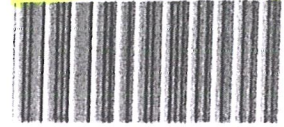Shanlax International Journal of

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AN EMPIRICAL STUDY ON IMPACT OF TECHNOLOGY INNOVATION ON HUMAN RESOURCE MANAGEMENT

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Abstract

The world of technology and mobile computing has made the concept of "traditional workspace" a thing of past. Today, employees can work from anywhere at any time. Technology has completely redefined the role of human resources all over the world. Recent advances in technology have transformed nearly every aspect of HR, right from sourcing to performance management. Some industry experts opined that technology is one factor that is impacting the HR department to a great extent. Information technology plays a vital fragment of today's scenario while human resource management has also being affected in different methods through its implementation and application. The impact of technology innovation on HRM discovered that increasing the efficiency of HR management activities through an effective employee communication and involvement while the roles and of HR managers has grown extensively due to their adoption and incessant advancement of knowledge in the use of IT .

This study aims is to identify the impact of technology innovation on human resource management. Primary data used for collection data with structured interview schedule in this study. This study contributes to the existing literature by elaborating the role of innovative practices and technology in the context of competitive digital environment. Further, several implications were discussed for the purpose of promoting sustainable development of digital era. Study limitations and future research directions are also discussed.

Keywords: Human Resource (HR), Human Resource Management (HRM), Information Technology (IT).

Introduction

"The HR professionals should remember that employees are the lifeblood of any company. If we create a great workplace experience for them, they'll pay you back one hundred fold in feedback and productivity", Craig Bryant.

Human Resources are the most significant and vital for the success of any organization. The roles and skills of HR managers have grown considerably in recent times due to the adoption and use of new technologies. The managers are now able to perform the traditional functions of procurement, maintenance, development and utilization more effectively and efficiently.

According to Valverde (2006), HR function Is "all managerial action carried out at any level regarding the organization of work and the entry, development and exit of people in the organization so that their competencies are used at their best in order to achieve corporate objectives". It includes the actors as well as their relevant responsibilities and tasks. HR managers are facing many challenges in present business scenario like Globalization workforce diversity, technological advances and changes in political and legal environment change in information technology. All these challenges increase the pressure on HR managers to attract, retain and nurture talented employee.

Industries that seek to sustain their competitive edge, both at present and in the future require human force well equipped with recent techniques and technologies to face the changes and upcoming challenges of 21st century. There are an incredible number of demands on organizations today. Few of them includes escalating globalization, tough competition, frequent changes in technology, new organizational alliances, novel organizational structures, demographical shift, change in methods of working etc. With all these changes, there is a huge amount of pressure on today's organizations and especially HR function has a very critical role to play in order to help and navigate through evolutions. Hence HR needs to increase its apparent as well as real value.

Impact of Technology on HRM

New skills required

As new technologies are developed and implemented, there is an urgent need to upgrade existing employee skills and knowledge if the organization wants to survive and flourish in a competitive world. Additionally there will be growing demand for workers with more sophisticated training and skills especially in emerging 'hot' sectors like telecommunications, hospitality, retailing, banking, insurance, biotechnology and financial services.

Downsizing

New Technologies have decimated many lower end jobs with frustrating regularity. Increased automation has reduced employee head counts everywhere. The pressure to remain cost effective has also compelled many a firm to go lean, cutting down extra fat at each managerial level. The wave of merger and acquisition activity, in recent times has often left the new, combined companies to downsize operations ruthlessly.

Collaborative work

Technological change has resulted in hierarchical distinctions being blurred and more collaborative teamwork where managers, technicians and analysts work together on projects. Team based incentive plans have also made it necessary for all classes of employees to work in close coordination with each other.

Telecommuting

The rapid advances in technology have led to the relocation of work from the office to the home. Telecommuting has become the order of the day where employees work at home, usually with computers and use phoned and the Internet to transmit letters, data and completed work to the home office. Companies have been able to increase their applicant pool through this mode and employees have also been able to live further away from cities and gain considerably due to savings in rents, transportation etc.

Security Practices

Securing employee records used to mean locking a file cabinet. In the 21st century, best HR practices have to include security for the digital data. Some security is more an IT matter, such as a good firewall. HR needs to have good policies in place, though, governing who can access confidential data, both hard copy and in electronic form.

Internet and intranet revolution

Internet and information technology have enabled companies to become more competitive by cutting costs. Manufacturers, bank, retailers, and you name anything have successfully harnessed

computer technology to reduce their costs and deliver want satisfying goods and services to customers at an amazing speed. Even in HR, internets and intranets are being used to handle training, benefit administration, performance management and out placement functions, in recent times. The cumulative impact of new technology is so dramatic that at a broader level, organizations are changing the way they do business.

Role of HR in a virtual organization

A virtual organization is network of companies or employees connected by computers. Virtual workers work from home, hostel, their cars, or wherever their work takes them. The human resources function plays a unique role in a virtual organization:

Psychological fit

The lack of face-to-face interaction in virtual organization virtually compels HR professionals to determine the psychological fit between different units initially.

System alignment

Given the lack of physical proximity, it becomes even more critical that the organization's mission, vision and measures be aligned and that all parties are familiar with these issues, the HR function can play an important role in this task.

Reconsider staffing needs

In a virtual organization, most employees work on a contractual basis. Finding people with requisite skills, knowledge and motivation levels become an important activity.

Build partnerships

Virtual, teams have to be built from scratch paying attention to their unique requirements. The concept of employment needs to be replaced by the concept of 'partnership' especially when most tend to work independently away from the permanent employee or owners of the organization.

Develop leaders

Leaders become the major forces for building trust, creating a mission and instilling a sense of belonging to the organization HR can play a major role in ensuring that leaders assume these responsibilities and meet them in an effective away.

Opportunities for implementing IT with HR function

Competitive Advantage: Giving customized applications through HRM portals implies that e-HRM can be a key technique in innovation (i.e., E-training-Selection, E-Recruitment. E-Compensation, E-Appraisal)

Accessibility: Data is accessible to everyone, through web or intranet. Any employee can get any information effortlessly HR entryways permit the representatives to get to all the required data at a transgression click.

Rapid and Mistake-free exchanges: Technological innovations have expanded the pace of administration in organizations. Mechanical frameworks eliminate human errors.

Interactive Atmosphere: Technology enhances interactions among the representatives through the electronic gateways. Bigger organizations have more data needs, and they can take more points of interest from these data. With mid-size organizations, it enables data spread over various structures and locations

Challenges associated with HR technology

Expensive: "Technology pulls cost" An innovation-based HR framework is expensive, but once executed, it decreases the operational expenses. Substantial organizations may introduce HR gateways/bundles, while small- to mid-size organizations find it difficult to bear the cost.

Recognition: Because of IT usage, different issues like skills/knowledge for its utilization, job dangers and so on dependably ascend in its direction. Acknowledgment from the workforce is required for using it up to its fullest.

Back-ups and Security: Maintenance cost is high if we need to prevent hacking/open to all arrangement/illegal acts. A lot of thought is required on these lines.

Increasing Isolation: Due to the arrangement of virtual networks through intranet or eHR gateways, the individual collaboration among the representatives has reduced. In the traditional frameworks, they collaborate with the representatives, and were integral to the organization. They are disengaged from each other now, and are connected for all intents and purposes through such entryways only.

Review of Literature

1. **Alkali A.U., Nur Naha Abu Mansor (2016)** The paper reviews the extant literature in the field of e-training in order to develop a framework for understanding intention to use e-training. Empirical articles that specifically focused on e-training, online training, and web-based training were given priority while other non-empirical articles were considered based on their relevance and theoretical contributions to the field of e-training.

2. **Daniel Karanja and others (2018):** The study established that though ICT integration was perceived by lecturers to have a positive influence on HRM, the influence was markedly on HR administrative functions such as employee's record management and payroll administration. It was however minimal on the more strategic applications such as staff recruitment and selection, training and development as well as performance management. Finally it is ICT is currently permeating every aspect of human life. In higher education, ICT is being seen as a crucial tool that facilitates acquisition, use and management of information that is critical in decision-making.

3. **Jain V. K. (2014):** This study highlights on the Various HR functions of HR can be effectively managed through the use of computers and IT tools. For example, the functions of recruitment, employee selection, employee management and workforce planning are managed through Internet, web portals, video conferencing, data warehouse etc.; training, maintenance and performance evaluation, feedback, employee turnover, tardiness and absenteeism analysis, management and planning functions, succession planning etc. through Internet, Intranet, employee portals, and company portals etc.

4. **Puja Sareen (2015):** The present study finds a relationship between various demographic variables and level of satisfaction of employees (referred as End-users in the study) towards e-HRM system of their respective organizations. It concludes that the results show that tenure, work experience and age has a significant relationship with the 'level of satisfaction' towards the e-HRM system for 'End-users' of selected organizations. However, there is no significant relationship of the 'level of satisfaction' with gender for 'End-users' of selected organizations.

5. Vinay Saxena, and Rohit Sharma (2017). In the present study the role of IT in HRM a very wide and special. As IT in HRM generally should provide the capacity to more effectively plan, control and manage HR costs, achieve improved efficiency and quality in HR decision making, and improve employee and managerial productivity and effectiveness. This study investigates the extent and comparative impact of IT use in HRM functions in organizations from different sectors. It has also taken into account the usage pattern of different IT tools to perform different HRM functions in organizations.

Methodology
Objectives of the study
The study was planned with the following objectives.

1. To know the impact of technology innovation in HRM
2. To study the opinion of employee's, HR's on the technology innovation in HRM.
3. To understand the role of HR in technology innovation.
4. To know the challenges and opportunities in technology innovation in HRM
5. To suggest suitable measures for strengthening technology in HRM.

Statement of the problems
Many researchers have been undertaken in the past to study the changing role of HR function. HR is no longer now restricted to procurement of manpower. HR professional are rather involved in complete transformation of HR processes with the use of latest technology. The use of IT in HR is likely to reduce cost, improve service, and achieve effectiveness. Keeping these facts in mind, the present study has been undertaken.

Research Methodology
The methodology for the present study involves descriptive research study. The study involves the primary method of data collection that includes the gathering of relevant data after conducting personal interview with the selected employees and HR's. A structured as well as unstructured interview schedule was used. A sample of 100 respondents was prepared through multi-stage random sampling based on age, sex, economic condition, educational qualification, profession, designation etc. Findings has analyzed through using different statistical tools like tables & graphs. The secondary data for present study has collected from various books, journals, party literature, pamphlets, newspapers, unpublished thesis, officials' records and reports available at the company office to support the views express by respondents.

Limitations Study
There are also many limitations of this study which includes; First, the study is only limited to stovekraft industry, So the results of this study can only be used for further research in stovekraft industry at different levels. Secondly the HR practices discussed in this study are very short in numbers. These HR practices are taken from the research work already done by different researchers and according to the predominant HR practice at stovekraft, hence there are several other practices which could be focused in future studies.

Data Analysis and Discussion

Table-1: The Impact of Technology on Human Resource Management

Variable	Respondent	Percentage
Improve in organizational change and development	12	12
Improve the employee performance & productivity	16	16
Cost reduction and efficiency and time consumption	07	07
Improve the Advancement in HR Practices	45	45
New skill require and improve communication skills	10	10
Security Practices	06	06
Collaborative work	04	04

Table-2: Opinion of Employee's and HR's

It can save our time and reduce the cost of organization	13	13
It can reduce the paper work & manual workload	14	14
It can helps us to acquire new skills	25	25
It is very feasibility & accessible	37	37
It can increase the image of the organization	05	05
It is increase the quality of work life	06	06

The table-1 shows that 12 per cent of the response that the innovation of HR Technology can improve the organizational change and development. As 16 per cent of the respondent says it can improve the employee performance and productivity. About 07 per cent of respondent says it can helps for Cost-reduction and efficiency of the company. A huge number 45 per cent of the response that the innovation of HR Technology can impact on improve the advancement of HR practices. About 10 per cent respondent says it can improve the acquiring new skills and enhance communication skills of employees. A less number 6 per cent of the respondent says that the impact of technology also can impact on security practices in the company. A few number 4 per cent of the respondent says that the technology impact on collaborative work.

An analysis shows that the huge number 45 of the respondent said the innovation of technology in HR can impact to bring enhancement the advance technology in HR practices

The table-2 shows that about 13 per cent of the respondent's opinioned technology can help to reduce the cost. A 14 per cent of the respondents said that technology can reduce the paper work & manual workload. A colossal number 37 per cent of the respondent opinioned that it can helps us to acquire new skills. A mammoth 25 per cent of the respondent said technology is feasibility & accessible. A few number 5 per cent of the respondents opinioned it can increase the image of the organization. A small 6 per cent of the respondent said that it is increase the quality of work life.

An analysis shows that the mammoth number 37 per cent of the respondent's gives their opinioned about HR technology can helps them to acquire new skills and enhance communication skills.

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Table 3: Role of HR in technology innovation

Variable	Respondent	Percentage
As change agents	21	21
As strategic business partners	42	42
As administrative experts	05	05
employee champions	03	03
Human capital developer	15	15
Functional expert	12	12
Employee Advocate	02	02
Table-4: Opportunities		
Competitive Advantage	12	12
Accessibility	48	48
Rapid and Mistake-free exchanges	12	12
Interactive Atmosphere	28	28
Table-5: Challenges		
It is very expensive	13	13
Recognition	11	11
Increasing isolation	12	12
Employee resistance	44	44
Organizing training	20	20

The table-3 shows that as many as 21 per cent respondents said HR can play their role as change agents in the part of technology innovation. A massive number 42 of the respondents said HR can play role as strategic business partners. 5 per cent respondents said HR can play their role as Administrative experts in the part of technology innovation. 3 per cent respondents said HR can play their role as employee champions. 15 per cent respondents said HR can play their role as Human capital developers. 12 per cent respondents said HR can play their role as Functional expert. 2 per cent respondents said HR can play their role as Employee Advocate.

An analysis says that a massive number 42 of the respondents said HR can play role as strategic business partners.

The able-4 shows that a massive number 48 per cent of the respondents said HR technology gives an opportunity of competitive advantage. About 12 per cent of the respondents said HR technology is more accessible. A small number 12 per cent of the respondents said HR technology helps Rapid and Mistake-free exchanges. A mammoth number 28 per cent of the respondents said HR technology is gives more Interactive Atmosphere.

An analysis says that a massive number 48 per cent of the respondents said HR technology gives an opportunity of competitive advantage at global market.

The table-5 shows that 13 per cent of the respondent response the technology is very expensive. 11 per cent of the respondent response the technology does not have recognition by global market and government. About 12 per cent of the respondent response the technology Increasing employees isolation. A huge number 44 per cent of the respondent response the Employees make resistance about adoption of technology. As colossal number 20 per cent of the respondent response that organizing training is very difficult.

As analysis shows that a huge number 44 per cent of the respondent response the Employees make resistance about adoption of technology in industry.

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Major Findings

The major findings of the study based on the analysis and interpretation of the data are as below

1. An analysis shows that the huge number 45 of the respondent said the innovation of technology in HR can impact to bring enhancement the advance technology in HR practices

2. An analysis shows that the mammoth number 37 per cent of the respondent's gives their opinioned about HR technology can helps them to acquire new skills and enhance communication skills.

3. An analysis says that a massive number 42 of the respondents said HR can play role as strategic business partners.

4. An analysis says that a massive number 48 per cent of the respondents said HR technology gives an opportunity of competitive advantages in global market.

5. As analysis shows that a huge number 44 per cent of the respondent response the Employees make resistance about adoption of technology in industry.

Suggestions

1. Technology innovation can play very important role in the enhancement of advance technology in HR Practices. Therefore management should focus many more innovative technologies need to adoption in HR practices. As well as management also should concentrate and adopts more innovative technologies in the other departmental operations, so that make it easy to accomplish the goal of organization effectively.

2. All the technology was invented by human being and operates by him only. So that the management should provide proper training to that human being to acquire more knowledge about innovative technology and also take some actions to enhance their quality of work life.

3. HR can play vital role in the part of organization development by innovation of technology in HR. Management should consider & support the HR decisions & actions regarding enhancement of organization functions. Even employees also should support HR activities about technology innovations.

4. Innovation of technology in HR gives more opportunities of competitive advantages for HR and employees with global challenges. In this regard management should organize proper training to acquire knowledge for coping with challenge of competitive advantage created by global employment sector.

5. Most of organization employees make resistance about innovation technology in HRM, due to go down of job opportunities. Management should organize employee motivational programmes.

Conclusion

This study is a continuous effort in investigating and highlighting the challenges in Information Technology adoption in emerging nations. Today the world is free. In the free world, complicated technologies are frequently creating and involving with the existing technology. This sophisticated technology places new requirements on human resource managers. For instance, human resource managers must ensure that employees could be able to handle these technologies with more effectively and efficiently. In order for human resource to meet these goals, they must carefully

recruiting and selecting employees and train themselves in order to operate these sophisticated technologies. Side by side employees should enhance their technological knowledge in order to get the job in the highly sophisticated technology dependent world.

The role of HR professionals has been simplified with new technological tools, communication technologies and new application software have made and they can now spend more of their time on policy framework, strategic planning and other such issues. Effective HR transactions, increased speed , lesser paperwork and cost effectiveness are definitely some of the advantages which not only ensures transparency, but also facilitates better controls by the top management. But the implementation of e- HR requires a fundamental change in the way HR professionals view their roles.

Finally the study suggested to management about organizes proper technical training prohramme, organize motivational programmes, recognition of HR role, coping knowledge for competitive advantage and provide quality of work life.

References

1. Alkali A.U, Nur Naha Abu Mansor, Factors affecting employees' intention to use e-training in organizations, Indian Journal of Innovations and Developments Vol 5(11), November, 2016 ISSN (online) : 2277-5390, ISSN (Print) : 2277-5382

2. Daniel Karanja, Anthony Kiplang'at Sang, Mwangi Ndirangu. Influence of Integration of ICT on Human Resource Management in Kenyan Public Universities. *International Journal of Sustainability Management and Information Technologies*. Vol. 3, No. 6, 2017, pp. 73-78. January 11, 2018.

3. Jain. V. K., Impact of Technology on HR Practices International Journal of Informative & Futuristic Research, Volume -1 Issue -10, June 2014, ISSN (Online): 2347-1697

4. Puja Sareen, Study of Employee Satisfaction towards e-HRM system, European Journal of Applied Business Management, 1 (1), 2015, pp.1-18, ISSN 2183-5594.

5. Vinay Saxena, and Rohit Sharma. (2017). "Employee Perception toward the Impact of Information Technology in Human Resource Management." *International Journal of Research - Granthaalayah*, ISSN- 2350-0530(O), ISSN- 2394-3629(P) Vol.5 (Iss.7): July, 2017

6. Valverde (2006)