Challenges of Implementing HRIS in a Public Sector Enterprise

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ABSTRACT
Implementation of computerized HR functions is a great challenge for the organization. The macro- and micro-factors influencing a business are very dynamic. This leads to requirement of continuous monitoring and accommodating the changes in the implementation strategy accordingly. The paper is based on our work and experience of implementing Computerized Human Resource Information System (CHRIS) in a public sector integrated steel plant. It focuses on various problems faced by the implementing team and suggests the solutions. The paper also talks about the areas to be focused while formulating the implementation strategy. It further elaborates the influence of human psychological factors on the implementation process. The main challenges faced in implementation process were to transfer the huge unstructured and scattered legacy data from various sources to HRIS database; to incorporate the upcoming changes, with unpleasant surprises, in the processes and to maintain a high motivational level in the users. In the long process of migration, maintaining the integrity of data and ensuring the continuous updating of the transferred data is the real test. However, a detailed implementation strategy, right from the beginning of project will resolve the problems.

KEYWORDS
Human Resource Information system (HRIS), Software Implementation, Data Migration, Adoption, Stabilization, Implementation Strategy, Legacy Data Transfer, Process Migration

INTRODUCTION
IISCO steel plant (ISP) is one of the oldest integrated steel plant under Steel Authority of India Limited (SAIL) - a leading integrated iron- and steel-making company in India. ISP, the erstwhile Indian Iron & Steel Company (IISCO), which was a 100% subsidiary of SAIL, has been amalgamated with the parent company in 2006. ISP is in the process of adopting SAIL personnel policy which is different from its prevailing policy of a private organization. ISP has thousands of employees and the ratio of employees to personnel officer is very high in view of the computerization level. This had created a need for the computerization of personnel functions. Steel industry is manpower intensive. Implementing HR module of Enterprise resource planning (ERP) in such an industry is a costly business. Also, there is a frequent variation in the personnel policy which makes it hard to opt for a vendor’s software. The project for in-house automation of HR functions at ISP was taken up by the research center of SAIL i.e. R&D Center for Iron and Steel (RDCIS). This paper discusses about the various implementation issues and suggestions for improvement after the design and development of the software.

IMPLEMENTATION METHODOLOGY AND APPROACH
A software implementation method is a systematically structured approach to effectively integrate software based service or component into the workflow of an organizational structure. The implementation requires in-depth analysis of the architecture of the organization as well as of the software itself, before it can be aligned. The implementation cycle adopted by us includes the stages viz. Data Migration, Demonstration to user, User’s suggestions and feedback, Operator’s Training, Adoption and gradual stabilization of the system.

DATA MIGRATION
Data Migration is a crucial step. The overall success of the HRIS software project depends on it. Data migration is the transport of data from the legacy system to the integrated database of the new system. Study shows that this activity has not been given the due time and effort by many of the steel plants. This leads to gradual decay of the system and finally to its rejection by the users. Data Migration needs a dedicated team and determination from the team members to solve the different difficulties faced by them in collection and porting of data, in case computerization exists or entry of data manually.

Though the task of porting data from some other database seems easy but the complexity arises due to different data structure. In our case the data was maintained by two departments separately i.e. for managers and workers. In both the cases the data naming, field lengths, record maintenance, hard-code literals maintained were not identical and no data-dictionary was available as well as the amount of data captured in the database was different, multiplying the data migration activity. Data migration requires detailed knowledge of both the legacy system and the new system for the accurate mapping of data. In case the data is in the personal files and not captured anywhere in the computer files, manual data entry is the only option. This data entry activity has to complete in a short-time and the efforts should be put in to maintain the quality of data.
The reason behind completing it in a short period is that the employee’s data is dynamic and most of the time data is changed due to transfer, joining, promotion and separation. If the data entry takes a long time then there is a possibility of data getting outdated. This challenge we had to face with enormous data volume burden. One more challenge was to push the data of thousands of employee and in a very short time. Due to lack of data entry operators our effort was doubled. Contract-base operators could not be employed as the data was confidential.

USER TRAINING[5]
To address all these issues we formulated a strategy to begin with. For the data entry training we have chosen only two persons who were conversant in the computer. This made our task easy. The rationale for choosing less number of persons was two-fold, there was a lack of manpower in the personnel department and these persons acted as our replica in further training process and were able to understand their colleagues’ psychology and mental level better than software development team. Also, we opted for parallel and phase-wise data entry. Choosing only one department initially, perfecting and validating the data and go ahead. The On-Line Transaction Processing (OLTP) processes of completed department were done by the new system in parallel. This has eroded the possibility of out-of-date data when data entry was in progress. Another enhancement was on the technical side that was to capture the images of personal documents and dockets in the integrated database for future references and in case of data validation as well. All this needs work at war footing to reduce the time of adoption and stabilization of the new system. This also builds faith and reliability in the system for successful user acceptance and integration of the software into the workflow of personnel department.

FEEDBACK AND FINE TUNING[5]
In parallel to the data migration, the other activity was to demonstrate the software, of course, module-wise, to the users (personnel department) and incorporate the changes, suggestions and feedback. This activity leads to early identification of further requirements which were left out due to poor need assessment. This process also assists in alignment of user expectations with the newly developed system. However, there is a chance of getting trapped in this cycle due to dynamics of the policies of organization and due to enhanced user expectation which crops up when user visualizes the software. This problem cannot be eroded completely, only effort can be made to minimize its impact. For minimizing the impact, more and more brain-storming sessions, with the people from diverse fields of personnel department, should be held at the study phase. Users should also visit the places where such systems are working properly. This will help them to visualize the new system and also generates ideas in their mind.

This new and computerized system has to be integrated into the work and information flow of the department. For obtaining required results and optimum performance level there is a need for good training to the operators and managers. The training requirement multiplies as the existing HR processes are re-engineered because of technological impact. Adoption deals with the in-heart acceptance of the new system and dedication and determination to solve all the problems coming in the way and also foresee the changes required. It requires active participation and believes in the new system. Stabilization takes time. So patience and continuous effort is required. Successful adoption and stabilization of CHRIS requires an elaborate and dynamic implementation strategy. It also requires a dedicated team with separate set of human and capital resources. Data migration is a tough job but forms the foundation of successful implementation. Open-mindedness and anticipation of future problems in advance throughout the project is the key to success.

CONCLUSION
The stabilization process of the software is still in the process in ISP. With all these experiences we have found that critical success factors are level of cooperation from both sides, more user involvement and determination. As data migration is one of the pillars of success, a separate team should be formed for it and this process should start as soon as the design and development of standardization modules are completed. One more factor is continuous review from the top management as it provides encouragement and sense of satisfaction and recognition to the implementing team and users as well. It also puts pressure on the team and users for timely adoption and application of software in the routine work. Another point of concern is that the implementing team members should not be replaced until the implementation process is over. However, negligence of maintaining quality in the whole process degrades the overall effort of the team. Finally, the continuous monitoring, evaluation and adjustment of the implementation strategy should be there to address the situations arising out of changes in the environmental factors.

FUTURE SCOPE
Automated tools for data migration will simplify the process and ease the stress of the implementing team. A balanced scorecard for HR processes will also assist in the proper implementation of the CHRIS. Implementation of Employee self-service modules at the beginning will help in identifying the discrepancies in the data. This will enhance the confidence of HR managers in the CHRIS system leading to short cycle of adoption of the new system.

REFERENCES
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