



## Human Resource Management Through Information Technology

Kailash Aseri, Research Scholar, Dept. of Management, Glocal school Of Business And Commerce, The Glocal University, Saharanpur, Uttar Pradesh.

Dr. Yadvendra Pratap Singh, Assistant Professor, Dept. of Management, Glocal school Of Business And Commerce, The Glocal University, Saharanpur, Uttar Pradesh.

### INTRODUCTION

As a consequence of HRM's use of information technology, the financial transactions of every company have seen significant alterations. As a consequence of the laws and regulations that govern the market, a market environment that is very competitive has arisen. Workers in both the public and commercial sectors will benefit from human resource management that makes use of information technology in order to enhance their careers. In addition to this, it would concurrently increase both manufacturing processes and development. The top executives of a firm are aware of the significance that information technology plays in determining the success of the industry. The manner in which individuals conduct their lives has undergone a fundamental transformation as a result of the pervasiveness of technology in every facet of human life continuing to expand. The rapid pace at which things have changed is really mind-boggling. Attempts are being made by researchers from both the East and the West to investigate it and determine whether or not it is effective. The impact that this technology has had on human resources in the commercial and economic realms has allowed for the accumulation of an unfathomable amount of riches. Through its implementation, it has improved the interactions that take place between organizations and international financial transactions.

In the realm of human resource management, information technology has brought about significant changes in the manner in which people, corporations, and even governments carry out their operations. Both cultural and economic dynamics have been transformed as a result. It is possible that the use of information technology might provide a variety of benefits to human resources departments in economic development and enterprises. Among them are the modernization of corporate management and production processes, the reduction of transaction costs, and the enhancement of industrial efficiency. Access to information is now more convenient than ever before. There has been a technological revolution in the business sector as a consequence of the following changes: fewer obstacles to entrance, an increase in the number of suppliers, an increase in the amount of competition, a decrease in the prices of commodities, a reduction in expenses, and an ease of trade.

### REVIEW OF LITERATURE

**Kerkeni et al., (2016)** It has become possible, as the authors of the book "Social Media and Technology Trends in HRM: Cases in Recruitment and Talent Management" note out, to establish a connection between the activities that individuals do on social media and the outcomes of their inquiries on employment opportunities. Beyond the sphere of human resource management (HRM), these trends are being responsible for defining the social norms that surround the manner in which businesses use technology and social media, as well as the behaviors that individuals are anticipated to engage in when using these platforms.

**Malhotra, M.;Amla, (2017)** As stated by the authors of this research, human resource management is all about building connections, and the authors believe that the effectiveness of these relationships will significantly increase when technology is involved. It is of the utmost importance to facilitate this growth without restricting the human element, particularly in light of the fact that human resources is at the forefront of the fourth digital revolution. These technology improvements have also been beneficial to businesses in India, particularly in the areas of people management, service management, and need management. Reliance Jio, Hero Motor Corporation, Kaya Limited, Jindal Steel and Power Limited, and a great number of other companies are included in this category.

**Cappelli et al., (2018)** Despite the fact that general-purpose artificial intelligence is still a long way off in any human activity, specialized AI systems are making significant progress in



the fields of healthcare, the automobile industry, social media, advertising, and marketing. When it comes to issues with human resource management, even at the very beginning of the road toward artificial intelligence, with algorithm-guided decision-making, there has been far less progress accomplished. There are four aspects that we have found, and they are as follows: the complexity of HR phenomena, the challenges of collecting data from HR operations, concerns about equality and compliance with legislation, and employee reactions to AI-management.

**Berhil et al., (2019)** The development of human resources, which encompasses the capabilities, efficiency, output, and performance of staff members, as well as recruiting and the management of skills, are all components of human resource management. A number of well-known technologies were referenced in the solutions that were provided. These technologies include Business Intelligence, Big Data, Data Mining and Data Warehouse, Enterprise Resource Planning (ERP) systems (SAP, SPSS, Oracle, SAS, CRM, SMA, SNW), and artificial intelligence algorithms (Machine Learning, Neural Network, Deep Learning, etc.). There were also other ways of analysis that were used or proposed, such as the combination of straightforward statistics and HR strategies.

**Jiang et al., (2019)** When it comes to human resource management in the age of artificial intelligence, it is imperative that they speed up the process of digital transformation while paying careful attention to how data is used. This is not a process that can be completed overnight; rather, it is one that is continual, iterative, and growing. Through the use of AI, business expenses will be substantially reduced, the essential labor performed by human resources will become less replaceable, HR will be able to better analytical data, HR will become a strategic partner for the company, and HRM's function and attitude to work will undergo a significant transformation.

### CONCEPTS OF HUMAN RESOURCES MANAGEMENT

One of the most important aspects of human resource management is the concept of "human capital," which refers to "skills, experience, and knowledge that have economic value to establishment." When a firm recruits individual "on the market" or educates them in-house, it is making an investment in its human capital. This is an investment that the company makes. If an employee does not like their present employer, they have the ability to freely move employment since they are considered human capital and not property. This is an extremely important point to keep in mind. There is a clear correlation between the enthusiasm of long-term workers to put their abilities to use and the amount of contribution they provide. The management of employee performance, the maintenance of that performance, and the empowerment of employees via further education and incentives are all elements that are considered to be investments in human capital.

A significant amount of the corpus of work that pertains to the field of human resource management is comprised of assessments and articles that concentrate on certain subjects. The growth of human resource management as a whole, methodologies that draw from a variety of disciplines, particular subfields of industrial psychology, and a variety of functional tasks such as recruiting, induction, performance assessment, and compensation and benefits are some of the topics that are brought up in this study. In the last fifteen years, the focus of theory and research in the field of human resource management has been on three of the most significant areas of concern, both in terms of practical application and theoretical theory: the strategic, international, and political aspects of human resource management.

Through the use of a strategic perspective on human resource management, HR is connected to the long-term objectives of the firm. Philosophy, policies, programs, practices, and procedures are the five components that make up the five P's of strategic human resource management. These components define a variety of activities. Research that investigates the connection between practical and strategic human resource management and the results of businesses. Management of Human Resources conducted in accordance with the Total Quality



Paradigm In reference number 8, we find a number of HR measures that are presented in the form of a Balanced Scorecard. In order to achieve the objective of strategic human resource management, we provide components of control theory in addition to administrative data.

## RESEARCH METHOD

This section gives a synopsis of the research methods employed in the study. This section provides an overview of the study approach and methodology followed by the researcher.

The relevant research draws from a variety of primary and secondary resources. Expert resources from libraries, published materials from respected publications, and unpublished materials from the internet are the sources of secondary data. Individual sources are consulted for the acquisition of these items. We employ a well-structured survey instrument to collect primary data from a subset of Indian organizations selected using a purposive sample strategy. The questionnaire is structured around three independent variables: the efficacy of HRM, the influence of human resource information systems (HRIS), and the adaptation of information technology in HRM. Statistical processing using SPSS 17.0 is applied to this data after collection, and the results are evaluated accordingly.

## DATA ANALYSIS

### FITTING IT INTO HRM

In this part, the discoveries regarding the inclusion of information technology into human resource management in the form of human resource information systems (HRIS) are detailed. The results are presented in a way that takes into consideration the kind of business sector, the ownership of the company, and the origin of the company respectively.

### Initial Theory

An examination of the following hypothesis is carried out within the confines of this section. It is the H10 When it comes to the implementation of information technology in human resource management in the form of HRIS, the kind of business sector, the ownership of the firm, or the origin of the organization do not have a significant influence on the adoption of this technology. When it comes to the incorporation of information technology into the human resource management function, mean scores are determined by taking into account the kind of company, the ownership of the corporation, and the origin of the respondents. This action is taken in order to assess the hypothesis that was stated previously in the discussion. After a certain amount of time has elapsed, F values are computed in order to ascertain the regions in which there are mean variances among the companies. The following paragraphs will offer an explanation of the results, and the following tables will provide a summary of the findings that were obtained from the univariate analysis of variance (ANOVA).

### Business type and IT adaptation in HRM

The facts that are provided here pertain to the use of information technology in human resource management (HRM) in accordance with the kind of business, as stated by the respondents. The univariate analysis of variance (ANOVA) tests are carried out at this stage. 'HR planning'  $F(1,226)=0.428$ ,  $p=.513$ ; 'Selection and Recruitment'  $F(1,226)=0.191$ ,  $p=.663$ ; 'Training and Development'  $F(1,226)=0.576$ ,  $p=0.448$ ; 'Payroll'  $F(1,226)=0.206$ ,  $p=0.650$ ; and 'Performance Management'  $F(1,226)=0.124$ ,  $p=0.725$  are the types of business sectors that do not have a significant impact on the incorporation of information technology in human resource management systems.

## DISCUSSION OF RESULTS

### Business Type and IT Adaptation in HRM via HRIS

An investigation that was conducted not too long ago came to the conclusion that the kind of company does not have a substantial impact on the incorporation of information technology into human resource management in the form of human resource information systems (HRIS). According to the findings of previous research carried out, who also discovered that there are no significant differences in the attitudes of managers and other staff members working in various departments regarding the incorporation of information technology into their human



resource management, this conclusion is in agreement with the findings of that research. That research was carried out in 2015. In addition, the findings indicate that respondents from the industrial sector and those from the service sector had comparable perspectives about the use of information technology in the management of their human resources. The results led to the observation of this particular phenomenon. In the areas of human resource management (HRM), such as HR Planning, the Selection and Recruitment process of hiring employees, the provision of Training and Development services wherever the need arises, the management of salary packages, other benefits and deductions if applicable, i.e. Payroll, and the continuous measurement of the performance levels of employees, which helps in further decision making, there is no difference in their utilization of HRIS. The use of information technology is significantly influenced by the introduction of new technologies, as well as the development of technology in the area of microcomputers and software. This is the case in the field of human resource management. In particular, this is true when it comes to the administration of human resources. When it comes to the field of human resources, it is possible to assert that computers have been used for the only purpose of compensation and benefits, such as the administration of payroll. This is in accordance with the conventional practice. One piece of evidence that lends credence to this viewpoint is the fact that computers have been employed in this industry. As time went on, developments in microchip technology made it feasible to store massive quantities of data on personal computers and to do a broad range of activities that were previously only accessible with enormous mainframe computers. This was made possible by the fact that personal computers were able to perform these jobs. The implementation of this is made possible by microchips, which are considered to be incredibly handy.

### **EFFICACY OF HUMAN RESOURCE MANAGEMENT**

It is possible to assess the effectiveness of human resource management by using three major criteria, which are referred to as "employee satisfaction," "management satisfaction," and "strategic impact." These criteria are used to evaluate the efficiency of human resource management. In the realm of human resource management, one of the most essential parts is making certain that management is content while simultaneously fostering the happiness of the workforce as a whole across the organization. To attain such a level of contentment is the ultimate objective of a human resource management system that is both effective and strategic. The results of this research project on the effectiveness of human resource management practices (HRMa) will be presented and analyzed in the paragraphs that follow.

#### **Business Sector Type and HRM Effectiveness**

According to the results of this study, respondents from the manufacturing sector and those from the service sector report the same degree of perspective on the effectiveness of the product. This was brought to light by the findings of this research. This is also something that can be noticed from the point of view of the respondents' impressions of the people in their organizations in relation to the activities that are carried out by human resources. That is to say, the degree of satisfaction that is experienced by all stakeholders as an assessment of the effectiveness of human resource management is equivalent in both the manufacturing sector and the service sector.

#### **Ownership of the company and HRM effectiveness**

In terms of ownership, the outcomes of this study indicated that there is a significant gap between the public sector and the private sector with respect to the effectiveness of human resource management that is now in place. There was a wide range of views among the respondents on the effectiveness of human resource management. The findings of the study that Brown (2004) carried out may be viewed to reach a conclusion that is equivalent. When it comes to properly addressing the problems that afflict the public sector, it is not sufficient to simply maintain the traditional framework within which bureaucratic acts are carried out. Because of reasons such as growing expenses and financial limits, a loss of community trust in



the skills of the government, and structural change, the public sector and the government are lagging behind the private sector in terms of flexibility. This is a consequence of a number of issues.

### LINKS BETWEEN THE STUDY VARIABLES

The following paragraphs provided a comprehensive breakdown of the findings that were derived from the alternative hypothesis. The correlation, multiple regression analysis, and moderated regression analysis were the methods that were used to arrive at these conclusions. Concerning the connection between the implementation of information technology in human resource management (HRM) in the form of human resource information systems (HRIS) and the impact of HRIS, there have been results that are both positive and statistically significant. It has also been shown that there is a positive and significant association between the installation of human resource information systems (HRIS) and the efficiency of human resource management (HRM). This correlation has been discovered via research. There was a very high and considerable relationship between the two variables, which were referred to as "Effectiveness of HRM" and "Impact of HRIS". This was the conclusion that was reached about the situation. With a value of 39 percent for the R<sup>2</sup> coefficient, the implementation of information technology in the form of human resource information systems (HRIS) has predicted a greater percentage of variance in the efficiency of human resource management (HRM). According to the same line of reasoning, attitudes were responsible for forty percent of the change in the impact of HRIS, and socially responsible behavior was responsible for fifty-eight percent of the change in the effectiveness of human resource management.

### CONCLUSION

There are many relationships among the variables being studied. The use of human resource information systems (HRIS) by human resource management (HRM), the influence of HRIS, and the effectiveness of HRM were the research components that interacted with one another in a meaningful way. Research has shown that one of the major elements influencing the effectiveness of human resource management is the impact of human resource information systems, or HRIS. The idea that human resource management (HRM) may stand to gain a great deal from the usage of HRIS and other information technologies is supported by the research's overall findings. The findings of this study, which highlight the importance of information technology (IT) in Indian organizations, particularly in light of workforce issues, also expand our understanding of human resource information systems (HRIS). examination of the idea in significant depth The statistical analysis revealed that a number of the study parameters, including adaptability, HRM effectiveness, and HRI impact, had significant connections with one another. The study's findings indicate that there is a complete mediating role for human resource information systems (HRIS) in the link between Indian organizations and the effectiveness of HRM. When two variables are connected by a mediating connection, a third variable may have an impact on the path that connects them. In light of the study results, it is evident that the HRM effectiveness model that was built makes sense.

### SUGGESTIONS TO ENTERPRISES

The use of information technology into human resource management procedures offers several benefits, including considerable reductions in both time and money, as well as an extension of production. Due to this particular reason, organizations all over the globe continue to have a significant interest in human resource information systems (HRIS). Emerging nations, particularly those with substantial public sectors and firms owned by Indians, are not making full use of these sorts of information systems, despite the fact that there are several benefits associated with their implementation.

In situations when human resource information systems (HRIS) are not being exploited to their full potential within an organization, it is of the utmost importance to educate the staff about the significance of HRIS via various means such as training, workshops, seminars, manuals, discussions, and presentations. With the assistance of information and communication



technology (ICT) consultants and vendors, public sector organizations may be able to compensate for the lack of expertise that exists within their own organization about human resource information systems (HRIS). It is of the utmost importance to initiate reforms in the areas of research and development, employee training, and institutional structure in order to eliminate obstacles to knowledge and to encourage the development of technical abilities.

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