



# Productive Contribution of Human Resource Information System on different Organizational Levels of Management

(Study is based on Private Service Sector of Bhubaneshwar, Odisha)

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## ABSTRACT:

Organizations in the twenty-first century are now seen implementing various systems to handle the difficulties of the day-to-day management complexity. One of them, the Human Resource Information System (HRIS), is shown as a crucial tool for managing information resources to carry out the modern administrative and strategic tasks of the Human Resource Management Department more successfully and efficiently. Due to their value in both HR and strategic decision-making, the emphasis on HRIS as an information resource had already started to change by the mid-1990s (Kovach & Cathcart, 1999). On seeing the evolution of the HRIS process and current technologies, it is easier to see how a successfully implemented HRIS is moving away from a data input and storage device toward a fully effective decision analysis application (Kovach et al., 2002). Different authors have recommended that the use of HRIS provides a lot of efficacies and convenience to the organizational Human Resource system. It helps the Human Resource department to be administratively and strategically participative in achieving the organizational goals through improving competitiveness like improved decision-making ability, decreased cost, improved communication, and decreased in time spent on day-to-day activities. The main objective of this study is to understand the managerial perspective towards the effectiveness of HRIS on performing the managerial and strategical functions of HR department in different private service sector like Consultancies, IT, BPO, Financial, Healthcare & so on operating in Bhubaneshwar Odisha. In this research paper, study has been conducted on 10 HR managers & 30 Senior level HR Professionals of different servicesectors of Odisha. The finding says that almost all the HR managers and HR professionals has very productive perspective regarding the Human Resource Information System's role in different organizational level like managerial and strategical. According to them HRIS is very efficient and effective tool for HR department progress, but still, they cannot ensure its utmost utilization.

**Keywords:** Human Resource Information System, Managerial Enhancement, Strategical Enhancement, Private ServiceSector, Bhubaneshwar Odisha.

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## I. INTRODUCTION:

A change in today's evolution results from the dynamic growth in information technology, and as a result, the modern workplace's appearance is altered and systems are modified to handle the various difficult workplace difficulties by implementing new strategies. Most of businesses today recognize the value of information retrieval and storage. Through the use of HRIS, HR professionals now have more ability to not only gather information but also store and retrieve it efficiently. HRIS is a system used to acquire, store, manipulate, analyze, retrieve and distribute required information about an organization's Human Resource Department. This increases both the efficiency and effectiveness of Human Resource department and thus helps in achieving organizational goal. In this competitive world, a department that is increasingly becoming central to the implementation of organizational policy is the HR department. So, HR has now become the integral part of every organization. Information technology is now being developed by an increasing number of companies to support them in better achieving their objectives. The organization can then use these information systems to assist in making more strategic decisions. HRIS is a useful tool for streamlining the administrative tasks carried out by the HR department, which further also helps in strategical decision making. This can be achieved by creating and detailed and relevant database. The data that an HRIS database would have on individual

employees can include their Date of Joining, Training Completed, Years of services, Awards achieved, Projects completed, their skills, competencies, etc. With the help of this detailed data the HR department can organize their work and can make strategies in more systematic way. According to (Haines and Petit et al. 1997) with the implication of systematic data the HR departments can get relieved from many routine paper work & the HR professional can hopefully develop a service orientation and participate more fully in strategic decision making.

## **II. LITERATURE REVIEW:**

After World War II between 1945- 1960 organizations became more aware of human capital issues and began to develop formal processes for selection and development of employees. At the same time Organizations began to recognize the importance of employee's morale on the firm's overall effectiveness. While this period of change in the profession did not result significant changes in HRIS (although employee files did become somewhat more complex), some believe that it sets a wave of transformations that started in the 1960s and 1970s (Kavanaugh et al.1990).

During the period of 1960-1980, social issue changes HR; the increased paperwork and reporting requirements; protector of employees; advent of MIS in computer world and introduction of IBM/360 had emerged. It was about this time that personnel departments were beginning to be called Human Resources Departments and the fields of Human Resource Management was born.

During 1990 it was observed that the roles of HR professionals have transformed from traditional HRM to Strategic HRM(SHRM). In this junction HRIS plays vital role to the changing roles (strategic) of HR professionals so that they can be more responsive to the vulnerable and intense competitive market.

Martinsons, 1994 studies have concluded that HRIS has been mostly used for HR activities, Automation, streamlining, administrative tasks, deletion of repetitive activities and the subsequent effects of these applications helps in reduction of cost and time by the organization in a very efficient way.

Kovach and colleagues claim that HRIS is a methodical process for gathering, storing, maintaining, and recovering data that an organization needs regarding its human resources, personnel, activities and organizational characteristics (Kovach et al.2002).

Ruel et al. (2004) took their argument for the adoption of HRIS a step further by asserting that such a global presence drives organizations to use the HRIS and imagining HR in multi plant companies without web based HRIS applications is like myth.

Recently the use of Human Resource Information Systems(HRIS) has been proved as an opportunity for Human Resource(HR) departments to become strategic partners with top management (Beadles II N.A. et al.2005).

## **OBJECTIVES OF THE STUDY:**

The Research aims at understanding and analyzing the managerial perspective towards the effectiveness of Human Resource Information System i.e., HRIS on performing the administrative and strategic functions of HR department efficiently. Thus, to achieve the objectives of the research paper following specific objectives are being pursued simultaneously.

- To study the effectiveness of HRIS in different organizational levels like managerial & strategic level of HR department of private service sectors of Odisha.
- To understand the managerial and strategic satisfaction level with the effectiveness of HRIS process
- To analyze managerial perspective towards the contribution of HRIS on time saving, cost saving, decision making and achievement of administrative & strategic competitiveness of HR department
- To understand the challenges of HRIS and possible ways to overcome them.

## **III. METHODOLOGY OF THE STUDY:**

The main objective of this study is to understand and analyze the managerial perspective towards effectiveness of HRIS on different organizational levels in management like managerial & strategic functions of HR department. In order to achieve the objectives of the research, the study has been targeted on 40 HR professionals out of which 10 are HR managers and 30 are Senior level HR professionals working in different HR departments in different service sectors. HR professionals who are selected for the survey have complete knowledge of HR process and completely involved in HRIS implementation system. In addition, HRIS system is an emerging or growing in Odisha. As a result, we could do survey only on 10 service sector industry of Odisha and this sample has been selected through convenient sampling method.

This study has been made by the use of both primary and secondary data. The information used in this study is collected through questionnaire which consist of 37 fixed choice questions & 2 open ended questions in order to further understand their personal point of view on Usage of HRIS, its advantages, limitation & any suggestion from their end. The theoretical information of this study, however, is formalized using secondary data gathered from numerous books, journals, and publications of thesis. A structured questionnaire has been

used for collecting primary data by using a five-point Likert scale i.e., Strongly disagree, Disagree, Neither agree or disagree, Agree, Strongly Agree. Thus, the findings have been based on the analysis of data collected by using Likert scale.

### **PRODUCTIVE CONTRIBUTION OF HRIS ON DIFFERENT ORGANIZATIONAL LEVELS: MANAGERIAL LEVEL ADVANTAGES OF HRIS:**

Employing organizations and their environments have grown more complex in the current context of globalization. These firms' managers increasingly struggle to manage workforces that may be dispersed across multiple nations, cultures, and political systems. Given these tendencies, manually managing HR systems is entirely inadequate (Bee & Bee, Brown, Beckers & Bsat, et al. 2002). Whereas on the other side information technology offers a lot of potential as a tool that managers may utilize to improve the organization's capabilities, both generally and specifically in human resource operations (Hustad & Munkvold 2005, Tansley & Watson, 2000). HR professionals on that time have not ignored such a potential, and a worldwide use of Human Resource Information Systems. By utilizing information technology, HR can face the challenge of simultaneously can become more strategic, adaptable, affordable, and customer-focused (Snell, Lepak, et al. 2002). They have found out that IT has the ability to simultaneously reduce administrative expenses, improve productivity, shorten response times, enhance decision-making, and improve customer service all at the same time. The three primary factors that have prompted businesses to look for IT-driven HR solutions are the need for cost reduction, the desire for greater quality services, and cultural transformation (Huselid et al., 1995).

In the past two decades, a sizable amount of research on HRIS has been conducted. Some studies have paid more attention to usages according to (Ball, 2001, Bamel, Sahay, & Thite 2014, Hussain, Wallace & Cornelius 2007). Some authors engrossed more on the conditions and other stuffs like successful implementation of HRIS (Haines & Petit, 1997, Winkler, Koing, & Klienmann 2013.). The authors agreed that enough works on HRIS can be handled and IT has the ability to revolutionize the HR functions and transform it into strategic business unit.

HR experts started to anticipate different computer applications. It was intended to combine many of the HR activities. The third generation of computerized HRIS, which is feature-rich, comprehensive, and self-contained, is the end result. The 3rd generation developed technologies that allowed HR professionals to do much more with systems than just serve as data stores. (Byars, Lloyd & Rue, 2004). It can help the HR department design business strategies, which would improve organizational performance. (Broderick & Boudreau, 1992; Barney & Wright, 1998, Levenson, & Lengnick-Hall & Moritz, 2003).

HR experts started to anticipate in new computer applications. It was intended to combine many of the HR activities. The third generation of computerized HRIS, which is feature-rich, comprehensive, and self-contained, is the end result. The third generation took systems far beyond being mere depositories and created tools with which HR Professionals could do much more (Leslie, Rue, Byars, Lloyd & et al. 2004). It has the capacity to assist the HR function in building business strategy and thus enhancing organizational performance (Broderick & Boudreau 1992, Gueutal, 2003, Lawler, Levenson & Boudreau, 2004. HR outsourcing may be made easier by the current generation of HRIS, which automates and develops routine administrative and compliance tasks that were formerly handled by corporate HR departments. More recent research shows greater use of HRIS in support of strategic decision making also. Employers can update their own benefits information and address changes with the help of an appropriate HRIS, freeing up HR personnel time for more strategic tasks. The facilitation of data is also essential for equal treatment, career advancement and development, knowledge development, and staff management. Finally, managers have access to the data they require to support the success of their reporting employee in a way that is legitimate, moral, and efficient.

### **STRATEGICAL LEVEL ADVANTAGES OF HRIS:**

According to Pyburn (1983) HRIS has become progressively important for the successful implementation of corporate strategy. Wade and Trivedi (2006) also sees HRIS as a strategic organizational resource. According to Williams (1997) The information system strategies could be random, inspirational or unarticulated thoughts which could be the result of careful analysis and detailed planning. In 2014, Chen Wei conducted research on streaming data, which has been utilized to monitor employees in real time. This study came to the conclusion that dynamic human resource management data cannot be obtained without the use of systematic information technologies and artificial intelligence. HRIS in today's generation helps the HR managers to take the decisions immediately by providing proper information at the right time. Every decision taken by the managers are very useful for the organizations and HRIS has become the backbone of all such important information & data.

According to Sprague & Carlson (1982) DSS helps the top management and managers to take effective decisions. HRIS does not only have hardware and software but also content people, forms, policies, procedures & data (Kavanagh et al. 1990). According to Tannenbaum (1990) HRIS is a system that helps to perform all functions related to Human Resource. According to F. John Reh D. (1997) HRIS is a system that helps you to

keep track of all organizational employee's data and information. According to Haines, Victor Y. (2000), HRIS assists in the orderly storing of information, enabling staff to provide reports and helps in making decisions more quickly & efficiently. According to Lengnick Hall & et al. (2006) HRIS can help in improving the performance of an organization by improving HR functions & also management operations by conversing primary data into very important information. This information provided on time can help management to make decisions timely and also helps in reengineering of all HR functions which will ultimately results in employee job satisfaction thus paving the way for strategic Human Resource Management.

According to manager of Solutions Consulting at Ortho Biotech Products, a division of Johnson & Johnson use of more complete & current data helps HR department to take appropriate decisions at right time. According to him Human Resource at Ortho Biotech as a huge storehouse of information. Human Resource Managers & professionals started to see a growing opportunity for HRIS in future. Jim Spoor, CEO & President of Spectrum Human Resources Corporation. Believes that HRIS is beneficial not only for employees, top management & managers but also helpful for suppliers, consultants and others as more and more users become connected wirelessly. According to Jim Spoor (2002) relevant & easy access to important information will become an integrated part of many strategic decision-making processes.

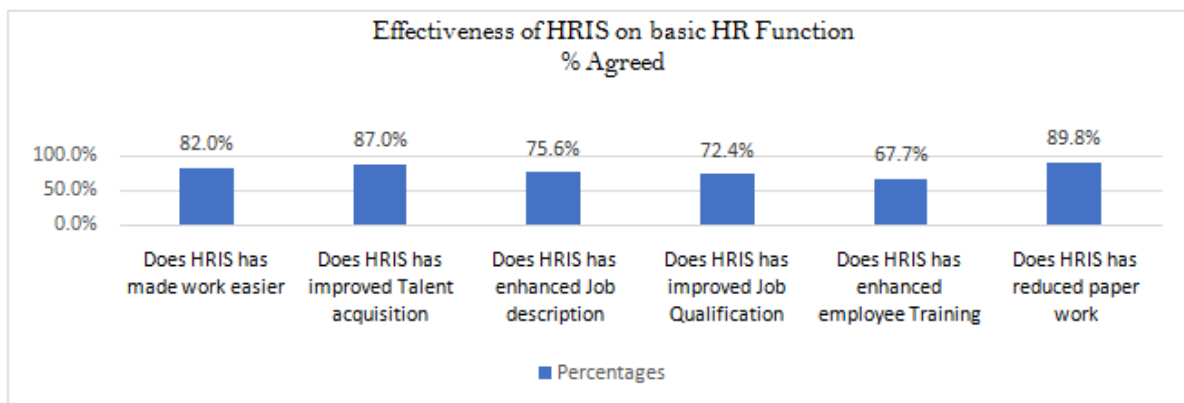
Gary S. Fields (2002) conducted a study on Engineering Solutions Company with 100 engineers with the help of HRIS data & information to know the employee's advancement, job performance, decision making & psychological assessments. The researcher found that HRIS was the finest tool for finding the performance of employee for promotions. According to Lado & Wilson (1994) the degree to which HR managers and experts could influence or enable strategic decision-making by delivering or withholding crucial information with the support of HRIS about matters involving the employment of individuals.

A survey conducted in 1992 by Overman says that the potential benefits of HRIS are faster information processing, better information accuracy, improved planning and program development, and enhanced employee communication. Some authors have also realized that the use of HRIS will help in reducing HR cost by automating information & reducing the need of huge HR team. In 2002 a survey was conducted on HRIS in which Watson Wyatt found that the top metrics used in formal business cases supporting HRIS were improved productivity, reduction of cost, return on investment& improved employee communication (Broderick & Broudeau 1992).Thus, the integration of HRIS applications supports the implementation of HR policies and therefore achieves the organization 's strategic goals according to Marler (2009). Some studies have also found the barriers & issues of HRIS faced by different organizations. According to Krishnan & Singh 2006 Indian organizations have faced various issue in implementing & managing HRIS. The main HRIS issues were lack of knowledge of HR professionals about HRIS. Proper support has been required by various departments and functions of an organization for proper implementation of HRIS according to (Sadiq et al. 2012).

#### IV. ANALYSIS& RESULTS:

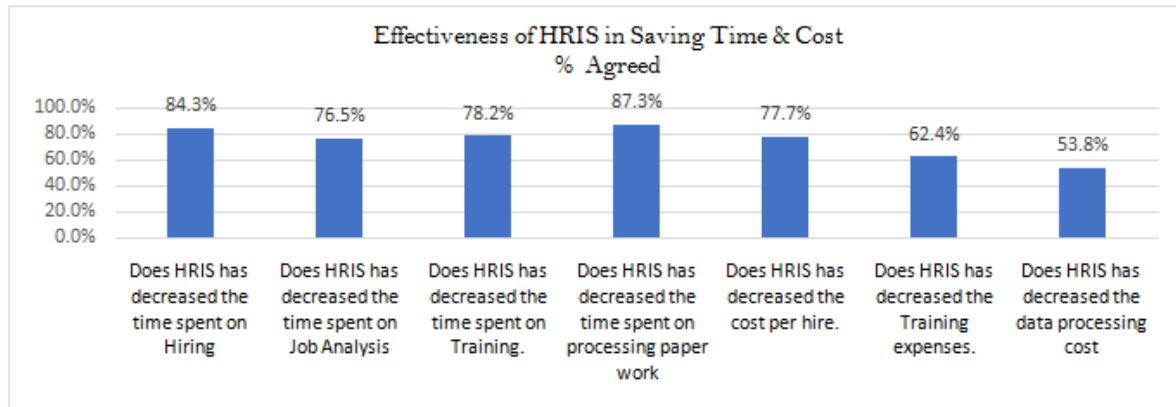
This research is descriptive & exploratory in nature. Sample size was relatively small as discussed above, so in order to measure percentage of responses, frequency tables & histograms have been used to a series of questions for assessing HR managers and Senior HR professionals' perceptions of HRIS. In this research paper, we have only shown histograms derived from frequency tables in order to present our data. The results of the survey are contained in Histogram 1 to 5. The items are divided into different categories like Figure 1, 2 & 3 represent the effectiveness of HR function, Figure 4 indicates the strategic advantages of HRIS whereas Figure 5 represents the Limitations of HRIS & recommendations to overcome the limitation & barriers.

**Figure 1: Effectiveness of HRIS on basic HR Function:**



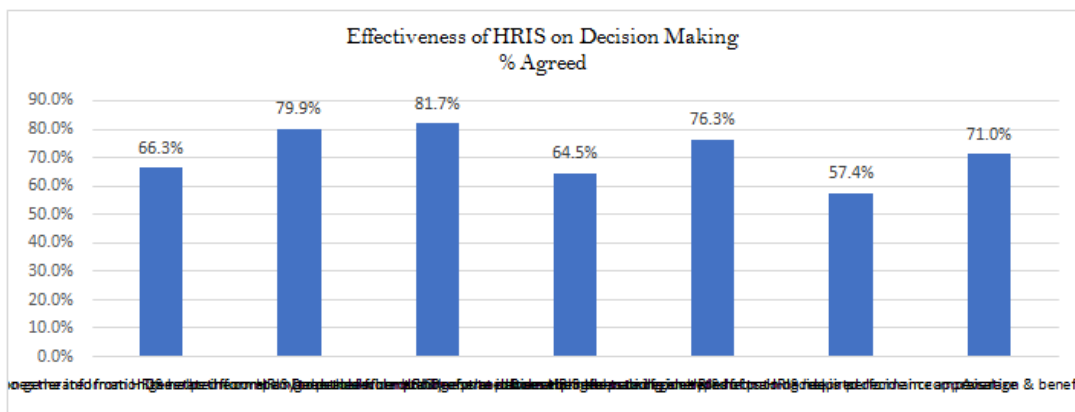
With regards to HRIS contribution in streamlining basic HR functions with reference to(Figure 1), about more than 80% respondents agreed that the day-to-day HR functions such as recruitment, routine administrative work, have reduced paper work & data maintenance has improved drastically by the use of HRIS. Whereas 60-75% agrees that not only in recruitment & paperwork but it has also improved job analysis & training in the organization.

**Figure 2: Effectiveness of HRIS in Saving Time & Cost**



Thus, in the above Figure 2 we can find that about 70-80% of the respondents believed that the HRIS has a very positive impact on various administrative functions of HR in reducing time spent on recruitment, job analysis, training & on processing paper work. Not only on reducing time but it has also helped in reducing cost per hire. Whereas, 50-60% respondents have also agreed that HRIS has reduced training cost and various miscellaneous data processing cost as well.

**Figure 3: Effectiveness of HRIS on Decision Making**



From the above Figure 3 we could find that Average 71 % of the total respondents have agreed that HRIS has helped in making decisions more effective in deciding when to hire, what quality of manpower required, when training is needed, types of training required & evaluation of the employee performance. Even the lower percentage i.e., 57.4% agreed that HRIS has helped in deciding compensation & benefits for the employees within the organization. Thus, this indicates that HRIS is used as a very effective administrative tool but cannot ensure the maximum utilization of HRIS system because of some limitation which are given in below figure 5.

**Figure 4: Effectiveness of HRIS in Strategic Level of Management**

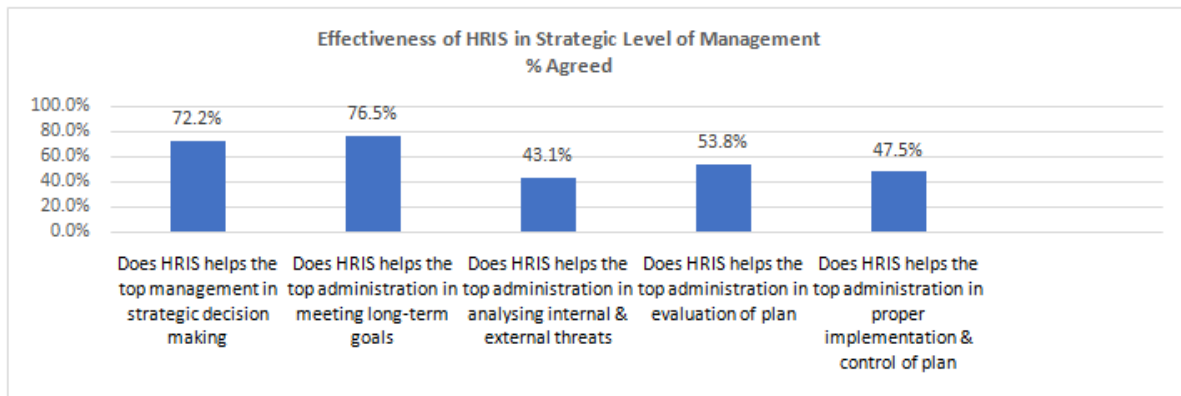
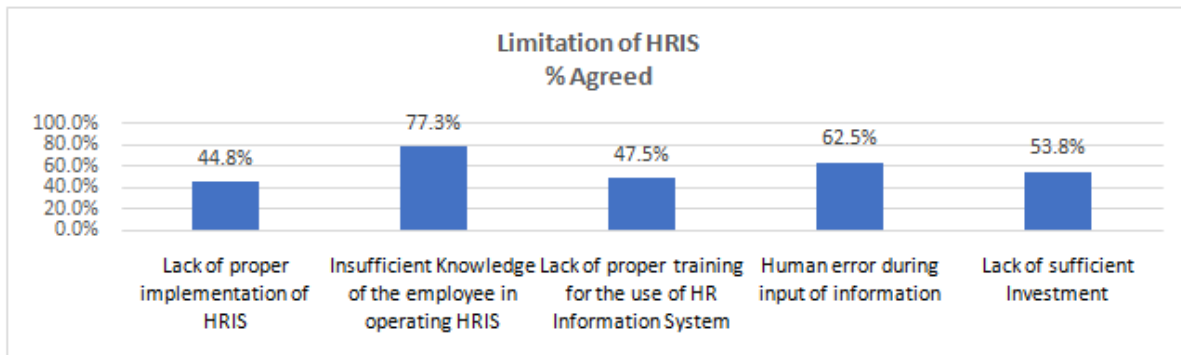


Figure 4 has indicated that implementation of HRIS within the organization has improved the strategic role of the HR department or not. While from the above figure more than 71% respondents agreed that HRIS has improved the importance of HR department and made it a strategic partner in company's decision making & meeting long term goals. Whereas 53.8% respondents agrees that it also helps in evaluation of plan time to time. Whereas lower percentages like 47.5% respondents agreed that not only in making strategic plans but it has also helped in implementation and controlling of plans & 43.1% of respondents agreed that it has helped in observing internal & external threat of an organization.

**Figure 5: Limitation of HRIS**



The respondents of this research paper were few HR managers who regularly work with HR process who discussed about the above limitations of the HRIS. According to 77.3% HR managers employees working with HR Information system lack knowledge in operating it, whereas 62.5% discussed about human error of inputting data & information. However, 40-45% Managers discussed that there should be proper training & implementation of HRIS within the Organization. And 53.8% HR manager where from small private sectors in where there was lack of proper investment in implementation of HRIS system.

They also came up with possible solution of the above problems which are as follow:

Possible Solution for the Limitation of HRIS	% Agreed
Proper Training should be given to employees for proper implementation of HRIS	88.30%
Employees should adapt the change in management	76.90%
Employees should update their computer skills & knowledge	82.60%

## V. DISCUSSION:

Thus, from the above analysis we could find that HRIS provides information and guidelines for the operation of HR functions. HRIS has increases efficiency in HR department. It has improved recruitment, training system, record maintenance, job analysis, performance appraisal, time, attendance & has also reduced the cost of hiring, training & various other miscellaneous expenses. HRIS has helped in improving motivation of HR personnel by helping them to analyze problems & solve them smoothly with proper data management system, timely hiring, quality manpower, systematic job analysis & better communication development.

We can find from this study that use of HRIS in organization has various advantages for managers especially in decision making. In this study we have tried to understand the managerial perspective of the HRIS usage in the organization. We have also tried to understand the managerial and strategic satisfaction level with the effectiveness of HRIS process & analyzed managerial perspective towards the contribution of HRIS on time saving, cost saving, decision making and achievement of administrative & strategic competitiveness of HR department. So, with this study we have discovered that HRIS has improved the administrative level of management in an organization whereas, in strategical level it has helped the organization in decision making & achieving goals but still HR managers cannot find out a direct link of the HRIS and its impact on top management routine work. There was a lack of clarity as to what exact value HRIS system can help in SWOT analysis or implementation & controlling of strategical plans.

In case of specific strategic task like internal analysis, external threat analysis, implementation of plans or controlling & evaluation of long-term plans HRIS does not show any significant support or direct link with the process. It is significantly helpful in decision making of strategic plans & achieving long term goals with the support of systematic HR process & talented human resources & management, but somehow it lacks its contribution in various other strategic role like threat analysis, controlling, evaluation, competitive advantages, organizational changes & so on.

Further the aim of the study was also to understand the effectiveness of HRIS in different organizational levels & to understand the challenges of HRIS and possible ways to overcome them. From the above analysis we could observe the positive impact of HRIS on different organizational level and it has really supported the HR function in various possible ways. HRIS has not only improved the HR functions like recruitment, training, job analysis & so on but has also made HR as a strategic partner in achieving long-term goals. But still it could not be used to its full capacity due to lack of proper training & limited knowledge of employees in Information Technology according to the respondents of the study. Thus, we could conclude that along with usage of HRIS, organization should give emphasis to implementation & training of HRIS for proper utilization of the resources & further development of the HR department in functional & in strategical ground as well.

## **VI. LIMITATION & FUTURE RESEARCH DIRECTION:**

The research was limited to private service sector only. In public service sector still, we could not find the implementation of HRIS in Odisha. Public sectors in Odisha are still using traditional paperwork to maintain their Human resource information except for a few. Data was only collected from the HR managers & senior level HR professionals. In future lower-level HR staffs & other executives can also be included for further study as they might have a different view on the use & impact of HRIS.

Further we have studied that HRIS have been used in larger service sectors in Odisha like IT, BPO & Health care, where there is requirement of huge manpower & their proper management. In smaller service sector like consultancies & financial sectors we could not find proper implementation of HRIS due to high investment cost & fewer manpower management. So, we can manage to collect data from these few sectors only. But in future public organization & educational institutions can be the part of this research studies.

In this research we had only 40 respondents for the research which include HR Managers & Senior level HR Professionals from different service sectors. The sample size was very small & even we have concentrated just in one state of India i.e., Odisha. In the future research we can include more HR professionals & other service sectors from different location of India. Further research can be conducted in other industries like manufacturing, education, banking, Hotel, Tourism & so on.

## **VII. CONCLUSION & SUGGESTION:**

The results support the finding that HRIS have improved the efficiency of the HR department and it has been used as a very productive administrative tool for HR function. Whereas on other hand its contribution in strategic level was less as compare to HR functions. In today's generation computer automation and globalization have pushed itself towards all corporate organizations to move on digitalization in every department. The same is witnessed in the field of HR. Human resource departments are observing the revolutionary changes in their functions with the progress of the information technology. The findings and results of the study emphasize that corporates should invest in training & development of HRIS implementation among their employees for proper & utmost utilization of technologies.

Organization should conduct learning & development programs in field of information technologies for further development of HR functions & absolute contribution of HR department in strategic planning & implementation. Somehow HR department's contribution in strategic management is still lacking behind due to improper HRIS implementation & lack of knowledge of employees in technological field. With huge investment & installation of advanced technologies a thorough guide & training is also required for proper utilization of

resources. Top administration should give emphasis to both installation & implementation of technologies simultaneously.

The only thing that is constant in organizational world is Change. Employees should adapt the change in management & should urge to skill themselves with latest knowledge & technologies, not only for organizational progress but for their individual growth & development as well. Whereas top administration should arrange for motivational programs and sessions for adaptation of change within the organization & guidelines for future growth.

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