NATIONAL UNIVERSITY OF SCIENCES & TECHNOLOGY (NUST)

NUST BUSINESS SCHOOL

FINAL THESIS REPORT:

A COMPARATIVE STUDY ON UFONE & MOBILINK

(The Impact of HRIS on HR Practices)

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NUST REGISTRATION NO: 2011-NUST-EMBA-13

DATED: MAY 30, 2016

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ABSTRACT

The study is significant because in Pakistan Telecom sector is fast moving sector and in any organization success depends upon four pillars i.e. Human Resource, Finance, Marketing & Research & development. Being an Engineer, one of my key responsibility is to manage the HRIS System, so I took phenomenon from HR, a system which enriches the functionalities of HR so the work should be done with low cost, less time and gives support to HR as well gains and maintains competitiveness. For this, two organizations have been selected that include **Mobilink** and **Ufone** to compare that which module of ERP (Enterprise Resource Planning) software is giving its best output in HR i.e. in Ufone "SAP" (System Applications & Products) for data processing is used and "HITS" in Mobilink.. Convenient sampling technique is used to collect the data through questionnaire adopted by the researchers. SPSS 16.0 is used for the analysis of the data. Reliability test is applied to check the internal consistency of the questionnaire then correlation and regression are applied to test the hypothesis.

Keywords: Human Resource Information System, Cost/Time Effective, Strategic Strength to HR, Competitiveness.

CHAPTER 1

INTRODUCTION

1.1 BACKGROUND OF THE STUDY

HRIS has gradually changed as it was initially presented at General Electric in the 1950s. HRIS has moved out from a fundamental procedure to change over manual data keeping frameworks into systematic and automated frameworks. Human Resource Information Systems (HRIS) is a framework in which data is collected, stored; having a few operations on it with the core aim that final output would be beneficial for an association in effective and efficient ways. HRIS has developed from Pre-World War II with a constrained extent of keeping records of "Employee Name", "Employee Phone Number", "Employee Address" and " Employee's employment history". A phase from 1945s to 1960s was of insignificant upgrading in HRIS like "Formal Selection & Resource Development" and "Human Capital issues". From 1960s to 1980s HRIS was mainly utilized as a part of regulatory nature work, however up till now HRIS has been secured all features of HR.

Different researchers have pushed that the deployment of a comprehensive and extensive Human Resource Information Systems (HRIS) ought to prompt important results for the organization. Diminished expenses, enhanced correspondence, and reductions in time spent on ordinary exercises ought to make a situation where in the Human Resource (HR) division would assume a more key part in the organization. The development that Lengnick-Hall and Moritz proposed, alongside others (e.g., Walker, 2001), rotates around the point of view that HRIS will make enlightening productivities and expense reserve funds such that HR divisions can turn their consideration regarding giving better examination of current information and inventive employments of the HRIS to give better and more exact information whereupon to base key choices. Also, Haines and Petit compose, "In this way, diminished from numerous standard paper taking care of errands, the human asset expert can ideally add to an administration introduction and participative all the more completely in key choice making" (1997, p. 261).

A few creators have recommended that the utilization of a HRIS would diminish HR costs/ expenses via mechanizing data and decreasing the requirement for huge quantities of HR workers; by helping representatives to control their very own data; and by permitting administrators to get to applicable data and information, conduct investigation, decide, and correspond with others without counseling a HR proficient (Awazu & Desouza, 2003; Ball, 2001). In a perfect world, with a suitable utilization of HRIS, fewer individuals ought to be expected to perform managerial assignments, for example, record keeping and additional time would be made accessible for HR directors to help by giving information on a vital level. A considerable lot of these creators trust the future to be brilliant for HRIS as it makes new ways for HR and for the organization that adequately utilize HRIS. One concentrate even ventures to recommend that there is proof that HRIS can enhance shareholder worth (Brown, 2002).

In the previous three decades, the reception of data innovation (IT) advancement conduct in organizations, identifying with the selection of development hypothesis, has been a theme of rising hobby. A considerable measure of examination has been embraced trying to think about and segregate the fundamental components that focus the appropriation of IT advancement conduct at the singular's level firm. A few specialists have created reasonable models to confirm the selection of IT conduct viewpoints. Be that as it may, the greater part of these studies have neglected to give a complete record of the variables hidden the reception of IT advancement conduct all in all and the appropriation of Human Resource Information Systems (HRIS) specifically. The substance investigation of applicable observational studies is utilized here to distinguish and disconnect the essential prescient elements that related either adversely or emphatically with the hierarchical reception of HRIS. Moreover, without exact studies to help with the distinguishing proof of the most substantial features for HRIS selection, every single pertinent component have been recognized and assembled into the general classes of inner and outside environment variables. This qualification was made with a specific end goal to recognize elements controlled by the association and components forced from outside the association, in the selection and sending procedure of HRIS. As per hierarchical behavioral hypotheses (e.g., an organization's conduct is

connected indivisibly to the earth in which it exists - as it were, an organization's selection of new advancement practices is resolved by its inward natural qualities, as well as through strengths present in the outer environment. In like manner, the point of this writing audit is to get a superior comprehension of the primary builds and variables that influence the selection of IT development by and large and HRIS specifically.

1.1.1 Components of an HRIS

Kovach et al., (1999) displayed the three noteworthy practical parts in any HRIS by giving the model underneath:

Input Data $\longrightarrow$ Maintenance $\longrightarrow$ Output

The Input capacity enters work force data into the HRIS. Information section in the past had been restricted, however today, examining innovation licenses filtering and stockpiling of real picture off a unique archive, including marks and transcribed notes. The support capacity redesigns and adds new information to the database after information have been gone into the data framework. Besides, the most noticeable capacity of a HRIS is the yield created. As per Kovach et al., (1999), to create important yield for PC clients, the HRIS need to process that yield, make the fundamental computations, and after that arrangement the presentation in a manner that could be caught on. Nonetheless, the note of alert is that, while it is anything but difficult to consider HR data frameworks regarding the equipment and programming bundles used to execute them and to gauge them by the quantity of workstations, applications or clients who sign onto the framework, the most vital components of HRIS are not the PCs, rather, the data. All that really matters of any exhaustive HRIS must be the data legitimacy, unwavering quality and utility first and the procedure's mechanization second.

Operators of HRIS applications HRIS address the issues of various authoritative partners. Commonly, the general population in the firm who cooperate with the HRIS are portioned into three gatherings: (1) HR experts, (2) supervisors in useful regions (generation, advertising,

building and so forth.) and (3) workers (Anderson, 1997). HR experts depend on the HRIS in satisfying employment capacities (administrative reporting and consistence, remuneration examination, finance, annuity, and benefit sharing organization, aptitude stock, advantages organization and so on.). Along these lines, for the HR proficient there is an expanding dependence on the HRIS to satisfy even the most rudimentary occupation assignments. As human hub/resource/capital assumes a bigger part in upper hand, practical administrators anticipate that the HRIS will give usefulness to meet the unit's objectives and destinations. In addition, supervisors depend on the HRIS's abilities to give unrivaled information accumulation and examination, particularly for execution evaluation and execution administration.

1.1.2 Administrative and Strategic Implementations of HRIS.

While inspecting the usage of HRIS there are mainly two parameters, the strategic level usage and clean use of HRIS. The aim of both these parameters are to enhance the value of the organizational. HRIS performance and administrative value can be defined by detailed study of administrative HRIS, but generally and in short; the adeptness and efficacy of an organization can be achieved with proper, functional and strategically deployment of its HRIS and the information it provides and uses. Information pertaining to Employees Record are kept for daily operations by the HRIS for administering and keeping tight controls. Information Technology supports the functions efficiently by controlling and processing huge amounts of data and information; thus administering the role of Administrative HR For instance, Watson Wyatt's survey report (2002) revealed that to reach high HRIS Performance there is no need for high progression of e-HR for administrative purposes. In time the creation of newly developed and efficient system is due to the proper functioning and integration of e-HR system. The survey concealed all organization sizes, and the events used including output escalation within the HR organization, reduction in cost, return on investment, and a newly enriched communication channel between the work force. This concludes the fact that the aforementioned system can reduce time and help HR team to pay attention on strategically reforming their roles and going pro-active within the organization.

Unlike administrative HRIS where results are inevitably expected, strategic HRIS takes more time to quantify due to its complexity and there is uncertainty if the benefits are the outcomes of the fully functional deployed HRIS System. Strategic HRIS entails the tools which helps in decision making. It is believed by some professionals that the availability to required and important information will become an interrelated part of strategic decision-making process (Kovach, Hughes, Fagan, Maggitti, 2002). So far there is no pathway, which will be leading to the deployment of the strategy to improve the processes overall.

1.1.2.1 Steps to Follow in Implementing HRIS

The following steps are involved in developing & implementing an HRIS.

Step.1 . Launch of idea

Innovation always helps in taking the giant step or the leap to a better future and to outrun the competition. Whoever initiates the thought process is welcomed and acknowledged by the senior management who after agreeing to the principles, terms and conditions would invest in this long term investment for a sustainable and better future.

Step.2 . Feasibility Study

As this is a long investment the assessment of HRIS must be evaluated while covering the following areas:

- The opportunities the software will open
- Post deployment effects and benefits
- The assessment of the software developer
- Cost that will be incurred
- Enhancement in Business – Quantitatively and Qualitatively
- Return on investment calculation

The management will decide whether to further proceed with the project after running through with facts ad figures, which justify the life long investment and success of the system.

Step.3. Selecting a project Team

Costs, Timelines and delivery of the project implies if the project is facilitated. The project team need to put in all the effort and group tasks are conformed to the successful execution of the project. While selecting the project team members, we must take HR and IT Department members as well. Involvement and readiness of Top Managers is must to on different spontaneous issues. "The leadership of the project team which will be facilitating the project must be either from HR or IT background" as suggested by some experts. It must be ensured that project leaders should pay attention and their presence is required to help a smooth and faster process as said by Gretchen Alarcon, vice president of human capital management product strategy for the Redwood Shores, Calif.-based HRIS software firm Oracle".

Step.4. Defining the Requirements

At following step the scope needs to be finalized. It will not be a detailed prerequisite but at least the processes which will be incorporated in the system will be locked. Few companies like to incorporate their payroll module while others would like to have more integrated modules as well. That all depends on the budget and organization priority, but all such modalities are being discussed and locked before having any word with the vendor/developer else it can create a havoc between the team and the developers. The policies and processes must be analyzed and discussed to control ambiguities in the process and to avoid a situation where it is difficult to incorporate new things within the software.

Step.5 . Vendor Analysis

Selecting the experience and appropriate software developer is one of the biggest challenge. It is important to get profile of the developers to know their competence, market standing, value, image before finalizing or giving contract for the development of the software. All the development requirement must be shared with the developers clearly to avoid any disagreement. The current processes can also be discussed with them as per requirement. With the go ahead – the developers must ensure to have their proposal ready with syndicated offer

for project timelines and their charges. Ensure documentary evidences are present to avoid mishaps and ambiguities in future.

Step.6. Package Contract Negotiation

Once final quotation for the development of the software is received from the vendor and organization management is also agreed then formal contract will be signed with the software development company. Afterwards, the development work will be started, organization must follow-up and monitor the development work timelines so that formal delivery of the project must be done as per the agreed timelines.

Step.7. Training

Training starts immediately with the team members of the project team, which can later help in training cross functional teams from HR (initially) and with other departments who will use and succumb information to the HRIS. Keeping mind that this is a two way process; getting information from the system is as important as to submission

Step.8. Tailoring the System

Once the specifications pertaining to the requirements fulfilled, next step is to initiate the design, which is also share with the management to identify problem areas and make necessary improvements.

Step.9. Collecting Data

At this stage required data to enter in the software will be collected. A team of HR needs to be deployed to collect data for the software. Data validation is also required. This is a very critical part of the project.

Step.10. Testing the System

Testing is an ongoing process and takes place before (ex-ante), during (midterm) and after (Post-Ante) the system development. Testing certifies the genuineness, authenticity, capacity to withstand heavy data and overall efficient functioning of the system in a real time environment. To give it a glimpse of real time situation; real time users enter real time data to expect positive

and required results. If desired results achieved the software is valid and verified for next process.

Step.11. Starting up

As in the previous section the user gets a chance to test the system and give their go ahead – to get the software installed in user's PC so that real time applications and work be carried out in daily routines.

Step.12. Running in parallel

Although the go ahead instructions from user level received; the basic idea to avoid a total chaos is to run the system parallel to old system. Either one of the departments within the organizations can run the new system which is synchronized with the old system, or a couple of departments can run the new system in parallel to see outcomes and impact on work altogether. In this case – if a malfunction occurs at least it is no total loss and once can fix before implementing the same organization wide. There must be no glitch or hiccup and time is of the essence during this stage. It is also important that the senior management also take active role in the process as their investment is at risk.

Step.13. Maintenance

Regular maintenance is a ongoing process after installation and is regularly monitored for errors. It is necessary for the organization to avoid mishaps to keep contact with the installers to remain in contact with the group to fix ongoing problems.

Step.14. Evaluation

Assessment of the software is carried out after certain period of time. Evaluations carried out pre-ante and post ante to the differences in the old system and the newly developed system.

➢ **The software components are as follows:**

a) Information pertaining to Employee : The main aspects of the modules were employe   database, reporting   organizationa   structure, joining   transfer an   promotion.

b) Recruitment : The main aspects of this modules are Resume bank, recruitment requisition, interview board, record of interview result .

c)Training : The important features of the module are training requisition, training calendar, training record and report .

d) Leave : The main feature/s of the module is/are leave policy, leave application, and leave calendar and reports.

e) Performance management : The main feature/s of the module are target setting, approval by line managers, performance management process and reporting .

f) Survey : The main feature/s of the module/s is/are administering surveys and reports .

g) Payroll : It has catered all the processes under payroll .

h) Attendance : Main feature/s are attendance record and report .

➢ Applications

A standard HRIS has the following application/s and utilities .

• People administration.

• Payroll .

• Compensation and benefit.

• Leave and absence .

• Performance evaluation.

• Recruitment .

• Personal self service.

• Training & development.

➢ Benefits

To streamline business processes , conversion process presents often opportunities and it also improves procedures and cut HR expenses. We can have a smooth/painless transition, and thus, a more robust, efficient, accurate HRIS.

The important benefits of HRIS are as follows.

• High retrieval Speed and data processing.

• Reduced cost by reinventing the wheel.

• Easiness in classifying data.

- Good analysis leads to better decision making.

- Sophisticated and accurate of data/information.

- Brisk response   to query/s.

- Improved   reports quality.

- Conducive work environment/culture.

- Streamlining and systematic work procedure.

- Transparent system.

- Employee-self Management.

➢ Limitations

The limitations of   HRIS are as follows.

- Expensive in relation to finance and manpower .

- Inconvenient and threatening .

- Difficult to grasp it in its entirety

- Computer cannot be an alternate to human beings .

➢ Hurdles/ Obstacles for a Successful HRIS

The challenges to a successful HRIS are as follows.

- An inconsistency   in   the importance attributed   to HRIS   resulting in   difficulties in sustaining management commitment to the project and in obtaining the resources necessary to fully develop the new or upgraded HRIS .

- A tendency to   underestimate the   complexity of the   HRIS and its   impact on the behavior and   processes of the   organization.

- The barriers to user acceptance of the HRIS and the consequent underestimation of the importance of change management.

1.1.3. Enterprise-Wide Systems

Enterprise Resource Planning is defined as a comprehensive system that supports enterprise-wide or cross-functional requirements, rather than covering a single department or one group within the organization. Such ERP systems have their origin in software that fully integrates   information from   different applications (modules)   into   one universal

database which increases the efficiency of the business. This way all the financial information can be linked to HR module through one shared database. The most popular high-end enterprise-wide systems are SAP, PeopleSoft, and Oracle. SAP was founded back in 1972 by five former IBM employees in Mannheim, Germany. SAP is an abbreviation of "systems applications and products. **SAP** is the world's third-largest software company and their head office is in Walldorf, Germany. In terms of revenue, SAP is the largest business application and ERP solutions provider. Their main product is SAP R/3, the "R" stands for real-time data processing and the number "3" relates to a three-tiered system database, application server, and client. SAP products are used by more than 15 million people in more than 130 countries, and its market has typically been Fortune 500 companies. Recently SAP has targeted small- to medium-sized organizations with some of its new products. SAP is made up of individual, combined software modules that perform various structural system tasks such as finance/accounting, monitoring, project system, funds management, materials management, and sales distribution. One of its major modules is Human Resource Management Systems (HRMS/HRIS) . These systems are very refined where SAP offers a full range of functionality, HR products etc .

Stand-Alone : HRIS can also be stand-alone depending on the nature of the business and as per the requirement. As not every organizations require a sophisticated system nor they can afford it as there are many vendors in the marketplace who offer every size and type of product as per the organization requirement. Some considerations for organizations include cost, the number of employees, the level of efficiency, and the company's existing hardware and software. An effective and efficient HRIS requires a balance between what it can do from a technical side and how it can meet the basic requirement of that particular organization. Such requirements typically increase with the size of the organization, the more the organization grow the more they expand their HRIS. Depending on the organization size usually smaller firms use very basic software applications, such as Microsoft Excel and Microsoft Access. Such firms also have a

greater need to integrate the HRIS with enterprise-wide software applications through a middle-ware. Larger organizations might purchase SAP, or Oracle ERP .

➢ Telecommunication Sector in Pakistan

Telecommunication Sector has emerged as one of the fastest growing sectors of the economy ever since the sector was opened to private . By mid-2007, the sector showed growth of 80 percent while average growth rate in last four years remained more than 100 percent . By the end of April 2010 , there were 97 . 6 million mobile phone consumers in Pakistan . At present there are approximate 3 . 5 million internet users in Pakistan . Whereas total users crossed 17 million . At present around 3,002 cities are provided the internet facility. 20 percent revenue increased in telecom sector in 2009 and it generated Rs 327.8 billion in the national economy . During 2008-2009 total revenue collected by the Government from telecommunication sector was more than Rs. 100 billion . It is the most documented sector of the economy and a heavily taxed sector as compared to others sectors of the national economy. Pakistan mobile phone sector remains to be one of the major contributors to national kitty . Total tax collection by mobile sector was Rs 71.95 billion in 2009-10. It should also be noted that Telecommunication sector is one of the heavily tax levied in contrast to economies in the region. Telecommunication sector attracts reasonable amount of Foreign Direct Investment for the country. It impact on the society is healthy and strong. Telecom sector role is necessary for economic development. Investment in telecom sector have the potential to lead economic growth in several ways: transaction costs of data collection, placing and receiving orders have greatly reduced due to the availability of advanced telecommunication infrastructure. Telecom facilities have become an essential part of our life. People feel an ease in their life . Main purpose of these facilities is connectivity and access to information. However, telecommunication sector is also suffering from problems and issues such as double tax domain where both the federation and provinces are bent upon taxing the sector. Another issue is heavy taxation with high rates of Federal Excise Duty. Terrorism and a recent

decline in foreign investment are also taking its toll on the sector. The government should realize the enormous growth the telecom sector has shown in the country. This is high time for the decision makers sitting at the helm of affairs to lead this sector to further expansion and progress. Reduction in taxation on the Telecom services and its related equipments will help in reduction of the cost of the service, which ultimately will encourage more usage.

➢ PMCL-Mobilink

Mobilink GSM (PMCL), a subsidiary of Orascom Telecom , started its operations in 1994 , and has become market leader both in terms of growth as well as having the largest customer subscriber base in Pakistan . It has a base of over30 million and it is still growing . Mobilink is the first cellular service provider to operate on 100% digital GSM technology in Pakistan that not only provides state-of-art communication solutions to its customers . But also Mobilink offers exclusively designed tariff plans that cater to the communication needs of a diverse group of people , from individual to businessmen to corporate and multinationals , to achieve this objective , Mobilink offer both postpaid (Indigo) and prepaid (JAZZ) solutions to its customers . If compared to their competitors , both the postpaid and prepaid brands are the largest brands of their kind in the Pakistan cellular industry . In addition to providing voice communication services that makes the lives of millions that much easy , it also offer a host of value added services to their customers . At the same time , Mobilink places high importance to its coverage , which is why it cover 9000+ cities and towns nationwide as well as over 120 countries on international roaming service . Organizational structure of Mobilink is geographically divided into three Divisions North , South, and Central . Each division is further divided into Business Units that are as follows . **North** is divided into North I (Islamabad and Surroundings) & North II (Peshawar,

FATA). **Central** into Central I, II , III & IV (Consist of Lahore , Faisalabad , Multan & Gujranwala Regions). **South** into South I & II (Karachi, Hyderabad and Quetta) Mobilink is using Egyptian based HRIS named "HITS SOLUTIONS" which is HR & Payroll system.

➢ PTML-Ufone

In January 2001, Pak Telecom Mobile Limited (Ufone) GSM a new cellular company with GSM 900 MHZ technology came into the market. The government of Pakistan granted them the license to operate their business all around Pakistan. They flourished to form itself in the competitive market by providing quality voice service at very economical call rates. Their innovation from the day 1st was eye-catching cultural TV commercials ADDs to attract the users. Furthermore firstly they started their network service in major cities of Pakistan such as Rawalpindi, Islamabad, Karachi and Lahore and also on major highways. Later the service expanded to other major cities like Peshawar, Quetta and different towns. Ufone invested around $65 million to setup its modern technical infrastructure across the Pakistan to provide premium quality crystal clear voice and fast data transmission on smart phone. The tariff packages have been considered keeping in mind the needs of every part of the society may that be a housewife , a taxi driver , a trader or a student . Ufone took start its operation from Islamabad on 29th January 2001. Cellular industry progress in Pakistan before the launch of Ufone was absolutely miserable , with one of the minimum population penetration rates in the Whole region . Ufone's plan from the day one was to change this situation and make sure that mobile phones are transformed into a personal and everyday business communication tools for all . This approach brought an uprising in the market increasing its size , which is five fold in a very short span of time i e two years. Ufone's own progress in these two years remained a model for other compnies , as it exceeded all financial and marketing targets . Despite Ufone's plan to provide a top class service rather than enhancing its customers base without

required capability . It has attained a considerable market share in   market. Despite the Ufone strategy of providing a high level of service rather than increasing capacity without the basis of subscribers, it has reached a significant market share, their brand tag line is "It's all about U".

Ufone HR & Payroll Team is using "SAP ERP" system on larger scale while sharing their ERP resources with their parent company Pakistan Telecommunication Company Ltd. (PTCL). Core system was acquired by the PTCL, whereby Ufone being sister company, also using same system with additional licenses for their employees. SAP is world's best ERP system and operational modules in Ufone are as follow: Employee Management, Payroll, Automated Medical Solution, Expense and Travel Management, ESS (Employee Self Service) Leave, LFA, Benefits Management etc. SAP customization/flexibility to integrate with other systems i.e. .Net/SharePoint is one of the best key-advantage of this state of the art system.

1.2 THE PROBLEM IDENTIFICATION

The graph of usage of HRIS has been risen up in organizations from two decades. In our research we will find the impact of HRIS on HR practices to perform a strategic function in the organization and does HR personnel adopts significant methods of utilizing HRIS to take its best performance in HR.

1.2 THE PROBLEM IDENTIFICATION

The graph of usage of Human Resource Information System has been increased in organizations from two decades. Research found that we will find the effect of Human Resource Information System on Human Resource practices to accomplish a strategic function in the organization and does Human Resource personnel accepts important methods of using Human Resource Information System to yield its best progress in Human Resource.

1.3 STATEMENT OF THE PROBLEM

"Is Human Resource Information System improving the functionality of Human Resource".

1.4 RESEARCH QUESTIONS

The study can give rise to the following questions:

1. Does "Human Resource Information System gave any rise of Human Resource in strategic directions "?
2. Does "Organizations use true potential of Human Resource Information System to demonstrate it as its strategic partner"?

1.5 SIGNIFICANCE OF STUDY

This study is an effort to discover the true potential of Human Resource Information System and making solidity betiren organizations that how well they are using it to attain their goals.

1.6 SCOPE AND LIMITATIONS OF STUDY

Following are the scope and limitations of this study;

1.6.1 SCOPE OF STUDY

This study is accompanied in telecom sector. The research comprises an examination of the literature presented already on the topic and also a questionnaire based on five responses on Lickert scale. Data is collected by the researchers from two hundred and forty respondents working at Ufone and Mobilink. The scope of this research is limited as the research is done on a small level and more researches should discover the topic more.

1.6.2 LIMITATIONS OF STUDY

Few assumptions are taken to accomplish this research because some of the data provided on the internet and other resources of data collection might be false.

CHAPTER 2

LITERATURE REVIEW

2.1 Relevant Literature

2.1.1 Human Resource Management (HRM)

Human Resource Management history started at England in early 1800s during the craftsmen and training era. It developed further with the arriva l of the Industrial Revolution in the late 1800s . Frederick W. Taylor , in the 19th century , suggested that they should introduce a combination of industrial psyche and understanding of the workforce & scientific management . In this case, following was suggested , summarized in two points ;

  i.   The management of workforce through efficiencies in their jobs

  ii.   The workers should be managed also for psychology and optimum well-being .

Moreover, with the radical changes in technology, the innovation and creation of unions, concerns of legislative authorities, its interventions and the growth of organizations spearheaded towards the establishment and running of fully functional personnel departments and twenties. At this point, the term 'welfare secretaries' was introduced for personnel administrators (Ivancevich, 2007).

From above, this can be concluded that the term 'Personnel Management' (PM) was result of Human Resource Management. After the World War II in 1945, the term 'PM' emerged as an approach by practitioners of the personnel department to separate and differentiate themselves from other managerial roles & departments and make the personnel role into a professional managerial positions. Conventionally , the function of PM is

considered to 'hire and fire ' employees in organizations other than compensating them and train them. However, there were many concerns of ambiguity and criticisms made about purpose and function of PM to HRM (Tyson, 1985). Therefore , the term Human Resource Management steadily inclined to replace the term Personnel Management (Lloyd and Rawlinson, 1992). Some writers claim that the term Human Resource Management has no considerable difference from Personnel Management as both the terms are connected with the functions of recruiting, organizing , and motivating human resources required by organizations from time to time. Some writers, at the same time, are defining the terms Human Resource Management and Personnel Management in many different ways (Beer and Spector, 1985). The evolvement and changes in the world of management have refurbished of the term from Personnel Management to Human Resource Management. A new era always provide new ideas and concepts, ideas and philosophies of human resources (Noon, 1992, Armstrong, 2000).

Indeed, some of the writers referenced that there are 'little differences' between Personnel Management and Human Resource Management but it has been criticized as pouring 'old wine into new bottle' with a different label (Legge, 2005). However, both the terms are different from each other or not, is a constant debate on both its connotation and practices (Marchington & Wilkinson, 2002; Legge, 2005).

The SHRM (Strategic Human Resource Management) has grown significantly in the last years. Schuler, Dolan and Jackson (2001) termed the evolution of Strategic Human Resource Management from personnel management of a two-pats transformation: first from Personnel Management to Traditional Human Resource Management, and then from Traditional Human Resource Management to Strategic Human Resource Management. To gain a competitive advantage & enhance performance , a firm's HR must emphasis on a new set of significances . These new significances are more strategic focused but at the same time less accelerated towards traditional Human Resource functions such as

Staffing , Compensation , Training , Evaluations . Strategic significances include designing of team -based jobs, flexibility in workforces , improvement in quality practices, empowering employees, and performance based compensation system . Strategic Human Resource Management is designed to planning talent development and strategic needs , which are required to device a competitive strategy and accomplish operational goals (Huselid , Jackson and Schuler, 1997).

➢ **Formulating HR strategy:**
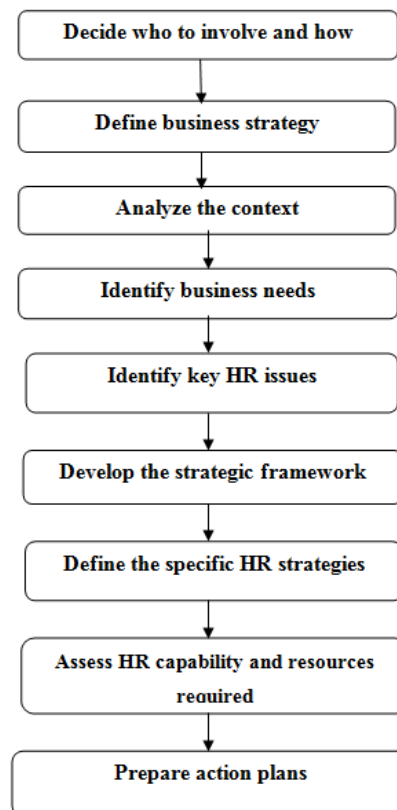
Source: **(Armstrong & Baron, 2002, 214)**

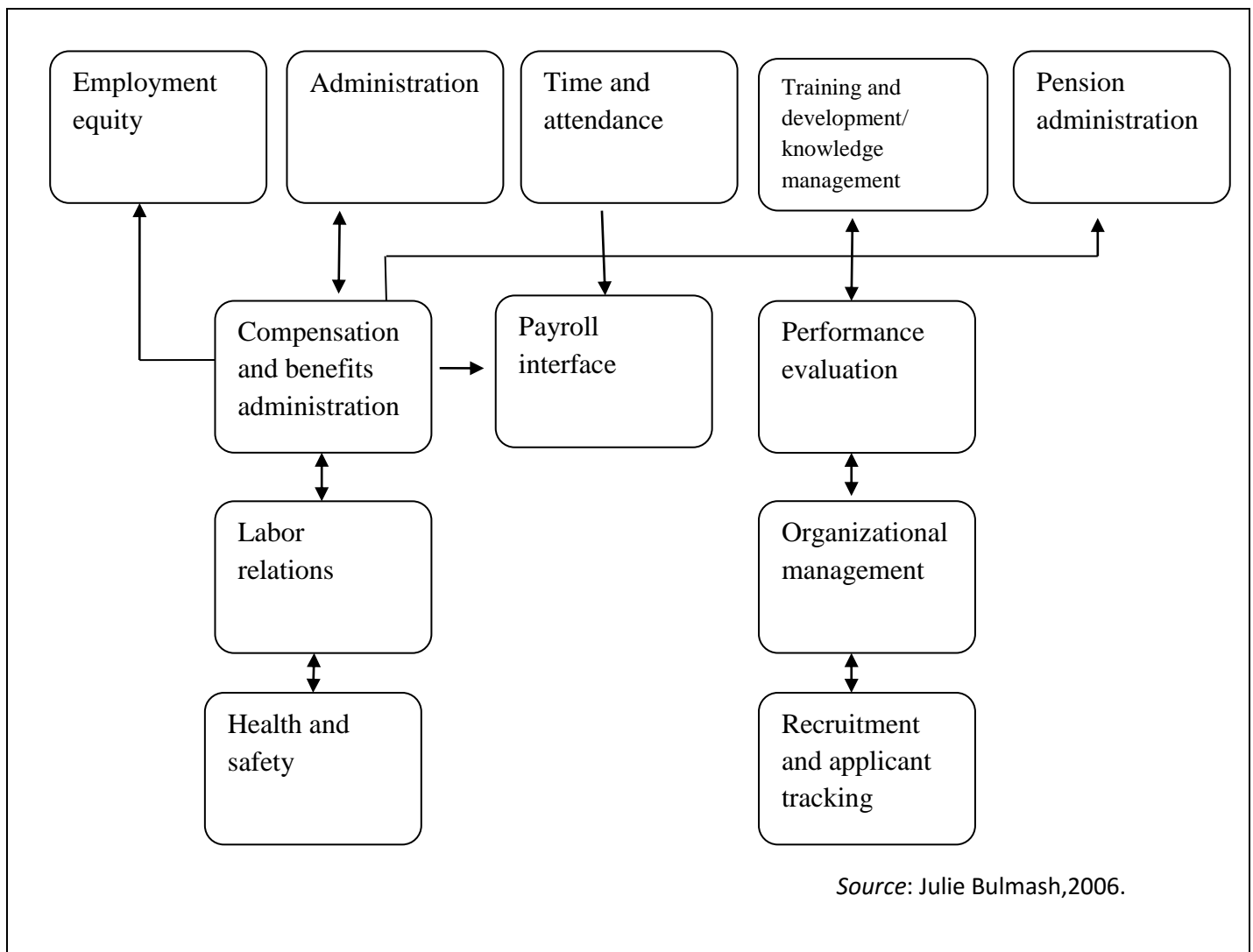## 2.1.2 Human Resource Information System (HRIS)

Human Resource Information System has a very noble historical beginning. Though, there were certain exceptions , prior to World War II H.R professionals (then referred to as "personnel" staff) accomplished basic employee record keeping as a service function with limited interface on core business mission . Early efforts were to handle information about personnel were often limited to employee names and addresses , and perhaps some employment history often unreadable on 3x5 note cards (Kavanaugh , Gueutal and Tannenbaum, 1990).

In the middle of 1945 and 1960, organizations became more conscious of human capital issues and began to develop formal procedures for selection and growth of employees. At the same time, organizations started to be familiar with the importance of employee's self-esteem on the overall effectiveness of the firm. However, this era of change in the profession did not result in remarkable changes in Human Resource Information System (although employee files did become somewhat more composite), some have faith in that it set the stage for an explosion of changes that started in the 1960s and 1970s (Kavanaugh , Gueutal and Tannenbaum, 1990).

During the next twenty years (1960 to 1980) Human Resource was assimilated into the core business mission and , at the same time period , regulatory reporting requirements and governmental interventions for employees also increased meaningfully. The arrival and extensive use of mainframe computers in corporate America corresponded with this regulatory change in increase and provided a systematic solution to the increased diagnostic and record - keeping requirements implemented by growing regulation of employment and a host of new reporting requirements (e.g., affirmative action, Occupational Safety and Health Administration, Equal Employment Opportunity, etc). The Human Resource Department became one of the most important users of the costly computing systems of today's age , often borders other functional areas for computer access . Although Human Resource Information System were computerized and raised widely in size and scope during this period , they continued (for the most

part) simple record - keeping systems (Kavanaugh et al ., 1990). According to Kovach and colleagues , Human Resource Information System is considered as a systematic process for collecting , arranging , sustaining , and recovering data required by an organization about their human resources , personnel activities and organizational characteristics (Kovach, Hughes, Fagan and Maggitti, 2002).

➢ **HRIS Sub-systems:**

Employment equity	Administration	Time and attendance	Training and development/ knowledge management	Pension administration

Compensation and benefits administration	Payroll interface	Performance evaluation

Labor relations		Organizational management

Health and safety		Recruitment and applicant tracking

Source: Julie Bulmash,2006.

2.1.2 The Role and Impact of HRIS

2.1.2.1 Hussain et al., (2006)

Hussain et al., (2006) studied 'the utilization and influence of Human Resource Information Systems on Human Resource Management Professionals '. The purpose was to measure and liken the specific areas of use and to bring together an arrangement that be responsible for a framework for academicians.

The question was to calculate if the compilation and execution of the Human Resource Information Systems strategically affected the organization and added value in terms of corporate social responsibility. The main techniques used to inspect, examine and look into the impact of Human Resource Management using the Information System are questionnaires and detailed interviews. The approaches mentioned earlier have been used to get feedback from the personnel in the HR department in most of the organizations in the Great Britain. Going forward some senior executives were targeted such as directors/ COO's/ CEO's and other officials to get an deep insight of issues faced at the level and to avoid the same in future. The process was followed in over 450 organizations in the country to get their ideas through set of questions. An economical survey carried out in various parts of the country through business directories, which incorporated and covered most sectors. Only 101 responses received from the various organizations which represented only 22.4 percent return, which were used during the analysis. The difference is considerably less between companies and Small and medium enterprises.

Human Resource Information System usage . Furthermore, the authors perceived that the professional standing has been enriched by the specific Human Resource Information System usage for strategic cooperating, but alerted that it was not as obvious as that experienced by those other professions. In conclusion, the researchers noted that for senior Human Resource professionals, strategic usage of Human Resource Information System had enhanced norm/values, irrespective of the size of the company. In addition, 34 responses observed by researchers, that tactical usage of Human Resource Information System

improved the observed standing of Human Resource professionals within organizations, however senior non-Human Resource executives did not share this view.

2.1.2.2 Florkowski (2006)

Florkowski (2006) in his study, 'The diffusion of human -resource information technology innovations in US and non-US firms', assessed the distribution of eight information technologies that are transforming Human Resource service-delivery in North America and Europe . Such information technologies comprises Human Resource functional applications , integrated Human Resource suits, IVR1 systems, Human Resource intranets , employee and manager self-service applications , Human Resource extranets , and Human Resource portals . The study applied external, internal , and mixed-influence models of Human Resource Information Technology - HRIT adoption decisions of cross-sectional sample of US , Canada , UK and Irish firms . Senior Human Resource officials provided the primary data by means of a vigorously branching , web-based survey. The researcher reviewed that complete distribution was best characterized as an product of internal influences , powered mainly by contacts among members in the social system of potential adopters . Similar results were attained when controls were introduced for national setting, targeted end user , and technology type. The paper showed that the modest correlation between the number of acquired Information Technologies and Human Resource transactions automation supports the general call for more formalized HR technology plans at the firm level to coordinate purchasing and implementation decisions.

2.1.2.3 Gascó , Llopis and González (2004)

In their paper 'The use of information technology in training human resources ' A learning case study , they wanted to address the effect of information technology in human resources management , explicitly on training policy through the experience of a Spanish telecommunication firm, Telephonic. In consequent, Gascó et al., (2004) examined the features of the training model designed, technology that is used, key actions as well as the drawbacks and success aspects in training policy

2.1.2.4 Ordónez de Pablos (2004)

Ordónez de Pablos (2004) discovered that the experimental proofs supported the hypothesis that there was direct relationship between a particular HRM practice system and knowledge stocks at individual level. Moreover, the experimental proofs supported only two of the hypotheses linking knowledge stocks with a sustained competitive advantage ; thus, human capital had a direct, positive and significant relationship with the creation of a continued competitive advantage. Secondly , technology-based knowledge stocks at firm level also had a positive and significant relationship with creation of a long-term competitive advantage for a company. However, experimental proofs showed that knowledge stocks at both individual and group levels had a positive but no significant relationship with organizational performance . Ordónez de Pablos (2004) argued that Human Resource Management systems might lead to a continued competitive advantage through the creation and development of knowledge-based resources . This was in line with the theoretical framework established and the literature on Human Resource Management, which suggested a link between Human Resource Management System, strategic organizational resources and the creation of a continued competitive advantage (Pfeiffer, 1994; Miles and Snow , 1992; Youndt and Snell , 1998; Youndt et al., 1996).

2.1.2.5. Ngai et al., (2004)

In this article, 'Human Resource Information Systems : a review and empirical analysis' Ngai et al., (2004) presented a comprehensive literature review of Human Resource Information Systems and described the results of the survey on the implementation of Human Resource Information Systems in Hong Kong. They also intended at investigating the use and applications of Human Resource Information Systems. Moreover, the aim was also to identify the supposed benefits of, obstacles to and application of Human Resource Information Systems.

According to Ngai et al., (2004) most Hong Kong industries supposed that the greatest benefits to the application of Human Resource Information Systems were the quick response and access to information that it fetched and the greatest obstacle was inadequate financial support . Moreover , there was statistically importance difference between Human Resource Information Systems adopters and non adopters and between small, medium and large companies, regarding some potential benefits and obstacles to the application of Human Resource Information Systems.

2.1.2.6. Shrivastava and Shaw (2003)

Taking HR technology as an innovation , Shrivastava et al., (2003) in their study on the topic 'Liberating HR through technology ' presented a model elucidating technology implementation process. The model objective was to bring fore the various issues highlighted by practitioners and academics alike. An exploratory method of research was used. They devised a Model (Descriptive) for HR technology. The model was categorized into three phases. They were institutionalization. Using former research findings, they contrasted the HR technology application methods with the model (descriptive). They reviewed that organizations that adopted successfully customized IT solutions in supporting the already used HR processes.

2.1.2.7 Lado and Wilson (1994) Lando et al., (1994)

In their study 'Human Resource Systems and Sustained Competitive Advantage': A Competency-Based Perspective , was introduced within a system perspective, the organizational competencies / skills that may be the sources of sustained strategic advantage. Besides that, they investigated, how HR systems facilitated the utilization and development of organizational competencies /skills and how HR systems could impede the competencies or annihilate their exploitation/misuse. The objective was also to interrogate the extent to which HR professionals could influence strategic decision

making process by withholding or providing   useful information   concerning   employees
business   issues.

2.2 THEORETICAL FRAMEWORK
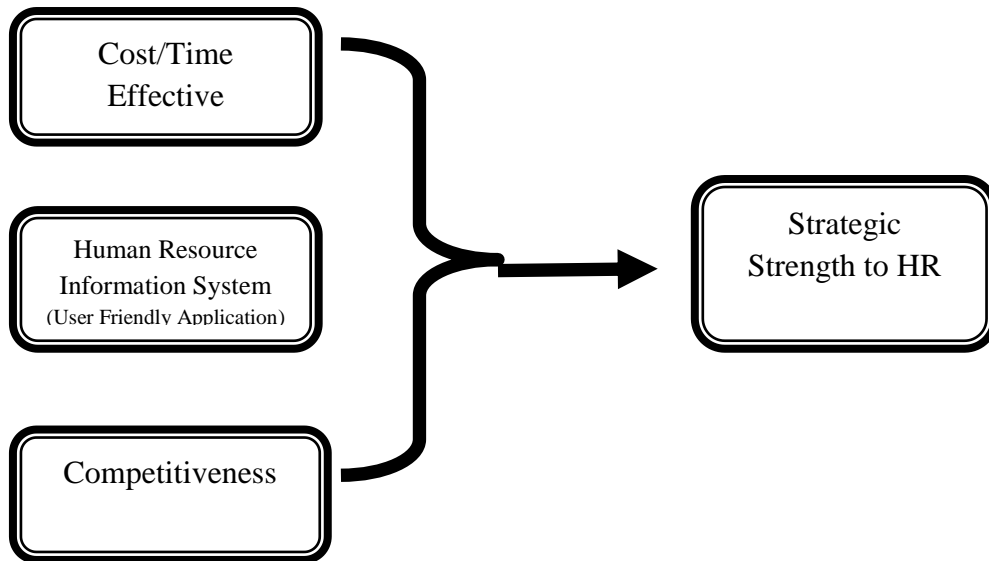
2.2.1. HRIS, Cost & Time Effective.

For Human Resource Information System, a large budgetary investment decisions are taken
by all companies. Therefore, a solid case   to persuade   executives/decision   makers about
the benefits   of is necessary . The benefits   of HRIS   frequently quoted   in studies   are
improved   accuracy, the   provision of   timely and   swift   access to   information,   and
costs   saving (Lederer , (1984); Wille   and   Hammond , (1981).   Lederer(1984)
discussed   the timeliness   and accuracy of HRIS is very   necessary in terms of   controlling,
 operating, organizing   and planning   activities   in HR . In addition ,   Kovach   et   al.,
(2002) listed several   strategic advantages   of applying   HRIS . Likewise,   Beckers and   Bsat
(2002) pointed   out five   specific   reasons as   to   why   companies ought   to use   HRIS .
These are: Increased   competitiveness   by improvising   HR practices   produce variety   of
HR   operations,   shifting the   focus of Human   Resource   from the processes   of
transactions   to strategic   Human   Resource Management make   employees associated

with HRIS, and reengineering the entire HR function .On other hand, there are costs associated with HRIS applicability. Furthermore, to capitalize on all HR practices, workers ought to have access to computers and Internet . Some companies facilitate employees by providing discounted programs to encourage computer usability . In addition to this, there is associated transition costs with moving from traditional HR to a new systems , such as, consequences associated with changing old systems to new integrated systems (Brown, 2002). Cost associated with Hardware and software for application programs is large continuous over time as new technology is available in the market. While many companies are adopting such systems and reaping the benefits, others are reluctant and shy on such an expensive and time consuming change. Nonetheless, some firms are adopting less complex forms before attempting to own it. However, for those who have already adopted HRIS, many are reaping and some are yet to reap its full benefits. A survey by Towers Perrin reported that 80 percent of respondents confirmed employee self-service ability truly lowered HRIS costs , 5 percent achieved goals, another 35 percent had partly achieved, and 3 percent accelerated transformation of HR (Ibid).

2.2.2 Strategic Strength to HR

HR specialists has begun to see the possibility of new applications for the IT. The idea was to integrate as many of the different HR functions as possible. The result was the third generation of the HRIS, a rich featured, broad-based, and self-reliance HRIS. The third generation took systems far beyond from being data repositories and created tools with which HR specialists could do much more (Lloyd, Byars, Leslie, & Rue, 2004). It has the potential to support HR function in developing organizational strategy, and thus, improving organization performance (Barney & Wright, 1998; Broderick & Boudreau, 1992; Gueutal, 2003; Lawler, Levenson, & Boudreau, 2004; Lengnick-Hall & Moritz, 2003). Human Resource Information System is used to store, retrieve, analyze, manipulate, and distribute relevant information regarding a company's human resources (Kavanagh,

Gueutal, & Tannenbaum, 1990). It provides, HR specialists with the time they needed to channelize their focus towards more critical and strategic level business tasks, like leadership development and management of talent.

HRIS provides many opportunities to Human Resource Management to play more critical role to generate metrics which may be used to support long term strategic decision-making (Lawler & Mohrman, 2003). The present generation of HRIS specialists has automated and devolved routine compliance and administrative tasks/functions which were traditionally done by corporate HR departments and can facilitate the outsourcing of Human Resource. The recent research shows optimum use of HRIS in relation to strategic decision making by HR. With a relevant HRIS, employees are enabled by HR staff to updates and change address, and in turn sparing HR staff to deal with more strategic functions. Moreover, data necessary for career growth of employees, knowledge development, employee management, and development, are facilitated by HRIS. Last but not the least, HR professionals can easily access the relevant employee information they required to ethically, legally, and effectively.

2.2.3. Competitiveness;

Success and survival in current globalized economy is increasingly dependent on competitiveness. It is a multidimensional concept. It has become the gospel truth today to describe economic strength of a country or sector or firm with respect to its competitors in the global economy in which goods, services, people competencies, skills and ideas pass freely across geographical borders. Information Management in general and HRIS in particular, has become a winning factor in making business competitive and effective. Organizations are increasingly realizing the advantage of having HRIS and other systems that analyze, capture, and report on the host of human resource aspects that are necessary for running businesses. Human Resource Management consists of the procedure, policies and practices that involved in developing, evaluating, utilizing, obtaining, maintaining and retaining the appropriate number and skill/competencies of employees for accomplishing the organizations' objectives. HRIS is a pivotal tool used for understanding the patterns for human resource procedures, policies, activities and employee behaviors as well as

for identifying loopholes in human resource and the effectiveness of human resource. HRIS comes as a software package that provides a through management system for human resource activities/tasks relevant to businesses. (Source*: www.gjimt.com/GianJyotiE-Journal.htm)

2.2.3.1. Road Map Business Competitiveness

```
┌─────────────────────────┐
│      HR programs        │
└─────────────────────────┘
            │
            ▼
┌─────────────────────────┐
│      IT-knowledge       │
└─────────────────────────┘
            │
            ▼
┌─────────────────────────┐
│          HRIS           │
└─────────────────────────┘
            │
            ▼
┌─────────────────────────┐
│ Business Competitiveness │
└─────────────────────────┘
```
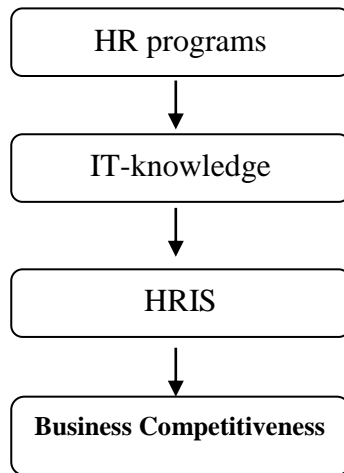
Source: GIAN JYOTI E-JOURNAL, Volume 1, Issue 2 (Jan – Mar 2012)

2.3 HYPOTHESIS

1. "Does HRIS directly impacts on HR or Not"?

2. "Does HRIS enhance or replace the functions of HR"?

3. "Does results of HR generated by the help of HRIS plays significant role in decision making or Not"?

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Population of the Study

The population of this study includes two organizations that are as follows:

1. Ufone
2. Mobilink

3.2 Sampling technique

Judgmental based non-probability sampling technique is used for collecting the data through questionnaires.

3.3 Sample Size

Sample size is 240, 120 from each organization.

3.4 Research Instrument

Questionnaire is used to collect the data, which is developed by the researchers with the help of previous researches. .

3.5 Data Collection

The research study is quantitative. The sample size was 240 taken from Ufone and Mobilink. Non-probability based judgmental technique of sampling is used to collect the data through questionnaire developed by the researcher. SPSS 16.0 is used for the analysis of the data. Validity and reliability test is used for checking the internal consistency of the questionnaire so that correlation and regression can be applied to test the hypothesis.

Data is collected through secondary sources such as from books, research articles, internet etc. as well as from primary sources through questionnaire.

CHAPTER 4

DATA ANALYSIS & INTERPRETATION

Statistical Package for the Social Sciences (SPSS) version 16 is used in the study for the purpose of analysis and presentation of results. Descriptive statistics based on frequency tables are used for providing information on demographic variables. The descriptive statistics used in the study are based on frequency distribution tables and graphical presentation for the responses from work motivation in relation to graphical information of the respondents.

Six steps are used to data preparation. In first step, variables are defined. In second step, data is entered. In third step, missing value in the data is checked. There is no missing value in table. In fourth step, reversal question in the data is checked. There is no reversal question in data. In fifth step, reliability of items of different dimension is checked to confirm that these have the consistency. In sixth step, variables are computed for further analysis.

4.1 Descriptive statistics

Gender

Description	Male	Female
Frequency	180	60
Percentage	75%	25%

Gender Statistics
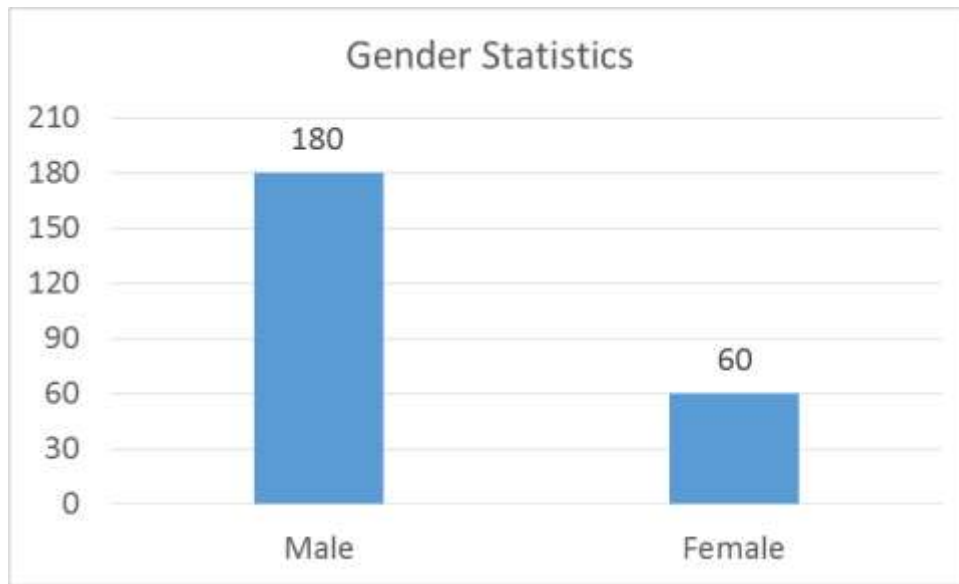
Age Wise Statistics

Age in Years	Frequency	Percent
20-30	55	22.9
31-40	130	54.2
41-50	48	20.0
50 & Above	7	2.9
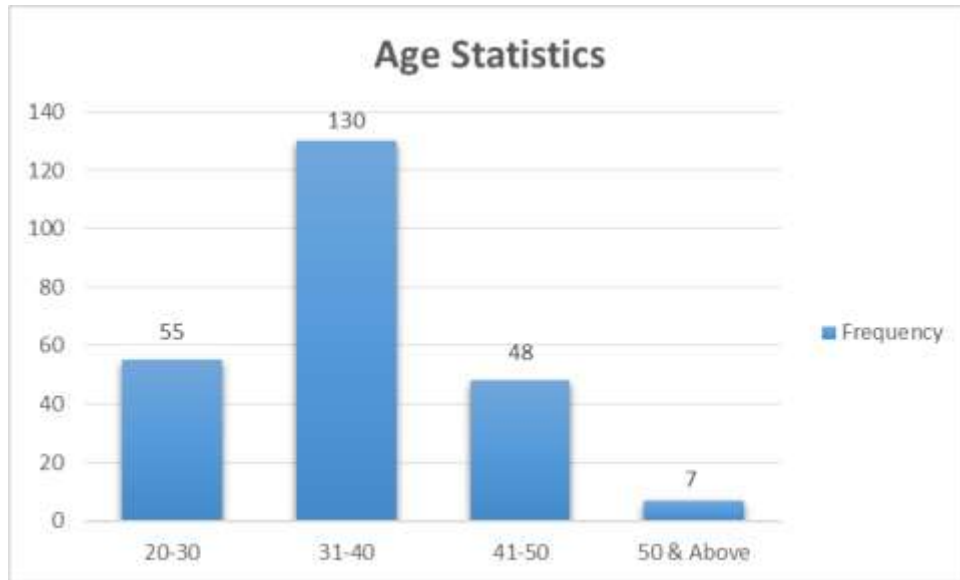
Designation

	Frequency	**Percent**
Initial Level	57	23.8
Middle Level	134	55.8
Senior Level	49	20.4

4.2 Reliability

	Cronbach's Alpha	**N of Items**
Cost / Time Effective	.871	9
Strategic Strength	.835	10
Competitiveness	.710	8
HRIS	.730	5

➢ **Cost / Time Effective :** Reliability of Cost / Time Effective is .871which shows that there is consistency in items of scale.

➢ **Strategic Strength** : Reliability of Strategic Strength is .835which shows that there is

consistency in items of scale.

➢ **Competitiveness** : Reliability of Competitiveness is .710which shows that there is

consistency in items of scale.

➢ **HRIS** : Reliability of HRIS is .730which shows that there is consistency in items of scale.

4.3 Correlation

Correlations

		Time/cost mean	Strategic strength mean	competitiveness mean	HRIS mean
Time/cost mean	Pearson Correlation	1	.848**	.771**	.624**
	Sig. (2-tailed)		.000	.000	.000
	N	240	240	240	240
Strategic strength mean	Pearson Correlation	.848**	1	.808**	.690**
	Sig. (2-tailed)	.000		.000	.000
	N	240	240	240	240
Competitiveness mean	Pearson Correlation	.771**	.808**	1	.925**
	Sig. (2-tailed)	.000	.000		.000
	N	240	240	240	240
HRIS mean	Pearson Correlation	.624**	.690**	.925**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	240	240	240	240

**. Correlation is significant at the 0.01 level (2-tailed).

- **Cost / Time Effective with HRIS:** Pearson correlation between Cost / Time Effective and HRIS is .624 which indicates that there is strong positive/decisive relationship between the variables and significance level is .000.

- **Strategic Strength with HRIS:** Pearson correlation between Strategic Strength and HRIS is .690 which presents that there is strong positive/decisive relationship between the variables and significance level is .000.

- **Competitiveness with HRIS:** Pearson correlation between Competitiveness and HRIS is .925 which indicates that there is strong positive/decisive relationship between these variables and significance level is .000.

4.4 Regression

- **Cost / Time Effective with HRIS:** The standardized coefficient (beta) is .624 at significance level of .000 which indicates that if 1 unit of Cost / Time Effective is increased than HRIS will increase 0.624 units

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.624[a]	.390	.387	.57810

a. Predictors: (Constant), Time/cost mean

Coefficients

Model	Un-standardized Coefficients		Standardized Coefficients	Time	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.349	.169		7.983	.000

	B	Std. Error	Beta		
Time/cost mean	.616	.050	.624	12.332	.000

a. Dependent Variable: HRIS mean

➢ **Strategic Strength with HRIS :** The standardized coefficient beta is .690 at significance level of .000 which shows that if 1 unit Strategic Strength increased than HRIS shall increase 0.690 units.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.690[a]	.476	.474	.53558

a. Predictors: (Constant), Strategic strength mean

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.760	.182		4.187	.000
	Strategic strength mean	.753	.051	.690	14.713	.000

a. Dependent Variable: HRIS mean

➢ **Competitiveness with HRIS:** The standardized coefficient beta is .925 at significance level of .000 which shows that if 1 unit of Competitiveness increased than HRIS shall increase 0.925 units.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate

	1	.925^a	.855	.854	.28210

a. Predictors: (Constant), competitiveness mean

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.449	.104		-4.319	.000
	competitiveness mean	1.124	.030	.925	37.419	.000

a. Dependent Variable: HRIS mean

4.5 Hypothesis Testing

It is proved that

H1: HRIS directly impacts on HR. *(Accepted)*

H2: HRIS enhance or replace the functions of HR. *(Accepted)*

H3: Results of HR generated by the help of HRIS plays significant role in decision making.

(Accepted)

CHAPTER 5

FINDINGS, CONCLUSION & RECOMMENDATIONS

5.1 Findings

In modern days any organizations which are operating their business thorough information system must have a vital and essential roles to play, being the key player in this business industry they have effective decision making processes to improve their business through technological advancement. If information system is designed and utilized in accordance with the business rules this can bring the company with added advantage by facilitating then in critical decision making, which is the core requirement of every business.

Management Information Systems plays many roles, first role is support and assisting business processes such as, inventory management, supply chain management system, as all such systems give authority to the employees and also help them into their day to day business.

Need to the day to day business processes at various levels to make decisions with respect to its service provisioning and upper level managers need to make the decision to - Another role of information systems to support decision-making , which play a major information role Systems meet , is strategically important for the future business , a good , well-managed and effective design information system supports decision-making at all levels of society , if it is the middle level of management with regard to the regularity of commercial transactions or in connection with the future decision-making , is of strategic importance ; Information systems are always useful to get the right information to the management

Another role of information systems in today's organization is to provide sustainable competitive advantage, any information systems industry can be a source of competitive / strategic advantage in many ways, one of them is to record, and then re-fabricating evidence about customers and their shopping behavior, product preferences with regard to your personal data, the information can still be used to improve products the right product to the right customers and relationship marketing. On the other hand, the same information can be

used by management to law changes and business - related decisions and give your product a step ahead of the competition.

There are four types of information systems at the top level of the organization, these are Executive Support System, which provides strategic information for senior management, with the help of System Application Program (SAP) to the next stage, it is (DSS) Decision Support Systems, which facilitate required information for middle management0 in connection with their business area and middle level of decision-making, at the same level there are Management Information System, provides both internal and external customer and employee information to the user, and on the basic level of management, there are transaction support system, designed to support day-to-day business operations and facilitate the employees better for their customers. In addition, it is shown by our analysis of the data that directly impacts on human resource HRIS, HRIS improve the functions of the HR and the HR results generated by the use of HRIS plays important role in the decision.

Mobilink Infinity is the market leader in the provision of data and Internet services in Pakistan , one of the reasons for their success is of efficient information systems that are in place to facilitate the process of business and management of aid for making timely decisions and fast , here in the organization of different teams are using different types of information systems which are independent of each other , these systems have different names such as for commercial transactions and the contacts with customers , called Tracer and CRM , for financial purposes they use Octopus & Bond , and for the information needs of level leadership and management of the middle they Have Infinity analysis portals.

In the last two decades, companies around the globe have implemented Enterprise Resource Planning Systems (ERP). ERP systems comes in a software packages which enable companies to integrate their business activities/processes and information which is relevant to their organization. ERP systems, firms are enabled to manage all their resources- human resources, tangible and intangible assets, finances, production, to name a few more effectively. The ERP system not only supports in standardizing business procedures for the firm but also helps management enhance their visibility of the business by providing real-time financial and

technical information. Companies have shown numerous reasons to implement ERP. Some companies choose to introduce ERP, as their need to integrate dispersed systems throughout the organization.

5.2 Conclusion

In our study from both organizations, we found following reasons of their success

1. Commitment of Top management.

Top management is enthusiastic about the development of the software.

  They take this project as an investment.

2. Effective need analysis.

The need analysis was completed in an effective manner.

3. Inclusion of key stakeholders.

The employees from IT and HR department were selected for the project. Likewise Head of HR, Head of IT and other managers were part of the project team.

As a result,   leadership,   involvement of   top management and monitoring, better coordination, were possible.

4. Dedicated and Capable Project Team.

The project team was committed to finish the project on time, by keeping the quality and cost parameters in view.

5. Training to the Users and Effective Communication.

 Training of general operators made users more optimistic and confident in using the software.

6. Confusion pertaining the software was clarified.

In this study, we concluded that the managers must focus on these four variables (Cost/Time Effective, Strategic Strength to HR,   Competitiveness and Human Resource Information System) while creating the HR strategies. It also helps the managers to Manage the HR activities and also helpful to attract more employees.

5.3 Recommendations

HR specialists should also consider HRIS utilization in alignment with the strategic goals given in the HRIS support for the HR specialists' jobs.

Based on the above detailed comparison below are the recommendations on both (Ufone & Mobilink) HRIS .

In Ufone, SAP ERP system is one of the most powerful and well - integrated enterprise resource planning software packages in the market today. The main reason behind SAP ERP's popularity is its ability to bring together all of the major business processes in any industry. Its integration with finance, business sales and services lends it, its exceptional functionalities. This comes with decades of experience and over that time the system has evolved to adapt to changes in the way business is done . This has enabled it to be easily customizable in Ufone across the board for all the departments i. e. Finance, Medical, Travel, Sales, HR and Payroll.

In Mobilink, HITS HRMS system is used in visualizing the organization's manpower , such as employees' basic information and master data, and also to draw the organization structure, to manage the staff hierarchy and it enables them to get their data in reports as required. It also includes the leave management system and time management system, can simplify the administrative activities such as setup employees' vacation packages and continuing through tracking, analysis and sharing information with the payroll.

Concluding the above hypothetically SAP is the best available ERP system in the market covering the below main areas:

Market leadership, Corporate viability, Software Scope, Global Solution, Expandability.

Based on the above comparison and in-depth study, it is recommended that Mobilink should also implement the SAP system due to its universal usability and ease of transfer of access.

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APPENDIX A:

COVER LETTER

Dear Respondent,

I am conducting a research on **"HRIS, a comparative study on Ufone & Mobilink"**, and also to evaluate that to what extent HRIS impacts on HR practices of both organizations. You are requested to please read the following questions carefully and indicate your actual responses by marking a tick in the relevant box. Kindly do not leave any question blank. It is assured to you that the basic purpose of this questionnaire is purely academic, it has no official influence and privacy will be the top priority. Your contribution is voluntary so please feel free while answering the questions. I hope you will take the time to complete this questionnaire and return it. Your cooperation in this regard will be highly acknowledged.

Sincerely,

Khawaja Attique

APPENDIX B:

DEMOGRAPHIC DATA SHEET

Gender   Male ☐   Female ☐

Qualification   Intermediate ☐   Graduate ☐   Post Graduate ☐

Designation   Initial Level ☐   Middle Level ☐   Senior Level ☐

Professional Experience (In Years)

01-05 ☐   06-10 ☐   11-15 ☐   16 & Above ☐

How long has the HRIS system been in place? (In Years)

01-05 ☐   06-10 ☐   11-15 ☐   16 & Above ☐

Age (In Years)

20-30 ☐   31-40 ☐   41-50 ☐   50 & Above ☐

APPENDIX C:

QUESTIONNAIRE

Response Key:

1 Strongly Disagree

2 Disagree

3 Neutral

4 Agree

5 Strongly Agree

COST/TIME EFFECTIVE

Serial No.	Questions	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
1	Our HRIS has decreased the time spent on recruiting.					
2	Our HRIS has decreased the time spent on training.					
3	Our HRIS has decreased the time spent on making staff decisions.					

		Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
4	Our HRIS has decreased the time spent on communicating information within our institution					
5	Our HRIS has decreased the time spent on correcting errors.					
6	Our HRIS has decreased cost per hire.					
7	Our HRIS has decreased training expenses.					
8	Our HRIS has decreased data input expense.					
9	Our HRIS has decreased the overall HR staff's salary expense.					

STRATEGIC STRENGTH TO HR

Serial No.	Questions	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
10	Our HRIS has provided increased levels of useful information					
11	The information generated from our HRIS is underutilized by top administrators					

Serial	Questions					
12	The information generated from our HRIS is shared with top administrators					
13	The information generated from our HRIS has increased coordination between HR department and top administrators.					
14	Our HRIS has made our HR decision-making more effective.					
15	The information generated from our HRIS helps our institution decide on employee raises.					
16	The employees of the Human Resources (HR) department appear to be satisfied with our HRIS.					
17	Overall our administration thinks that HRIS is effective in meeting strategic goals.					
18	HRIS assists evaluation of performance management properly?					

COMPETITIVENESS

Serial	Questions	Strongly	Agree	Neutral	Disagree	Strongly

No.		Agree				disagree
19	Our HRIS has promoted our institution's competitive advantage.					
20	Our HRIS has increased security concerns.					
21	We are satisfied with the support we have received from the software vendor.					
22	Overall we are satisfied with the modules we have installed and are available for use.					
23	Our HR employees understand how to use the Human Resource Information System					
24	We are satisfied with the deployment of our HRIS					
25	Our HRIS could be better utilized.					
26	I am actively involved with the Human Resource Information System (HRIS).					

HRIS

Serial No.	Questions	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
27	Do you have a technical support person/team for this HRIS application?					
28	Is there a system or process for sending comments for improving this HRIS application?					
29	Are updates or changes made regularly to this HRIS application based on the feedback received?					
30	Does this system meet your current needs?					
31	If training is not provided at present, do you expect the management to provide adequate training about HRIS?					

APPENDIX D

Ufone HRIS Good Practices:

Ufone Medical Facilitation Process:

In the past few cases were being reported where employees are facing delay response from HR, Finance and Hospital administration for medical treatment. A case was reported by an employee, that one day his mother was suffering from a severe kidney pain. So he emailed to HR for availing the medical facilitation for her but due to some network problem HR was unable to get the email and respond timely. HR responded to the email after 24hrs. While, then the employee had taken the treatment on self-finance, which is was real bad experience and felt dissatisfied with the services. Several complaints were received by the other employees also regarding mismanagement in providing medical facilitation services. Later, issue has been escalated to the HR higher management, to come up with the different plans, so that this issue may address on urgent basis. So a well-planned and implemented automatic medical facilitation system must be required to address and/or alleviate many of the general disadvantages of the traditional medical facilitation process. All this was done by connecting USSD Channel with HRIS.

OPTIONS:

A meeting was conducted to share new ideas or give suggestions for the improvement of medical facilitation process. And come up with four possible options:

1) Upgrade the existing process regularly so that to avoid the network problems.
2) Empower the employees so that they can show their Service Cards & take treatment.
3) Automate the complete medical facilitation process so that the employee can avail the treatment without any delay.
4) Suggest other possible options if any.

From all of the above options the most feasible option would be the 3rd option, in which an employee is sending a message to HR through his/her service number for availing medical facilitation services. To which HR is sharing a list of entitled hospitals through a message with the employee and employee is selecting the suitable hospital and responds accordingly. Then HR gets in line with the respective hospital through Email and share employee details. Then HR receives the invoices from the hospital, reviews it and forwards it to the Finance Department for preparing cheques. And then Finance Department prepares the cheques and forwards it to the HR, who dispatches the cheques to the hospital.

CONCLUSION:

Features found in this automated software application can completely automate, streamline and improve the appointment- and reservation-booking process are simply unavailable in the traditional medical facilitation process like employees can do online self-scheduling, whereby individuals can book their own appointments and reservations at their own convenience; get automated e-mail and text message reminders, company could get E-marketing options, Online payment options, cost and time effective and easily accessible etc.

From the above discussion it is concluded that Technological advancements have caught up with most industries and the tasks they conduct. The scheduling and management of appointments and reservations to facilitate their employees is no exception. It has been proved that automated software systems (HRIS) are now readily available to all-sized organizations and for all scheduling needs, regardless of the scope of operations, the number of staff members, and their operating budgets. This technology can transform this oftentimes overwhelming process and enable them to run more efficiently, effectively and profitably.