



**Integration of Human Resource Information System to DSS, CMS and other applications to increase productivity along with stabilization the dispensation on threshold level**

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**ABSTRACT**

*Human Resources Management also deal with the facilities and requirements the Human Workforce are availing and need for their working process and carrier growth. It used to act as a bidirectional process flow which increase the "Workforce" and "Senior Management" and collaborate everybody's requirements in a solution space and help to provide a better and value added service or outcome to customer or client of the organization.*

*To make a human resource department more effective and efficient new technologies are now being introduced on a regular basis so make things much simpler and more modernized. One of the latest human resource technologies is the introduction of a Human Resources Information System. This integrated system is designed to help provide information used in HR decision making such as administration, payroll, recruiting, training, and performance analysis.*

**Keywords : Process Orientation", "Escalation Matrix", "Deep-dive Hierarchical Performance management**

**Need of Integration of "Human Resource Information System":**

Human Resource Information System has lots of "Process Orientation" that is really tuff for human to track "Status" and

"Record" of each request generated by or for any particular employee. Employee are the biggest resource for any organization. The problems with colloquial "Human Resource Management" system were:

Disadvantages of Manual HR Process	Description
Difficult To track "Escalation Matrix":	A large organization contains a large number of employee. The manual human resource management were unable to manage the request coming from each employee. So, to resolve a request it was taking much more time which let to unsatisfactory working environment.
Difficult to manage integrated process flow:	The manual human resource management requires lots of paper work and people, effort to "Track The Flow of each process" which also increases the cost, "Control the flow of each process" and "Record and search the flow of each process".
Unable to get "Bidirectional" and "Deep-dive Hierarchical Performance management":	The poor process flow restrict the entire system to do "Bi-directional" such as 360 degree performance management. So, the unsatisfactory work environment for employee were increasing and management were unaware about their own flows.
Difficult to implement the "Career Plan" and Training Program"	Since less interaction with "Supervisor" and poor flow of information employee were unable to find and fix career plan and training program which is best suited for his/her.
Poor "Document Management System" and Massaging Services:	the document the employee used to submit manually and if anyone such as "Supervisor" want to see these they has to go to HR department. If department lost the document employee again has to submit that. The employee never get any alert for any emergency or any "Process State Related" alert.

**How Productivity of HRIS will be enhanced by including the following applications:**

The "Integrated Human Resource Information System" contains lots of module and for convenience of customer this modules can be purchased alone without purchasing the entire solution package. This modules have great flexibility that according to business need it can be customaries and "Rule base modeling "can also be implemented. More over

these modules can be publish and integrated through web. For example, many organization now a day maintaining their portal through any "Portal Collaboration" software such as "SharePoint", "File Net" etc. the HRMS software such as "PeopleSoft", SAP HRIS or the modules can be integrated with the Portals.A general "Human Resource Management" contains the following modules:

Modules of HRMS	Description
Organization Management:	HRIS can able to structured the organization such as Company, Location, Department, Designations, Employee Group and Organization Change such as Resignation, Termination, Transfer, Promotion etc.
Security Management:	HRIS also provides the security for user by using "Roles management", "Users Management", "Menu Authentication and Authorization" etc. The "Role Management" designed some user or group as Administrator with the full control of module and others will be the "End User" might be with some add-ins facilities. It also provide the provision to add or delete the "User/Group

Time Management and Absent Management:	HRIS also provides integrated "Attendance Machine Module", "Manual Attendance Facilities", "Overtime Application and approval", "Shifts Management on duty application and approval", "Leave types", "leave application and approval", "Manual approval, "Yearly and monthly processing of leave", "Leave rules" etc.
Employee Information Management:	HRIS used to store all information of an employee such as employee master, academic information, organization information, past experiences, employee leave information, JD's, Training information, pay structure information(on demand), passport details(on demand), nominee details(on demand), Complete Bank Details, Details to Configure "Reporting Tool". For e.g. a fortune 500 company has introduced "Information gathering about new joinee" through "Content Management System and HRIS" which helps to capture every detail before joining of new work force.
Payroll Management:	HRIS payroll management can configure up to N number of elements, single pay structure assignment to multiple persons, formula based pay structure designing(dependent and independent element wise), Bonus, Gratuity, Super annotation, pay structure revision depending on Performance management system, pay arrears, loans and advances, reimbursement elements, full and final settlement, pay adjustment, employee message, all the statutory reports, Reports according to factory laws, GLWF, ESIC, Provident Fund Configuration, Taxes configuration, TDS--Form 16, overtime payment, leave encashment, pay run and authorization. Change pay process, pay check list, post earning.
Recruitment or Staffing:	Candidate information form at entry level, advanced level, whole recruitment cycle--MPR (Man Power Request) Or Staff Requisition, Man Power planning according to estimated budget, Man approval at different levels, recruitment expenses, consultant interface(on demand). For e.g. a fortune 500 company has introduced "Employee Self Service" through "Content Management System and HRIS" which helps to recruit resources for any specific projects. On year 2010-11 referral program has recruited 63% of new work force.
Performance Management and Man Power Development Or Training:	Depending on performance of an employee the changed that will be happened in employees' profile will be reflected across the system even in different module such as "Employee Detail", "Payroll Management", "Insurance Management" etc. The performance management can be different type such as: 1] 360 degree: The evolution based on comments of "Supervisor", "Client", "Group" and some time external entities.2] 180 degree: The evolution based on comments of "Supervisor" and Client.  The "Training Management" module contains the following step which use to execute as work flow: 1] Training budget 2] Training Application and approval 3] Training programs 4] Training evaluation 5] Training Attendance. For e.g. world largest bank has introduced a site through their "Content Management Portal", integrated with HRIS which is dedicated for "Project specific training" for employee. For last year it has dragged 84% of employees to organize and capture their training detail.
Employee Self Services and Manager Self Services and Organization Climate Survey:	In Employee Self Service employee can put all the services which the employee can make use. By using "Employee Self Service" employee can manage the followings: 1] HR Help Desk 2] Employee Document 3] Job Information. Managerial Self Service employee can put all the services which the manager can use for employee. By using "Managerial Self Service" employee can manage the followings: 1] Career Planning 2] Repartee's Information 3] Separation. For e.g. a fortune 500 company has introduced "Employee Self Service" through "ORACLE APPS" which sustain their employee retention rate from 78% to 92% from year 2000 to 2012
Employee Help Desk/Suggestions and Opinion Polls	Through this module employee can escalate any issue or queries to "Human Resource" department. For e.g. a Fortune 500 company implement the "Help Desk Portal" to raised employees' concern used to receive an average of 4000 request every day.

### Modular Implementation and advantages of "Supporting Application" for the HRMS/HRIS:

The implementation of all the above enhancement can be implemented either inside HRMS or can be hosted individually as follows:

- 1] Intergrad with HRIS: Develop the application by using the same language and framework respective HRIS use or at least host the "Supporting Application" in same integrated environment with "Single Sign on and single environment access policy". For example, if the HRMS is "PeopleSoft of Oracle", then by using JAVA and other supporting framework "Enhanced features" can be built. Even a web application can be created and will be hosted in same environment of "PeopleSoft".
- 2] Built feature separately and host in different environment: Here the "Enhancement Application" Can be built upon any framework or environment. For e.g. the application can be built by using any environment and can be hosted separately or in side portal server of organization such as "SharePoint", "FileNet", "Hamming Bird" etc.

Implementation of "Opportunity finding Solution": This solution generally contains four different sections 1] Declaration, upcoming events and announcement from organization 2] Common information about each "Line of Businesses", "Business Processes" and others. 3] Allow the employee to nominate him/her for different Line of Business, Processes or

departments and raised query which will be resolved within certain period. 4] Allow the employee to find opportunities by "Location", "Processes" and "Skill Set".

In a reputed software organization(subsidiary of world's one of the biggest bank), after launching the above "Enhanced Application" the people response increased up to 69-73%. The study contain the "Site Uses Reports", "Hit Ratio" and "Response Report" etc.

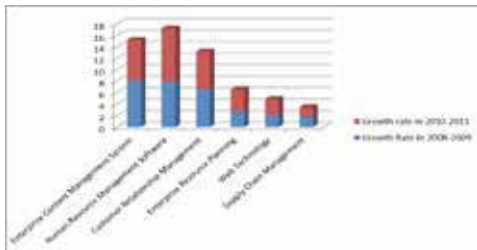
Integration of "Skill set enhancement program": With three different section this enhancement can crystalized the "Domain based training program of Organization". The sections "Training Calendar contains all the details of upcoming and other trainings"; whereas "Training Nomination" section allow resource to nominate for a training which will be approved or rejected by Supervisor or Training Organizer". The Section "Feed Back" will capture the report and survey of each training.

### Market condition of "Human Resource Information System"-Key Findings

The market for "Human Resource Information System" is growing very fast. This decade every organization are trying to implement an effective and integrated "Human Resource Management System". The Survey report says that the rate of growth of "Human Resource Market" around 3% in 2006,

around 5.6% in 2007 and in 2008-2009 it grows was more than 8 percent. The total market capitals for HRIS are around \$80 billion in 2008-09. In 2010-11 the growth rate become 9.2 percent and market capital become \$110 billion where the "Integration of HRIS" with other applications plays an important role.

Technology/Tool	Growth Rate in 2008-2009	Growth rate in 2010-2011
Enterprise Content Management System	8.2	7
Human Resource Management Software	8	9.2
Customer Relationship Management	6.7	6.5
Enterprise Resource Planning	2.86	3.7
Web Technology	2.2	2.7
Supply Chain Management	1.9	1.6



**Case Study:**

In one of the leading bank of the world, in software division the integration of CMS and content management system has done. This started to help employee not only search their respective technology, process and location specific opening inside the bank, but also nominate them for particular LOB for respective opening. The resource management team every week fetch the dashboard from the application database and start resource allocation process accordingly. According to the resource management team, this reduce their work such as "Resource Finding", "Report Gathering", "Requirement Mapping" etc.

	Resource Finding	Report Gathering	Requirement Mapping	Allocation of Resource
2010(Q1 and Q2) Effort tracking	45%	12%	27%	16%
2010(Q3 and Q4) Effort tracking	45%	9%	30%	16%
2011(Q3 and Q4) Effort tracking	17%	3%	15%	Rest of effort

**Data analysis of Integrated HRIS:**

How integrated HRIS with CMS, DSS and other systems increase the productivity- this can be measured in several factors such as "Employee Appraisal Calculation", "Employee Project Performance", "Certification", " Reimbursement ", "Project Allocation" etc. There are three major HRIS software vendors such as Peoplesoft, SAP , Lawson and Korson upon which this integration has been measured. The main CMS Microsoft SharePoint has been considered for this integration.

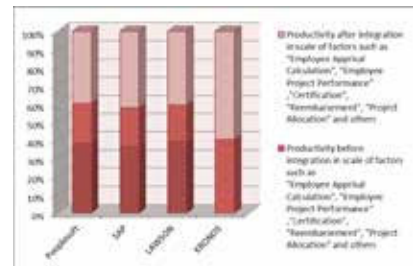
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The following fig. shows how the HRIS product increase the productivity after integration.

HRIS Product	Average time reduction to information flow between CMS, DSS and other applications in percentage	Productivity before integration in scale of factors such as "Employee Appraisal Calculation", "Employee Project Performance", "Certification", "Reimbursement", "Project Allocation" and others	Productivity after integration in scale of factors such as "Employee Appraisal Calculation", "Employee Project Performance", "Certification", "Reimbursement", "Project Allocation" and others
Peoplesoft	92%	53%	95%
SAP	77%	45%	88%
LAWSON	43%	22%	44%
KRONOS		17%	25%

**Productivity increase of organization by integrated HRIS**



**Conclusion:**

The Integrated HRIS function includes a variety of activities, and key among them is deciding what staffing needs you have and whether to use independent contractors or hire employees to fill these needs, recruiting and training the best employees, ensuring they are high performers, dealing with performance issues, and ensuring your personnel and management practices conform to various regulations. Activities also include managing your approach to employee benefits and compensation, employee records and personnel policies. Integration with CMS, DSS and other applications with HRIS can increase the productivity by 28.75% [(Productivity after integration- Productivity after integration)/Number of HRIS Product], save time to complete a workflow up to 34%. Its can helps to reduce the manual engagement and save time during information sharing up to 29%. Currently in 2011-12 in Indian IT sectors more or less all organizations are using HRIS such as People soft, LAWSON SOFTWARE, SAP, KRONOS, SAGE SOFTWARE, CERIDIAN, MANGROVE, IEMPLOYEE etc. By integrating with other applications these increase productivity and reduce the time to information flow.

**Research Methodology:**

During this period we a came to know what process are use to implement integration of HRIS with CMS, DSS and other applications and what tools are being used. What are the phases of "Integrated Human Resource Information System. Our References are from Asian Paint, PeopleSoft, Nissan Middle East, ABB AG , Ford Motors etc. In this research the data is from secondary source and the methodologies are "Content analysis" and "Industrial Research".