

**7.1.1      ERP- DEFINITION**

An Enterprise resource planning system is a fully integrated business management system covering functional areas of an enterprise like Logistics, Production, Finance, Accounting and Human Resources. It organizes and integrates operation processes and information flows to make optimum use of resources such as men, material, money and machine.

Enterprise resource planning promises

- one database,
- one application,
- one user interface

for the entire enterprise, where once disparate systems ruled manufacturing, distribution, finance and sales.

**7.1.2      Evolution of ERP:**

In the ever-growing business environment, the following demands are placed on the industry:

- Aggressive cost control initiatives
- Need to analyse costs/revenues on a product or customer basis
- Flexibility to respond to changing business requirements
- More informed management decision making
- Changes in ways of doing business.

One or more applications and planning systems have been introduced into the business world for crossing some of hurdles and achieving growth. They are:

- Management Information Systems (MIS)
- Integrated Information Systems (IIS)
- Executive Information Systems (EIS)
- Corporate Information Systems (CIS)
- Enterprise Wide Systems (EWS)
- Material Resource Planning (MRP)
- Manufacturing Resource Planning (MRP II)
- Money Resource Planning (MRP III)

ERP has evolved from the system known as MRPII (Manufacturing Requirement planning) system with the integration of information between Vendor, Customer and Manufacturer using networks such as LAN, WAN and INTERNET etc.

MRPII system again evolved from MRP (Material Requirement Planning) system. MRP is a technique that explodes the end product demands obtained from Master Production Schedule (MPS) for the given product structure which is taken from Bill of Material (BOM) into a schedule of planned orders considering the inventory in hand.

MRPII has a number of drawbacks.

- The main problem is that it has not been able to effectively integrate the different functional areas to share the resources effectively.
- The traditional application systems, which the organizations generally employ, treat each transaction separately
- They are built around the strong boundaries of specific functions that a specific application is meant to cater.

For an ERP, it stops treating these transactions separately as stand-alone activities and considers them to be the part of the inter-linked processes that make up the business.

**Enabling Technologies :**

- It is not possible to think of an ERP system without sophisticated information technology infrastructure.
- It is said that, the earlier ERP systems were built only to work with huge mainframe computers.
- The new era of PC, advent of client server technology and scalable Relational Database Management Systems (RDBMS)
- Most of the ERP systems exploit the power of Three Tier Client Server Architecture.
- The other important enabling technologies for ERP systems are Workflow, Work group, Group Ware, Electronic Data Interchange (EDI), Internet, Intranet, Data warehousing, etc.

### 7.1.3 ERP Characteristics :

Any system has to possess few key characteristics to qualify for a true ERP solution.

These features are:

1. **Flexibility : An ERP system should be flexible to respond to the changing needs of an** enterprise. The client server technology enables ERP to run across various database back ends through Open Database Connectivity (ODBC).
2. **Modular & Open :** ERP system has to have open system architecture. This means that any module can be interfaced or detached whenever required without affecting the other modules.  
It should support multiple hardware platforms for the companies having heterogeneous collection of systems. It must support some third party add-ons also.
3. **Comprehensive : It should be able to support variety of organizational functions and must be** suitable for a wide range of business organizations.
4. **Beyond The Company : It should not be confined to the organizational boundaries, rather** support the on-line connectivity to the other business entities of the organization.
5. **Best Business Practices : It must have a collection of the best business processes** applicable worldwide. An ERP package imposes its own logic on a company's strategy, culture and organization.

### 7.1.4 Features of ERP : Some of the major features of ERP and what ERP can do for the business system are :

- ERP provides multi-platform, multi-facility, multi-mode manufacturing, multi-currency, multi-lingual facilities.
- It supports strategic and business planning activities, operational planning and execution activities, creation of Materials and Resources..
- ERP covering all functional areas like manufacturing, selling and distribution, payables, receivables, inventory, accounts, human resources, purchases etc.
- ERP performs core activities and increases customer service, thereby augmenting the corporate image.
- ERP bridges the information gap across organisations.
- ERP provides complete integration of systems not only across departments but also across companies under the same management.

- ERP is the solution for better project management.
- ERP allows automatic introduction of the latest technologies like Electronic Fund Transfer (EFT), Electronic Data Interchange (EDI), Internet, Intranet, Video conferencing, E-Commerce etc.
- ERP eliminates most business problems like material shortages, productivity enhancements, customer service, cash management, inventory problems, quality problems, prompt delivery etc.
- ERP provides intelligent business tools like decision support system, Executive information system, Data mining and easy working systems to enable better decisions.

### **7.1.5 Why Companies Undertake ERP**

1. **Integrate financial information** : As the CEO tries to understand the company's overall performance, he may find many different versions of the truth. ERP creates a single version of the truth that cannot be questioned because everyone is using the same system.
2. **Integrate customer order information** : ERP systems can become the place where the customer order lives from the time a customer service representative receives it until the loading dock ships the merchandise and finance sends an invoice. By having this information in one software system companies can keep track of orders more easily, and coordinate manufacturing, inventory and shipping among many different locations simultaneously.
3. **Standardise and speed up manufacturing processes** : Manufacturing companies -especially those with an appetite for mergers and acquisitions—often find that multiple business units across the company make the same transaction / recording / report using different methods and computer systems. ERP systems come with standard methods for automating some of the steps of a manufacturing process.
4. **Reduce inventory** : ERP helps the manufacturing process flow more smoothly, and it improves visibility of the order fulfilment process inside the company. That can lead to reduced inventories of the materials used to make products (work-in-progress inventory), and it can help users better plan deliveries to customers, reducing the finished good inventory at the warehouses and shipping docks.
5. **Standardise HR information** : Especially in companies with multiple business units, HR may not have a unified, simple method for tracking employees' time and communicating with them about benefits and services. ERP can fix that.

### **7.1.6 Benefits of ERP :**

Following are some of the benefits they achieved by implementing the ERP packages :

- Gives Accounts Payable personnel increased control of invoicing and payment processing and thereby boosting their productivity and eliminating their reliance on computer personnel for these operations.
- Reduce paper documents by providing on-line formats for quickly entering and retrieving information.
- Improves timeliness of information by permitting posting daily instead of monthly.
- Greater accuracy of information with detailed content, better presentation, satisfactory for the auditors.
- Improved cost control.
- Faster response and follow-up on customers.
- More efficient cash collection, say, material reduction in delay in payments by customers.
- Better monitoring and quicker resolution of queries.
- Enables quick response to change in business operations and market conditions.
- Helps to achieve competitive advantage by improving its business process.
- Improves supply-demand linkage with remote locations and branches in different countries.
- Provides a unified customer database usable by all applications.
- Improves International operations by supporting a variety of tax structures, invoicing schemes, multiple currencies, multiple period accounting and languages.
- Improves information access and management throughout the enterprise.
- Provides solution for problems like Y2K and Single Monetary Unit (SMU) or Euro Currency.

### **7.2 BUSINESS PROCESS REENGINEERING (BPR)**

ERP is a result of a modern Enterprise's concept of how the Information System is to be configured to the challenging environments of new business opportunities. However merely putting in place an information system is not enough. Every company that intends to implement ERP has to reengineer its processes in one form or the other. This process is known as Business Process Reengineering (BPR).

**Some Typical processes with descriptions**

<b>Process</b>	<b>Description</b>
<ul style="list-style-type: none"> <li>• Forecasting</li> </ul>	Shows sales, Fund Flows etc over a long period of time say next two years
<ul style="list-style-type: none"> <li>• Fund management</li> </ul>	The necessity of funds and the way to raise these funds.
<ul style="list-style-type: none"> <li>• Price Planning</li> </ul>	<p>Uncertainty and Risk factors to be considered. Simulation with “What if” type analysis</p> <p>Determines the price at which products are offered. Involves application of technology to pricing support such as commercial database services. Also feedback and sensitivity analysis</p>
<ul style="list-style-type: none"> <li>• Budget Allocation</li> </ul>	Using computerised algorithms to estimate desirable mix of funds allocated to various functions.
<ul style="list-style-type: none"> <li>• Material requirement</li> <li>• planning</li> </ul>	Process of making new products from raw materials and include production scheduling, requirement planning. Also activities for monitoring and planning of actual production.
<ul style="list-style-type: none"> <li>• Quality control</li> </ul>	Takes care of activities to ensure that the products are of desired quality.

**What is BPR?**

**BPR is the fundamental rethinking and radical redesign of processes to achieve dramatic improvement, in critical, contemporary measures of performance such as cost, quality, service and speed,”**

- **Dramatic achievement** means to achieve 80% or 90% reduction (in say, delivery time, work in progress or rejection rate) and not just 5%, 10% reduction.
- **Radical redesign** means BPR is reinventing and not enhancing or improving. In a nutshell, a “cleanslate approach” of BPR says that “Whatever you were doing in the past is all wrong”, do not get biased by it or reassemble you new system to redesign it afresh.
- **Fundamental rethinking** means asking the question “why do you do what you do”, thereby eliminating business process altogether if it does not add any value to the customer.

**Business Engineering :**

Business Engineering has come out of merging of two concepts

1. Information Technology
2. Business Process Reengineering.
  - Business Engineering is the rethinking of Business Processes to improve speed, quality and output of materials or services.
  - The main point in business engineering is the efficient redesigning of company's value added chains.
  - Value added chains are a series of connected steps running through a business which when efficiently completed add value to enterprise and customers.
  - Information technology helps to develop business models, which assist in redesigning of business processes.

Business Engineering is the method of development of business processes according to changing requirements.

**Business Management :**

- ERP merges very well with common business management issues like Business Process Reengineering, total quality management, mass customisation, service orientation, and virtual corporation etc.
- The basic objective of implementing an ERP program is to put in place the applications and infrastructure architecture that effectively and completely support the Enterprise's business plan and business processes.
- When an enterprise does not have optimized business processes, the ERP implementation needs a process reengineering which enable to capture knowledge of the experts into the system thus gaining considerable benefits in productivity.
- The first step in implementation of ERP is the development of a Business process model showing business process as one large system and the interconnection and sequence of business subsystems or processes that drive it.

**Business Modelling :**

First of all, a model consisting of core business processes or activities of the business is to be developed.

This is the diagrammatic representation of Business as a large system with interconnection of subsystems or processes that it comprises of.

The Data model consists of two elements.

1. A diagram describing various Business processes and their interactions.
2. An underlying Data Model.

**Business modeling in practice :**

- Most of the ERP packages available today enable flow charting business processes using standard flow chart symbols.
- By connecting symbols used for users, events, tasks/functions, and other organizational information, complex business information can be analysed.
- For example SAP which is a popular ERP package uses event driven process chain (EPC) methodology to model Business Process.
- Business Modeling is the basis by which one can select and implement a suitable ERP package.

**7.3 ERP IMPLEMENTATION**

- The success of an implementation mainly depends on how closely the implementation consultants, users and vendors work together to achieve the overall objectives of the organisation.
- The implementation consultants have to understand the needs of the users, understand the prevailing business realities and design the business solutions keeping in mind It is the users who will be driving the implementation and therefore their all these factors active involvement at all stages of implementation is vital for the overall success of implementation.
- It is worthwhile to remember that ERP is an enabling tool, which makes one do his work better, which naturally need additional efforts.
- During the course of implementation the standard package may undergo changes which may be a simple one or a major 'functionality' change. Implementing such changes is known as Customization.
- The contents of the package are known as modules and the modules are further divided into Components.
- The roles and responsibilities of the employees have to be clearly identified, understood and The employees will have to accept new processes and procedures configured in the system laid down in the ERP system.
- At the same time these processes and procedures have to be simple and user friendly.
- A well managed and implemented ERP package can give a 200 percent return on investment where as a poorly implemented one can yield a return on investment as low as 25 percent.

**Key Planning and Implementation decisions** a number of the key decisions that need to be made when this discussion looks at considering an enterprise integration effort.



### **7.3.1 ERP or Not to ERP?**

The decision to implement an ERP should be based on a business case rational.

- Technology justifications include the need to address the Y2K problem (in most cases, this is no longer applicable), integrate the functions of disparate systems, merge acquisitions with new capabilities such as web accessibility into the business environment.
- Process improvements address actions that result in personal and IT cost reductions.
- Productivity improvements include the need to close the financial cycle and increase the overall production from an enterprise standpoint.
- Strategic considerations to implement new strategies not supported by the current software, improve customer service and satisfaction, respond to competitive responsiveness.

#### **Follow Software's Processes or Customize?**

- This key decision may determine the success or failure of the ERP effort.
- If the organization decides to follow the process of the software, this will result in the organization following Best practices within its sector, thereby giving it a chance to improve and standardize their processes.
- However, this processes approach can create significant turmoil by requiring employees to change their ways of doing business.
- If the organization decides to stick with its current processes and customize the software to fit these processes, the organization obviously will not have to experience the pain and stress
- However, it will be very costly to customize and maintained the software over time.

#### **Inhouse or Outsource?**

##### **Outsourcing**

- IT has the advantage of allowing the organization to continue to focus on its core the mission,
- avoid a relative substantial financial commitment (in some cases) and minimize impact on the MIS department.
- On the downside, providing opportunities to those external to the organization may poorly impact employee morale and may give rise to security issues.

### **In-house**

- implementation include: a better match between the software and the business, applications optimized for the organization and better maintained security.
- However, an in-house approach cannot be accomplished if there is a lack of internal expertise and personnel to support such an effort.

### **“Big Bang” or Phased Implementation?**

- A “big bang” implementation involves having all modules at all locations implemented at the same time. Characteristics of this approach include no need for temporary interfaces, limited requirement to maintain legacy software, cross-module functionality and overall cost if no contingencies arise.
- Phased implementation one or a group at a time, often a single location at a time. Benefits of approach include: a smoothing of resource requirements, an ability to focus on a particular module, availability of existing legacy systems, as fall-back, reduced risk, the knowledge gained with each phase and the usefulness of demonstrable working system.
- *The wave approach* : This approach involves the application of different waves of change to different business units or regions.
- *Parallel implementation* : This approach involves both ERP and an existing system running together for a period of time.
- Instant cutovers (flip-the-switch) : This approach is lower in cost motivates users to convert to the new system and reduces the need for redundant systems, however it tends to be risky, stressful to users and requires a high level of contingency planning.

### **7.3.2 ERP Implementation Methodology**

Several steps are involved in the implementation of a typical ERP package. These are:

#### **1. Identifying the Needs: Some of the basic questions, which are to be answered, are**

- Why should an ERP package be implemented?
- Will it improve profitability?
- Can the delivery times of products be reduced?
- How does it improve customer satisfaction in terms of quality, cost, delivery time and service?
- Will it help to reduce cost of products?
- How can it help to increase business turnover and at the same time reduce manpower?
- Will it be possible to reengineer the business processes?

**2. Evaluating the “AS IS” situation of the business :**

To understand the present situation of the business, the various functions should first be listed.

- Total time taken by the business processes.
- Number of decision points existing in the present scenario.
- Number of Departments/Locations of businesses process.
- The flow of information and its routing.
- The number of reporting points currently available.

**3. ‘Would Be’ situation :**

Deciding the desired ‘Would Be’ situation : The concept of ‘Benchmarking’ is used to see that processes achieved are the best in industry. Benchmarking is done on various factors like cost, quality, service etc. This concept enables to optimise the processes to gain overall benefits.

**4. Reengineering the business process :** Reengineering of business processes is done to

- ☒ Reduce the business process cycle time.
- ☒ To reduce the number of decision points to a minimum.
- ☒ Streamlining the flow of information and eliminating the unwanted flow of information.

**5. Evaluation of various ERP packages:** Evaluation of ERP packages are done based on the following criteria:-

**Flexibility:** It should enable organizations to respond quickly by leveraging changes to their advantage, letting them concentrate on strategically expanding to address new products and markets.

**Comprehensive:** It should be applicable across all sizes, functions and industries. It should have in-depth features in accounting and controlling, production and materials management, quality management and plant maintenance, sales and distribution, human resources management and plant maintenance, sales and distribution, human resources management, and project management.

**Beyond the company:** It should support and enable inter-enterprise business processes with customers, suppliers, banks, government and business partners and create complete logistical chains covering the entire route from supply to delivery, across multiple geographies, currencies and country specific business rules.

**Best business practices :** The software should enable integration of all business operation in an overall system for planning, controlling and monitoring and offer a choice of multiple ready-made business processes including best business practices that reflect the experiences, suggestions and requirements of leading companies across industries. In other words, it should intrinsically have a rich wealth of business and organisational knowledge base.

**New technologies:** It should incorporate cutting-edge and future-proof technologies such as object orientation into product development and ensure inter-operability with the Internet and other emerging technologies. It should be Y2K and Euro compliant, group up.

Other factors to be considered are:

- Global presence of package.
- Local presence.
- Market Targeted by the package.
- Price of the package.
- Obsolescence of package.
- Ease of implementation of package.
- Cost of implementation.
- Post-implementation support availability.

**6. Finalisation of the ERP package :** Finalisation of the ERP package can be done by making a comparison of critical factors through a matrix analysis.

**7. Installation of Hardware and Networks :** This work is carried out in a phased manner depending on the schedule of implementation and need of the hardware components.

**8. Finalising the Implementation Consultants :** The factors of selection for consultants are

- ☐ skill set
- ☐ industry specific experience
- ☐ cost of hiring consultants

**9. Implementation of ERP package**

- ☐ formation of team
- ☐ preparation of plan
- ☐ mapping of business process to package
- ☐ gap analysis
- ☐ customization

- ☒ development of user specific reports and transaction
- ☒ uploading of data from existing system
- ☒ test run
- ☒ user training
- ☒ Parallel run.
- ☒ Concurrence from user
- ☒ Migration to the new system
- ☒ User documentation.
- ☒ Post-implementation support.
- ☒ System monitoring and fine tuning

**Implementation Guidelines For ERP :** There are certain general guidelines, which are to be followed before starting the implementation of an ERP package.

1. Understanding the corporate needs and culture of the organisation and then adopt the implementation technique to match these factors.
2. Doing a business process redesign exercise prior to starting the implementation.
3. Establishing a good communication network across the organisation.
4. Providing a strong and effective leadership so that people down the line are well motivated.
5. Finding an efficient and capable project manager
6. Creating a balanced team of implementation consultants who can work together as a team.
7. Selecting a good implementation methodology with minimum customisation.
8. Training end users.
9. Adapting the new system and mating the required changes in the working environment to make effective use of the system in future.

#### **POST- IMPLEMENTAION**

To start at the beginning, many post implementation problems can be traced to wrong expectations and fears. The expectations and fear that corporate management have from an ERP have been greatly published. Of course, some of the blame for this is on the ERP vendors and their pre-implementation sales hype. A few of the popular expectations are:

- An improvement in processes
- Increased productivity on all fronts.
- Total automation and disbanding of all manual processes.
- Improvement of all key performance indicators.
- Elimination of all manual record keeping.
- Real time information systems available to concerned people on a need basis.
- Total integration of all operations.

ERP implementation also engenders a host of fears. Some of them are:

- Job redundancy.
- Loss of importance as information is no longer an individual prerogative.
- Change in job profile.
- An organizational fear of loss of proper control and authorization.
- Increased stress caused by greater transparency.
- Individual fear of loss of authority.

Balancing the expectations and fears is a very necessary part of the implementation process.

#### 7.4 RISK AND GOVERNANCE ISSUES IN AN ERP

Organizations face several new business risks when they migrate to real-time, integrated ERP systems. Those risks include:

- **Single point of failure** : Since all the organization' data and transaction processing is within one application system and transaction processing is within one application system. Structural changes significant personnel and organizational structures changes associates with reengineering or redesigning business processes.
- **Job role changes** : transition of traditional user's roles to empowered-based roles with much greater access to enterprises information in real time.
- **Online, real-time** : An online real-time system environments requires a continuous business environment capable of utilizing the new capabilities of the ERP application and responding quickly to any problem requiring of re-entry of information.
- **Change management**: It is challenging to embrace a tightly integrated environment when different business processes have existed among business units for so long. The level of user acceptance of the system has a significant influence on its success. Users must understand that their actions or inaction have a direct impact upon other users and, therefore, must learn to be more diligent and efficient in the performance of their day-today duties. Considerable training is therefore required for what is typically a large number of users.

- **Distributed computing experience** : Inexperience with implementing and managing distributed computing technology may pose significant challenges.
- **Broad system access** : Increased remote access by users and outsiders and high integration among application functions allow increased access to application and data.
- **Dependency on external assistance** : Organization accustomed to in-house legacy systems may find they have to rely on external help. Unless such external assistance is properly managed, it could introduce an element of security and resource management risk that may expose the organizations to greater risk.
- **Program interfaces and data conversions** : Extensive interfaces and data conversions from legacy systems and other commercial software are often necessary. The exposures of data integrity, security and capacity requirements for ERP are therefore often much higher.
- **Audit expertise** : Specialist expertise is required to effectively audit and control an ERP environment. The relative complexity of ERP systems has created specialisation such that each specialist may know only a relatively small fraction of the entire ERP's functionality in a particular core module,

More recently, some of the additional risks and good governance issues introduced by the enabled ERP environments concern:

- ☒ **Single sign on** : It reduces the security administration effort associated with administrating web-based access to multiple systems, but simultaneously introduces additional risk in that an incorrect assignment of access may result in inappropriate access to multiple systems.
- ☒ **Data content quality** : As enterprise applications are opened to external suppliers and customers, the need for integrity in enterprise data becomes paramount.
- ☒ **Privacy and confidentiality** : Regularity and governance issues surrounding the increased capture and visibility of personal information, i.e. spending habits.

#### **Why do ERP projects fail so often?**

- If the people in the different departments that will use ERP don't agree that the work methods embedded in the software are better than the ones they currently use, they will resist using the software or will want IT to change the software to match the ways they currently do things. This is where ERP projects break down.

- Political fights erupt over how or even whether the software will be installed. IT gets bogged down in long, expensive customisation efforts to modify the ERP software to fit with powerful business barons' wishes.
- Customisations make the software more unstable and harder to maintain when it finally does come to life. Because ERP covers so much of what a business does, a failure in the software can bring a company to a halt, literally.
- The mistake companies make is assuming that changing people's habits will be easier than customising the software. If people are resistant to change, then the ERP project is more likely to fail.

#### **HOW DOES ERP FIT WITH E-COMMERCE?**

- It assumes that the only people handling order information will be your employees, who are highly trained and comfortable with the tech jargon embedded in the software. But now customers and suppliers are demanding access to the same information your employees get through the ERP system - things such as order status, inventory levels and invoice reconciliation, except they want to get all this information simply, without all the ERP software jargon, through your website.
- E-commerce means IT departments need to build two new channels of access into ERP systems,
  - one for customers (otherwise known as business-to-consumer)
  - one for suppliers and partners (business-to-business).

These two audiences want two different types of information from your ERP system.

#### **LIFE AFTER IMPLEMENTATION**

- Change integration has to be necessarily embedded in the task list for any ERP implementation. The main tool for this is the process of communication in all forms-written, oral, workshops, meetings, etc.
- Also, at the start of the project, the critical success factors (CSFs) for the company as a whole should be listed.
- These should be drilled down to CSFs for respective functionalities or departments.
- From these CSFs, performance measures required to address these CSFs should be culled out.
- The numeric figures against these performance measures can be classified as the Key performance Indicators (KPIs). The process of firming up the above is usually done through workshops.
- The KPIs derived from the organizational goals & CSFs should be kept in mind too.
- Having evolved the processes while the configuration, construction and implementation are in progress, the organization needs to ready itself for the post-implementation period.



Some of the tasks that are to be performed are:

- ☒ Develop the new job descriptions and organization structure to suit the post ERP scenario.
- ☒ Determine the skill gap between existing jobs and envisioned jobs.
- ☒ Assess training requirements, and create and implement a training plan.
- ☒ Develop and amend HR, financial and operational policies to suit the future ERP environment
- ☒ Develop a plan for workforce logistics adjustment.

**Post-implementation blues :**

The major task is to monitor the KPIs and take the correct business decisions to improve them.

Certain KPIs, though existing in the system, are better monitored and controlled after the ERP system attains maturity.

Even with all the preparations during the implementation, during post-implementation there will be need for course correction many times. It may be because of the following reasons :

- ☒ A change in the business environment requires a change in the CSFs, resulting in a new or changed set of KPIs necessitating reconfiguration.
- ☒ A review indicates a need for change in some process.
- ☒ Vision changes in the ERP and improvements in hardware and communication technology necessitate changes.
- ☒ New additions to the business require extra functionality.

<p><b>ERP:</b></p> <ul style="list-style-type: none"> <li>• An ERP system is a fully integrated business management system – covering functional areas of an enterprise</li> <li>• It organizes and integrates – operation processes and information flows, to make optimum use of resources such as men, material, money and machine</li> <li>• ERP aims at one database, one application, and one user interface for the entire enterprise.</li> </ul>	<p><b>ERP CHARACTERISTICS: (Mein hoon Characteristics of erp, Promise karta hoon, Beyond the company jhake, Flexible ho kar, New Technology launga)</b></p> <ul style="list-style-type: none"> <li>• <u>M</u>odular &amp; Open</li> <li>• <u>C</u>omprehensive</li> <li>• Best Business <u>P</u>ractices</li> <li>• <u>B</u>eyond The Company</li> <li>• <u>F</u>lexibility</li> <li>• <u>N</u>ew Technologies</li> </ul>	<p><b>FEATURES OF ERP:</b></p> <ul style="list-style-type: none"> <li>• ERP provides multi-functions</li> <li>• Functions are effectively integrated and information is immediately updated upon entry of any information.</li> <li>• Has end to end Supply Chain Management</li> <li>• ERP facilitates company-wide Integrated Information System covering all functional areas</li> <li>• ERP performs core activities and increases customer service, thereby augmenting the corporate image.</li> <li>• ERP bridges the information gap across organisations.</li> <li>• ERP provides complete integration of systems not only across departments but also across companies under the same management.</li> <li>• ERP is the solution for better project management.</li> <li>• ERP allows automatic introduction of the latest technologies</li> <li>• ERP eliminates most business problems</li> <li>• ERP provides intelligent business tools</li> </ul>
<p><b>WHY COMPANIES UNDERTAKE ERP: (My House Is Completely Furnished)</b></p> <ul style="list-style-type: none"> <li>• Standardise and speed up <u>M</u>anufacturing processes</li> <li>• Standardise <u>H</u>R information</li> <li>• Reduce <u>I</u>nventory</li> <li>• Integrate <u>C</u>ustomer order information</li> <li>• Integrate <u>F</u>inancial Information</li> </ul>	<p><b>BENEFITS OF ERP</b></p> <ul style="list-style-type: none"> <li>• Increased control of invoicing and payment processing</li> <li>• Reduce paper documents</li> <li>• Improves timeliness of information</li> <li>• Greater accuracy of information</li> <li>• Faster response and follow-up on customers</li> <li>• More efficient cash collection</li> <li>• Better monitoring and quicker resolution of queries</li> <li>• Helps to achieve competitive advantage by improving its business process</li> <li>• Provides a unified customer database usable by all applications</li> </ul>	

<p><b>BUSINESS PROCESS REENGINEERING (BPR):</b>                  Fundamental rethinking [Eliminating processes not adding value to customers – “Why do you do what you do”]                  &amp;                  Radical redesign [Reinventing and not enhancing or improving – “Whatever was being done in past, it was all wrong”- Do not get biased by it.]                  =                  Of processes to achieve dramatic improvement in critical, contemporary measure of performance such as cost, quality, etc. [Major transformation (80 – 90% growth story)]</p>	<p><b>BUSINESS ENGINEERING:</b> Business Engineering = Business Process                  Reengineering + Information Technology</p>	<p><b>KEY PLANNING AND IMPLEMENTATION DECISIONS:</b></p> <ul style="list-style-type: none"> <li>• ERP or Not to ERP?</li> <li>• Follow Software’s Processes or Customize?</li> <li>• In-house or Outsource?</li> <li>• “Big Bang”or Phased Implementation?</li> </ul>
<p><b>ERP IMPLEMENTATION METHODOLOGY:</b></p> <ul style="list-style-type: none"> <li>• Identifying the needs</li> <li>• Evaluating the ‘As Is’ situation</li> <li>• Deciding the ‘Would be’ situation</li> <li>• Reengineering the Business Process</li> <li>• Evaluating the various available ERP</li> <li>• Finalizing of the most suitable ERP</li> <li>• Installing the required hardware</li> <li>• Finalizing the implementation consultants</li> <li>• Implementation</li> </ul>	<p><b>IMPLEMENTTION GUIDELINES FOR ERP:</b></p> <ul style="list-style-type: none"> <li>• Understanding the corporate needs and culture of the organisation</li> <li>• Doing a business process redesign exercise prior to starting the implementation</li> <li>• Establishing a good communication network across the organisation</li> <li>• Providing a strong and effective leadership</li> <li>• Finding an efficient and capable project manager</li> <li>• Creating a balanced team of implementation consultants</li> <li>• Selecting a good implementation methodology with minimum customisation</li> <li>• Training end users</li> </ul> <p>Adapting the new system and making the required changes in the working environment to make effective use of the system in future</p>	

<p><b>POST-IMPLEMENTATION: Popular expectations are:</b></p> <ul style="list-style-type: none"> <li>• An improvement in processes</li> <li>• Increased productivity on all fronts</li> <li>• Total automation and disbanding of all manual processes</li> <li>• Improvement of all key performance indicators</li> <li>• Elimination of all manual record keeping</li> <li>• Real time information system available to concerned people on a need basis</li> <li>• Total integration of all operations</li> </ul>	<p><b>Some of the fears on ERP implementations are:</b></p> <ul style="list-style-type: none"> <li>• Job redundancy.</li> <li>• Loss of importance as information is no longer an individual prerogative.</li> <li>• Change in job profile:</li> <li>• An organisational fear of loss of proper control and authorisation.</li> <li>• Increased stress caused by greater transparency.</li> <li>• Individual fear of loss of authority.</li> </ul>	<p><b>The ground realities are:</b></p> <ul style="list-style-type: none"> <li>• Changing the organisation involves three levels-strategies, business process and change, and consequential organisation change.</li> <li>• Measuring key performance indicators brings in new culture.</li> <li>• The genetic nature of the ERP packages is such that there would be processes peculiar to some sectors and organisations, which may have to be kept out of the process.</li> <li>• Some of the processes are better done manually.</li> </ul>
<p><b>RISK AND GOVERNANCE ISSUES IN ERP: (She Bought a Crate of SODA, ID &amp; DSP)</b></p> <ul style="list-style-type: none"> <li>• <u>S</u>ingle point of failure</li> <li>• <u>B</u>road system access</li> <li>• <u>C</u>hange management</li> <li>• <u>S</u>tructural changes</li> <li>• <u>O</u>nline, real-time</li> <li>• <u>D</u>istributed computing experience</li> <li>• <u>A</u>udit expertise</li> <li>• <u>J</u>ob role changes</li> <li>• <u>D</u>ependency on external assistance</li> <li>• <u>P</u>rogram interfaces and <u>D</u>ata conversions</li> <li>• <u>D</u>ata content quality</li> <li>• <u>S</u>ingle sign on</li> <li>• <u>P</u>rivacy and confidentiality</li> </ul>		<p><b>SAMPLE LIST OF ERP VENDORS:</b></p> <ul style="list-style-type: none"> <li>• Baan (The Baan Company)</li> <li>• Oracle Applications (Oracle)</li> <li>• Prism (Marcam Corporation)</li> <li>• R/3 (SAP)</li> <li>• System 21 (JBA)</li> </ul>

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