A Study of Development of Human Resource Information Systems HRIS and its Effectiveness in the Banking Sector of India

Mr. Akshay Ramesh Taskar,

Student, MBA (BFSI),
School of BFSI, Symbiosis University of Applied Sciences, Indore, India.

Mr. Anshul Pratap Singh Raghuwanshi,

Student, MBA (BFSI),
School of BFSI, Symbiosis University of
Applied Sciences, Indore, India.

Mr. Alan Antony,

Student, MBA (BFSI),
School of BFSI, Symbiosis University of
Applied Sciences, Indore, India.

ABSTRACT

With the emergence of technology, many organizations have started using human resource information systems (HRIS). HRIS is featured to contribute to various activities (human resources management) in an organization. In this paper, we have covered the development of HRIS from early 20th century till now. This paper is based on the information collected by interviewing Branch Managers & HR Managers in the banking sector in Nasik and Indore region of India to identify the effectiveness of HRIS. From the information acquired it was observed that HRIS identifies vacancies, precisely investigate each and every job position, its job identification and provide training needs of organizations. The other works done by HRIS are; selecting the right person at the right time for training, estimating the effectiveness of Pre-service training & In-service training programs. Therefore, it was inferred that HRIS played a vital role in the management of human resources.

Keywords: Human Resource Information System (HRIS), Human Resource Management (HRM), Banking Sector, HR system.

INTRODUCTION:

The world is fast forwarding with the emergence of new technologies and now organizations have become technically embedded ones. To improve the effectiveness of organizations, the leader of the organization should be acquainted with the knowledge of emerging technologies. The HRIS was introduced in the era of World War II. From that time HRIS has changed drastically from paper-based to online software. HRIS helps the organization to store employee data more accurately and efficiently. Earlier, companies used to record data on paper. However, with the advancements in technology, many sectors have started implementing HRIS. Now, companies are able to keep precise and up-to-date records of employees which help them for future growth in their companies. The HRIS used for decision making increases the productivity of both employees and managers. Human Resources Information System is basically a combination of HRM (Human Resources Management) and IT (information technology). Human Resource Information System (HRIS) is a computerized system which is used to collect, store and analyse records of organization's Human resources consisting data related to employees, recruitment, facility, payroll, pharmacy, health management information system etc. The main advantage of this HRIS is that it provides guidelines for administration for decision making. HRIS is the integration of all HR systems and processes with use of technology to benefit the overall management of HR in an organization. It is used to Automate all routine and transactional activities relating to employees, Identifying

potential employees from among job-applicants, Maintaining records of existing employees, Analyse attrition records, Keep track workforce deployment and staffing effectiveness, Keep track of compensation programmes to make salary forecasts and pay budget. The aim of this paper is to study the effectiveness of HRIS in the banking sector. For this purpose, data is collected from different public and private sector banks.

RESEARCH OBJECTIVES:

➢ To understand HRIS System.
➢ To find out various components of HRIS framework.
➢ To find out various benefits of HRIS system.
➢ To study the effectiveness of HRIS in the banking sector.
➢ To find out types of databases used by banks to collect data.
➢ To ascertain challenges faced in implementation of HRIS.

LITERATURE REVIEW:

In the early phase of the banking sector, the employee information stored in the form of paper was the cause of delays in the procedure, improper documentation, expensive storing files and their security. This literature review goes through various papers, which supported the importance of HRIS in improving the efficiency in different organizations especially in banking industry. This 3rd generation of HRIS is the emerging topic in the banking sector. We are interested in this topic because this system is evolved so much from paper-based to online web services over the period. For this research, we studied several research papers, books, journals and web sources. Kelly O. Weeks (2013) this paper states the process of the HRIS. The first step in the design of an HRIS is to specify the requirements and the purpose of the system. This includes the target users, the type of data to collect, the amount of data to collect, and how often to collect the data. The next step is to construct the organizational system design. This step resolves issues concerning who will utilize the system, how will it be accessed, and how will it be updated. Often it is easier to visualize an HRIS in order to better understand how it should be constructed and utilized. An HRIS can be visualized as consisting of three functions: Input, data maintenance, and output. In the input function, the information concerning the personnel is entered into the system. This can be done via data entry or by newer methods such as scanning from original documents. The data maintenance function updates and adds new data to the database. Lastly, the output function generates information that is presented in a useful format. Recent studies show that the implementation of HR technology can increase an organization's market value. The key is having measurable goals for your HR system. Carol Wairimu, Dr. Patrick Karanja (2016) this paper states that information technology has revolutionized the mode of conducting business all over the world. It is applied in virtually every sector of the world economy. Technology adoption is linked with higher business outcomes. Best practices in human resource management should not be overlooked while embracing technology. In Kenya performance in the banking sector demand that the institutions should have effective systems in place to offset unpredictable events that can maintain their operations and reduce the risks implicated through development. This study sought to fill the existing research gap by to determine the role of human resource information systems on organization performance in banking industry in Kenya.

Nikhal Aswanth Kumar, Sanjana Brijball Parumasur (2013) this paper the definition of HRIS is clearly being stated that A Human Resource Information System (HRIS) uses a systemic procedure for maintaining, collecting, storing, retrieving, and validating data needed by an organization regarding their human resources, personnel activities and organizational characteristics. It can be said that HRIS is the link between Human Resource Management (HRM) activities and information technology. Shammy Shiri (2012) in this paper it has been concluded that HRIS provides information and guidelines for the operation of HR functions, HRM is still a caretaker of employee records, however, the existence of an HRIS makes this information readily available and useful for managerial decision making. The system is able to produce more effective and faster outcome than that can be done on papers. HRIS can acquire and track almost any type of data. Some of the effects of HRIS are that it has brought about an improvement in the overall HR functions of the organization not only in administration work. HRIS can be one of the powerful levels of change for the HR Department in any organization. Ama F. Karikari, Peter Agyekum Boateng, Evans O. N. D. Ocansey (2015) the study concludes that HRIS is an excellent tool for Human Resource Planning (HRP). It enhances the identification of unfilled positions accurately and analyzes each job

position with its title in an organization. It also provides insight into organizational training needs, selects the right persons to be trained and evaluates the effectiveness of training programs, but has the challenges of forecasting demand and supply of labour, access to information, cost of recruitment and workforce shortage. Barkha Gupta (2013) this paper is the realization that the use of computerized HRIS is most effective then manual because it helps to maintain data with more accuracy in less time. And that it also true that HRIS functions improve HRM in terms of administrative and analytical purposes. HRIS work as a key component of the organization and a good HRIS will provide important information about human resources needs and capabilities; this information will assist the management team in establishing the organizational mission and setting goals and objectives in motion. HRIS is not limited to the computer hardware and software applications that comprise the technical part of the system: it also includes the people, policies, procedures and data required to manage the HR function. Faruk Bhuiyan, Mohammad Osman Gani (2015) this study was conducted in banks of Bangladesh and this paper concluded that HRIS provides the immediate access to the required information in an original form which promotes a common culture of sharing and updating employee's personal information among them. HR mangers can inform the employees about company updated information more easily. It also supports the employees to deal with HR related activities that emerged from their own positions. Besides, HRIS supports employers to get regular information about what employees have already been achieved which enables them to design their career plan by providing the future demand. As employees of the sample industry almost highly educated, they will be able to manage this type of technological revolution in the field of HRM. Moreover, to get the benefits from HRIS to full extent, organizations should ensure suitable employee training facilities. Ivana Dvorski LackoviÊ (2011) this study conducted on the Croatian Banks had the view that HRM is one of the most important strategic areas for the development of banks since their front office employees are in continuous interaction with clients and back office employees are responsible for the tasks oriented to constant service, product improvement and competition with other banks. This is where adequate HRIS is significant. It can be more than a tool for following the employees' basic demographic data and working hours. It can be a tool for identifying highly potential employees and directing them to areas of their working interest. It can give the management the information of not only what was done, but who had done it. It also enables it to give feedback and not just take disciplinary, but also rewarding actions towards employees. Caroline Nyambura Mbugua (2011) this study which was conducted in the Kenya commercial bank states that the application of HRIS based learning process has equally resulted in positive developments and improvements for the organization by contributing to the organization being more productive, resulting in better communication/ feedback processes, increasing employees' preference for working for the company and creating a climate of high commitment among the employees and stakeholders. Further, it is concluded that the application of HRIS based performance appraisal has resulted in more positive and functional developments and improvements. HRIS based employee performance process has created environments conducive for effective organization through better collaborative relationships, positive perception toward the company by stakeholders, more efficiency and quality in the work and service provisions, better change management prospects through low resistance to changes among other important denominators. Dr. Harman Preet Singh, Dr. Sunita Jindal, Sekh Abdul Samim (2011) this paper which was studied on developing countries to find out the impact of HRIS on banking industries states that in recent times, the financial as well as non-financial processes of banks have undergone significant transformation. The manual system adopted by the banks was the cause of procedural delays, outdated as well as inaccurate information, improper documentation, higher expense of storing files and their safety. HRIS has transformed banks financial as well as non-financial processes from manual to automatic computerized systems. Banks are able to integrate different HR functions by using third generation of feature-rich, broad-based and self-contained HRIS. The third generation HRIS is much more than a mere data repository and has hastened the emergence of Strategic HRM in banks of developing countries. Due to Strategic HRM, banks' HR professionals are encouraged to innovate their IT usage and become more effective. HR department is emerging as an information centre, internal consultant, change agent, service provider, cost manager, business partner, facilitator, and consultant. After reading these papers it is noted that few number of researchers had done research on types of databases and HRIS software used by banks. HRIS is an old concept and there has been many research conducted on what is HRIS and its implementation in various organisations, but very little research has been conducted on HRIS implementation in financial and banking sector. One major study has been conducted to find out the implementation of HRIS and its effectiveness in SBI bank. Our paper has gone on depth of the usage of

HRIS on banks and how its implementation has benefited some of the major banks in India. Our paper goes through the benefits of the HRIS in banks and how it is useful to the bank and its employees and thereby increasing the banks efficiency.

RESEARCH METHODOLOGY:

The research methodology used in the study is quantitative technique. Questionnaire survey method has been used to obtain data for the study. For this research, we visited 30 banks out of which only 8 banks gave the information about their HRIS software. Data is collected from 8 Branch manager/ HR manager working in private and public sector banks of Nasik and Indore region of India. Types of data collected are related to HRIS software, data collection and its reporting and sustainability of HRIS. Secondary data is also collected from various journals and books. This research is descriptive as well as quantitative. Data obtained from the questionnaire is converted in the form of chart by taking percentages of quantities to be measured. Thus, the effectiveness of HRIS in banking sector measured by taking results obtained from chart.

FINDINGS AND DISCUSSION:

Data analysis done on the basis of data obtained from questionnaire. Data is then converted in the form of chart. Depending on charts, results are obtained. Table 2 consist of names of software used by various banks.
There are several types of databases available in the market. Based upon collected data, Microsoft access is preferred more than other databases. (Refer Fig. 1)
Senior management, Planning and Personnel Administration are majority users of data collected by HRIS. It helps them for decision making in banks. (Refer Fig. 2)
Electronics Files and Paper are majority modes of dataset collection. So, Now-a-days majority of data is stored in the form of electronic files which helps in implementation of HRIS. (Refer Fig. 3)
Payroll, Human Resources and In-service training are types of data which are collected more frequently. Here, HRIS can be improved for collecting other data like Pharmacy, Patient records, Disease Statistics, Health management information system (HMIS) (Refer Fig. 4)

BENEFITS OF HRIS:

1. Effective Use of Human Resources
2. Ability to Manage Voluminous Data
3. Reduction in Labour Cost
4. Faster and Effective HR Decisions
5. Better Supervision and Control of Human Resources
6. Optimum Security and confidentiality
7. Better focus on strategic Activities by Managers
8. Meeting the Future Challenges and Changes in HRM

CHALLENGES IN IMPLEMENTATION OF HRIS:

The effective implementation of HRIS requires redesigning and re-engineering of processes, which many banks find difficult to adopt. The employees should be given sufficient training to adopt the new system. At the same time, the information systems of many banks are different, which reduces their efficacy. Although banks implement HRIS, it is a long and time-consuming process. It is very important that the implementation of HRIS seen as a whole to ensure system cohesiveness. Despite advancement in IT sector to the banking sector, IT has not been explored in all dimensions, particularly in HR.

LIMITATION/FUTURE SCOPE OF STUDY:

The major limitation faced during this research was the availability of time, people, and money. The present study required more responses from various Indian Banks. But due to the shortage of time, there are only a few responses. The sample size is limited to Banks in Nasik and Indore only. The same kind of study might carry further for the longer span of time with larger samples size. The study can be done for other firms like manufacturing, pharmaceutical, IT industry etc.

CONCLUSION:

The data collected from questionnaire help to conclude that there is various software available in the market. Banks started adopting HRIS software for HR operations. HRIS helped bank for decision making for senior management and personnel administration. Data related to payroll, Disease statistics; Human Resources etc collected which helped to conclude that HRIS is becoming very effective in the banking sector. Proper training should be given to the employee to understand and implement HRIS. It is also observed that in public sector banks candidates are selected through IBPS. (Institute of Banking Personnel Selection) and data is stored in HRIS. In private sector banks majority of banks adopted HRIS. Though banks started using HRIS, there is still scope for improvement. There are several data should be collected more often, for instance, Patient Records, In-service training, Facility etc in order to improve HRIS system.

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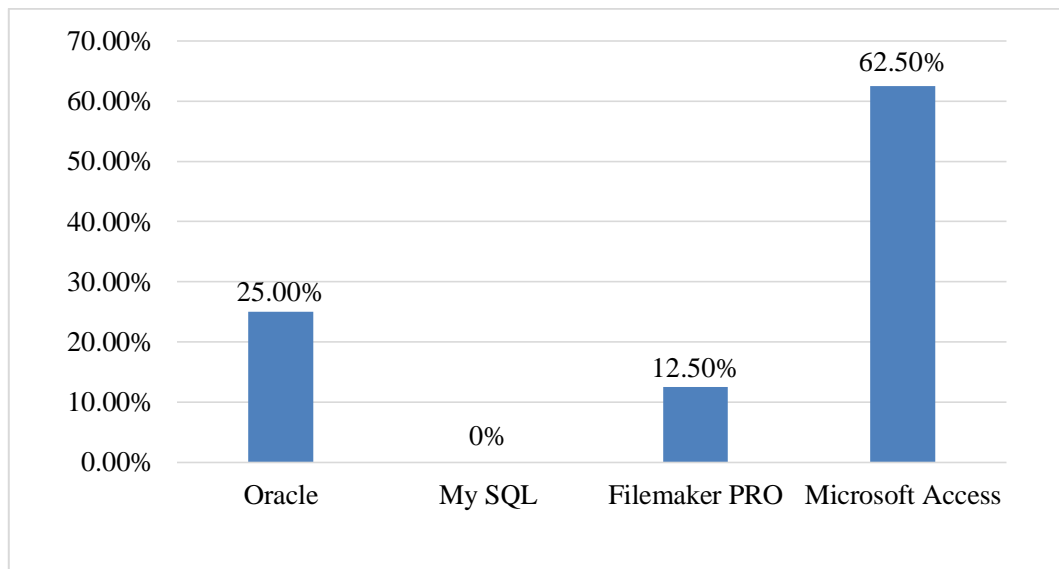
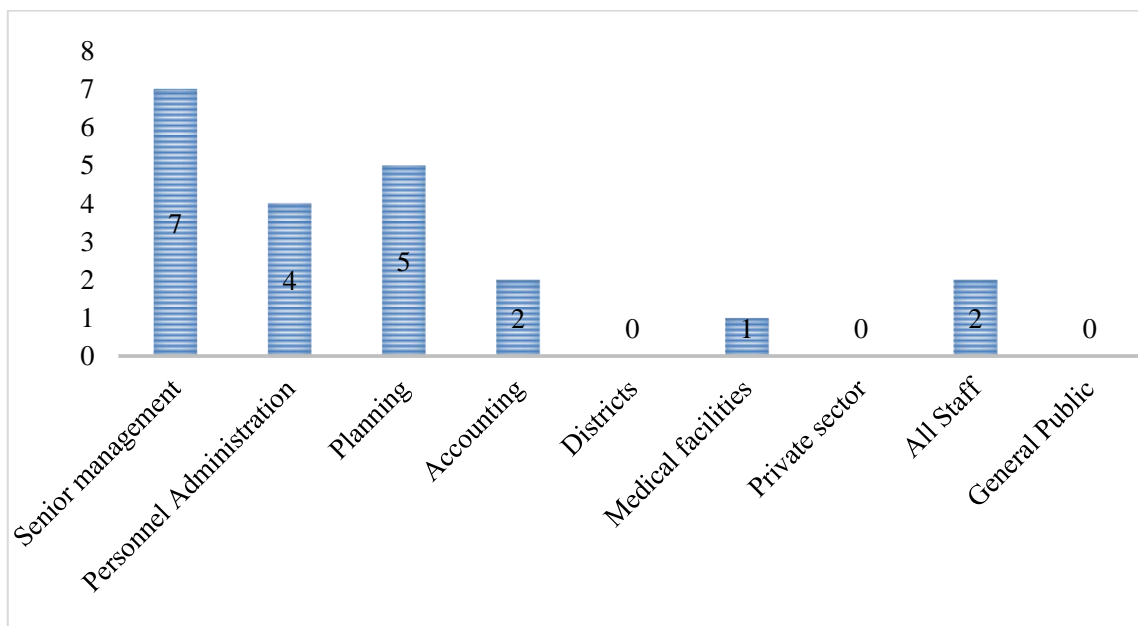**Fig 1: Various types of databases used for collecting data**
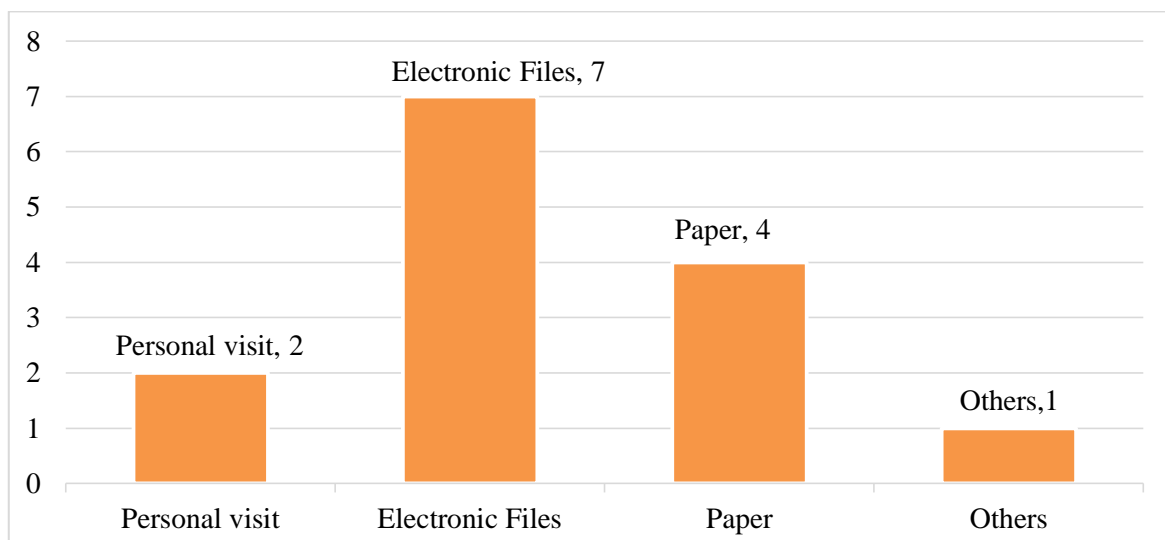

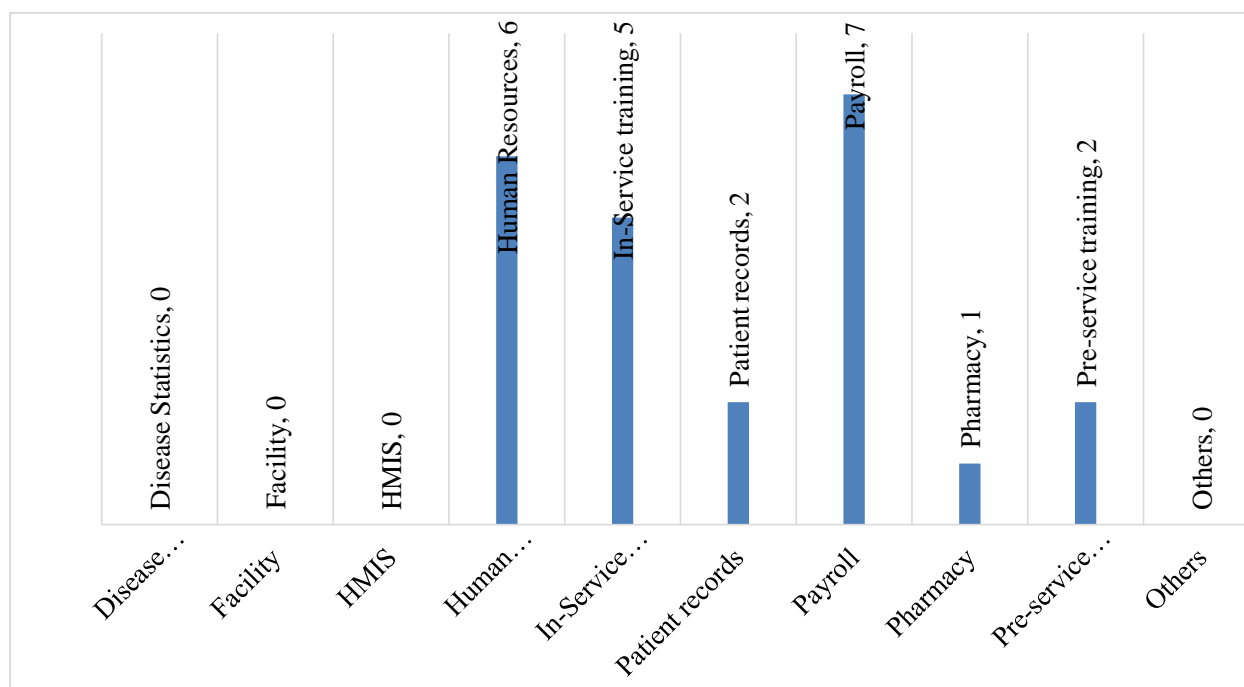**Fig 2: Principal users of data**

Fig 3: Modes of dataset collection

Fig 4: Types of data collected on regular basis

Table 1: Development of Hris

1st Phase Pre-World War II	The early 20th century or pre-world war II was the period of scientific management. The main objective of scientific management was to maximize the employee productivity. Keeping records of employee health and safety and working hours and payroll has now become the one of the major function of HRIS used nowadays.
2nd Phase Post World War II	During the period (1945-1960), the personnel function developed due to the mobilization of labour. Managers found that employees were motivated by money as well as psychological factors, For instance, recognition of work. A Large number of individuals are classified based on job description. Payroll was the first function to be automated. Large firms adopted computer technology to keep the record of the employee but to develop software for payroll function was still Herculean task as it was just beginning of computers.
3rd Phase Social Issues Era	The period (1963-1980) noticed the increase in labour legislation which begins the development of Human Resource Management. HR departments (earlier known as personnel departments) started using computer technology to process information of the employee more efficiently. Emerging computer technology leads to the development computer-based HR system. The major concern at this time was not the development of HRIS but how to do the implementation of it as personnel departments were slow to adopt HRIS. This was the first generation of HRIS system.
4th Phase Cost-Effectiveness Era	The period (1980 to the Early 1990s), with the increase in competition between European and Asian countries, USA and other countries, the functional focus of the employee administration shifted to involvement and development of the employee. SME started use of computer-based HR systems as they are run by user-friendly microcomputers which are cost effective. Here, the main focus on shifting transactional record keeping to transformational activities which would beneficial for the firm. Enterprise Resource Planning or ERP introduced in the period of the early 90s. State bank of India was first Indian bank to adopt this technology. SAP with Oracle database also started in this period. This was the second generation of HRIS.

5th Phase Technological Advancement Era and Emergence of Strategic HRM	This period (1990 to 2017 Present) spotted many changes like increase in the globalization, Internet and web services etc. Reengineering exercises done by various firms to attract and engage talented people in designing strategies for sustainable development of the organization. Now, Human capital is treated as the strategic asset in SHRM. With help of HRIS Human resource planning (HRP) is done in order meet with requirements of the company. This is the third generation of HRIS. The third generation HRIS is much more than data repository and has advanced the emergence of the strategic HRM in banks of developing countries. Many private sector banks started implementation of HRIS

Table 2: Various types of software used by different public and private banks

Bank Name	HRIS Software
State Bank of India	mySAP^{tm} ERP
Bank of Baroda	HRNes
Bank of India	PeopleSoft
Indian Bank	SAP
UCO Bank	UCO HRMS
Axis Bank	Sage 300 ERP
ICICI	PeopleSoft
HDFC	SAP