the responses of the respondents of various income levels with F value of 3.671 and P value of 0.48. The mean score of employees with income of > Rs 6,00,000 has

higher mean score which says that they have a higher impact of E-HRM

The service rendered to an organisation also has influence on employee job performance. There is no significant difference between the responses of the respondents of different levels of experience with P value 2.736 and F value .008.The mean scores of the employees > 6 years of service is 3.21 which means that they have a higher impact of E-HRM.

There is a significant difference between the responses of the respondents between married and unmarried respondents with P value 3.45 and F value.000. Married employees showed a higher mean score of 3.71 in comparison to unmarried with mean score of 2.46. Hence it is seen that married employees have a higher impact on E-HRM compared to unmarried employees.

VI. CONCLUSION

In accordance to the findings of the study, there is clear evidence that E-HRM promises cost reduction, improvements in the strategic orientation of HRM, and improvements in the service delivery for management and employees. These results are in congruence with the research study by Lepak & Snell, 1998; Ruël, Bondarouk, & Looise, 2004; Ruta, 2005; Ruël, Bondarouk, & Van der Velde, 2007; Marler, 2009.

Therefore it can be understood from the study that E-HRM is a tool to improve the services to HR department clients (both the employees as well as the management), improve efficiency and cost effectiveness and to allow HR to become a strategic partner in achieving organisational goals.

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