Enterprise Resource Planning System at PICTL

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About the Initiative

This publication is a part of the Capacity Building initiative under the National e-Governance Plan (NeGP) by NeGD towards sharing of knowledge across projects and geographies in the form of case studies so that the decision makers and implementers can benefit from the experience gained in other projects, states and regions towards meeting broader objectives of the NeGP plans by way of knowledge and skill building. Conceptualised and overseen by the National e-Governance Division (NeGD) of Media lab Asia/DeitY these case studies are submitted by e-Governance Practioners from Government and Industry/Research Institutions. The cases submitted by the authors are vetted by experts from outside and within the Government for learning and reference value, relevance to future project implementers, planners and to those involved in e-governance capacity Building programs before they are recommended for publication. National Institute for Smart Government (NISG), working on behalf of this NeGD provided program management support and interacted with the authors and subject matter experts in bringing out these published case studies.It is hoped that these case studies would help practitioners to understand the issues involved, typical dilemmas faced by e-Governance project implementers, and possible solutions to resolve them.

Acknowledgment

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1. Abstract

In the year 2009, Punjab Information & Communication Technology Corporation Limited (PICTCL) decided to re-organize and re-engineer itself to align with a long term strategic road map for its future and to take the organization to the next level. The Corporation decided to implement Enterprise Resource Planning (ERP) system to ensure complete automation of its internal functioning to deliver services to all its stakeholders in an efficient manner.

The project was accordingly initiated with the selection of Project Management Consultant in March, 2009. After a detailed study of the requirements, a comprehensive Request for Proposal (RFP) was prepared for the selection of System Integrator. The System Integrator for the turnkey implementation of ERP system was accordingly selected in August, 2010. The first phase of ERP went live in July, 2011 followed by full project going live in December, 2011.

This case study describes the choice, analysis, challenges, implementation and benefits derived by use of Enterprise Applications at PICTCL. The objective of this case study is to provide insights into the paradigm of enterprise applications and reaffirm the fact that this is a notable, feasible, and perhaps an efficient phenomenon towards adoption of IT systems in Government organization.

Unlike any other similar e-Governance initiatives in the government organizations, PICTCL preferred to adopt "Commercial Off-the-shelf" ERP application package for the numerous advantages it brings for a robust, standard and integrated platform, which reduces the development and deployment time and ensures ease of maintenance.

The case study brings out several important lessons for implementation of such systems. There is no substitute for giving adequate time for conceptualization, designing and deployment of systems as the detailed planning is a pre-requisite for success. Another lesson is importance of requirement gathering and documentation during the design phase of the project particularly non-standard functions of the organization. Any complacency or superficiality in giving sign off at this stage may severely compromise the outcomes at a later stage. While implementing such comprehensive systems, the organization has to take some key decisions to adopt the new paradigm. In the absence of requisite decisions, the success of such implementation would again be hampered.

With the successful implementation of ERP, PICTCL has become a system driven organization and is no longer dependent on individual's knowledge or earlier paper based processes, which were causing delays and sub optimal outcomes.

The disposal of work today takes just a click. There is online interface through its portal to all its external stakeholders. As a result, all indents from different government organizations are received online. The deployment of outsourced manpower is done online. All applications for opening of new franchise centers or other activities of franchisees are also done online. The Corporation has also been able to demystify and makes all the information with respect to plots allotted to various allottees online. A complete integrated system allows the senior management of the Corporation to monitor the activities of the Corporation.

2. Keywords

ERP, COTS, Turnkey Implementation, E-Governance, Chart of Accounts, BPR, Conference Room Pilot, System Integration, Capacity Building

3. Note to Practitioners

The successful implementation of e-Governance projects is quite rare. As per Heeks, 35 percent e-Governance projects are a total failure while 50 percent as partial failures. It is only 15 percent of the projects which can be classified as successful. This becomes particularly important for a large-scale and complex project such as ERP implementation in a public sector undertaking.

The case study brings out various aspects of e-Governance projects such as conceptualization, design, turnkey implementation and demonstrates how a structured and professional approach during these phases of the projects would lead to successful outcomes.

The case study also highlights benefits of implementing ERP in government set up and how a turnkey project leads to better chances of success. More importantly, it highlights even while following a very systematic approach, a superficial attention to details at any stage leads to redoing, often from a scratch, at a later stage causing delays and set back to the project. A world class consultant or a renowned System Integrator cannot do his/her job unless, in-depth and diligent involvement of the client happens. The manual system, no matter how much documented like in case of PICTCL, which was ISO certified and had detailed ISO documentation, cannot simply meet the requirement of automation.

4. Project context

4.1. Background

The PICTCL is a State Government undertaking entrusted with the responsibility of promotion of IT and Knowledge industry in the State as well as acting as an executing agency for e-Governance initiatives of various State Government Organizations.
PICTCL was set up in 1976 as Punjab State Electronics Development & Production Corporation Limited, which underwent restructuring in 2002 and was renamed as Punjab Information & Communication Technology Corporation Limited (PICTCL). The Corporation further reengineered and reorganized itself in 2009 to align with a long term strategic road map for its future.
PICTCL, accordingly, undertakes initiatives in the field of developing infrastructure for IT industry, facilitating schemes and initiatives for enhancing employability of State's youth facilitation to prospective and existing investors. PICTCL also undertakes procurement of IT equipment's, consultancy and execution of turnkey e-Governance projects for various departments and organizations of the State Government.

4.2. Pre-implementation scenario

Before implementation of ERP in PICTCL, the Corporation used to work with antiquated inefficient procedures and considering physical files as "Bible of operations".

The corporation didn't have any defined service levels for any of the services. As all the information was available only in form of physical files and data extraction was done manually i.e. whole exercise of making information available for decision making was a tedious and time consuming task. Senior management had to rely on their sub-ordinates for getting relevant information from physical files and employees used to take advantage of this situation and used to perform their tasks as per their convenience, interests and understanding.

In the absence of effective MIS reporting tools and unavailability of timely information, the senior management was unable to identify the reasons for delay in providing services. Such situations led to ineffective planning and impacted quality decision making by management. All interaction with external stakeholders such as different Government organizations, prospective investors and allottees of various plots was carried out in the manual system through physical correspondence only.

There was no uniformity or standardization in processing of the cases and documentation of the processes was also not up to the mark. This was particularly during transactions pertaining to Estate Management Division where even the matters relating to interest rates, penalties, extension fee etc. was not duly codified and were largely based on the individual's knowledge.

The absence of standard practices led to some issues: e.g. the depreciation on fixed assets was calculated in lump sum instead of asset wise. The account periods were not closed regularly and were kept open till the preparation of final statements allowing chances for any changes in future.

5. Project overview

5.1. Project Objective

PICTCL has an important role in achieving the State's vision of transforming itself from resource based economy to knowledge based economy. The implementation of ERP was at the core for transforming the organization towards achieving excellence in the delivery of services to its customers and achieving optimal internal efficiency and effectiveness. The project accordingly focused on complete internal automation and providing suitable web interface to all its external partners, customers and stakeholders. The ERP is web enabled so that the employees could work from anywhere any time.

5.2. Description of the implemented project

PICTCL has implemented a standard off the shelf ERP system which covered all the divisions of the Corporation and its various functions. The entire system implemented by the Corporation is depicted below:
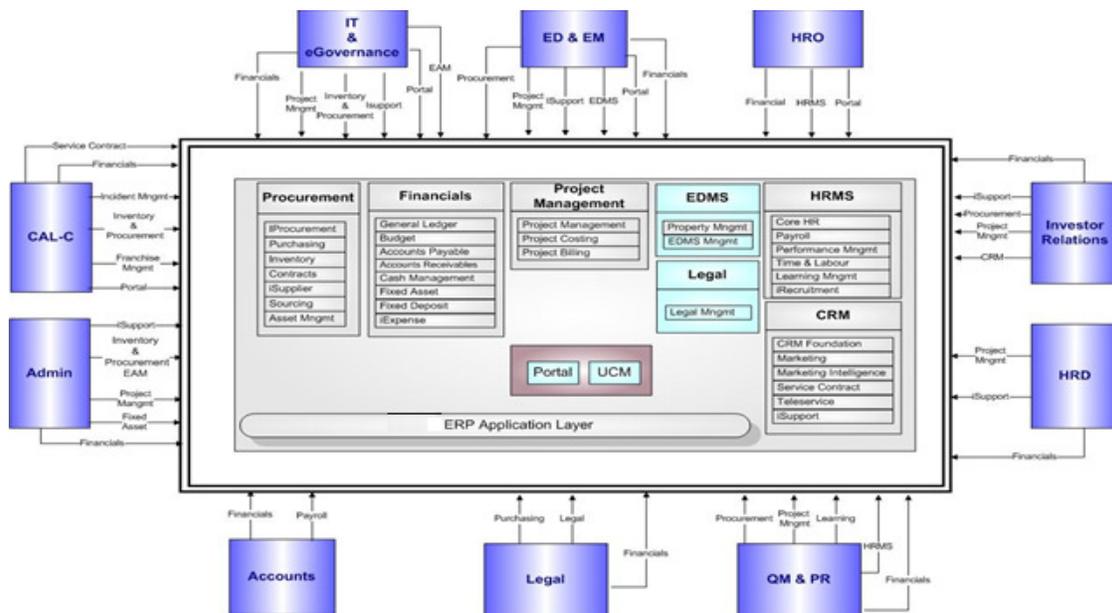
Figure 1 : Division wise ERP mapping

The ERP product suite caters the Organization's services requirement and provide interface to the external customers to interact seamlessly with PICTCL. ERP solution is equipped with various division specific modules and few common modules that are used across divisions. Below given table details out various stakeholders and the services offered to each stakeholder through the ERP solution:

Stakeholder	Functions/services offered
Internal staff members	▪ Financial management services ▪ Project Management services ▪ Human Resource Management services ▪ Procurement Management services ▪ Estate Development & Management services ▪ Customer Relationship Management services ▪ Inventory Management services ▪ Document & Workflow Management services ▪ Portal services ▪ Assignee Management services ▪ Learning Management services ▪ Franchisee Management services ▪ Asset Management services ▪ Legal Case Monitoring services ▪ Central Record Keeping services
Investors	▪ Online applications for Single window services ▪ Effective monitoring the status of clearances of files ▪ Facility for investors to voice their opinions on draft policies or any other query

Prospective and Existing Allottees	▪ Online application for allotment of plots ▪ Approval of Building Plans ▪ Execution of lease deed ▪ Permission to mortgage ▪ Change in Name, Style & Constitution ▪ Permission to rent out premises ▪ Conversion of leasehold to freehold ▪ Transfer of plot
Franchisee	▪ Online applications & submission of documents for opening of franchisee centers or for renewal of an existing center ▪ Online system to send the monthly progress report, maintain the database of students which can accessed from head quarters ▪ Online registration of students and management of their performance and records ▪ Online payments of royalties and other fees ▪ Online requisitions for books, exam material and other requirements
External Departments	▪ Easy access to the department's responsibilities, timelines given, Minutes of meetings & decisions taken ▪ Easy access to the actionable items decided in the meetings ▪ Online requisitions by external organizations for requirement of manpower ▪ Facility to external organizations to fill attendance / leaves online for manpower allocated to their organization, ▪ Online facility to external organizations to view invoices / bills raised by PICTC and the payments done by organization
Vendors /Contractors / Consultants	▪ Minimizing time in manual interactions for bid submission ▪ Transparency in the selection processes ▪ Quick disbursement of payments ▪ Effective system for logging grievances & monitoring the status

5.4. Outcomes & benefits realized

With the implementation of ERP system, PICTCL has become a system driven, modern and efficient organisation. All the employees of PICTCL today remain connected to the organisation and working online. Similarly, all interfaces with the external stakeholders and partners are provided online. This has resulted into anytime, anywhere functioning of the Corporation and with the automation of large number of routine tasks, employees and the management have better time to plan for the future projects and improving the quality of services.

The implementation of ERP in PICTCL has brought numerous benefits to the organisation. The first and foremost, it has allowed seamless flow of information in the organisation across its various divisions. The entire processing of payments, preparation of cheques and vouchers, statutory reports, salary processing etc. takes place online relieving the staff from the manual drudgery. The relevant data and information starts with the concerned division and flows seamlessly to the Accounts Division thereby removing duplicity and delays.

All the details of plots allotted to various allottees have been made online on portal and allottees can see the complete details online. They can further apply for any transaction online on the portal. The requests/ transactions are processed by the staff online.

All the franchisees now undertake their transactions online through the portal and similarly, the government organisations and departments are also conducting their business with the Corporation online.

5.5. Issues and challenges faced during implementation

Such a large scale end to end e-Governance project throws a number of issues and challenges in the course of its implementation. Some of the issues and challenges that were faced by PICTCL during the implementation of project are described below:

I. Use of non-standard practices in PICTCL

Even though the government organizations are characterized to work within strict rules and regulations, the processes and practices are neither standard nor well defined. The manual system and file based processing allowed heavy reliance on individual's knowledge of handling a job.

There was no defined Chart of Accounts (COA) and the creation of account heads was being done on an ad-hoc basis. The registers of fixed assets were not complete w.r.t. details of old assets or the maintenance cost borne by PICTCL on these assets. Further the assets were not numbered properly and hence making it difficult to identify a particular asset in a group of similar kind of assets. There was no asset wise depreciation of cost of fixed assets; instead it followed category wise depreciation of assets.

In case of transactions pertaining to various plots allotted by PICTCL, the processing was entirely based on the individual's knowledge. Even the details of critical information like applicable interest rates, penal interest rates, extension fee, extension period granted, calculation logic etc. (these rates / period vary from period to period and are defined by BOD or State Govt.) were not easily available. Many practices were simply said to be borrowed from another Corporation, which does allotment of plots on a larger scale than PICTCL.

The Corporation also provided manpower to various departments, which however did not follow any uniform and organization focused practices for managing their attendance, payments received from customers, utilization certificated were being followed.

Similarly, the procurement activities on behalf of various organizations were also not uniform and standard.

Due to non-standard practices, it became difficult to design industry standard systems. The users also did not feel motivated to change the systems and it lead to a number of iterations to get the practices aligned with standards.

II. Lack of Documentation of Processes

Apart from the practices being non-standard, another major bottleneck was the lack of clear documentation of processes at one place. Even though the Corporation was ISO certified, the

documentation was not exhaustive and often didn't meet the requirements of clearly explaining the systems. This lead to reliance on interviewing the officials, while capturing the requirements and which in many cases fell short of clear understanding of the system. This lack of documentation leads to design and implementation, which in some cases had to be redone.

III. **Extraction and verification of data regarding industrial plots**

Data extraction for Estate Management Division was one of the biggest challenges faced during the course of the project. The complete data related to a plot had to be extracted from the physical files for all the plots of PICTC. There were multiple files and the data had to be extracted from the documents after going through them. Due to lack of cooperation from Estate Management Division, the data extraction templates designed initially did not capture all the fields related to a plot and the whole exercise of data extraction from physical files could be completed after multiple iterations.

During the analysis of whole data, the team realized that multiple approaches were used to calculate payments related to a plot instead of standard one. Similarly, the terms and conditions on different categories of plot varied, making it difficult to have a uniform system for all plots (e.g. for some plots in Mohali commencement period was 3 years from date of allotment, while for some plots it was 3 years from date of possession and for specific scheme it was 18 months from date of possession). There were deviations because of manual calculations also. For example, for ease in calculations, sometimes penalty was calculated on complete principal amount (principal + interest till that time) while in some cases, penalty was calculated only on the due principal amount (principal amount due on customer excluding interest). It was also realized during the process that some plot related details were not available. Hence, a lot of assumptions and decisions were undertaken by PICTCL to complete the data set of EM division.

IV. **Streamlining accounts & finance functions of PICTC**

Even though the Finance module was implemented in the first phase of the project, still it has taken good amount of time to stabilize the module after completing the legacy data entry, verifications and many other activities. Defining Chart of Accounts (COA) from scratch and mapping of all the existing account heads with the new COA consumed a lot of time of the staff. The whole process of collection of details of all the fixed assets was a cumbersome task. It involved preparing detailed list of all assets followed by extracting asset wise details from asset registers or old account vouchers. After preparation of this list, multiple permutations and combinations were done to map the consolidated category wise cost figures with the costs mentioned in account statements.

Data verification was also a challenging experience because after updating the legacy data in the ERP system it was realized that many of entries were found to be incorrect. The reasons– lack of knowledge of accounting heads with the data entry operator and poor verification of legacy data. The division members also did not provide physical vouchers for data entry in first go. The details of these vouchers were entered later on.

There were some errors in the manual entries made by A&F users in original data. These errors along with first point mentioned above made it necessary for the division to verify all the

legacy entries against the physical data (vouchers, bank statements, cheques issued, payments received).

The finance module was made live with the unaudited Trial Balances available with the division. When the system was tested, it was observed that the number of entries required for correcting the original trial balances was huge. Moreover, these entries were made on the basis of account heads defined in earlier system. Hence it was decided to re-work the whole process with new audited trial balances.

V. Inadequate process mapping in the system

After the successful extraction of all plot data required for implementation of ERP for EDMS module; it was realized that the logics defined in the ERP were not conclusive. There were gaps in the logics developed in ERP, in addition to some logics being completely missing in ERP.

VI. Procrastination on some key decisions

PICTCL used Cash based accounting practice earlier and it was suggested by implementing agency to adopt the Accrual based accounting practice. The management, considering that the issue is not a showstopper, delayed its decision. In later stages of the project, when decision became critical, it involved large amount of change management to modify the processes.

VII. Hoarding of information with individuals

Even though PICTCL adopted a systematic approach to capture the requirements, the same was still not a success keeping in view that some of the divisions did not participate fully at the time of system evolution. It was only on subsequent iteration or at the testing or implementation stage that one discovered lack of complete information with the consultants/ System Integrator.

VIII. Managing the change and mind set of internal employees

Managing change and taking all the resources together to the newer system and ensuring that the new system is used effectively was a big challenge considering the high propensity in the government organizations to go back to the older system? Regular and frequent reviews were conducted to monitor the progress of the project, the work done by an individual user and resolving issues raised by users. Long gaps between reviews affected the efficiencies of users and made them complacent.

IX. Training to the external customers

Another challenge faced during the implementation was lack of cooperation from the external customers, which were expected to use the portal for electronic transactions with the Corporation. The Corporation organized training for the external customers but the response was not very encouraging. The Corporation also provided that till the customers become fully familiar with the new system, the Corporation will update the system on their behalf. After a while, the Corporation made it mandatory to all its external customers to use the portal for their interaction with the PICTCL.

X. Degree of customization required for basic requirements

Another challenge was that the Corporation's officers specified their own customized requirements even where the standard reports were available in the system and could have been used without knowledge for the organization's requirement. These were also not discovered at the appropriate stage and secondly a lot of time was wasted in meeting these customized requirements of PICTCL, which could have easily been given up in the standard reports provided under ERP.

6. Key lessons

Some key lessons have been learnt by PICTCL in the course of implementation of the project.

I. Keeping adequate timelines for various tasks

One of the key lessons is that any compromises on the timelines can lead to achievement of sub-optimal results and then a large amount of time is spent in re-working on the inadequate results. It is observed that in few situations project planner's try to keep project completion timelines to a minimum in order to minimize the overall cost of the project and also show some quick results, but inadvertently end up defining timelines which are not optimal for project which in long run affects the outcomes of the project. Hence, government organizations shall plan the optimal timelines for the implementation of project and not compromise on the quality.

II. Selection of suitable consultants

Keeping in view the requirements of e-Governance projects, these would never be successfully implemented without the assistance of external consultant. These are specialized projects and require a range of issues to be handled and the expertise will not be available in house.

There is also need to ensure deployment of competent manpower from the consultant and ensuring that the Consultant really adds value to the project.

III. Long term continuity of leader

An able leader only can guide and take his team together to achieve the goals of a project. Also continuity of the leader is very critical for the success of project.

How change in leadership can affect a project was experienced during this project also. After Go-live of Phase 1 of the project in July 2011, the then project owner had to be away for few months and the new project owners had different perceptions of the way new system should be. This led to confusion and effected project progress there by suggesting the importance of continuity of leadership during critical transition period.

IV. Having clear strategy & implementation plan

The management team of a project should have clear defined strategies for the project i.e. there shall be clarity on:

- What is to be done?

- What would follow the current step?

- Who is responsible for the execution of a specific task?

- Are there any risks associated and what the mitigation plans are?

This strategy should be communicated and understood by all stakeholders because any differences of opinions among stakeholders can risk the success of project. Availability of an easily comprehensible implementation plan is also a must for a project. The project plan shall be updated on regular intervals after incorporating any additional activities undertaken in the project and delays, if any. Availability of an implementation plan helps the project management team in reviewing and evaluating the decisions undertaken, associated risks and delays in timelines. In the absence of clearly defined implementation plan, any decision making becomes ambiguous and leads to failure of project.

V. Selection of appropriate ERP solution

It is very essential to choose your ERP solution very cautiously. Selection of suitable vendor to implement the solution is also very critical for the success of project. Some of the key parameters that shall be considered while selecting an ERP product are to see the alignment with the business goals, ensuring all core processes are mapped well, clear requirements, **flexibility and scalability the solution provides** can be one of the key evaluation parameters.

VI. Sharing of information across all levels

All the fraudulent activities (like corruption, lack of transparency) stand a chance in an organization when the necessary information and knowledge is hoarded by individuals and is not available across levels. Such situations provide ways to users to perform operations best suited to their personal interests.

If the relevant information is available across levels to all relevant users, it will discourage fraudulent activities. Hence, "Availability of information across levels" was kept as the central resource while designing the IT systems at PICTC. The processes were modified to make them more objective and many checks & balances were codified in the system to minimize manual interventions & errors (intentional or accidental). The new system at PICTC allows its stakeholders to have an easy access to the relevant information and hence makes the system transparent.

VII. Ensuring the requirements are adequately captured and understood by all stakeholders

It is well understood fact that making a change during the last stages of a project requires much more efforts as compared to making similar changes in the earlier stages of a project. Hence, following steps were undertaken by PICTC:

1) To ensure most of the requirements are captured in earlier stage of project multiple discussions/ reviews were done at different levels. First review was done by HOD & his team followed by deliberations workshops chaired by MD. After that Conference Room Pilot (CRP) sessions were conducted for divisions to get first level of feedback followed by SIT sessions for final confirmation and feedback.

2) To ensure that the divisional employees understood all the functional requirements, each division was asked to present the new processes to MD. It made all the employees to give their best output to cover maximum possible requirements in earlier stages of the project.

3) Decisions were taken on most of the issues in a time bound manner to avoid unnecessary delays in the project.

VIII. Minimizing chances of information hoarding with an individual

Information hoarding with individual can become a key factor for delays or even failure of the project. To ensure that information is not hoarded by an individual user, people with necessary domain knowledge and willingness for ERP implementation were involved in divisions other than their original division. Such approach helped PICTC in extraction of information which otherwise wouldn't have come out from the individuals. These decisions (if aware of possibilities of information hoarding) should be taken at the start of the project to minimize any re-work and wastage of efforts.

For example, in order to finalize the business rules for say one division three more resources from other divisions were inducted in the division along with full time involvement of consultant and SI team members. This large team after working for more than a quarter and multiple rounds of data extraction & analysis was able to document all the business rules / logics and extract large amount of data from physical files.

Also to ensure that such problems are not faced in future, appropriate documentation of all processes, calculation logics and variables was done for EM division in parallel with the other activities of the project. This whole exercise was a tedious and time consuming task and was a reason for some delays in completion of project.

IX. Business process re-engineering on basis of well-established processes

There are two ways to carry out BPR exercise:

1) Define the new engineered processes as per the requirement of organization, convince yourself & your stakeholders that the defined processes are the best ways to carry out the work and then implement the new processes.
2) Adopt processes which are already well defined and accepted by many other organizations across the World.

The advantage of ERP package solution is that it provides standard processes for common functions (like procurement, management of accounts etc.) which have evolved over years on the basis of multiple implementation experiences across private or government

organizations. PICTC after due analysis of ERP solution decided to adopt the latter approach and saved enough time which was used in alternative activities of project management.

X.   **Capacity building by having a mix of experienced and young professionals**

One of the ways to manage the change during a project is by inducting necessary talent pool in the organization. The average age of employees at PICTC was less than 35 years i.e. there was a good blend of experienced as well as young professionals. The advantage of having young professionals was that they didn't have any associated ideologies and hence it was easier to mold them as per the requirements of ERP project. Performances were also closely monitored for these resources. Considering young generation as a threat for themselves, unwilling users also made efforts to pick up with the new trends of technologies and system.

XI.   **Regular assessment / periodic reviews of project**

It has been observed in many projects that the zeal and enthusiasm that project owners and staff members show in the start of the project is very high and it tends to decrease with time. In a typical government organization if the continuous assessment or reviews are not done by the top management, then it is very likely that the project will not meet its objectives. In case of PICTC weekly (sometimes even on alternate days or even daily depending on criticality of the issue) reviews were held to access the progress of various tasks and for resolution of issues. Regular assessment of project activities gave MD insights in the working styles of employees of PICTC and hence in identifying resourceful employees. It also kept employees on their toes as their work was continuously watched and monitored and made them to perform well.

XII.   **Holding users accountable for their work**

One of the major drawbacks in the existing government system is that it lacks accountability of users. This lack of accountability leads to delays in implementing a project. During ERP implementation in PICTC, not only HODs were held accountable for progress of their divisions, but also the work completed by individual users was monitored against the timelines given to them.

XIII.   **Effective management of change**

Other than points mentioned above, following additional measures were undertaken to manage the change at PICTC:

1) Involvement of stakeholders at all levels of decision making. All the points raised by the employees of PICTC were heard to minimize the resistance by any user.

2) PICTC arranged for adequate training sessions for internal stakeholders. Preliminary sense of ERP system was given during Conference Room Pilots (CRP), followed by System integration testing (SIT), training on work desks and finally hand holding support. Staff members were also given access to demo version of ERP to do as many transactions to understand the system.

3) Adequate training workshops were also arranged for external stakeholders. User manuals were also distributed to external stakeholders for understanding the system. PICTC also established a helpdesk to assist customers in handling their transactions.

4) Mandates were issued by management to strictly use ERP system only for carrying out all transactions. The top management of PICTC also stopped attending any transactions which were not done in ERP.

7. Methodology adopted for case writing

This case study has been prepared primarily on the basis of the real time experiences of the author and co-authors while other sources include one on one interviews conducted with the users of the corporation (who have been involved in the project since its inception), customers / clients of Corporation and implementing agency. The data has also been collected from the baseline studies available with the Corporation (prepared by consultants) and the transactional reports generated through the already implemented ERP system.

8. References

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Details of Authors, Project owner

Ms. Ashooneet Kaur (General Manager) is the project manager for the implementation of ERP in PICTC. She is a business graduate and has more than 19 years of experience of working with PICTC. Ashooneet's experience of working across multiple divisions of PICTC has made her the right person to lead this project. Email: ashooneet.kaur@punjabinfotech.gov.in

Mr. Nitin Bansal (Assistant General Manager), has been working as the key team member of the project and has played a key role during the implementation of project

Project Case Fact Sheet

(i)	Project Name	Implementation of Enterprise Resource Planning (ERP) in PICTC
(ii)	Date of start	Conceptualization of project was started in April 2009 with the selection of consultants while the actual implementation was started in Dec, 2010
(iii)	Current Status	All the modules of ERP have been successfully implemented and are operational in PICTC. All day to day transactions are held though ERP. Currently in operations and maintenance phase.
(IV)	Project Owner	**Mr. Rakesh Kumar Verma** is a 1993 batch IAS officer. He has done his B.Tech in Computer Science and Engineering from IIT Delhi in 1992. He was handling the charge of PICTC as Managing Director till July, 2012 and the project of automation & e- Governance in PICTC had been his initiative. As a part of State Govt. he has undertaken many e-Governance initiatives for Punjab Govt. Some of the key projects include implementation of SUWIDHA project, Integrated Financial Management System & Integrated Work flow and Document Management System, implementation of e-Procurement, etc. <u>Contact details are</u> **:** 5th - 6th Floor, Udyog Bhawan, 18-Himalaya Marg, Sector 17, Chandigarh