

# 3 The Impact of Technology on Contemporary Practices of HR and Its Role in Enhancing The Organizational Effectiveness - An Empirical Study

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## Abstract

*In contemporary times, the influence of technology has made the world a global village. Advanced means of communication and transportation has reduced the distance of miles into few hours/minutes. The advent of computers and internet has its significant impact on every aspect of society. Today the business world cannot survive without technology. This paper tries to explore and study in an empirical way, the impact of technology on contemporary practices of HR and its role in enhancing the organizational effectiveness.*

**Keywords:** - Technology, Human Resource, Organizational Effectiveness

## Introduction

“The e- revolution has finally freed HR to focus on strategies to support the company business- the acquisition, retention and growth of the company’s most important assets: its people and its collective knowledge.”- Watson Wyatt, HR consulting firm.

Today, the business world is facing a lot of challenges and is undergoing a substantial change. Organizations are facing the problem of job hopping, job poaching, attrition, employee turnover etc. The organization which supports the traditional HR functions fails to catch up with the dynamic changes happening in the environment. They are lagging behind in collecting employee information, monitoring individual performance and implementing organizational policies. There is constant pressure on HR to adapt itself swiftly with

the environment. Effective management of human resources can provide organizations with a significant competitive advantage in this globalized and liberalized world. The organization has to make all efforts to bridge the knowledge gap. It has to support the strategic objectives, focus on value adding activities which will lead to change in the job content and expectations from employees. Managing the human assets is critical for the organization as it has a significant impact on organization’s goodwill and profitability in the market.

**Procurement:** - Today organizations are using more elaborated and creative methods to hire the right people from the shrinking pool. The organizations are using their own websites as well as job portals like monster.com, Hotsjob.com, Hiree.com, Headhunters.com, Naukri.com and Timesjob.com to hire a quality talent. Getting the resumes in an electronic form has its own advantages like dealing with less paperwork, storing the resumes in their databases, greater ease of sharing the information with others involved in hiring processes.

**Development:**-Organization invests heavily on training and development of the employees. This is one area where most of the companies are looking for an opportunity to minimize their expenditure. Technological tools try to rectify this problem. Helping the employees to learn better and faster is the key concern for the HR executives of the organization. Lack of skilled employees is the potential barrier for most of the organizations. Online training helps the organization in significant

ways like it delivers training material anywhere and anytime; it has the ability to help the employees to learn faster and in some cases better; delivers learning free of limitations of time and space; if the material is interactive it allows the learner to respond to the questions and receive immediate feedback; it also helps in tracking and evaluating the effectiveness of training. In addition to this many organizations are providing customized training programs for different employees.

**Compensation:** - Compensation and benefits has undergone a sea change in the past few years. The technology has its profound impact on the compensation and benefits administration. Compensation plan should be at or above market level, including stock options; quality of life with flexible work time and more vacation time; opportunities for personal development and skill development; performance and skill based incentives. Presently the compensation benefits available are more of a self-service operation on the company's website. The other advantages of integrating technological tools in compensation are, it provides greater access to relevant information about compensation benefits etc.

**Retention:-** Retention of critical talent is prudent for organization's survival, long term profitability and growth. Organizations are employing a plethora of techno savvy techniques to meet this challenge. The techniques used to find out why the employees stay or leave the organization are employee opinion surveys and exit interviews. The opinion surveys help in knowing the mind-set of the employees. The exit interviews often help organizations to better understand the rationale of employee turnover. Most of the organizations are emphasising on the importance of culture. They are also making it sure that employees have the best tools to do their job effectively. Because of intense competition it is a daunting task for organizations to retain the critical talent.

**Human Resource Information System (HRIS):-** HRIS can be briefly defined as integrated systems used to gather, store and analyse information regarding

organization's human resources. It refers to the system and processes at the intersection of HRM and information technology. It is an information system that provides a single centralized view of data that a human resource management requires for completing HR processes.

HRIS helps in implementing and administering the organization compensation policies. It provides statistical summaries and special reports involving pay grade, performance data, pay roll information and other employee records. HRIS is integrated with payroll system of the organization to prepare bonuses, benefits and maintaining payroll records.

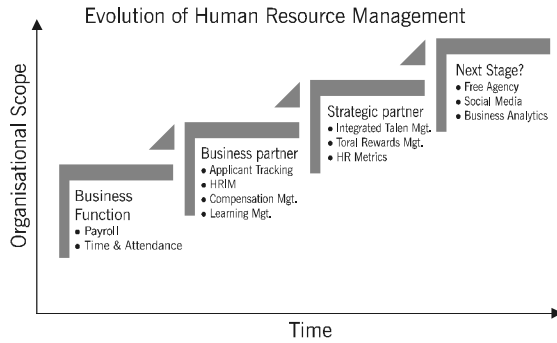
Application tracking system is also known as candidate management system. It is a software application designed to help an enterprise recruit employees more efficiently. It can be used to post job openings on a corporate website or job board, screen resumes and generate interview requests to potential candidates by email. It also helps in customized input forms, pre-screening questions, response tracking and multilingual capabilities.

HRIS helps in HR professionals to comply with regulations and can also make the process of compiling information and reports much less painful and time consuming.

**Organizational Effectiveness:** - It is the concept of how effective an organization is in achieving the outcomes the organization intends to produce. It is the ability of an organization to account successfully for its output and operations to its various internal and external constituencies.

#### Review of Literature

Traditional HR functions were limited to recruitment, selection, training & development, performance management etc. Early systems were narrow in scope and typically focussed on a single task such as improving the payroll process or tracking employees work hours. The intervention of technology has brought tremendous changes in the field of HR.



Source:-Mark Berry, 2015, HR Analytics: - The GPS of true HR transformation

Table showing changing role of HR from transactional to transformational

The dimensions of differentiation	Personnel management practice	Human resource management practice
The evaluation of personnel.	As variable costs.	As the most valuable of all the organizational assets.
The emphasis on : strategy and planning ; Problem- solving and mediation.	Short-term (reactive) orientation, (emphasis on problem- solving and mediation).	Strategic (pro-active) orientation (emphasis on strategy and planning).
The role of line managers.	Involves personnel managers.	Involves all managerial personnel.
The key levers of implementation of observed practice.	Based on personnel procedures and rules.	Based on the management of organizational culture.

Source : Bensahel, Chamsoudinova: adapted from Beseyre des Horts 1988, pp. 51-68; Sisson, in Sisson (ed.), 1989, pp. 3-52; Bluton, Turnbull, in Bluton, Turnbull (eds.), 1992, pp. 1-15; Citeau, 1994, pp. 30-34; Storey, in Storey (ed.), 1999, pp. 3-31.

Gardner et al (2003), in their research work investigated the influence of extensive use of information technology in human resource. The findings suggest that use of technology can reduce routine work and allow better information communication and autonomy, which leads to fundamental change in the functioning of HR.

Hussainetal (2006), have discussed the use of technology in different size of companies. The application of technology can enhance the strategy partner role of HR professionals. The researchers also noted that application of technology can provide value added services and raise the status of not only HR but of organization as a whole.

Haines and Lafleur (2008) examines the influence of technology on the role and effectiveness of the HR function. The results reveal that the frequent use of technology in human resource applications result into the increased involvement of HR in the strategic role of organization.

Rueletal (2008), has opined that organizations can manage an increasing number of HR processes in an effective manner with the improved technology and this will help the HR to play a strategic role in attaining enhanced competitive advantage.

Adewoye (2012), has mentioned that the interaction and intersection between technology and HRM leads to emergence of human resource information system. It merged all HRM activities and processes with technology which provides strategic, flexible, cost efficient and customer oriented services.

**Research Methodology**

The study is descriptive and empirical in nature. It is based on primary data collected from various sample of the organizations. The research is quantitative in approach. Primary data has been collected through structured questionnaire. The questionnaire was close ended and is based on Likert five point scale. Secondary data has been collected through journals, books etc. Ten leading IT companies have been selected for study. These companies are listed in NASSCOM. The selection of these companies have been based on convenience sampling, although certain criteria to select the companies like the number of years in operation (i.e. min. of 10 years) and number of employees (i.e. min. of 1000) has been used. The questionnaire was self-administered to the HR executives to give their feedback.

**Objectives of the Study**

- 1) To assess the impact of technological tools used for procurement of employees on organizational effectiveness.
- 2) To evaluate the impact of technological tools used for the development of employees on organizational effectiveness.

3) To find out the impact of technological tools used for retention of employees on organizational effectiveness.

$H_{a2}$  = There is a significant relationship between technological tools used for development of employees and organizational effectiveness.

**Hypotheses**

$H_{o1}$  = There is no significant relationship between technological tools used for procurement of employees and organizational effectiveness.

$H_{o3}$  = There is no significant relationship between technological tools used for retention of employees and organizational effectiveness.

$H_{a1}$  = There is a significant relationship between technological tools used for procurement of employees and organizational effectiveness.

$H_{a3}$  = There is a significant relationship between technological tools used for retention of employees and organizational effectiveness.

$H_{o2}$  = There is no significant relationship between technological tools used for development of employees and organizational effectiveness.

**Analysis & Interpretation**

Table showing the relationship between technological tools used for procurement of employees and organizational effectiveness

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.925 <sup>a</sup>	.856	.852	.19367	.856	225.909	1	38	.000

a. Predictors: (Constant), AV of F

This table provides the value of R and R square. The R value represents the simple correlation and is 0.925, which indicates a high degree of correlation. The R square value indicates how much of total variation in the dependent variable, technological tools for procurement of employees, is explained by independent variable, organizational effectiveness. In this case it is 85.6%.

ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	8.473	1	8.473	225.909	.000 <sup>b</sup>
Residual	1.425	38	.038		
Total	9.898	39			

a. Dependent Variable: AV of A

b. Predictors: (Constant), AV of F The above ANOVA table, which reports how well the regression equation fits the data (i.e. predicts the dependent variable). This table indicates that the regression model predicts the dependent variable significantly well. The F ratio tests whether the overall regression model is a good fit for the data. The table shows that the independent variable statistically and significantly predicts the dependent variable (1, 38) = 225.909,  $p < 0.0005$  (i.e. the regression model is a good fit for the data. This proves the first alternative hypothesis that there is a significant relationship between technological tools used for procurement of employees and organizational effectiveness.

Table showing the relationship between technological tools used for development of employees and organizational effectiveness

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.961 <sup>a</sup>	.924	.922	.15775	.924	464.051	1	38	.000

a. Predictors: (Constant),

This table provides the value of R and R square. The R value represents the simple correlation and is 0.961, which indicates a high degree of correlation. The R square value indicates how much of total variation in the dependent variable, technological tools for development of employees, is explained by independent variable, organizational effectiveness. In this case it is 92.4%.

ANNOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	11.548	1	11.548	464.051	.000 <sup>b</sup>
Residual	.946	38	.025		
Total	12.494	39			

a. Dependent Variable: V4

b. Predictors: (Constant), V5

The above ANOVA, table reports how well the regression equation fits the data (i.e. predicts the dependent variable). This table indicates that the regression model predicts the dependent variable significantly well. The F ratio tests whether the overall regression model is a good fit for the data. The table shows that the independent variable statistically and significantly predicts the dependent variable (1, 38) = 464.051,  $p < 0.0005$  (i.e. the regression model is a good fit for the data).

This proves the second alternative hypothesis that there is a significant relationship between technological tools used for development of employees and organizational effectiveness.

Table showing the relationship between technological tools used for retention of employees and organizational effectiveness.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.973 <sup>a</sup>	.946	.945	.1785317	.946669	.412	1	38	.000

a. Predictors: (Constant), V11 This table provides the value of R and R square. The R value represents the simple correlation and is 0.973, which indicates a high degree of correlation. The R square value indicates how much of total variation in the dependent variable, technological tools for retention of employees, is explained by independent variable, organizational effectiveness. In this case it is 94.6%.

**ANNOVA**

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	21.337	1	21.337	669.412	.000 <sup>b</sup>
Residual	1.211	38	.032		
Total	22.548	39			

a. Dependent Variable: V10

The above ANOVA, table reports how well the regression equation fits the data (i.e. predicts the dependent variable). This table indicates that the regression model predicts the dependent variable significantly well. The F ratio tests whether the overall regression model is a good fit for the data. The table shows that the independent variable statistically and significantly predicts the dependent variable (1, 38) =669.412,  $p < 0.0005$  (i.e. the regression model is a good fit for the data).

This proves the third hypotheses that there is a significant relationship between technological tools used for retention of employees and organizational effectiveness.

**Suggestions**

- 1) For procurement of employees it can be suggested that organizations examine the benchmark in their industry and use electronic resumes. The organizations together with their HR professionals should search out on line resources and databases to fill positions or categories of employees.
- 2) For developing human resources, organizations should consider assessing the strategic and training needs of the employees. HR managers should work with employees to search out online career tools and use this as a tool of retention.
- 3) In terms of compensation and benefits the organizations must realize that due to advent of technology employees are more knowledgeable than ever before and it is prudent to monitor market trends in terms of pay and compensation.
- 4) Organizations should emphasize on employee retention through variety of strategies like supporting work-life balance, cultivating a corporate culture which focuses on employee development, offer options like telecommuting and flexible schedules.
- 5) There is a need for more direct tangible accountability for developing employees, leaders and managers, but this accountability

needs to work both ways. Organizations must provide the training and support managers need, to build their management skills and capabilities.

**Conclusion**

Expedited investment and innovation in technology offers prospects for conducting businesses in the ways that are radically different from the past. Technology should be installed in the organization in such a way that it inspires confidence among the employees. Organizations and HR professionals must work together to leverage the innovations in technology in coming years. In future, those firms that undertake technology initiatives with more focus on value added activities are the ones which will realize the full potential of technology.

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