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Developing a Human Resource Information System for Information Management in a Garment Industry

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Abstract

In managing employees, human resource manager has to assimilate masses of data, convert that data into information, form conclusions about that information and make decisions leading to the achievement of business objectives. He must manage the personal activities associated with company employees; recruiting, training, promoting, demoting, and recordkeeping. Information technology has made it easier and cheaper for manager to gather and maintain an infinite amount of data about present and prospective employees. An essential component in the success of managing this data is the Human Resource Information System (HRIS), a data base of personal information about each employee. With the personal information, the production manager in an apparel industry must know the skill of employee in order to engage the right person to the right machines. In this research an information system is developed integrating the HRIS, machine information and skill inventory. A database is created based on that information system. Data specification is done through a case study in several apparel industries in Bangladesh.

Keywords

Kew words: employee information system, resource management, skill inventory.

1. Introduction:

It is the responsibility of line managers and the human resource department in an apparel industry to analyze human resources' information so that they can make decision on whether they have sufficient employees, machines and other resources or not. Alternately, they can also hire people with the requisite skills to build an inventory of skilled employee and maintain resource information. For this purpose, HR manager has to handle a large number of data associated to present and prospective employees. An essential component in the success of managing this data is the human resource information system, a data base of personal information about each employee. The nature of HR itself demands that organizations develop new capabilities and that HR's role is to reevaluate its competencies and develop new ones to help in the overall strategic redesign of organizations [1]

In most organizations, information flows at the heart of workplace activities. The effective management of information requires information technology, and that technology is therefore crucial to organizational success. Information technology comes in many forms—networked personal computers, software applications, the internet, and more. People put the technology to work in managing information, and people are ultimately responsible for whether information technology succeeds or fails [2]. Almost all organizations that use information technology in any substantial way are also struggling to maintain effective information security. Integration of information technology and management information system shows a great effect on emplpoyee, process and accounts in the garments industries [3]. A resource information system is essentially a checklist or database of organizational capabilities that can help a company determine whether it can deliver a right thing in the right place at the right time. In a globally competitive business environment, it is necessary for an organization to know its competitive strength. The ways employees handle information, communicate, as well as execute business processes have significantly changed with the emergence of web-based technologies and the subsequent emergence of employee portals. In this research, a conceptual model of integration of employee information system (EIS), machines information and skill inventory is developed, which considers the specific

requirements of employee portals. The expected result of this work is to easily maintain employee information system and get hard copy of EIS document.

Some software companies now-a-days are making software on the basis of resource information system [4]. They are making program according to companies demand. Although that program is very much strong in structure, they are costly. In this research a database is created that can be used to manage the employees and machines in lines in apparel industries. The expected result of this work is to easily maintain employee information system and get hard copy of EIS document.

2. Methodology

In order to develop a model, employee management systems of several industries are studied. The data specification for creating a data base is done through a case study in those industries. Operation flows and information flows in the employee management were our focus during data collection. The information required to integrate the skill inventory system in human resource information system is identified. Steps of conducting this research are given in figure-1.

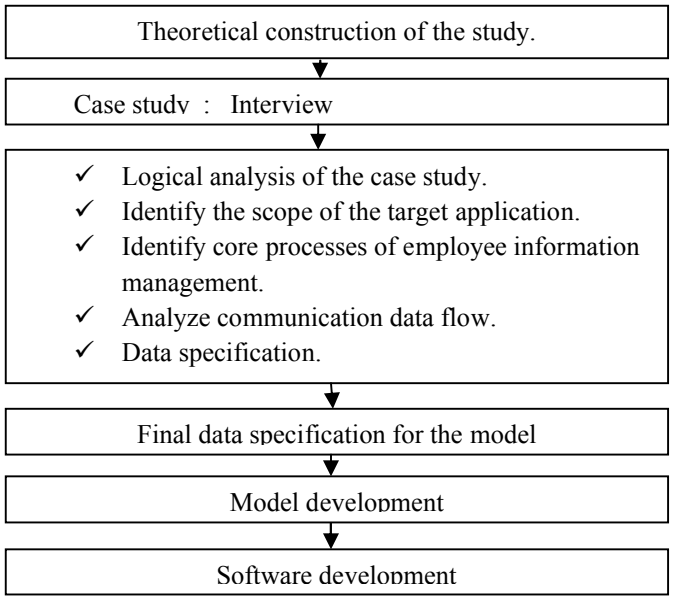


Figure 1 Research steps

2.1 Research equipments and tools:

Server : windows-XP

Database : MySQL and PHP server.

Programming language: Java

3. Case study information gathering

The data specification for developing the model and program is done through case studies from several garments industries [5,6]. The collected data are grouped into three categories:

1. Employee Personal Information
2. Operational information and job information
3. Machines information

1. 1 Personal information
Id
Name
Father name
Mother name
Date of birth
Blood group
Sex
Age

1.2 Family information
Id
Name
Marital status
Spouse name
Children number
Family member

1.3 Contact information
Id
Name
Mobile no
Email
Present address
Permanent address

1.4 Identification information

Id
Name
Passport no
Passport valid date
Tax number
Driving license
Driving license valid date
Voter id
National id

1.5 Education and experience information

Id
Name
S.S.C
H.S.C
Bsc.
Msc
Experience

2. Operational information and job information:

2.1 job status information

Id
Name
Company name
Department name
Section
Designation
Shift
Status
Interview on
Joining date
Termination date

2.2 salary information

Id
Name
Basic salary
Increment
Medical allowance
House rent
Transportation allowance
Others reward
Over time
Total salary

2.3 Operational information

Id
Name
Floor
Machine
Process
Line
Basic efficiency

3. Resource information:

3.1 Machine name

These machines are use in sewing section in RMG industry.

PM (Plan machine)
APM (Auto plan machine)
FLM (Flat lock machine)
OLM (Over lock machine)
VTM (Vertical trimmer machine)
BSM (Button stitch machine)
BHM (Button whole machine)
[4]

3.2 Process name

These processes are use for make a woven garments in RMG industry.

Back yoke join
Bar tack
Blind stitch hem
Bottom hem
Button stitch
Collar join
Cuff top stitch
Neck top stitch
Button whole stitch
Placket join
Placket top stitch
Placket box
Pocket join
Side seam
Sleeve tack
Sleeve hem
Sleeve join [5]

4. System design and model development

4.1 Concept of EIS Model

The system is designed to lessen the amount of paperwork generated in the workplace and yet still give employee full access to these documents. An earnings statement can be generated and posted on the web each time employee receive a payroll payment. A leave summary can be generated and posted monthly as requested by employee agency. Employee may choose to receive an email notification every time a new statement (earnings or leave) is available for viewing [7]. The main frame of the EIS is proposed in figure-2.

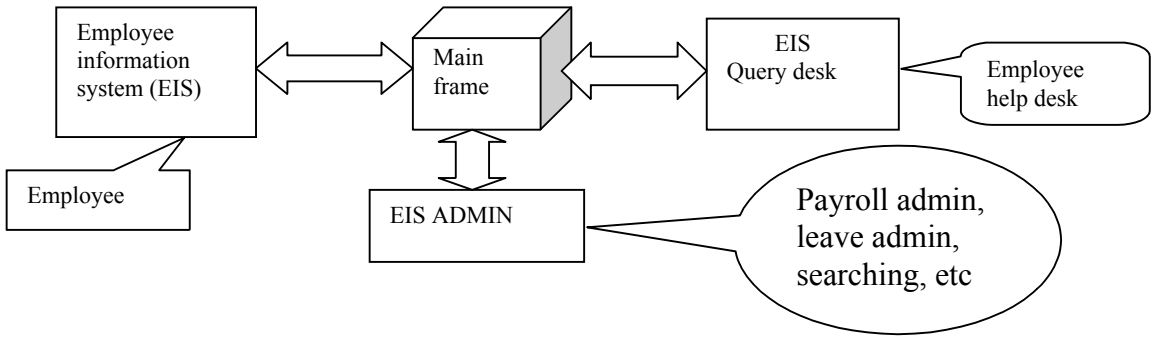


Figure 2 Mainframe of EIS

4.2 Employee Information System Development

The core of an EIS is a database that contains detailed personal and professional information about each employee in the organization listed in section 3. The concept of data entry and reports generation is shown in figure 2. The database is created based on this model. The conceptual model of integration of HRIS with other departments in an organization is shown in figure-3.

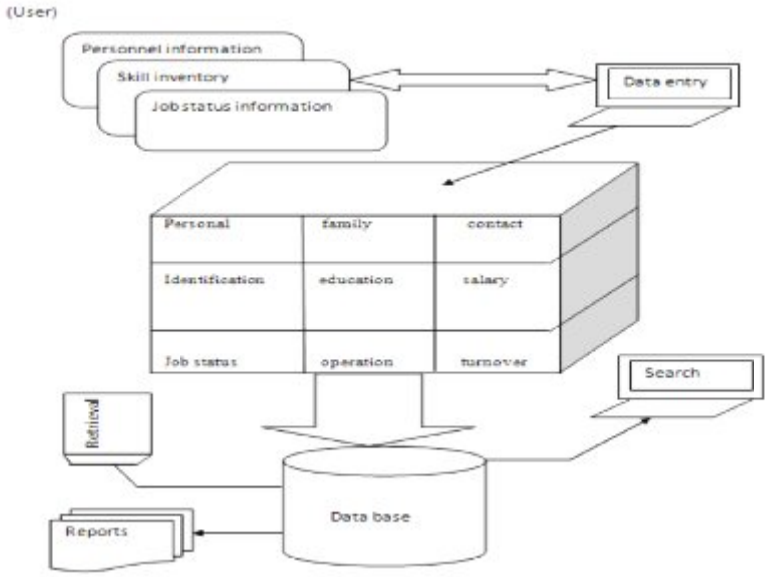


Figure 3 Conceptual model of HRIS

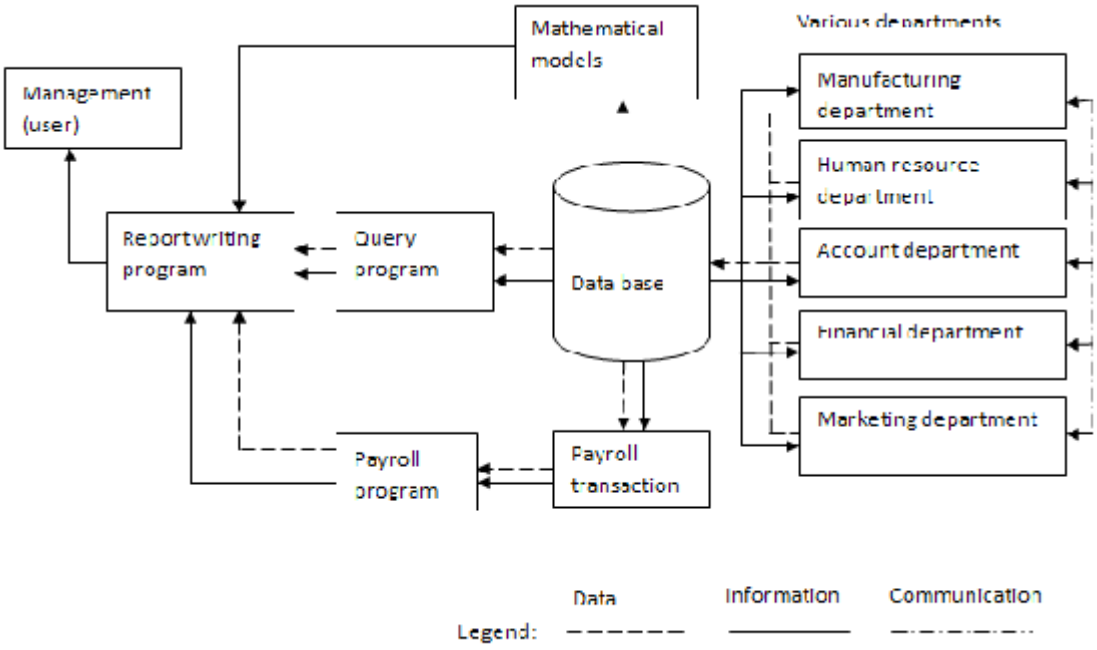
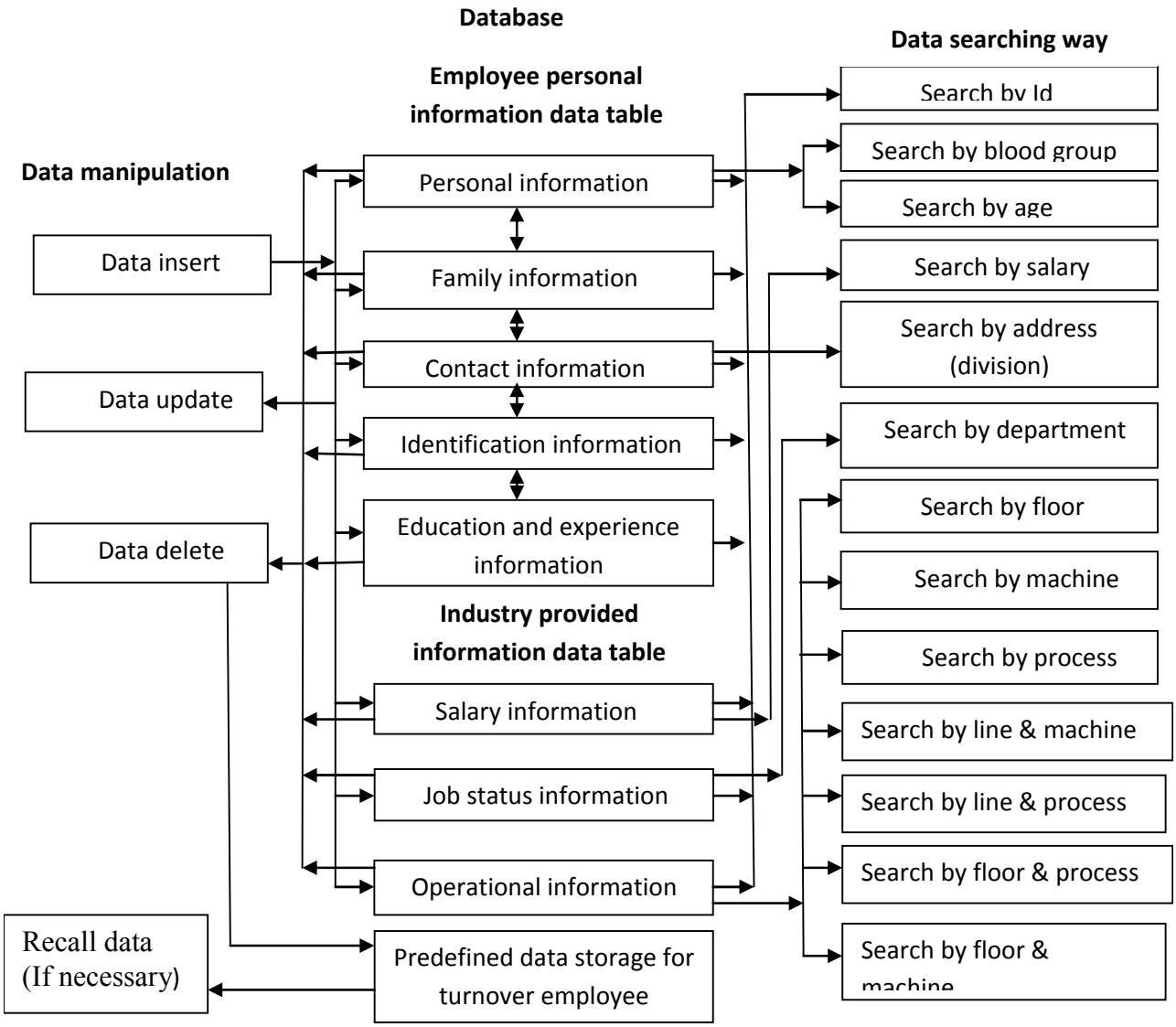
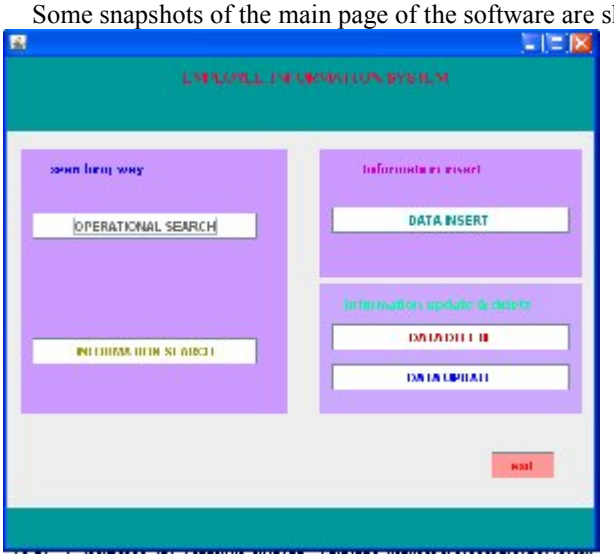


Figure 4 Conceptual model of the relation of EIS database with other departments

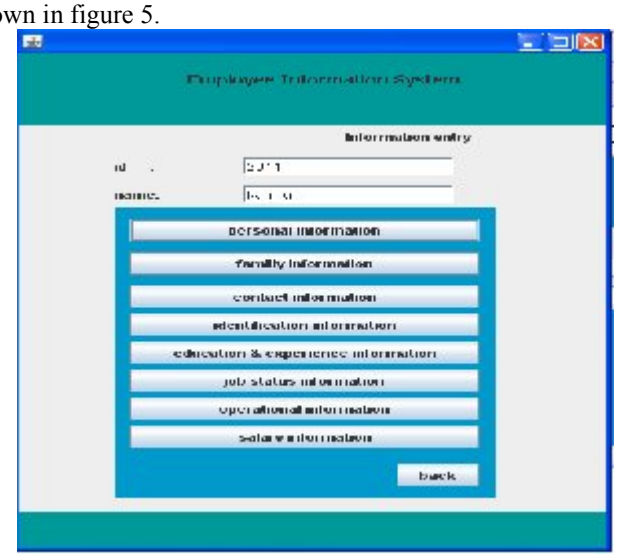


5. Database OVERVIEW

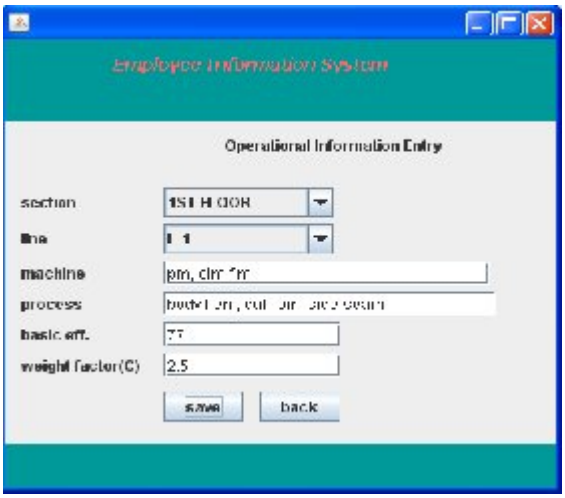
Some snapshots of the main page of the software are shown in figure 5.



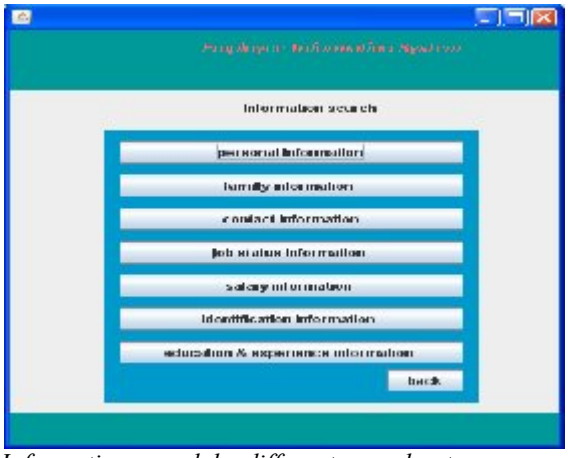
Main frame of EIS software



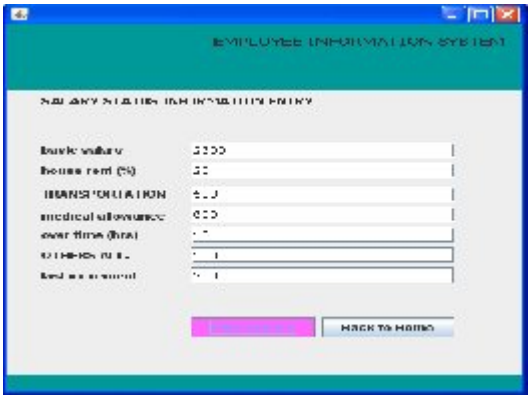
employee information insert different ways



*Operational information insert about a worker in **RMG** sector.*



Information search by different way about an employee



Employee salary status information inserts

Information search by blood group

Figure 5 Snapshot of software

6.Conclusion

A human resource information system with the integration of skill inventory and machines is developed based on the information collected through a case study. A windows-based application software tool related to the employee information system is also developed. Using this tool, management of an industry can recognize the different activities and information of the employee. Considering all the observations it is significant that this tool can play a vital role in any industry to manage the employees.

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