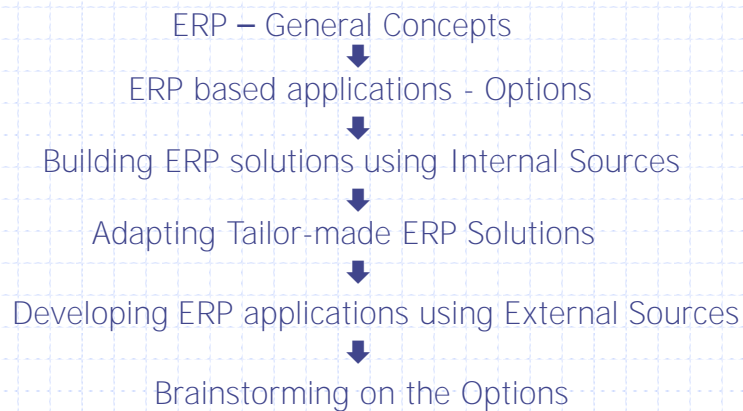# Enterprise
Resource
Planning

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Presentation - Path

ERP – General Concepts

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ERP based applications - Options

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Building ERP solutions using Internal Sources

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Adapting Tailor-made ERP Solutions

⬇

Developing ERP applications using External Sources

⬇

Brainstorming on the Options

ERP

General Concepts

ERP – General Concepts

Enterprise Resource Planning

- ❖ What is ERP?
- ❖ The Current Scenario
- ❖ Why ERP?
- ❖ Definition
- ❖ Evolution
- ❖ Expectations
- ❖ BPR & ERP
- ❖ BPR – The Steps

What is ERP?

Enterprise Resource Planning

ERP is a solution, which

- facilitates company-wide integrated information systems, covering all functional areas

- performs core Corporate activities and increases customer service augmenting Corporate Image

The Current Scenario

Enterprise Resource Planning

- Islands of Information
- Difficult to get timely & accurate information
- Heterogeneous Hardware & Software platforms & practices
- Poor connectivity between different organizational locations
- Sticking with obsolete technology
- Resist to change
- Lack of proven man-power to develop integrated software

Information Islands

B

Why ERP?

Enterprise Resource Planning

- ◆ For Management **–** to know what is happening in the company
- ◆ One solution for better Management
- ◆ For cycle time reduction
- ◆ To achieve cost control & low working capital
- ◆ To marry latest technologies
- ◆ To shun the geographical gaps
- ◆ To satisfy the customers with high expectations
- ◆ To be Competitive & for survival

ERP - Definition

Enterprise Resource Planning

"Software solution that addresses the Enterprise needs, taking a process view of the overall organization to meet the goals, by tightly integrating all functions and **under a common software platform"**

Evolution of ERP

Enterprise Resource Planning

- ▶ **1960's** - Systems Just for Inventory Control

- ▶ **1970's** - MRP – Material Requirement Planning (Inventory with material planning & procurement)

- ▶ **1980's** - MRP II – Manufacturing Resources Planning (Extended MRP to shop floor & distribution Mgnt.)

- ▶ **Mid 1990's** - ERP – Enterprise Resource Planning (Covering all the activities of an Enterprise)

- ▶ 2000 onwards – ERP II – Collaborative Commerce (Extending ERP to external business entities)

ERP – Expectations

Enterprise Resource Planning

- Integrating all the functions

- Integrating the systems running in all the locations

- Transparency of information using a single data source across the organization

- Software must be responsive
  - Modular
  - Flexible
  - Easy to add functionalities
  - Provide growth path

BPR & ERP

Business Process Re-engineering

Just automating the existing business practices will not help ERP to achieve the anticipated results because, OO + NT = EOO

Business Process Re-engineering [BPR] brings out the deficiencies of the existing setup

BPR and ERP will give way to implement new systems and the long pending improvements in the existing systems

BPR may be time consuming but the scope can be restricted & controlled by the Management

BPR - Steps

Step 1	Step 2	Step 3
Understand	Simplify/Improve	Automate
Understand the existing systems associated with all the functionalities	Draft & frame the possibilities & ways to simplify or Improve or eliminate the processes	Implement with the help of ERP

ERP – Options

OPTION 1 – MAKE [Using Internal resources]

Developing a custom-built ERP package, specific to the requirements of the organization, with the help of the in-house IT department

OPTION 2 - BUY

Going for Tailor-made ERP packages available in the market like SAP, Oracle applications, Baan, PeopleSoft etc.

OPTION 3 – MAKE [using External resources]

Developing a custom-built ERP package, specific to the requirements of the organization, with the help of a software solution provider

Building ERP solutions using Internal Sources

ERP – Building using Internal resources – The Facts

‣ Lack of adequate & qualified manpower
‣ Not driven with clear focus on expectations, time & cost
‣ Poor software project management
‣ Lack of seriousness with the Management & the IT Team
‣ High employee turnover
‣ Lot of schedule gaps during Project execution
‣ Normally project life is more
‣ Frequent change in the scope with the approval of the Management

Tailor-made

ERP

Solutions

Tailor-made ERP solutions

Tailor-made ERP solutions

- ❖ About this option
- ❖ Execution Phases
- ❖ ERP product selection phase
- ❖ Product selection - Parameters
- ❖ Preparation Phase
- ❖ ERP product acceptance - Options
- ❖ Gap Analysis
- ❖ Production Phase
- ❖ Implementation Phase
- ❖ Post-Implementation Phase
- ❖ Pitfalls & Points of Concern
- ❖ Critical Success factors

About

Tailor-made ERP solutions

- Generalized off the shelf application s/w packages
- Modules based on rich functionalities for all business functions
- User tested with lot of installations
- No lead time requirement for software development
- Tuned for more users/networks with adequate & in-built security
- Parameterized for flexibility
- Can sit on latest hardware & software platforms
- Upgradation of functionalities with version control

Execution phases

Tailor-made ERP solutions

- ❖ ERP product selection
- ❖ Preparations
- ❖ Production
- ❖ Implementation
- ❖ Post-Implementation

ERP Product selection Phase

Tailor-made ERP solutions

- ➢ ERP Team formation for selection
- ➢ Appointment of Consultants [if needed]
- ➢ Scoping study
- ➢ Product selection
- ➢ Implementation partners selection
- ➢ Hardware/Communication cost estimation

Product Selection - Parameters

Tailor-made ERP solutions

- ✓ Reputation of the ERP product
- ✓ No.of installations in the geographical vicinity
- ✓ % of the overall functional availability
- ✓ Customization possibilities
- ✓ After sales support
- ✓ Your investment plan & budget
- ✓ **Implementation partner's track record**

ERP Product selection Criteria

Goal:
To select the
Most Suitable Software
Package Solution

5 Strategic
Requirement
Levels
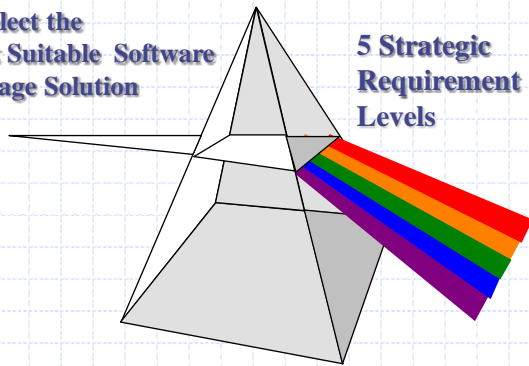
Functionality

Technology

Vendor

Support

Costs

Preparation Phase

Tailor-made ERP solutions

- ➢ Framing ERP Implementation Strategies
- ➢ Formation of Apex & Steering committees
- ➢ Functional & IT team formation
- ➢ Training on ERP functions & features
- ➢ Scope finalization
- ➢ GAP analysis
- ➢ Action plan to resolve the gaps

ERP product acceptance - options

Tailor-made ERP solutions

1. Adapting directly, all the functions available in the ERP Product [Applicable for startup companies]

2. Change the way the firm does the business to fit the product [Compromising]

3. Customize the ERP product to suit the business Processes. [Customization]

GAP Analysis

Tailor-made ERP solutions

This is the process to identity the gaps by mapping the expectations of the company with the capabilities of the ERP product

Results of Gap Analysis

- Directly Supported
- Workaround suggested
- Extension required
- Change in business process – suggested
- Not full supported
- Manual – not under the scope of ERP

Production Phase

Tailor-made ERP solutions

➢ Installing the software & hardware

➢ Tuning the software to meet the customization needs

➢ Master & Control data arrival as per the Product data structures

➢ Location & people specific roles & rights allocation for module access & security

Implementation Phase

Tailor-made ERP solutions

➢ Conference Room Pilot [Parallel run]

➢ Resolving the Parallel run issues

➢ Training the end users

➢ Live run

Post-Implementation Phase

Tailor-made ERP solutions

- ➢ Regular monitoring
- ➢ Tuning [hardware/software] for patching the performance issues
- ➢ Maintenance

Pitfalls & Points of concern

Tailor-made ERP solutions

- ☹ Costly comparing to custom-built options
- ☹ Lot of hidden costs
- ☹ Chances of cost & time overrun are high
- ☹ The Level of customization/Indianization
- ☹ Compulsion to pay for redundant modules/features
- ☹ Vigorous involvement of all during implementation
- ☹ Non-availability of special practices like Customer Complaint, Logistics
- ☹ Linking historical data – offline & painful
- ☹ The requirement of Change Management is a must
- ☹ Dependency on outsiders is high
- ☹ IT department – Poor grip on the Implemented systems

Critical Success Factors

- ✓ The firm & optimistic approach of the Management
  - on adapting the ERP product driven methodologies
  - on customization
  - on monetary commitments
- ✓ The dedicated Team
- ✓ Good Training
- ✓ Strict adherence to the Project schedules
- ✓ Right technical infra-structure
- ✓ Change Management

Custom-built

ERP

Solutions

using external resources

Building ERP using Ext.sources

❖ About this option

❖ The Principle!

❖ The Steps

❖ Why?

❖ Points of Concern

❖ Software Vendor selection

❖ Critical Success factors

About

Custom-Built ERP solutions

Here the whole package is designed & built

✔ by keeping a specific enterprise & its business Practices in mind

✔ by incorporating the improvements/additions

✔ with due integration

✔ without compromising or changing the current way of doing the business   and

✔ providing flexibility to accommodate your business fluctuations

The Principle!

Custom-Built ERP solutions

The best as seen elsewhere, need not be the
the best for you.

What is your best is what
can be successfully implemented

The Steps

Custom-Built ERP solutions

1. Software vendor selection
2. Detailed study by the vendor
3. Scope & platform finalization
4. Freezing the commercials
5. Development
6. Hardware addition/upgradation
7. Old master/transaction data migration
8. Parallel run with Integration & connectivity check
9. Implementation
10. Maintenance

Why?

Custom-Built ERP solutions

- ☺ Very economical while comparing the cost of implementing tailor-made ERP solutions
- ☺ Less prone for hidden-cost hits
- ☺ The company can opt for its choice of Hardware, Software & communication platforms based on the skill availability
- ☺ The company and the software vendor have the direct relationship during the project execution. The proximity would be high & convenient.
- ☺ IT department has good control over the Project
- ☺ What is required only would be considered under the scope – No redundancy

Why? - Cont.

- ☺ The requisite flavor of E-Biz & work-flow components can be embraced towards value edition
- ☺ The existing practices & applications can be tuned and linked with the proposed package
- ☺ Maintenance & improvements are easy & less costlier. Even IT team can maintain the setup after getting the source code

Points of Concern

- Software development vendor selection

- Requirement/scope finalization [high chances of retaining the islands as it is]

- Less chances of Value addition

- Not time tested

- Chances of Prolonged project duration

Software Vendor Selection

The following traits should be considered while selecting the software vendor for building the ERP application

- Technical expertise

- Domain knowledge

- Adequate manpower

- Project management skills

- Long existence in the field

- Extra skills [e-biz & workflow]

The Critical Success Factors

- Clear Vision & support of the Management
- Capabilities of the software development vendor
- Scope & Expectations finalization towards meeting the ERP concepts
- Strict implementation schedules & periodical monitoring
- The involvement of the IT & functional teams

Beyond ERP
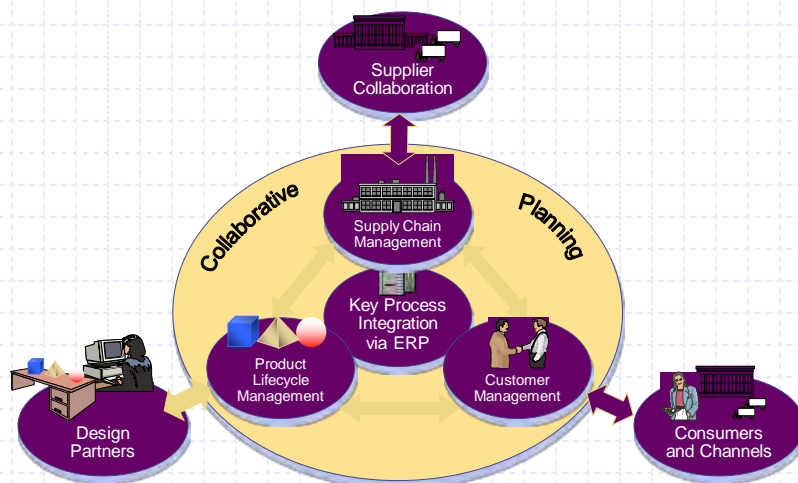
What is your Choice ?

Open Session

Thanks for your Participation & Co-operation