

# DEVELOP A SUITABLE HRM SOFTWARE MODEL FOR INDIAN INDUSTRY

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**Abstract:** Today is the era of globalization in all the fields and verticals, be it Agriculture, Manufacturing, Retail or Service sector. The stiff competitive globalized environment has cropped up lot of geopolitical and economic uncertainties. The Global is now more customer centric shifting the focus from product to customer. They now prefer to respond to customers more efficiently so as to provide the timed value added products and services because that has the major base for competitive advantage. Now the businesses want to increase revenue and profitability, while decreasing costs, optimizing resource utilization and tightening corporate governance. The buzz words Just in Time, Six Sigma and Lean are now more frequent in corporate dynamics. For this adaptation of an efficient ERP systems to support the various business prospects has become necessary as IT has become the enabler for survival, innovation and growth and is the key driving factor for organization's competitiveness.

1. As indicated and practiced by SAP (Systems Application and Products) Human Resource Management, which has universal Applicability with a degree of confidence in various large scale manufacturing and business activity.

2. And Human Resource Management package as developed and implemented In-house like IFFCO (Indian Farmer Fertilizer Cooperation Limited), which is one of the global player in fertilizer production and distribution in India.

**Keywords:** Investigation, Proposed Model, ONGC, IFFCO, Modules, Security, Software Development life cycle

## 1. INTRODUCTION

Enterprise Resource planning is a concept with a global acceptability and covering all sectors of economy including Manufacturing, Agriculture and service sectors. It is consider as a potential concept for integration of Human Resource Management, Financial Management, Sales, Purchase, Inventory and Manufacturing be it industry dealing with Manufacturing, Teaching Institutions including university dealing with teaching and research, Agriculture sector dealing with agriculture and related activities, Service sector dealing with government etc. It is also well established that all the four components-Human Resource Management, Sales, Purchase and Inventory as well as area of activity are involved everywhere. In the real system, all the four exists together and not in isolation. The key area out of four involve in management is Human Resource Management.

Human Resource, are the most precious resource of any organization and forms its backbone. There is always a team of highly dedicated workforce, committed to its goal that makes any organization successful. It is end goal of all economic activities together with prime mover. Proper Manpower planning, their future growth, development needs and fulfillment of day-to day requirement are vital for the prosperity and health of any organization. Most successful organization has devised ways to keep their human resource highly satisfied and makes them participative in crucial matter related to the organization. Computerized systems are being used to this effect in a big way.

## 2. SCOPE OF PRESENT INVESTIGATION

India economy is heavily dominated by tiny, small and middle scale sectors. India had a close market in first, second, third, fourth five years plans. India started moving to globalization partly because of their initiative and partly because of WTO. Obviously there is a cut through competition in the global market because of relatively better quality and cost. The focus of India was to provide job to unemployed as well as to meet the local requirement. With the opening of market at global level, India started moving towards globalization with real concern for quality and cost through productivity, automation etc . The basic purpose of this dissertation is to develop a model software program for human resource management system. And making available to tiny, small, middle as well as large scale sector where the position of availability of finance resources is limiting.

It was decided to study in detail about SAP software used in Oil and Natural Gas Corporation Limited (ONGC) where the entire software was taken from SAP, a global player in an enterprise resource planning software. Considering as unique and because of this reason it was divided to study them.

Indian Farmer Fertilizer Corporation Limited (IFFCO) is a global player in fertilizer industry especially di-ammonium phosphate as well as uranium. It's a profit making organization and holding their status in global market. The approach of IFFCO is also unique because they are

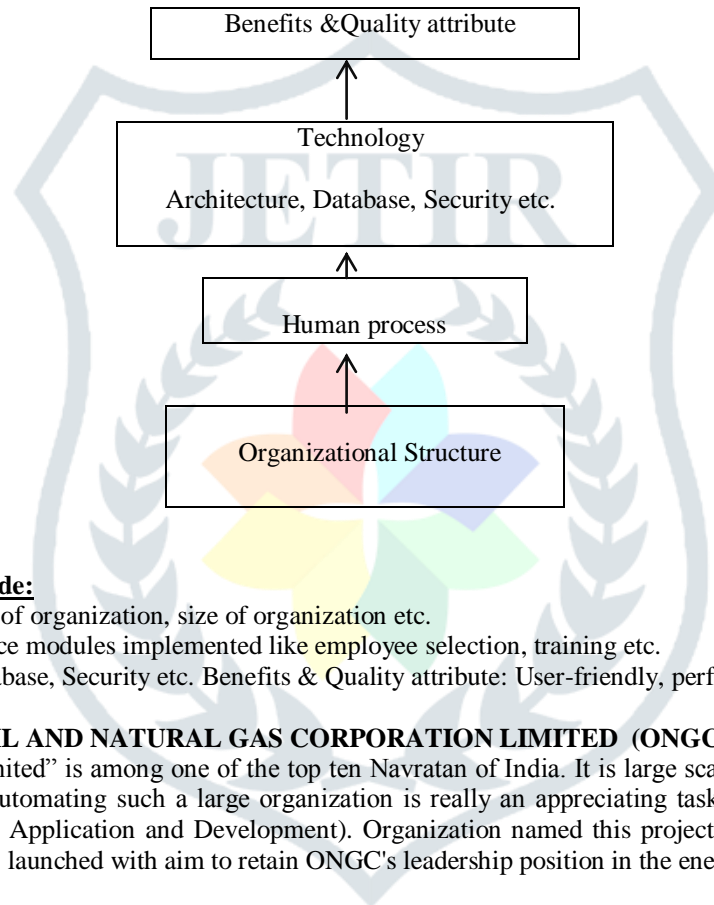
developing their own software for enterprise resource planning and naturally it will be easier for them to carry out addition, modification on the basis of input from various operating industrial unit under their control.

After going through the software developed By IFFCO & understanding ONGC on the basis of limited information available due to trade secret, it was decided to develop the model software program for human resource management system (HRMS). This software model will have universal applicability especially in Indian scenario. Qualification of HRM will had to higher degree of motivation in the country as well as other developing countries that are not in a position to use the software provided by SAP & other global player in the world.

### 3. PROPOSED MODEL

Above both of framework is suitable for analyzing Human process contribution in achieving organizational goal. But for comparing software, technological view is also important. In this thesis, for comparing human resource software a framework is being proposed.

#### Proposed Model



#### It is also four tier model which include:

1. Organizational Structure: Type of organization, size of organization etc.
2. Human Process: Human resource modules implemented like employee selection, training etc.
3. Technology: Architecture, Database, Security etc. Benefits & Quality attribute: User-friendly, performance.

### 4. SAP IMPLEMENTATION IN OIL AND NATURAL GAS CORPORATION LIMITED (ONGC)

“Oil and Natural Gas Corporation Limited” is among one of the top ten Navratan of India. It is large scale Company, employing approx 37,000 persons in India and outside India. Automating such a large organization is really an appreciating task. This work has been done by world’s number 1 ERP vendor- SAP (System Application and Development). Organization named this project as ICE .The Project ICE (Information Consolidation for Efficiency) has been launched with aim to retain ONGC's leadership position in the energy sector.

#### The Project's objectives are:

- Optimization and standardization of business processes to enable integrated information availability.
- Availability of single source management information that is accurate and on time to facilitate decision making.
- Elimination of duplication of activities across business processes by capturing data at source point.
- Facilitate information consolidation at corporate level.
- Availability of information at the right time, at the right place, thereby, enhances managerial control leading to higher productivity.
- Integrating all business applications under single ERP platform with minimum interfaces.
- Improved responsiveness to changing global market scenario by adopting new and improved technology solutions.
- Change management- both attitudinal and business process.
- Integrated Supply Chain Management and optimization of inventory holding and working capital resulting in lowering of inventories.

## 5. MODULES

### IFFCO Human Resource Management System is based on modular approach. It covers following modules:

- Establishment: Include Personnel detail and employee history.
- Residence: Include guest house detail and house rent
- Time Office: Punch record and leave record
- Loans and Advances: home loan, vehicle loan, educational etc
- Medical: Annual and serious medical details
- Leave Travel C/Leave Travel Encash and TA/TD
- Legal/IR
- Gold coin/Liveries: Awards and rewards
- Facilities: Washing, magazine, telephone etc.
- Payroll: Salary and perk
- Benevolent fund/Insurance
- Provident fund
- HRD : training

Employee Information System/Management Information System: Each employee may submit forms and check status for different facilities and utilities.

### 5 (a). Security

Security is the main concern of any organization that is why in IFFCO three levels of security are used

- First: Username and Password to specified module. Here personal no. of the employee acts as user code.
- Second level: The specified form or report the user may have the right to access.
- Third level: Type of access on the form like insert, update, query, delete etc.

## 6. SOFTWARE DEVELOPMENT LIFE CYCLE

A software development process is a structure imposed on the development of a software product. It includes different activities

### • Requirement Analysis:

It is the most important task as customers/user typically knows what they want. So, extracting information and Satisfying there need is the main issue in software development.

### • Design:

Low level and high level design (detail design) represents different diagrams (Data flow diagram (DFD), E-R Diagram etc.) so that programmer easily understood the need of user.

### • Coding:

Here actual coding will be done.

### • Testing:

Output of software was verified and validated against actual input. Different level of testing is done-unit testing, system testing, accepting testing etc.

### • Implementation and Maintenance:

Implementation and maintenance of software at user/customer location to cope new requirements and problems.

	System study	all Stages and phases)
Design	prototype generation, Freezing of specification and design	Business Blueprint (Design for all Business modules for all Stages and phases)
Coding	Coding according to Design	Realization
Testing	Testing including acceptance testing at each location	Final Preparation
Deployment and Maintenance	Implementations at all sites and train end user.	Go-live and Support

**Development phases of IFFCO and ONGC**

SDLC phase	IFFCO(In-house)	ONGC(SAP)
Requirement analysis	Identification of scope, Classification of system in various modules and	Project Preparation (Design for all Business modules for

**7. CONCLUSION**

Human Resource Management (HRM) global vendors provide software whose implementation takes approximately 20-24 months, this time period is too large for a technology gap. And, after implementing such a costlier system (in millions) in such a long time, organization normally don't dare to switch to new technologies.

For example, technologies which were very popular in 2000 became outdated after 2004. As in the case of ONGC; they implemented SAP R/3 in 2000, which is outdated in recent time. It will take again long time to switch to a new technology or updated the SAP system. Where as in IFFCO they can easily switch for new technologies as requirement and design are same.

Global HRM Software's vendors generally belong to developed nations/countries whose polices; standard and culture are very much different from any developing nation/country like India. For the same reason, the payment has to be met in hard currency. So, instead of doing a lot of customization in-house development is better choice.

For Example: In ONGC they have purchased full software but customization include only a few modules, rest are not considered so relevant and useful for Human being/Employees of any organization, who are the main user of HRMS system, don't want to switch to totally new system unless a proper training is provided before usage. So, it is very difficult to run whole software package once in one go. For Example: In IFFCO employee are more familiar and close to their HRMS system as implementation goes in step wise manner and developed according to their need and relevance to their organization.

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