

Renovating HR through Technology: A new organisational perspective

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Abstract--- *Managing human resources is one of the most essential functions of an organization. Without managing human resources, no organization can think of its success and survival in the face of fierce competition. In the current situation, technology is rapidly changing and adopting new technology solutions have become a major concern for today's organizations to make their business more efficient and competitive. Technology can help organizations to better respond to growing expectations of internal and external organizational partners, improve the quality of work performed, and make more efficient use of available resources, i.e., time, money and people. In the current business context, technology has reinvented the way business operates, the day-to-day business processes and most importantly, the manpower processes and related practices. In fact, HR technology is increasingly being used to develop workplace solutions for HR and make profitable HR decisions. This is a conceptual paper focusing on the role and importance of technology in strategically managing HR work. This study includes understanding the notion and evolution of HR technology, concept of human resource information system(HRIS), consequences of executing HR technology, few popular software details generally practiced and used in organisations and also the case of popular business organisations which believes in using the technology in managing manpower related processes to earn financial and nonfinancial benefits.*

Keywords--- *Human resource management, Technology, HR technology*

I INTRODUCTION

In this current scenario, there are many challenges faced by the organization including global economic distribution, increased market competition, diversity of employees, technological change, e-business systems, and many more. Above all, technology has a huge impact on organizational processes and outcomes. It can be better understood by looking at the organization's daily response to specific issues including the presence/absence of daily work-related emails, E-invitation related to meetings, webinars, community events, professional development, conducting and organizing any work meetings through social media with people like Facebook, LinkedIn and Twitter, using Skype to communicate with business partners or colleagues of different or similar nationalities, using the Internet to test new information, and using the Intranet to manage internal communications etc. All of these problems point entirely to the role of technology in managing a variety of organizational issues.

Sherman (2019) stated that technology is changing the way HR department treat employees, maintaining files, making procurement and development of manpower, communicating with employees and analyzing

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employee performance. Properly used, technology makes HR processes work better. If misused, it can get in the way of managing the company's human resources. Good HR behavior increases benefits and reduces problems. Technology makes it easy to collect and break data from employees to get the whole picture.

Carroll and Wager (2010) argue that "technology has revolutionized the way many companies do business, forcing a change in management that has led to new ways of doing business with customers, employees and other stakeholders." Like many others, in the field of human resource management, technology plays a major role in managing HR databases and other management-related tasks and on the other hand poses serious challenges for HR managers to plan and initiate staff development, promote employee learning, manage employee resistance and help improve overall employee performance and organization performance (Benson, Johnson, Kuchinke, 2002).

II Conceptualising Human resource and Technology

Human resources can be used to describe the people, staff or workforce that work to achieve the goals and objectives of the organization by doing the various tasks given. It also outlines the skills, abilities, knowledge and capabilities that individuals in an organization possess. In the words of William R. Tracey (2016), Human Resource management is defined as "an organizational function that deals with the people and issues related to people such as compensation, hiring, performance management, and training etc. A human resource is a single person or employee working within your organization". In other words, Managing human resources can be understood as the process of managing manpower and their related activities in an organisation with the objective of achieving individual, group and organisational objectives.

Swanson and Holton, (2001) defined technology as "the application of the sciences to the objectives of business, industry, human endeavors and government systems. It is a socio-technical means of defining and solving problems".

Technology helps organizations in better management of resources and in improving employee efficiency and managing common tasks intelligently. Technology also accelerates the decisions made by organizations. In today's competitive environment, organizations believe in the use of alternative software for the management of tasks and processes.

III Development of Human Resource Technology

Human Resources Technology refers to any technology that helps attract, recruit, retain and justify human resources, it helps manage the governance of HR and also helps to optimize HR. HR technology has facilitated a variety of tasks, including the rapid collection and dissemination of information to management and external stakeholders, and facilitating communication with key internal stakeholders. It also helps to reduce administrative and HR department overhead in managing human resource activities well. However, not all companies have the latest technology, nor do they need sophisticated technology to handle all their business processes, but they do have HR-related information requirements. The Following are the different phases that represent the evolution of HR technology at the workplace.

Phase 1: Evolution of paper-based system, where initially, staffing programs were done manually, i.e., Paper-based system. Even today many organizations still follow this plan in accordance with the electronic system.

Phase 2: Early Personal Computer (PC) Technology, where the focus was on the development and implementation of the local area network (LAN) and the computer systems themselves. HR information easily releases reports that simply include a tombstone list; means basic personnel information.

Phase 3: Development of electronic database systems, this phase began with the presence of database technology. This database is defined as part of a single database that can be stored in more than one file; and each has different types of information. Details of different files that one can use by linking them to different files. Allows the data to be stored in various locations and connected information, this type of technology helps the organization's ability to create more complex reports that combine the integration of multiple data elements.

Phase 4: Web-based technology, here users can access the applications through a password-protected login page by using any computer which is connected to the internet application. Still greater parts of the systems are not web-based. With the changing times and advancement, many of the leading organizations hold closeness with this technology.

IV Understanding Human Resource Information System

The HR Information System (HRIS) is an automated process that integrates software applications, hardware, different supportive functions, system policies and processes into the strategic and operational activities of HR departments and managers across the organization. An HRIS record a list of people, occupational skills and locations, and its system for operation processing, making reports and tracking draws on these innovations. It provides a basis for using analytical tools that support managers in setting goals and assessing the performance of the company's HR programs.

In the present context, many organizations have begun to trust and use HRIS to effectively implement their operations and processes. Human resources information system (HRIS) is defined as a combination or division of human resources and information technology that enables electronic HR functions and processes. In other words, it collects, analyzes and reports information about people and their jobs. An HRIS helps organizations manage their human resources more efficiently and makes it easier for employees to access relevant information. It helps employees to manage their work-related data without devoting too many resources. It is also known as Human Resource Management System (HRMS). It enables organizations to plan and manage data related to various key HR functions, including recruitment, selection, motivation, training, performance appraisal, compensation, attendance management, and other relevant human resources data. HRIS helps the organisations in smooth functioning of HR administration. Figure 1 represents the HRIS which could be productively used by organisations in management of different HR activities and processes.



Figure 1: HRIS functions

Source: Majumder, S. (2016)

V Exploring the Functions of Technology in Managing HR Practices

Technology helps the organizations in managing HR processes and functions in numerous ways. Some of the applications may include-

Procurement of people

In recruiting area, technology has played a vital role. Earlier HR recruiters uses print publications like newspapers, magazines and networking but it restricted to some specific area and wide reach was not possible, but today HR technology has made recruitment process very simple by enlarging reach to many people with the help of web portals and websites.

Human Resource Development

Information technology has played a significant role in managing training and development activities and processes. It facilitates the professionals to train new or older employees in a more proficient way by using new software applications, computer base training and through development of e-learning systems. Technology helps the human resource professionals in providing training to large number of individuals very rapidly and in assessing their progress reports by using computerized software's and programs. In fact with the help of technology the complete process of training and employee development including need identification, designing, delivering and evaluating training programs also become easy and manageable.

Employees' record management

Earlier all the data are to be stored manually which was a very time consuming task and pose a difficulty in maintaining large amount of data or paperwork for a longer period of time. Technology helps to create, maintain, store and retrieve employees' data in an electronic form to overcome from the problems of manual system.

Managing Employees' Performance

Technological development plays a very significant role in the field of performance management. Computer technology is used by HR professionals to review the performance of different employees engaged into various jobs and duties at different levels of management. Various software programs are used by the experts to check the performance data of employees by using metrics to know whether employees are reaching to their communicated performance standards or not and if any deviations found then a suitable training and mentoring programs can be planned and implemented to improve the individual and group performances in the organisation.

VI Development of Technological Solutions for Managing Human Resources

There are large numbers of software which are developed according to the gravity of the problem facing by HR of an organization. Some of the technological solutions developed to manage the HR processes of an organization are listed below-

SIGMA-HR.net

SIGMA-HR.net is the first completely designed as web-based business/Human resource software which enables to make faster decisions, keep systematic HR database, helps in reducing operational cost and in increasing the organisational performance and productivity. This HR software solution includes different modules such as HR safety and health, HR labour relation, HR time and attendance management, HR compensation administration, HR career development and HR outsourcing etc.

SPA.net

One can easily program SPA.net to analyze and understand databases for knowing employees' absenteeism rates, salary increases and employees' career tracking, etc.

HR Data Manager

This customized software performs some essential functions such as tracking applicants, job information, checking employee records and supports in managing HR projects and job description data.

Empower HRMS

Empower HRMS is a software which is used for small and medium size organizations. It deals with areas of employees' information, information settings and also in employee self-service.

VSS Pro Edition

This software helps in developing schedules and reports as per time frame, department-wise, location-wise, shift-wise and employee group-wise too.

SAP solutions

It is one of the known software used to simplify HR processes, helps in talent development, and make best use of employee engagement to generate favorable business outcomes as shown in figure 2.

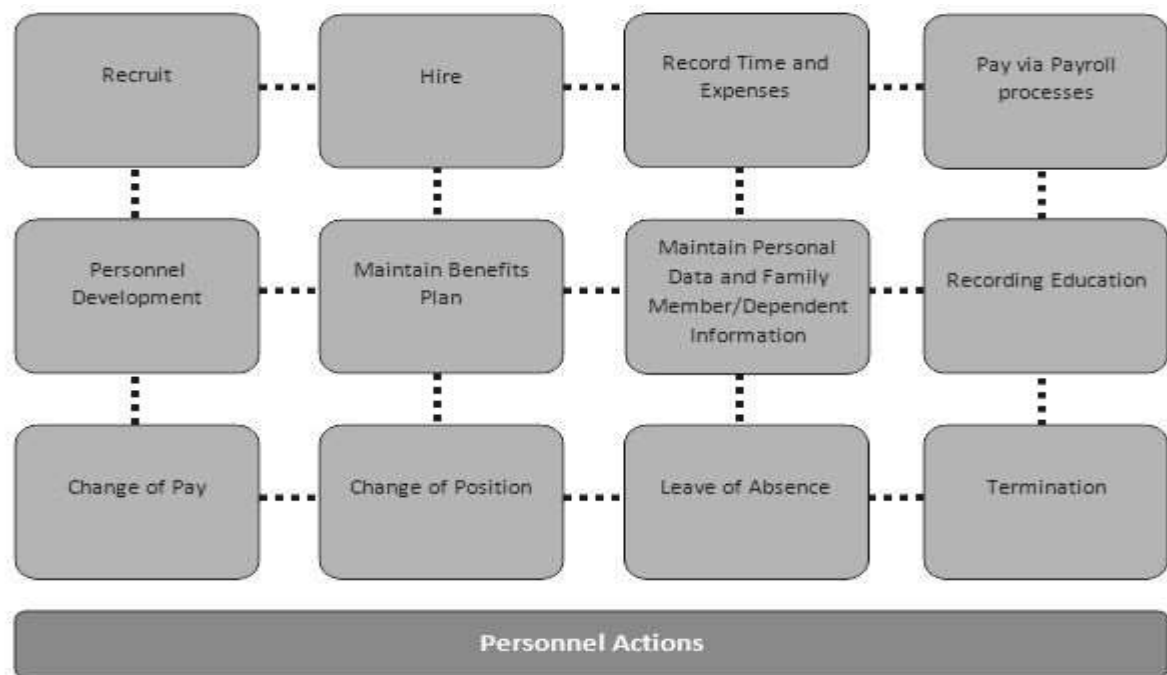


Figure 2: SAP solutions

Source: <https://sapbrainsonline.com/hr-tutorial>

It supports for developing efficient HR operations, in improving workforce readiness and for better alignment of HR functions and strategies with business strategies i.e., strategizing human resources processes and practices.

Oracle's PeopleSoft

PeopleSoft is software which assists in developing human resource management, operations/production, financial, enterprise performance management, and student administration software solutions for big corporations. It helps in improving the business processes and to delivers a vigorous set of best-in-class human resources functionality.

VII Latest Inclination in HR Technology

The following are few latest trends being observed and studied by HR experts in present context including -

Social Networking

One of the key challenges for HR executives is to understand how to integrate information from various social networking sites while maintaining confidentiality and data accuracy. It talks about recruiting, internal communication, sharing knowledge and using social networking data to manage employee training and development.

Purchase /Rent services

HR executives must make a decision to purchase hardware and software licenses from vendors. But today, the Internet and web-based systems development have enabled companies to take a variety of approaches to cloud computing and software as a vendor rental service. Such policies can provide benefits to smaller firms that cannot afford the cost of buying a large system.

Business Intelligence and Dashboards

There is a problem that “How can companies measure HR's contribution to profitability?” To address this issue, organizations believe that they should use classy business intelligence applications to effectively utilize the data available through HRIS.

VIII Discovering the Power of Smart Technologies- The Genpact Way

Max Bupa Health Insurance Company Ltd., a startup medical insurance organization, made as a Joint Venture (JV) of a UK-based Bupa Finance PLC and Max-India Limited. Company's growth rate was good but steel non-standard manpower processes were affecting business development adversely. Finally Genpact's business process helped the company as a service provider in order to revive the entire HR processes within three months of time without creating high capital expenditures. The arrangement utilized organization's smart enterprise process system so as to make standardization of HR forms procedure on a cloud-facilitated, multi-tenant platform and for upgrading business efficiency and organisational growth.

The major business challenges faced by Max Bupa includes- Systems were not coordinated, use of Manual interventions for people management and for effective decision making towards the people, employee dissatisfaction for basic services including sanction of leaves, training and mentoring procedure and compensation management etc., employees related data was preserved in excel spreadsheets by using the instruction manual processes, delay in accessing information due to the joint venture formation which made a requirement for numerous reporting channels, strengthen and regulate HR structure to maintain employees' acquisition and training and Maintenance and speedy growth.

IX The Genpact Solution

Genpact allows “intelligent enterprises” by using “the power of smarter processes, analytics, and technology” for creating global effectiveness. After identifying the process gaps, Genpact reengineered Max Bupa's existing HR processes and systems in order to incorporate proven best practices. The HR processes were then stimulated to a shared service center operating on SLA-driven metrics. It follows Cloud-based multi-tenant HR platform with standardized hire-to-retire processes based on Genpact's Smart Enterprise Processes (SEPSM) framework by following the certain steps-

Assessment

Initial assessment recommended a BPaaS delivery model for a scalable system to handle the company's rapid growth. It included a variable pricing model which allowed Max Bupa to unlock working capital to invest in their core business. It also allowed avoiding the capital expenditure on a self-managed stand-alone HR system. Genpact set up end-to-end HR operations for Max Bupa.

Process Reengineering

It includes designed processes and oracle workflow based on best-in-class HR practices and set standards to increase productivity, accuracy, and enhanced employee experience. It set up workforce administration, compensation and benefits, payroll, and recruitment. It set up Online Learning Management (OLM) for all employees to enhance on-the-job skills. It also instituted self-service to empower managers and employees with

timely and accurate information. It introduced performance management system for creating transparency into the performance appraisal process and implemented a strong Management Information System (MIS) to meet all reporting needs.

System Implementation

There was a set up end-to-end hire to retire processes on a cloud-hosted multi-tenant HRMS platform which was based on Oracle R12 and can be rapidly scaled to have business growth.

Transition

It Created a Shared Service Center to manage HR operations with SLA-driven metrics and achieved conversion of capital expenses to operating expenses. The core HR capability became operational in three months; all modules became fully operational in five months. The HR processes became automated and standardized and enhanced productivity through self-service learning capability.

X Influence on Business

Genpact helped the company to keep its regular business growth with the improved HR process and practices and created several business benefits including-BPaaS (Business Process as a Service) solution allowed Max Bupa to quickly implement proven technologies in little period of time without capital expenditures. It also helps in enhancing the productivity, employee skills, and controllership. This enabled company to expand operations into new emerging markets with trained staff and at a lower cost of its end-to-end HR function. It also helps in maintaining their focus on core business growth while attaining a mature and flexible HR operation. Finally it enabled the company to capture opportunities wherever they present themselves.

XI Concluding Remarks and Future Implications

Manpower management plays a vital role in the successful operation and development of each company. No organization can think of its existence and growth without adopting the best HR practices and a satisfying workforce. Technology development has changed the face of HR Today. Understanding and applying HR technology has become an important and integral issue for the success of HR processes everywhere. HR technology helps organizations to effectively plan, manage and integrate all HR functions by implementing various software solutions. If used effectively, HR technology / HRIS can help enterprise technology become more efficient, manage day-to-day business operations and add value to business results. In fact, most research has shown that organizations that integrate human resource processes with technology are more productive, efficient and profitable. The use of HR technology can help organizations reduce operating costs and manage administrative burden effectively. This article discussed several useful HR software including SAP, VSS Pro-version, and Oracle PeopleSoft used for management and improved administration of HR data and decision making. The study concludes with Genpact's role as a service provider and Max Bupa's role in improving business and HR processes. A better understanding of the role that technology plays in managing HR processes is a key factor in influencing the success of HR work and business professionals worldwide. Future researchers will be required to work more comprehensively on the agenda of the role of technology in managing manpower. They are advised to understand the role of HR technology in management of HR processes and practices in field

setting. With the help of survey and interviews of HR professionals across different organisations, future researchers can better explore the picture of role of technology in human resource management and other functional areas.

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