3.1 ERP implementation, Methodology and Frame work- Training

Implementation of ERP system is a complex exercise, involving many process alterations and several legacy issues. Organizations need a implementation strategy encompassing both pre implementation and implementation stages. The fallout of a poor strategy is unpreparedness of employees, implementation not in conformity with wider business strategy, poor business process redesign and time and costoverrun.

Following issues must be carefully thought before going to actual implementation:

Business Process: Hypothetically, company insiders should know best about the processes of their organization. But employees often constrained to work in departmental silos and overlook wood for the tree. Under most circumstances, prevailing business practices are not properly defined and no"as is" flow charts, documenting existing processes, are available.

An ERP implementation could be a great occasion to assess and optimize existing business processes, control points, breaking points between departments, and interfaces with trading partners. But, often, due to resistance to changes and departmental clouts, ERP implementation is comprehended as an exercise to automate legacy processes.

Automating existing manual processes peculiar to a company necessitates, significant source code customization, as even a best fit ERP product match to a maximum of 85% to 90% of legacy processes.

For more and more customization, the exercise of Business Process Mapping and Gap Analysis is taken up during implementation.

Implementation Methodology: Selection of implementation methodology constitutes an important component of implementation strategy. All users move to the new system and manual / legacy systems are discontinued.

Another major implementation strategy is "phased implementation", where roll out is done over a period. This method is less focused, prolonged and necessitates maintenance of legacy system over a period of

time. But, phased implementation is less risky, provides time for user's acquaintance and fall back scenarios are less complicated. There are various choice of phasing such as i) phased roll out by locations for a multi location company ii) phased roll out by business unit e.g. human resources iii) Phased roll out by module e.g. generalledger.

Methodology of implementation should form an important constituent of implementation strategy, which should be formulated after considering availability of resources, state of preparedness, risk perception, timeframe of implementation and budgetary provisions.

Other important strategy issues:

- Legacy data: Gathering, cleaning and removing of duplicatedata.
- Hardware and software: Addition and updating of existing resources. Compatibility withexisting Operating system andDatabase.
- Project structure: Project champions and competencycentre.

3.2 DataMigration:

Data migration is the process of moving required volume of data from existing systems to new systems. Data migration encompasses all the necessary steps to cleanse, correct and move data into a new system. Technological changes, change in providers, software updates or data warehousing/data mining projects make such delicate and critical operations necessary. A good data migration should allow one to:

Reduce risk: Data being an organization's most critical business asset, it is essential that any manipulation be carried out without any disruption to achieve maximum flexibility and quality.

Lower operational expenses: Data migration is a one-off activity triggered by certain circumstances. The data migration tool or solution reinforces the organization's resources which can remain focused on its ongoing continuous core activities.

Improve data quality: The cleansing and correction solutions ensure perfect data integrity after it has been migrated. From a user and development perspective, the migrated data results are completely optimized.

3.3 Planning Evaluation and Selection of ERPsystems:

For most enterprises, the decision to implement ERP functionalities will require buying a software package from one of the more popular vendors on ERP market like SAP and Oracle.

Evaluating and selecting an ERP system can be a very complex process on the other hand, but it should be a 'fact-based' process that will bring the enterprise to the point where comfortable & well-informed decisions can be made.

To adopt a thorough evaluation and evaluation process before adopting any ERP solution. They are

- Planning
- RFP
- Solution
- Evaluation
- Negotiation
- Selection and Agreement

- **ERP Software & Hardware (Solution) Evaluation and Selection Steps**

- Define Requirements
- Shop Round for Product
- Clarify Requirements
- Evaluation Vendor
- Inquiry Interact with Vendors
- Negotiate Agreement Action Agreement

Define business case/need and spell-out required values.

- Be specific. Ensure the business sponsor is willing to push through business case forchange.

- Look round the market for what product is available. Identify vendors that operates and their general approaches to technologies the take. Discuss with others in the same industry as you are etc.

- Clarify your requirements and be sure of what you are looking for in line with you business case. Refine requirements if possible and be specific too.

- Find out what product is looking promising in line with the business need and from which vendor. Identify which vendor and their products and invite interesting ones for demo etc. Request for proposal (RFP).

- Invite each shortlisted vendor over for a chat and find out more about the product. List out expectations based heavily on business requirements.

- At this point evaluate this approach. Can you afford to change your current process? Can you afford the change the new product will bring and many more?

- Initiate Negotiation for the selected product with the selected vendor. Agree on who does what, when are they to be done. Negotiate deliverables, timelines, cost & payments schedules and terms, support inclusive.

- Review all legal terms, finalise the contract and select product for onward implementation.

- Alignment of business requirement to what the software/hardware can provide. This is the core of the whole exercise else stop theevaluation.

- Evaluate the product capabilities in line with the business requirement. Evaluate the impact of this product on the business requirement.

Fig. 2: Detailed flowchart for ERP Software, Hardware Evaluation and Selection Processes Analyse Gaps For effective ERP Solution evaluation and selection process, the above steps are categorised into 5 phases as explainedbelow;

Stage 1 - PlanRequirement

- *Business need is defined, along with areas in business that required technical approach.*
- *Develop a specific business case with business value for a solution.*
- *Ensure that the project sponsor is willing to articulate the business case*

for change.

- *Indentify vendors that operate in the line of products you are looking for.*
- *Get familiar with the software and hardware infrastructure presence for the solution seeking.*
- *Get general view of investment needed, considering software, hardware, other related infrastructure and ongoing support.*
- *Based on the survey, evaluate the organisation readiness for the investment and decide whether to continue ornot.*
- *Now define priorities under "must-have" and "nice-to-have" accordingly.*

Stage 2 - Request for Proposals (RFP)

- *Shortlist interesting vendor based on the outcome of market survey for products. Invite interesting vendors for interaction/demonstration of their products.*

- *Collects facts/functionalities in line with the business need from various products demonstrations for the developments of unbiased RFP for vendors.*
- *Set-up a neutral body to develop RFP using all facts gathered during products demonstration aligned to the business requirements.*
- *Distribute out RFP that addresses the vendor as a company and the products they offer.*
- *Generate basic expectations from an ideal proposal in line with the business need for onward selection of the ideal software vendor.*

Stage 3 - Solution Evaluation

- *Identify and prioritise remaining gaps between software capabilities as demonstrated and business requirements.*
- *Identify how the gaps will be bridge in terms of configuration, configuration, process change or combination of all these.*
- *If the gaps can be bridge consider reengineering of those affected business processes affected and continue with the evaluation.*

Stage 4 - Contract Negotiation

- *Negotiate with each vendor.*
- *Establish software, hardware and other infrastructure agreement requirements, which include version, components, maintenance and support. Also negotiate participation in user groups, license costs, maintenance fees and many others.*
- *Establish service provider agreement which also include deliverables, timelines, resources, costs and payment schedules.*
- *Establish other legal requirements.*

Stage 5 - Selection and Agreement

- *Upon successful negotiation with the right vendor;*
- *Review all legal terms on privacy protection, operation guidance and data manipulation etc. Approve agreements with the selected vendors.*
- *Agree on implementation plan.*