

INFORMATION TECHNOLOGY & ITS IMPACT ON HUMAN RESOURCE MANAGEMENT: A PERCEPTUAL ANALYSIS OF SELECTED MANUFACTURING FIRMS IN SIDCUL, PANTNAGAR

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ABSTRACT:

This paper makes an attempt to identify the impact of IT on HRM practices such as Recruitment, Selection, Training, Performance Appraisal, Communication and Compensation in the selected manufacturing firms in SIDCUL, Pantnagar. The study sample size consisted of all supervisory position's employees in the three manufacturing firms. To attain the objectives of the paper, the researcher used the descriptive analytical method and cluster sampling method consisting of 171 employees' males and females who were selected to collect data needed, then the questionnaire was developed and distributed to the sample, data was analyzed using SPSS statistical software, a descriptive and analytical statistics were used for the process of analysis. The results showed that there was an existence of a positive statistically significant impact of IT on HRM practices i.e., Recruitment, Selection, Training, Performance Appraisal, Communication and Compensation.

Keywords: IT, HRM, SIDCUL, Manufacturing, Practices.

INTRODUCTION:

Information Technology (IT) employs computer systems or equipment to process or use information. In the present times, IT is the amalgamation of both i.e., information and technology and it influences the daily dealings of any individual, society, business or country. Nowadays, it has become a common thing that is used by every business to upgrade every aspect of their dealing or operations. Multination organizations to domestic firms all use IT to accomplish and customize information as per their requirements. The role of IT is enormous and delivers a groundwork for the present workforce of any business. Starting from communications to data management, IT plays a dynamic role in driving efficiency to its highest point. ⁽¹⁾

Human Resource Management (HRM) is the exercise of recruiting, hiring, deploying and supervising of any company's workforce and in general terms, HRM is frequently known as Human Resources (HR). A business or firm HR division is typically accountable for generating, putting into effect and supervising procedures governing employees and the affiliation of the company with its workers. The word 'Human Resources' was first used in the early 1900s, and then even more extensively in the 1960s, to pronounce the persons who work for the company. HRM is workers management with a stress on the point that the workers are the assets of the company and that is why the workers in modern day are also known as human capital. ^{(2) (3)}

HRM is an extremely complicated area that contains numerous procedures and it often transpires that HR personals spend too much of their time on ordinary, repetitious jobs instead of concentrating on more important matters. The application of IT into the HRM system releases the personals from a good number of monotonous activities. The computerization of procedures removes paperwork, speeds up the implementation of numerous tasks and contributes to a more well-organized HRM system. The implementation of IT implies that the organizations can employ the state-of-the-art procedures to help their workforce achieve efficiency and effectiveness. It is imperative to remember that the whole HRM system cannot function without its human capital. ⁽⁴⁾

REVIEW OF LITERATURE:

Ramesh Pandita and J. Dominic (2018) research is based on the primary data which was gathered from the library and information science personals employed in the higher education institutes in the state of J&K. Their research main objective was to evaluate, as to how far the utilization of information and communication technology apart from enhancing the library services and events, has been helpful in enhancing the job satisfaction among the library and information personals. A total of 264 respondents' data was collected, about 70% respondents' perception was that the library and information science personals contribute significantly into the teaching and research activities of their institutes. About 60% respondents were satisfied with the fact that information technology infrastructure in their respective libraries have an important role in increasing the job satisfaction of library personals. The paper concluded that the library personals working in the manual environment have lower levels of job satisfaction. ⁽⁵⁾

Eleanna Galanaki, et. al. (2019) research is based on a configurational method and proposes to deliver methodical information on which arrangements of e-HRM implementation essentially exist at the world level. The authors operationalized e-HRM configuration as a mixture of the real degree of technological presence and the degree to which the technology is employed to allow HRM process. The authors main objectives were to find out which configurational categories are present in e-HRM implementation, which contextual issues clarify the appearance of a certain configurational kind of e-HRM. They employed an exploratory pan-country research design and executed a cluster examination among 5854 firms working in 31 nations. As per their findings, four categories of e-HRM configurations are present i.e., 'non-usage', 'HR primacy', 'Integrated e-HRM' and 'IT primacy'. They further found out that the absence of collaboration between IT and HR personals produces hybrid e-HRM configurations which results in ineffective adoption of e-HRM. Their outcomes suggested that the effect of domestic policies is responsible in activating innovation on e-HRM configurations. ⁽⁶⁾

Rashika Shukla (2020) state that intelligent companies know the benefits of going beyond the traditional way of doing business. These companies adopt those HR procedures, which help them to go ahead in the race and thereby, creating ample sources of revenues. The main focus of this research was to find out the impact of data technology on recruitment and selection process of the company. This research looks at a number of the HR processes instigated by such companies which may achieve a bright future with the help of changes, cutting-edge technology, inspiration, and out-of-the-box thinking. In any company, the primary focus of the HR department depends on the strategies adopted and implemented by that particular company. The author in this particular research investigated those inventions that are able to supplemented knowledge with technology and has an optimistic influence on the company. The paper concluded that IT discreetly assists the HR goals and a precise application of HRIS can meaningfully help the HR strategy to attain its vision and mission. ⁽⁷⁾

H. Heslina and Andi Syahrani (2021) main objective to carry out the research was to examine the impact of IT, HR and work engagement on the performance of the Makassar Regional Revenue Agency workforce. The authors employed descriptive analysis and analysis of multiple linear regression and the sample was 142 employees. The outcome showed that IT, HR and work engagement have a positive and substantial influence on the performance of the employees and this was proven further with the help of partial and simultaneous testing. The outcome of this research proposed that the IT must offer advantages and should be assisted by HR

personals as they have the know-how as to produce a work climate that will assist the workforce and organizational performance. ⁽⁸⁾

Misbachul Munir, et. el. (2022) state that technological advancements have an influence on development of business and each and every business department must make alterations to predict them. This circumstance becomes a threat for business owners and scholars who are involved in the field of management studies. A real instance that demonstrates the influence of technological developments on the companies is the growth of VoIP (Voice Over Internet Protocol). In reply to the alterations in VoIP and changes in the companies have also taken place at a rapid speed. Developments in IT also have an influence on the companies as they have changed from a hierarchical company to a leaner company. The alteration of the HRM role has led to numerous new ideas in modern-day HRM procedures. The transposition of the HRM job is also an expectation of changes in the worldwide business environment. The transposition of the HRM job from a theoretical viewpoint will activate more inclusive research in scrutinizing this development. ⁽⁹⁾

Soegeng Wahyoedi, et. al. (2023) intends to deliberate the application of IT in HRM by espousing the theory of Technology Acceptance Model and Diffusion of Innovation. This paper is qualitative in nature and this was done with help of reviewing appropriate literature. Data collection methods comprised listening and documenting significant information to carry out data analysis with the help of data reduction, data display, and conclusion drawing. The outcome of this research demonstrates that the application of IT can deliver numerous advantages for HRM such as snowballing effectiveness, fast-tracking the decision-making procedures and plummeting operational prices. The outcomes of this research are also expected to deliver added value in decision making for firms in taking care of their HRM. ⁽¹⁰⁾

OBJECTIVES OF THE STUDY:

This research study has taken into consideration the following objectives:

- ✓ To assess the impact of IT on HRM activities on employees working in selected manufacturing firms in SIDCUL, Pantnagar.
- ✓ To understand the perception of employees towards the application of IT in the HR services and other activities in selected manufacturing firms.
- ✓ To gauge the impact of IT on the various factors of HRM in selected manufacturing firms in SIDCUL, Pantnagar.

RESEARCH METHODOLOGY:

- ✓ **Population of the Study:** Employees working in the selected manufacturing firms in SIDCUL, Pantnagar.
- ✓ **Sample of the Study:** Cluster Sampling Methods ⁽¹¹⁾
- ✓ **Sample Size:** 300 questionnaires were distributed to respondents out of which only 171 respondents' data were used for analysis. ⁽¹²⁾
- ✓ **Study Instruments:** A questionnaire consisting of 10 factors was used to collect primary data. ⁽¹³⁾
- ✓ **Study Reliability:** Chronbach's Alpha test was done in SPSS and result was 0.698. ⁽¹⁴⁾
- ✓ **Data Collection Method:** Primary data was collected and secondary data was also used. ⁽¹⁵⁾
- ✓ **Measurements Tools:** Likert five scales was used to measure the variables from a scale of strongly agree (1) to strongly disagree (5). ⁽¹⁶⁾
- ✓ **Statistical Analysis (Tools):** Frequency (f), Percentage (%), Mean (\bar{x}), Standard Deviation (σ) and One Way ANOVA Test. ^{(17) (18)}

INTERPRETATION & RESULTS: The demographic and study sample results are as follows:

TABLE 1 DEMOGRAPHIC DETAILS

Parameter	Variables	No.	%	\bar{x}	σ
Age	18-30	72	42.1	2.33	0.981
	31-50	51	29.9		
	51-60	40	23.4		
	60+	8	4.6		
Education	Upto 12th	51	29.9	1.61	0.884
	Graduate	74	43.2		
	PG	32	18.8		
	Professional	14	8.1		
Type of Employment	Permanent	75	43.9	1.74	0.438
	Contractual	96	56.1		
Department	Production	89	52.1	2.37	0.659
	Logistics	23	13.4		
	Quality	38	22.2		
	Others	21	12.2		

The hypotheses testing results are as follows:

H₀₁: There is no significant impact of Information Technology on Human Resources Management in relation to the Recruitment.

TABLE 2 RECRUITMENT

Variables		Sum of Squares	df	Mean Square	F	Sig.
Recruitment	Between Groups	2.246	2	1.123	1.438	0.240
	Within Groups	131.17	168	0.781		
	Total	133.415	170			

Source: Primary Data

Interpretation: The value of One-Way ANOVA test is 1.438 and P value is 0.240. Hence, null hypothesis is rejected which means that there is a significant impact of IT on HRM in relation to the Recruitment.

H₀₂: There is no significant impact of Information Technology on Human Resources Management in relation to the Selection.

TABLE 3 SELECTION

Variables		Sum of Squares	df	Mean Square	F	Sig.
Selection	Between Groups	3.113	2	1.556	2.328	0.101
	Within Groups	112.303	168	0.668		
	Total	115.415	170			

Source: Primary Data

Interpretation: The value of One-Way ANOVA test is 2.328 and P value is 0.101. Hence, null hypothesis is rejected which means that there is a significant impact of IT on HRM in relation to the Selection.

H₀₃: There is no significant impact of Information Technology on Human Resources Management in relation to the Training.

TABLE 4 TRAINING

Variables		Sum of Squares	df	Mean Square	F	Sig.
Training	Between Groups	2.452	2	1.226	1.243	0.291
	Within Groups	165.735	168	0.987		
	Total	168.187	170			

Source: Primary Data

Interpretation: The value of One-Way ANOVA test is 1.243 and P value is 0.291. Hence, null hypothesis is rejected which means that there is a significant impact of IT on HRM in relation to the Training.

H₀₄: There is no significant impact of Information Technology on Human Resources Management in relation to the Performance Appraisal.

TABLE 5 PERFORMANCE APPRAISAL

Variables		Sum of Squares	df	Mean Square	F	Sig.
Performance Appraisal	Between Groups	1.026	2	0.513	0.570	0.567
	Within Groups	151.267	168	0.900		
	Total	152.292	170			

Source: Primary Data

Interpretation: The value of One-Way ANOVA test is 0.570 and P value is 0.567. Hence, null hypothesis is rejected which means that there is a significant impact of IT on HRM in relation to the Performance Appraisal.

H₀₅: There is no significant impact of Information Technology on Human Resources Management in relation to the Communication.

TABLE 6 COMMUNICATION

Variables		Sum of Squares	df	Mean Square	F	Sig.
Communication	Between Groups	9.530	2	4.765	2.697	0.070
	Within Groups	296.763	168	1.766		
	Total	306.292	170			

Source: Primary Data

Interpretation: The value of One-Way ANOVA test is 2.697 and P value is 0.070. Hence, null hypothesis is rejected which means that there is a significant impact of IT on HRM in relation to the Communication.

H₀₆: There is no significant impact of Information Technology on Human Resources Management in relation to the Compensation.

TABLE 7 COMPENSATION

Variables		Sum of Squares	df	Mean Square	F	Sig.
Compensation	Between Groups	0.078	2	0.039	0.032	0.968
	Within Groups	203.302	168	1.210		
	Total	203.380	170			

Source: Primary Data

Interpretation: The value of One-Way ANOVA test is 0.032 and P value is 0.968. Hence, null hypothesis is rejected which means that there is a significant impact of IT on HRM in relation to the Compensation.

CONCLUSION:

Information Technology (IT) employs computer systems or equipment to process or use information and it plays a dynamic role in driving efficiency to its highest point. Human Resource Management (HRM) is the exercise of recruiting, hiring, deploying and supervising of any company's workforce. The implementation of IT in HRM helps the workforce to achieve efficiency and effectiveness. This paper made an attempt to study the impact of IT on the various process which are related to HRM in the in selected manufacturing firms operating in SIDCUL, Pantnagar in the state of Uttarakhand. The review of literature section helped the author to identify six important factors which are an integral part of any HRM process. The six factors that were identified were Recruitment, Selection, Training, Performance Appraisal, Communication and Compensation. The data was collected with the help of Cluster Sampling Method from 171 respondents working in various departments of selected manufacturing firms in SIDCUL, Pantnagar. Mainly One Way ANOVA test along with other tests was used to analyze the primary data collected from the respondents. The results showed that IT had a very significant impact on the all the six factors taken for this study.

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