

# Impact of Information and Communication Technology in HRM

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**Abstract:** Information and communication technology refers to the internet services combined with computers for the unified use of technology. Information and communications technology (ICT) is often used as an extended synonym for information technology (IT), but is a more specific term that stresses the role of unified communications<sup>[1]</sup> and the integration of telecommunications (telephone lines and wireless signals), computers as well as necessary enterprise software, middleware, storage, and audio-visual systems, which enable users to access, store, transmit, and manipulate information. It is based on a survey of 65 employees. The survey concludes that ICT improves the efficiency, innovation reduces the time help in easier functioning of the organisation. It improves the performance of the employee. It helps to reduce the work time. The sample size was reasonable well.

**Keywords:** information and communication technology, enterprise, audio-visual systems.

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## I. INTRODUCTION

According to Valverde et al. (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.

HR professional can't ignore these challenges rather they ought to be line to design and execute innovative mechanisms of developing skills and competencies of human resources to prepare them to accept the emerging challenges.

The 21st century has been characterized by a common global phenomenon: Globalization. At the economic level, globalization is the process of denationalizing local and global markets and reshaping their political and legal landscapes. With the ubiquitous expansion of the 'free market principal', trade is being internationalized as investors disregard national bureaucratic obstacles. The 'global economy', therefore, has become an all-encompassing catchphrase for every nation doing trade in the world economy. Intrinsically related to the contemporary trend of globalization is the bewildering speed of the technological revolution due mainly to the development of Information Communication Technology (ICT).

Not only have new products implemented such new technologies, but they have also restructured and modified the entire manufacturing process. Therefore, a Knowledge-Based Economy has quickly emerged through this technological-information-production revolution. As such, these present-day developments greatly affect the world of labor. With the accelerating pace of globalization, on the one hand, there is stiffer competition for International and Domestic markets. This intense competition creates a more flexible labor force in various fields such as working time, type of contract and employment adjustments. Such a swift transition to a knowledge-based economy energized by the pervasive introduction of ICT, on the other, will exert significant influence on other labor-related fields such as wage levels, working process, organization of work, industrial relations and employment. This pattern of globalization propelled by technological change is viewed as restructuring the nature and quality of work and working. There is, therefore, a growing need for a more thorough study from within a systematic and synthetic perspective of the quality-related notion of work and 'decent work.' A closely related --no less indispensable-- research topic is the practical effects of ICT on decent work.

## II. REVIEW OF LITERATURE

In this paper, the main focus on how modern technology is helping in ensuring effectiveness of HR functions. ICT is an opportunity for organizations to make the HR department administratively and strategically participative in operating the organization. The main objective is to understand the extent to which ICT is being used in increasing the administrative and strategic functions of the HR department. For this purpose, we have conducted a survey of 65 WORKING PROFESSIONALS from various private corporations operating in indore Madhya Pradesh. The results show that ICT is positively used as a tool to achieve greater administrative efficiency by adding value in the department. However, all of its benefits are difficult to quantify. ICT utility as a strategic tool is still not been fully recognized, and this is preventing the system to be used to its fullest potential. Suggestions and recommendations are provided. Strength of a nation is now measured based on the level of technology it possesses and with the “technovation” (technology and innovation) is the key for growth of the organization. It is the single most important factor that drives organization. Organizations are likely to sustain that are able to identify consumer preferences, predict market trends, innovate new products and produce world class product and services. In this scenario, there is a need to clearly identify new technology, modern manufacturing processes, ensure quality in production and improve skills of the employees so that they are able to adapt to new environment. By doing so organizations are expected to improve upon their knowledge management function. It is therefore essential to understand new technology paradigm and dovetail skilled human resource in the process to achieve human factor engineering to enable quality product and services are rendered to the society. It is in the light of the above; HR functions are required to be seen to meet the impact of technology. The article examines the current trend in new technology and development of human skills in its light.

## III. RESEARCH METHODOLOGY

### Objectives:

The main objective of the study is to find Impact of Technology Advancement on Human Resource Performance. To achieve these main objectives, we need to achieve more sub objective like: \* Challenges in human resource management from technological advancement \* Importance of ICT in human resource performance

A research design is the specification of methods & procedure for acquiring the information needed. It is the overall operation pattern or framework that stipulates what information is to be collected from which sources by what procedure. The research methodology of this paper is totally depend upon PRIMARY AS WELL AS secondary data like journal, books and various website from internet.

### Sampling Frame:

1. SAMPLE UNIT- EMPLOYEES FROM DIFFERENT PROFESSIONS.
2. SAMPLE SIZE-65(MALE- 35 FEMALE-30)

### Limitations of The Study:

The study was usually generalized on basis of 65 employees or professionals interaction .although unique it is very much essential for researcher to have a large data for above analysis. the research was basically specific to the IT companies and not the general manufacturing or service sectors which have ICT enabled environment. The scope for further research in this topic is immense.

## IV. FINDINGS AND ANALYSIS

1. **RELIABILITY STATISTICS:** Reliability test was first applied on the collected data. Cronbach's alpha coefficient on 15 items has been found as 0.890 which shows that there is high consistency.

**Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.891	.890	15

2. **FACTOR ANALYSIS:** IT is a statistical method used to describe variability among observed, correlated variables in terms of a potentially lower number of unobserved variables called factors. the Kaiser-Meyer-olkin measure of sampling adequacy is a statistic that indicates the proportion of variance in variables that might be caused by underlying factors.

<b>1.organisational development</b>	
Reliance on ICT	0.774
Efficiency and efficacy	0.762
Privacy and security	0.720
Cooperation and coordination	0.614
Worktime reduction	0.572
<b>2.Productivity</b>	
Job expertise	0.774
Productivity improvisation	0.644
accessibility	0.641
Lessen manual workload	0.626
feasibility	0.526
<b>3.cost effective</b>	
training	0.757
Finacial soundeness	0.600
revolutionary	0.546
<b>4.communication</b>	
communication	0.876
Data sharing	0.554

## V. ANOVA ANALYSIS

### ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
VAR00001	Between Groups	.879	1	.879	.915	.342
	Within Groups	60.567	63	.961		
	Total	61.446	64			
VAR00002	Between Groups	1.500	1	1.500	1.534	.220
	Within Groups	61.638	63	.978		
	Total	63.138	64			
VAR00003	Between Groups	.001	1	.001	.002	.969
	Within Groups	59.752	63	.948		
	Total	59.754	64			
VAR00004	Between Groups	2.060	1	2.060	1.849	.179
	Within Groups	70.186	63	1.114		
	Total	72.246	64			
VAR00005	Between Groups	.775	1	.775	.901	.346
	Within Groups	54.210	63	.860		
	Total	54.985	64			
VAR00006	Between Groups	.132	1	.132	.135	.714
	Within Groups					

	Within Groups	61.652	63	.979		
	Total	61.785	64			
VAR00007	Between Groups	1.319	1	1.319	.859	.358
	Within Groups	96.743	63	1.536		
	Total	98.062	64			
VAR00008	Between Groups	.132	1	.132	.137	.713
	Within Groups	60.852	63	.966		
	Total	60.985	64			
VAR00009	Between Groups	1.694	1	1.694	1.105	.297
	Within Groups	96.552	63	1.533		
	Total	98.246	64			
VAR00010	Between Groups	.501	1	.501	.470	.496
	Within Groups	67.252	63	1.067		
	Total	67.754	64			
VAR00011	Between Groups	1.108	1	1.108	1.197	.278
	Within Groups	58.338	63	.926		
	Total	59.446	64			
VAR00012	Between Groups	.053	1	.053	.036	.849
	Within Groups	91.486	63	1.452		
	Total	91.538	64			
VAR00013	Between Groups	5.363	1	5.363	4.638	.035
	Within Groups	72.852	63	1.156		
	Total	78.215	64			
VAR00014	Between Groups	7.179	1	7.179	4.989	.029
	Within Groups	90.667	63	1.439		
	Total	97.846	64			
VAR00015	Between Groups	.082	1	.082	.059	.809
	Within Groups	88.471	63	1.404		
	Total	88.554	64			

**Significance test:**

- For the variable VAR00001 the value of significance is **0.342 which** is not less than 0.05 and hence the hypothesis that ICT reduces the worktime has a impact on HR practices.(accepted)
- For the variable VAR00002 the value of significance is **0.220 which** is not less than 0.05 and hence the hypothesis that ICT reduces the manual work has a impact on HR practices.(accepted)

- For the variable VAR00003 the value of significance is **0.969 which** is not less than 0.05 and hence the hypothesis that ICT reduces the cost of operations has a impact on HR practices.(accepted)
- For the variable VAR00004 the value of significance is **0.179 which** is not less than 0.05 and hence the hypothesis that ICT is easily accesible in the organisation has a impact on HR practices.(accepted)
- For the variable VAR00005 the value of significance is **0.346 which** is not less than 0.05 and hence the hypothesis that ICT is feasible to use in the organisation has a impact on HR practices.(accepted)
- For the variable VAR00006 the value of significance is **0.714 which** is not less than 0.05 and hence the hypothesis that ICT promotes the training in this field has a impact on HR practices.(accepted)
- For the variable VAR00007 the value of significance is **0.358 which** is not less than 0.05 and hence the hypothesis that ICT improves the productivity has a impact on HR practices.(accepted)
- For the variable VAR00008 the value of significance is **0.713 which** is not less than 0.05 and hence the hypothesis that ICT improves the communication between the staff has a impact on HR practices.(accepted)
- For the variable VAR00009 the value of significance is **0.297 which** is not less than 0.05 and hence the hypothesis that ICT is path breaking has a impact on HR practices.(accepted)
- For the variable VAR000010 the value of significance is **0.496 which** is not less than 0.05 and hence the hypothesis that improvisation of shared data using ICT has a impact on HR practices.(accepted)
- For the variable VAR000011 the value of significance is **0.278 which** is not less than 0.05 and hence the hypothesis that ICT improves the knowledge and expertise has a impact on HR practices.(accepted)
- For the variable VAR000012 the value of significance is **0.849 which** is not less than 0.05 and hence the hypothesis that ICT improves the cooperation and coordination has a impact on HR practices.(accepted)
- For the variable VAR000013 the value of significance is **0.035 which** is not less than 0.05 and hence the hypothesis that ICT improves the data sharing and securty has a impact on HR practices.(accepted)
- For the variable VAR000014 the value of significance is **0.029 which** is not less than 0.05 and hence the hypothesis that ICT improves the efficiency and efficacy of organization has a impact on HR practices.(accepted)
- For the variable VAR000015 the value of significance is **0.809 which** is not less than 0.05 and hence the hypothesis that ICT is much reliable in goal accomplishment has a impact on HR practices.(accepted).

## VI. CONCLUSION

- Information technology is expected to improve the performance of Human Resource Management (HRM) by shifting its focus from administration or personnel management to strategic HRM. The rapid technology changes also ask for HR professionals to get new skills through education, or sourcing HR Professionals who have IT ability. It is important to note that a company that does not have a computerized system still has an HRM system; that is, the paper systems that most companies used before the development of computer technology were still comparable with an Information and communication technology, but the management of employee information was not done as quickly as in a computerized system. If a company did not have a paper system, the development and implementation of a computerized system would be extremely difficult.
- For the purpose of this we will use the term ICT to refer to a computerized system designed to manage company's HR. Owing to the revolution in information technology, the face of the contemporary workplace has changed and systems have been made more effective by introducing new techniques. Majority of the organizations have now understood the importance of information storage and retrieval.
- To conclude that it can be said that HR practice is becoming more and more challenging day by day, they have to face lot of problems like retention, attraction of employee, dealing with different cultural people, managing work force diversity, technological and informational changes to overcome with these challenges ICT training (Cross cultural training and technological and informational training) is necessary of HR people.

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