ODLSoft (ERP) Implementation in IGNOU

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ABSTRACT
Since its establishment in 1985, Indira Gandhi National Open University (IGNOU) has contributed significantly to the development of higher education in the country through the Open and Distance Learning (ODL) mode. Indira Gandhi national Open University emerged as the largest Open University in the world. It is set to exponentially increase its student enrollment to 37 lakh learners in January 2010. It is making knowledge and skills available to anybody, anytime, anywhere. Today, IGNOU’s factfile reads: 61 Regional Centres, 2,243 Learner Support Centres, Presence in 34 countries, 323 Academic Programmes, 4,500 Academic Councilors, over 3,500 courses, 12 Divisions and 21 Schools of study.

Although IT has been in use, for the various activities right from IGNOU inception, Some of the initiatives, using state-of-the-art technologies have been taken in further use of ICT at IGNOU in the last 3 years. Some of such initiatives are as below:

- Enterprise Systems (ERP & SCM)
- E-Business Systems (Web based services, Wiki, etc.)
- Wireless Communication Systems (Mobile Phone based applications)
- On line registration, admissions, fee deposits and results declaration
- On line examination for some of the programs

Delivery of education is going through a transformation which not only poses many risks but also offers the virtue of multiple ways to reach people of different strata. New automated ERP is intended to boost efficiency, thereby increasing the institutional performance. Being the first open (Central Government) University to implement ERP, having decentralized account disbursing system, was a big challenge. Innovative design of the system has brought together all the human resource and complete accounting activities in single data base.

KEYWORDS
ERP, SCM, Peoplesoft, ODLSoft, ODL

1. INTRODUCTION
Education system in a country is a pillar of its economic strength and international competitiveness. Creating higher education, a market place, which is cost effective and transparent, can be considered a powerful driver of reforms and innovations. Today delivery of education is going through a transformation which not only poses many risks but also offers the virtue of multiple ways to reach people of different strata. New automated ERP is intended to boost efficiency, thereby increasing the institutional performance. Financial resources are limited; the only way to improve is by the use of technology.

As the world’s largest premier university for distance education, IGNOU took the initiative to integrate all its business processes in back office automation by implementing ERP. IGNOU has decentralized account disbursing system for all Schools of Studies and Service Divisions at its headquarters, which are about 33 in numbers. It was desired to have innovative step for the university to design the system for bringing all the accounting activities and human resources data operable through a single, central and integrated data base to capture all the day to day transactions and reconciling the same periodically and regularly.

IGNOU offers state-of-the-art education which has earned world-wide recognition. These include lectures through webcasts, telecasts and videoconferencing. IGNOU is also using mobile telephony for learning. Education programmes are telecast via EduSat in Gyan Darshan, the second most popular TV channel after Doordarshan, and e-Gyankosh, a unique digital repository with open access.

2. OPEN DISTANCE LEARNING SOFTWARE (ODLSoft)
Innovations were applied in all phases of program. To start with, program title ‘ODLSoft’ which is actually implementation of ‘PeopleSoft ERP’ is result of innovative thinking! ‘PeopleSoft’ was rechristened as ‘ODLSoft’ within the University which is catering to Open Distance Learning needs of students from all over India & abroad (about 60 centres). Integrated approach and means were adopted to standardize processes across various Divisions of University before proceeding with ERP implementation. Holistic view of university requirements was taken and a process improvement committee was formed in the initial phases of the project to review process changes which are required for betterment of organization. A two way approach was taken in implementing the project, IGNOU’s exiting processes and Industry standard best practices as part of change management. Through innovation and change management, the stakeholders were prepared for embracing new business processes & workflows and collaborative relationship between students /employees, head of departments, senior management and vendors. The system is managing its available resources in a planned manner with certainty, consistency, speed and by
maximizing cooperative use of information and other resources of planning and decision making. It is augmenting efficient and effective administrative and financial management relevant to the needs of the management.

3. DOCUMENTUM SOFTWARE & IT INFRASTRUCTURE

Through documentum software, integrated with the relevant modules, it has been possible to digitize all the Degrees/Diplomas/Certificates/Grade Cards for reference as and when required and for future validation.

IGNOU has also achieved greater heights in terms of its IT infrastructure and competence through Data Center implementation. IGNOU can now boast of its own state-of-the-art and secured Data Center located in its own campus for hosting internal applications without dependency on any third party. For such a huge government run university, a Non-IT organization, it was a marathon task for the computer division and the top management of the university.

This ERP package cater, at present, to the needs of Head Quarter at New Delhi collecting relevant details of employees and budgeting etc. from all the Regional Centres (61 at present) across the country from North East to deep South. It is also intended to be made accessible over internet for the direct transaction from IGNOU officials located at different geography of the country and abroad.

The basic aim of setting up this infrastructure is to position IGNOU as an organization to serve the aspirations of the stakeholders in the 21st Century calling for modernization and computerization in an inter disciplinary manner.

4. MODULES OF ERP IMPLEMENTED IN IGNOU

The Project: ODLSoft is to introduce efficiencies in the Back-Office processes. The project has been implemented to bring activities of Finance, Payroll, HR, Purchasing, Inventory and other administrative processes using PeopleSoft Ver.9.0 ERP Package, with the help of IT partner.

Following modules of Peoplesoft have been implemented for ODLSoft project.

- **PeopleSoft Financials and Supply Chain Management modules:**
  - Financial Accounting(General Ledger)
    - Budgeting (Commitment Control)
    - Receipt (Accounts Receivable)
    - Investments
    - Billing (Accounts Payable)
    - Bank Reconciliation
    - Fixed Assets & Inventory
    - EmployeeTravelandClaims (Expenses)
    - Purchasing
  - ServiceReport (Maintenance Management)
  - Project Costing
  - **PeopleSoft Human Capital Management modules:**
    - Workforce Administration
    - Position Management
    - Performance Management
    - General Administration
    - Leave Management
    - Payroll
    - Pension, PF, Loans & Advances
    - Benefits (LTC, Institutional Membership)
    - E-Governance
    - Medical
    - Recruitment
    - Training
  - **PeopleSoft Enterprise Performance Management modules:**
    - Planning & Budget
    - Enterprise Performance Management
    - Workforce Scorecard
    - Financial Scorecard
  - **Bolt –On (Custom Built Application)**
    - Transport
    - Staff Welfare and Accommodation Management
  - **Data Centre** through access controlled mechanism has been established using about 20 blade servers and 5 TB of storage system.

Before this initiative was started, the back office processes were not integrated and the results were not consistent. Moreover, the reports generated by various departments were not consolidated, the time taken for report preparation was more and the processes were not computerized. Thus a need arose for the back office processes to be integrated. Major problems, which prevailed before ERP Implementation in the day to day operations of the two key processes FCMS (Financial Control Management System) & HRMS as they were not integrated and did not give a holistic view in the organization. The problems perceived, due to lack of integration across the organization, were explained to the top management along with the benefits to be accrued by having an integrated system. Therefore, it was decided by the management to implement ERP in the organization. The five year project with one year for customization and deployment and four years as MSP (Manage services provisioning) was started in Oct 2007.

In today’s world when we are moving towards virtualization and cloud computing, unless we maintain consistent and integrated system for information gathering and flow, it is difficult to survive. Customer centric system with proper management information providing tools is a must for each and every organization to flourish. EDP changed to MRP and now we have ERP which provides an environment to work in integrated way. One and only one copy of data being made available to all concern, provide much relief to process and
make the required information available to the information seeker with full confidence (provided data is correct). There are very few educational institutions in India, may be negligible, where an integrated approach towards data processing and computerization has taken place in terms of ERP. The fruit of ERP can be realized only after the rigorous exercise of going through the various stages of information system building to suit particular business processes. The report coming out from the system with much less efforts and in almost no time as compared to human involvement for the same task gives a real satisfaction to the end users and other related officials. The project has been fully operational since January 2009.

4.1 CHALLENGES DURING IMPLEMENTATION
Challenges faced were typical like any other Government organization. Frequent transfer of employees, cancellation of user training and user acceptance testing sessions, slow decision making, were some of the challenges faced during implementation. These were resolved through continuous intervention of senior management and Head of Departments. Lack of knowledge of integrated computerized system and reluctant to change were the major obstacles. Series of lectures and interaction also involving grass-root level officials including union members by top management could convince them for the usage of ERP.

4.2 MANAGED SERVICES PROVISIONING
The ongoing activities, during managed services provisioning with collaborative approach are:
- Hand holding support to end users by IGNOU key users
- Training to new employees of IGNOU by IGNOU master trainers.
- Second line support like bug fixing, enhancements, complex reports generation by system integrator.
- Maintenance of data centre like back up, optimization and the performance issues by system integrator.
- Access rights provisioning, jointly by both organization i.e. IGNOU and system integrator.
- MIS generation by IGNOU management
- ODLSof architecture is deployed in clustering mode. Application and Data Base servers are configured in Active-Active clustering mode which provides high scalability, high performance throughput and resilience. In future when the number of users increases, servers can be easily upgraded horizontally or vertically.

The integrated approach for day to day transaction brought all from Group D employees to the Group A officers, at one platform. This required a massive planned approach in preparing the staff for transactions through computerised system. There have been workshops on change management, mind setting, hands on for working with computer to the ERP modules and so on. The difficult task of getting all the people along in educational and governmental set up has been achieved after rigorous, timely, and effective support from the IGNOU/TCS technical group. Clearance of payment within less than an hour with multi level approval has been experienced and welcomed by one and all. The innovative approach adopted for the implementation in less than the period generally it takes in non-technical environment has been based on Support-on-Demand. This required preparing teams at various level. At user level Core Group was created for daily and weekly monitoring of the progress. To support end user, Operational support group was created to take care each and every module. Then a group has been in place for doing updating with proper authenticated rights.

Availability of users and their sign-off at various levels was another biggest hurdle in completing the various phases of the project. Giving As-Is requirements, approving the same for design of the solution, To-Be sign off, User Acceptance Test (UAT), providing data, testing, coming with initiative to use the system have been real challenges. Functional head with a clear mandate of top management could be able to make the key users available and understand the functionality and suggest, where-ever changes are required. Computer literacy was another challenge, for which training on basic computer skills was imparted and Kiosks were established for Group D employee to enter the data in Computer for ERP transaction. Initiative, initially taken at the Computer Division level for making all the major user groups involved for the various tasks involved in As-Is study, To-Be document sign off, Testing and UAT, Rolling out of module proved to be major steps in letting all aware of their respective responsibilities. Feedback and monitoring with periodic and regular meeting - inter and intra groups/ users /Heads of Divisions & Schools of Studies – proved to be most effective in implementing the system with challenges. Appreciating and motivating all the concerned with inclusive approach helped taking the system to implementation and usage by all.

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ODLSoft should have, preferably, a commercial off-the-shelf solution with inbuilt global best practices for Universities. It shall be based on a widely used solution globally and not specific applications made for one or few universities. ODLSoft is architected to increase productivity and reduce operating cost by automating the Financial and common administrative task like Establishment (non-academic and academic), Stores & Maintenance management, Purchase and Project costing. Similar exercise may be adopted in other institution as a successful story of IGNOU.

5. CONCLUSION
All in all, the ERP implementation at IGNOU was successfully rolled out within the reasonable time frame and is continuing successfully without any major disruption and with the dedication of one and all employees of this open central government university.

The ERP project is not just restricted to having the package and implementation of technology. It rather aims at using the technology to achieve the University's education delivery goals. This project represents IGNOU's long-term commitment to provide seamless access to sustainable and learner-centric quality education, skill upgradation and training to all by using innovative technologies and methodologies.

Recognition by Hon’ble Vice Chancellor to the IGNOU personnel actively involved in execution of ERP-IMS, back office automation-ODL Soft, in shown in the photograph below:

ODLSoft is scalable and easy to configure to meet the current, near future and future needs of IGNOU & other open distance educational university / Institutions. ODLSoft will have capabilities to integrate with other applications either within the University (e.g. Library Management System, Material distribution, complete students life-cycle Management like admission, Examinations and Evaluation etc.) or outside the University (e.g. Learning Management Systems, Supplier Portals, etc.) with proper access controls.

ODLSoft will have the future capability for having campus Data Warehouse and the University-wide Analytical and performance Management to help IGNOU become a strategy focused organization. Students registration, on line admission, on line assessment and examination is another project, which will be seamlessly integrated with this back office automation.

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