

Human Resource Information Systems (HRIS) – Technology to Enhance the Efficiency of Human Resource Management of an Organisation

Abdul Gafoor T. B¹, Uveysudheen K H¹, Afsal Ashraf¹

¹Assistant Professor

MES College, Megamalls Aluva, Ernakulam Kerala, India

ABSTRACT

An HRIS, which is also known as a human resource information system, is basically an intersection of human resources and information technology through a HR software solution. This allows HR activities and processes to happen electronically. The Human Resource Information System (HRIS) is a software for the data entry, data tracking, and data information needs of the Human Resources, payroll, management, and accounting functions within a business. The goal of HRIS is to merge the different parts of human resource, including payroll, labor productivity, and benefit management into a less capital-intensive system. HRIS is also called Human Resource Management systems (HRMS). A HRIS generally should provide the capability to more effectively plan, control and manage HR costs; achieve improved efficiency and quality in HR decision making; and improve employee and managerial productivity. In most situations, an HRIS will lead to increases in efficiency when it comes to making decisions in HR. This research paper helps to know about how HRIS help the organization to enhance the efficiency of Human Resource Management.

Keywords- HRIS, HRM, HRMS, Human Resource, Human Resource Information system

I. INTRODUCTION

Emerging hyper competitive era in the last few decades has increased the need of information systems and technology in human resource management for enhancing competitiveness. Information systems contribute to improve the organizational performance and increase the competencies of human resource. With the evolution of information systems and technology, meeting information requirements has been greatly enhanced through the creation of Human Resource Information Systems (HRIS). HRIS merges traditional human resource management as a discipline and in particular it's basic human resource activities and processes with the information technology. Human resource experts in current scenario require accurate and timely data on recruitment, selection, training, development, compensation, productivity, quality of life, attrition rate etc. HRIS provides a complete support in the management of all processes, activities, data and information required to manage human resource in a modern organisation. It covers all aspects of human resource management and is an integrated system essential to collect, record, store, manage, deliver, manipulate and present data for human resources. The present paper analyses HRIS as a tool for increasing competitiveness.

As there are a variety of potential users of HR information it may be used for a strategic, tactical, and operational decision making (e.g., to plan for needed employees in a merger); to avoid litigation (e.g., to identify discrimination problems in hiring); to evaluate programs, policies, or practices (to evaluate the effectiveness of a training program); and/or to support daily operations (e.g., to help managers monitor time and attendance of their employees). All these uses mean that there is a mandatory requirement that data and reports be accurate and timely employee information to fulfill this objective. An effective HRIS provides information on just about anything the company needs to track and analyze about employees, former employees, and applicants. Company need to select a Human Resource Information System and customize it to meet our needs.

With an appropriate HRIS, human resource staff enables employees to do their own benefits updates and address changes, thus freeing HR staff for more strategic functions. Additionally, data necessary for employee management, knowledge development, career growth and development, and equal treatment is facilitated to students as well to give them the instructions regarding academic issues. Finally, managers can access the information they need to legally, ethically, and effectively support the success of their reporting employees.

II. REVIEW OF LITERATURE

Madhuchanda Mohanty and Santosh Kumar Tripathy (2009)⁴ analyzed the HRIS of NALCO in their study. The authors exhibit that the use HRIS in NALCO has improved the overall pace and competence of HR functions, but still needs some more developments. The study also states that HRIS cannot be used for analytical purpose but can only be done for administrative purpose.

MD. Sadique Shaikh (2012)⁵ discussed about three models for HRIS designing namely basic HRIS design model, HRIS hexagonal and HRIS phase's model. The author emphasized on the payback of HRIS designing and execution for all levels and domains of businesses; in the form of profitable strategic HR and 974 Khushbu Arora related business plans and decision, to forecast and to control HR process inside and outside of business organization using HR- databases or HRKnowledgebase's, which includes information related to human resource maintained and processed by HRIS.

Prof. Dr. Anil C. Bhavsar (2011)⁶ has discussed about various advantages, applications and importance of HRIS. The study also highlights "today's HRIS has the potential to be an enterprise wide decision support system that helps achieve both strategic and operational objectives".

Kenneth et. al. (2002)⁷ in his research paper has stressed upon various administrative advantages which may include employee self service, interactive voice response etc. and strategic advantages of HRIS which can be in the course of information gathering, processing, and sharing.

Dr. Shikha N. Khera, Ms. Karishma Gulati (2012)⁸ in their research paper have stressed upon Impact of HRIS on Human Resource Planning and the advantages of HRIS with special reference of IT companies.

Sadri and Chatterjee (2003) computerized HRIS function enable, faster decision making, development, planning, and administration of HR because data is much easier to store, update, classify, and analyse.

David et al. (2010) analysed the main traits of efficient firms and the main sources of firm's efficiency through samples of Catalan firms. Firms' efficiency shows a significant improvement when advanced ICT uses are combined with human resource practices. Furthermore, the two sides of the equation are unequivocal. While it may be possible to pinpoint many of the relevant costs (e.g., software and hardware), it is a lot more difficult to identify the intangible benefits which can be derived from implementing HRIS systems (Boateng, 2007).

Batool et al. (2012) indicated that quick response and easy access to information are the benefits; they also added reducing manpower to the list. On the disadvantages, they considered lack of funds and lack of trained staff as the greatest barriers taking Accounts Office, Azad Jammu and Kashmir Community Development Programs as case studies. Here, I find it very much useful to quote Bhaskar (2011: 15) who postulated that: —In the current fast- paced global competitive business environment, the efficient and effective management of human capital is an immense challenge to the human resources departments. Information systems contribute to improve the organizational performance and enhance the competencies of human resources professionals. Dileep (2010) postulated that HRIS is an integration of HRM and information systems through which HRIS helps HR managers perform HR functions in a more effective and systematic way using technology. According to some researchers, implementing HRIS would reduce HR costs by automating information and reducing the number of needed HR employees. It also helps employees to control their own personal information and allows managers to access relevant information and data.

III. DEVELOPMENTS IN THE TECHNOLOGY RELATED TO HRIS

MidlandHR is a leading supplier of software, consultancy and award-winning outsourcing services for talent management, workforce planning, HR & payroll. MidlandHR's solutions support some of the largest and most successful organisations in the UK, from public, commercial and not-for-profit sectors. This Microsoft Access based open source human resource management system (HRMS) software is designed for small to medium sized business. This powerful and easy to use HRMS software allows your human resource team to start working more efficiently on utilizing their time and resource.

MYOB Pay Global software is a proven end-to-end workforce management solution with all the integrated payroll and HR management tools you need to improve productivity and add value to your business. My Paper Less Office gives clients the ability to manage HR, payroll, time and attendance, benefits, Workers' Comp, applicant tracking, job posting and paper processes in a fully integrated, single-entry web-based platform. Time and administrative cost savings are the main by-products of the system, but the most substantial benefit is the ability to track and save all the HR employee documentation created during the life cycle of the employee, from hiring to retirement. Optimum Solutions has provides HR, payroll, and time and attendance software for both IBM System i and Microsoft .NET/SQL platforms. All applications share one master file employee data base to make a completely integrated HRIS system. With a support staff of certified payroll professionals, Optimum can help any U.S. company with their HRIS needs.

The EM Pulse Series is a highly configurable Human Resource Management System (HRMS) that allows mid-sized organizations to excel in the following areas: payroll preparation, payroll processing, human resources (HR), job costing and project tracking. Each software component has deep functional capabilities and is tightly integrated onto a common platform that provides seamless visibility across multiple applications.

Orange HRM Professional: Small- to medium-sized businesses use this comprehensive HR platform to rapidly build and provide responsive HR services. **Orange HRM Enterprise:** Designed to supply seamless governance to multinational companies, Orange HRM Enterprise saves you time and money - wherever in the world your employees are located. When you need to rapidly on-board a full-service HR environment, Orange HRM meets your business and budget requirements.

Pay lite Human Resource Management Software is a comprehensive one-stop solution for small and mid-sized companies. It has been developed specially for GCC members (UAE, Bahrain, Kuwait, Oman, Qatar and Saudi

Arabia). It replaces strenuous paper-based, time consuming and error prone HR methods. It can be customized to suit your needs and meet desired level of automation. It uses state-of-the-art technology from Microsoft to streamline your HR workflow. It offers an end-to-end centralized HRMS system which integrates with the Payroll and Self-Service Modules seamlessly. Fully integrated HR Online solution from claims submission to attendance checking; and subsequently payroll processing are all set in this suite. Reducing your headaches in a breeze with uploads of Bank GIRO (DBS, UOB, OCBC, SCB, HSBC, etc.) and statutory submission such as Provident Fund (ie.: CPF, EPF), tax (ie.: IRAS, IRBM) and etc. Survey shows lesser hassles yet an increased efficiency which in return enabling HR users to concentrate on other adhoc tasks such as Employee Engagement and Human Relationship

PDS is a leading developer of a web-based human resource and payroll system offering the highest level of leveraged technologies, and world-class client support services. The Company's mission is to provide the most advanced employee centric HRMS/Payroll solution in the industry. People delivers an HR administration solution for ambitious HR professionals working in small and mid-sized companies. Unlike manual or older systems that are frustrating to work with, the People solution constructs insightful graphic reports, offers expert 'follow me' guidance, and engages people on missions through high-impact tasks. The solution makes a difficult job more fun and helps aspiring HR professionals eager to earn a more prominent role in their companies' success.

Pineapple HR is a cloud-based software managing all aspects of HR and benefits administration from beginning to end, from applicant tracking to off boarding an employee. This All-In-One software offers many modules including Applicant, Personnel Tracking, Automated Hiring/On-boarding, PTO/Leave Management, Time-Sheet Management, Employee Benefit Management, Employee Portal, and much more.

Piney Creek Digital develops and markets Web-based applications focusing on the human resource management sector. The company's software automates and digitizes employee benefits management and human resource compliance.

SharePoint HR Systems for O365 and on-premise deployments - Our SharePoint HR system includes Holiday Management, Absenteeism, Compensation and Appraisal modules and provides self-service for employees and powerful reporting for line managers and HR professionals. **e-HR software** that enables organizations to strategically steer the development of its human capital. Functionalities include job descriptions, competency, accountabilities & training management, performance appraisal, 360° feedback and e-recruitment.

Projector is a cloud-based Professional Services Automation (PSA) suite that helps project- based service organizations improve their operations. Its features are designed to support organizations ranging from small start-ups to complex global organizations. Projector helps organizations manage time and expense tracking, client billing, and project and resource management within an intuitive and efficient user interface. Powerful analytical reports and executive dashboards provide unparalleled visibility into operational and financial performance. Pre-built interfaces allow for easy integration with popular accounting, CRM, and project management applications, and an open architecture permits integration with legacy systems. Projector is charged for on a per user per month basis with no start-up costs, cancellation fees, or minimum time commitment. Sign up on our web site for a free 30-day trial or contact us for a live demo.

Prospera® is a people management tool that provides a better approach to engaging and developing the people in your organization. Recruit and retain quality employees, increase employee engagement & job satisfaction, and guide employees and yourself in career development.

Quadrant HR™ is a user-defined, configurable software and services solution integrating best practices for Human Resources, Staff Scheduling and Payroll into a single system. Quadrant HR™ is designed to improve employee processes from hire to retire for simple to complex multi-site, multi-position, multi-contract workplaces.

Sentrifugo is the next generation power packed Human resource management tool for small and medium sized enterprises. An innovative, self-service HRMS that allows you to track your diverse workforce effectively. The Heartbeat solution supports employee and manager self- service, benefits enrolments, and time-off balances and accruals.

SumTotal HR Management is an enterprise-class human resources management system (HRMS) that centralizes, consolidates, and integrates core HR information into a definitive employee system-of-record. The application delivery model is enhanced by open standards architecture delivering enterprise-class HR functionality at affordable prices. This highly innovative approach offers business-critical advantages over traditional HR platforms. Sysfore HRMS is an independent, stand-alone software application that helps the Human Resource department of an organization to automate and streamline its daily processes. It enables the creation of comprehensive employee records to aggregate, manage and report on all employee related information during the complete lifespan of service of the employee with the organization.

Talentia Software is a leading European software group that develops and implements business management software for Finance, CPM, Payroll and Human Capital Management. With over 430 employees, we provide solutions for SMEs, mid-range and large organisations and our solutions are currently used by more than 3,500 customers in over 30 countries. Talentia Software provides a leading-edge human capital management solution called Talentia HCM (formerly Cezanne Software). The system helps companies better develop, manage, reward and retain their most important asset - their people. The software provides a flexible, people-centred solution that improves the day-to-day execution of HCM strategies, drives the HR processes critical for the organisation's success and helps companies to develop and maintain a competitive talent advantage.

IV. SCOPE OF THE STUDY

The customer is looking for a cost-effective system that would be able to automate most of the HR services such as payroll, job searching, time, benefits, time-off and vacation in real- time location. The management is expecting the proposed HRIS system to replace this primitive one. An effective HRIS provides information on everything the company needs to track and analyze about employees, former employees, and applicants. The company will need to select a Human Resources Information System and customize it to meet the company needs. Comprehensive and integrated HRIS can be used widely - in administrative, operational and strategic areas by HR and other managers. On the operational level HRIS data can be used to identify potential internal applicants for job vacancies, saying external recruitment costs and guaranteeing employees of career opportunities. HRIS enables the human resource department to make a more dynamic role in organizational planning. Computerization will make forecasting timelier, cost effective, and efficient. With continued technological breakthroughs HRIS systems are becoming progressively advanced. One of the most fundamental HRIS functions is intranet HR self-service. Some larger companies use their intranet today for online appraisals, career management, training registrations and publishing people related company information. An HRIS monitored by qualified specialists who know technology and HR functional and tactical processes can manage compliance with state laws, streamline processes for recruitment and selection, and produce analyses, data and

reports for internal and external use. Other advantages of an HRIS include the ease of use for qualification computer technology specialists, accuracy of information and the ability to perform HR audits. The employee and manager self-service features are excellent ways to free up the time of human resources staff members for project work and execute other duties. Employees and managers can find answers and information quickly without the need to consult an HR representative every time.

V. OBJECTIVES OF THE STUDY

To explore the functionality and contribution of HRIS in HRP through HR sub systems in medium and large sized organisations, the objectives of the study were:

1. To identify the contribution of HRIS recruiting subsystem to the workforce planning of an organisation
2. To investigate the contribution of HRIS subsystem to the training and development of the workforce of an organisation
3. To explore the overall contribution of HRIS to HR decision making and aligning of the HR strategy to the organization's strategy.

VI. RESEARCH METHODOLOGY

Research design

An analytical and descriptive study was conducted on HRIS [human resource information system] in ARJUNA Medicals and Extracts Ltd., Kerala by examining which software is used by their employees and whether its effective or not. Descriptive research is the fact-finding investigation which is aimed at describing the state as it exists at present. Population is the total number of people in the company under study. Total 250 employees are available in Arjuna medicals and extracts. ltd. From the population of 250 I have taken 50 samples for the survey. Convenient sampling techniques are used for the study.

Convenient sampling is where the researcher is interested in getting an expensive appreciation approximation of the truth. As the name implies the sampling is selected because they are convenient. This nonprobability method is often used during preliminary research efforts to get a gross estimate of the results, without incurring the cost or time required to select a random sample. Both primary and secondary data was collected for the study. The detailed analysis of data was done using statistical tool i.e, simple percentage analysis.

VII. RESULTS

It was seen that, even though not at the very optimum, HRIS still plays an important role in helping with the Human Resource Planning and the Human Resource Training and Development functions. Its diverse uses are:

Overall HRIS Recruiting Subsystem Utilization: The overall response to the question about HRIS utilization in planning and selection in an organization was positive. Majority of respondents agreed that the utilization of HRIS is happening at a satisfactory level in their organization for manpower planning.

Opinions Regarding HRIS Job Analysis: Most managers responded about whether their HRIS identifies unfilled job positions accurately were positive. This is in sync with the consensus that HR information systems are very

good with managing and manipulating raw data and even information. Also, in most organizations, the HRIS itself analyses current job positions and the employees at each of them. In this manner, an HRIS can detect workforce shortfalls, and thus supports the development of a recruitment plan.

Management of Skills Inventory by HRIS in an Organization: HRIS performs job analyses accurately. Another aspect of this is that an effective system should manage the skills inventory in its organization. Many managers felt that this is being performed adequately, but there are fewer managers who feel that comprehensive reporting is being done.

HRIS and E-Recruiting: It was found that companies do not make use of the e-recruitment module/subsystem of their HRIS at all in many cases. This is especially true while leveraging an employee's talents in the right place at the right time. This is one aspect that the researcher considers is not getting enough attention by HRIS developers.

HRIS's Role in Training and Development: Managers' opinions are not as positive when it comes to their HRIS providing a smart insight into their organization's training needs and evaluation. Besides, as compared with human involvement, the outcome of a training needs analysis (TNA) is not as accurate when done by the HRIS of the organization. Fifty percent of managers agreed that the accuracy of an HRIS could be improved.

HRIS and Evaluation of the Training Process: There were a total of seven factors which were used to determine the effectiveness of an HRIS to the training process in an organization. In most of these factors, managers have answered in the positive sense. This means that HRIS is a useful tool to have to assist with the training process. The one area where an HRIS lacks is that it does not help in fixing the budget of training and development programs accurately. But these opinions could be biased because their erroneous results could also be because of faulty inputs by the managers.

HRIS and Its Role in Succession Planning: Since succession planning at mid-sized firms is still a relatively new concept, it was not expected that many managers would agree to the help provided by the HRIS in this department. In fact, most managers felt that they themselves make better decisions regarding successors, as compared to an automated HRIS. Once again, the data management capabilities of HRIS are brought to the forefront, as it was felt that an HRIS identified specific key positions and minimized costs associated with succession planning.

Labour Demand & Supply and The Impact of HRIS: Most managers could consider on HRIS to do the job well. This is because, after all, this is what HRIS was built to do perfectly. Also, forecast of human resources which are required is made that much simpler with the help of an HRIS, as compared to without. The only thing that an HRIS lags in, is that it sometimes fails to identify human resources needed to achieve organizational goals.

HRIS Data Analysis and Decision-Making Capabilities: Most managers felt that with an HRIS, they were better able to associate themselves with organizational strategy and even with the organization's Information System strategy. It was seen that managers were not of the opinion that an HRIS goes a long way in ensuring that the HR function identifies with corporate strategy.

The productivity of employees of the company is found to be increased by folds after the introduction of the SAP software. Fifty percentage of the employees are highly satisfied with the training and its effectiveness and 40% of the employees are satisfied with the effectiveness of the training. The work effort made by the employees is found to have had a big downfall after the introduction of HRIS software. Eighty-two percentage of the employees has given the feedback that on rates 10-15 of their work effort has reduced, whereas the other 10% has rated 10-15 reduction in work effort.

VIII. SUGGESTIONS

Respondents are more likely to consider that their system is successful in delivering against the following criteria if:

- Employees should have pre-trained project managers responsible for the introduction of the Human Resource Information system.
- There should be a framework for evaluation of the performance of HRIS in the company
- With an automated centralised database that collects, stores, and displays up-to-date, consistent information about the personnel, policies, and procedures in an organization, HR leaders can finally break up with spreadsheets and paper files.
- The process of talent management, i.e, attracting, recruiting, engaging, developing, and retaining employees is a complicated process. An HRIS with an exclusive talent management system will help the organization take better care of their employees.
- A training module can enable organizations to offer blended training experience to their staff to improve engagement, job satisfaction, and retention. They can also plan, track, and measure the impact of their training program to ensure its effectiveness.
- Succession planning module enables organizations to map talent pipeline and rankings. Once key positions are identified, it would be easy to create employee-specific development plans.
- BambooHR is a core-HR software designed for Small and Medium Business. It has all the features in a HRIS software including ESS, Recruitment, Performance Management, Talent Management, Training etc. The company can update its software.

With some HRIS software, the company vision and goals can be displayed prominently on the main page when employees log in to use self-service. With other solutions, employees may be able to easily gain access to company information within the system whenever they want. When the company vision, mission, and goals are regularly seen by employees, those concepts will be more likely to influence the way that they think, work, and interact with others.

HRIS can help to improve transparency all over an organization by allowing employers to share things like hiring needs and payroll information with all the employees at once. When this type of information is made common knowledge as opposed to being hidden, it can help to promote a culture of trust in which employees don't feel the need to hide things from one another. This can help to create a pleasant and more open company culture.

Some HRIS solutions provide employees, managers, and HR staff with a secure and reliable way to communicate with one another at any time. When there is an avenue for open communication available at all times, employees may be more relaxed providing suggestions or voicing concerns to peers, managers, and HR professionals. The communication works both ways, and managers may also be able to provide more frequent feedback when unrestrained by time and space.

Employees tend to be more engaged and have a deeper admiration for their company when they are recognized and rewarded for their efforts on a regular basis. HRIS makes it easier to recognize employees in front of peers using communication tools and sometimes even configurable instrument panel. HRIS can also make it a snap for employers to converse with employees regarding rewards, perks, and raises.

Research has shown that offering benefits can help to enhance company culture and employee satisfaction, but open enrolment can be a pain. HRIS can streamline open enrolment processes. With most self-service portals, employees can make request from any mobile device and managers can approve it from any device.

IX. LIMITATIONS OF THE STUDY

- Some of the employee's responses were different from actuality due to threats from superior bodies.
- It can be expensive in terms of finance and manpower
- The respondent filled the questionnaire according to their time and mood so I couldn't research properly.
- Thorough understanding of what constitutes quality information for the user was not enough

X. CONCLUSION

Human Resource Information System (HRIS) seem to play an important role for Human Resource Management (HRM) because HRIS functions improve HRM in terms of administrative purposes and analytical purposes. It is important to recognize critical issues during the HRIS development and implementation in order to achieve an HRIS project. Performance, rewards and payroll systems focus on the basic exchange between employees and employers: Employees provide performance, and in exchange, employers provide rewards, which are distributed via payroll systems. As systems technology has progressed, managers have become better able to enhance the performance of their direct reports and to attract, retain and motivate the best. Thus, the importance of understanding the central role of an HRIS in assisting managers in making key decisions regarding performance, compensation, benefits and payroll cannot be underestimated. Human resources information systems (HRIS) can play a vital part in a company's HR function. Implementing an effective HRIS can be sure-fire for HR to stay on the cutting edge in its bid to deliver more effective service. The main conclusion of this paper is the realization that the use of computerized HRIS is most effective than manual because its help to maintain data with more accuracy in less time. And that it also true that HRIS functions improve HRM in terms of administrative purposes and analytical purposes. HRIS work as a key component of the organization and a good HRIS will provide important information about human resources needs and capabilities; this information will assist the management team in establishing the organizational mission and setting goals and policies in motion. HRIS is not limited to the computer hardware and software applications that comprise the technical part of the system: it also includes the people, policies, procedures and data required to manage the HR function.

XI. IMPLICATIONS

Research findings clearly show that senior HR executives understand they can increase the efficiency of HR planning through HRIS, saving time and cost. Organisations should recognize the strategic value and competitive advantage that they can gain through HRIS in HR planning. Contradicting situations need to be acknowledged and discussed with the vendors. For example, even though most senior HR executives consider that managers find HRIS detailed training plan relevant to their needs, not many (senior HR executives) are convinced that employees find HRIS training programs relevant to their (employees') needs. Organisations should come to a deal with the vendor on HRIS features when they invest on HRIS. Required subsystems need

to be planned and ordered beforehand to avoid breakdowns due to incompatible infrastructure and higher upgrading cost. Organisations would make good HR planning efficiency and effectiveness if HRIS aligns with information system strategy and HR strategy. Organisations need to incorporate HRIS functions with other business functions.

XII. REFERENCES

- [1]. Batool, A., and Batool, B. (2012). Effects of employees training on the organizational competitive advantage: Empirical study of Private Sector of Islamabad, Pakistan. *Far East Journal of Psychology & Business*, vol. 6, no.1.
- [2]. Christen, M.Iyer, G and Soberman, D (2006). Job satisfaction, job performance and effort, AReexamination using agency theory, *Journal of marketing*, Januaryr, Vol. 70, pp. 137-150
- [3]. David, J., Jelf, G., and Brandes, D. (2010). "Human resource information systems: perational issues and strategic considerations in a global environment", *International Journal of Human Resource Management*, vol. 7, no. 1, pp. 245-269.
- [4]. Dileep, A. (2010). Enterprise resource planning: the emerging organizational value systems. *Industrial Management & Data Systems*, April, 2000, vol. 100, no. 3, pp. 114-118.
- [5]. Dr. Shikha N. Khera, Ms. Karishma Gulati (2012), "Human Resource Information System and its impact on Human Resource Planning: A Perceptual Analysis of Information Technology Companies", *IOSR Journal of Business and Management*, Vol.3 Issue 6, pp 06-13.
- [6]. Kenneth A. Kovach, Allen A. Hughes, Paul Fagan and Patrick G. Maggitti (2002), "Administrative and Strategic Advantages of HRIS", *Employment Relations Today*, Vol. 29 Issue: 2, pages 43-48.
- [7]. Luthans, F. (1998), *organizational behavior*, 8 editions, McGraw-Hill/Irwin, Boston, p 147.
- [8]. Madhuchanda Mohanty and Santosh Kumar Tripathy (2009), "HRIS of Indian Scenario: Case study of large organizations, *South Asian Journal of management*", Vol. 16 No. 2, pp 137-168.
- [9]. MD. Sadique Shaikh (2012), "Human resource information system (HRIS) designing needs for business application", *ZENITH International Journal of Business Economics & Management Research*, Vol.2 Issue 1, January, pp 256- 264.
- [10]. Prof. Dr. Anil C. Bhavsar (2011), "A Conceptual Paper on Human Resource Information System (HRIS)", *Golden Resrach Thoughts*, Vol.1 Issue V, pp 1- 4.
- [11]. Robbins, SP 2005, *Essentials of organizational behavior*, 8th edition, Prentice hall, New Jersey
- [12]. Sadri, J., and Chatterjee, V. (2003). Building organisational character through HRIS. *International Journal of Human Resources Development and Management*, vol. 3, no. 1, pp. 84-98.
- [13]. http://www.worldresearchlibrary.org/up_proc/pdf/1143-151159538923-25.pdf
file:///F:/HRIS/Deliverable1a.pdf
- [14]. <http://www.gjimt.com/N14.pdf>
- [15]. <http://www.iosrjournals.org/iosr-jbm/papers/Vol13-issue6/G01364146.pdf>
file:///C:/Users/Sopna/Downloads/HUMAN_RESOURCE_INFORMATION_SYSTE
MS_HRIS_REPLACING_.pdf
- [16]. file:///C:/Users/Sopna/Downloads/Human_Resource_Information_Systems_HRIS_in_HR_Plan.pdf