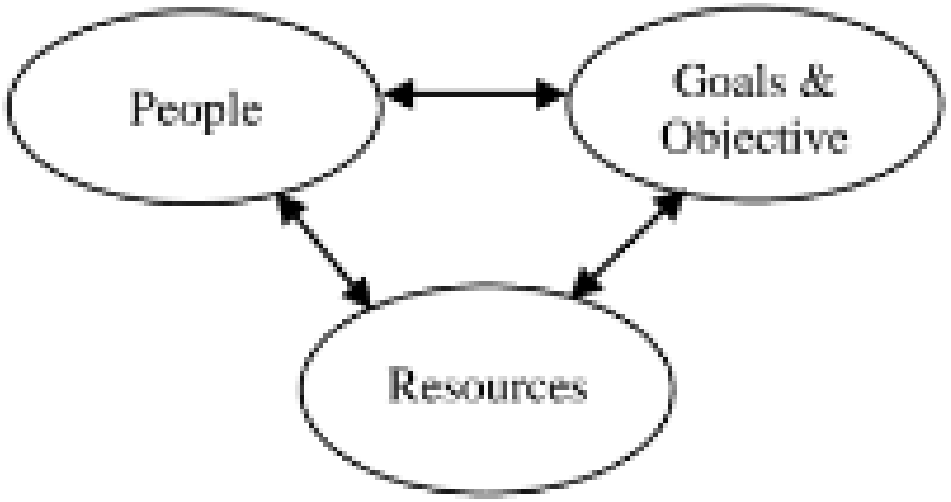
ENTERPRISE

ENTERPRISE - Overview

- It is a group of people with a common goal, which has certain resources at its disposal to achieve this goal.

- The group has some key functions to perform to achieve the goal



an organization, especially a business

Walmart, Exxon, Apple, Amazon

ENTERPRISE – Overview …Cont'd ….

- Entire organization is considered as a system and all the department are its subsystems.
- All information is stored centrally and available to all departments.
- Enterprise refers to a for-profit business started and run by an entrepreneur .
- A system that is, formed by enterprise is called enterprise system.
- Enterprise system(ES) is an ideology of planning and managing the resources of an entire organization in an efficient, productive and profitable manner.,
- Enterprise systems are Large-Scale, Integrated application-software packages that use the computational, data storage and data transmission power of modern Information technology to support processes, information flow, reporting.

ENTERPRISE – Overview …Cont'd ….

- Enterprise systems are ***packaged enterprise application software*** (PEAS) System.

- Information systems which facilitate the ***integrations of information across various departments*** on a company's wide basis are termed as " Enterprise-Wide Information Systems" or " Enterprise Systems".

ENTERPRISE – Overview …Cont'd ….

- Existing Information Systems are **not compatible** other integrated system.
- New model : Enterprise-Wide Information System (EWIS)

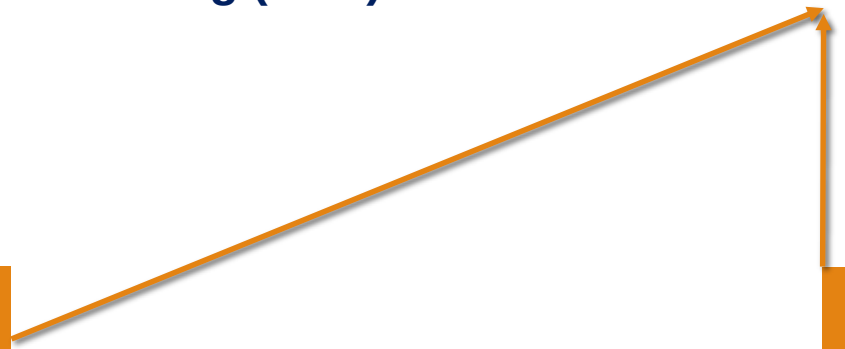
- EWIS includes,

Supply Chain Management

Knowledge Management System

Enterprise Resource Planning (ERP)

Supported by Information System



Internal Activities

Manufacturing

Order processing

Human resource management

Different platforms are used to build these system Mainframe/minicomputer

External Interactions

Involving suppliers

Customers

Business partners

ENTERPRISE – Overview …Cont'd ….

- Central repository or data bases is facilitated by the enterprise system (common to all users)

- Globalization of customer and supplier networks is promoted by the Internet and Web and different methods

- The various needs of new business are,

✓ Higher level of customer services with rapid

✓ efficient product development process

✓ functional areas are supported by internally focused system,

✓ value is added in the form of work performed by employees.

ENTERPRISE – Overview …Cont'd ….

Example of an enterprise system's information flow,

Step 1: An order entry application stores the information of order

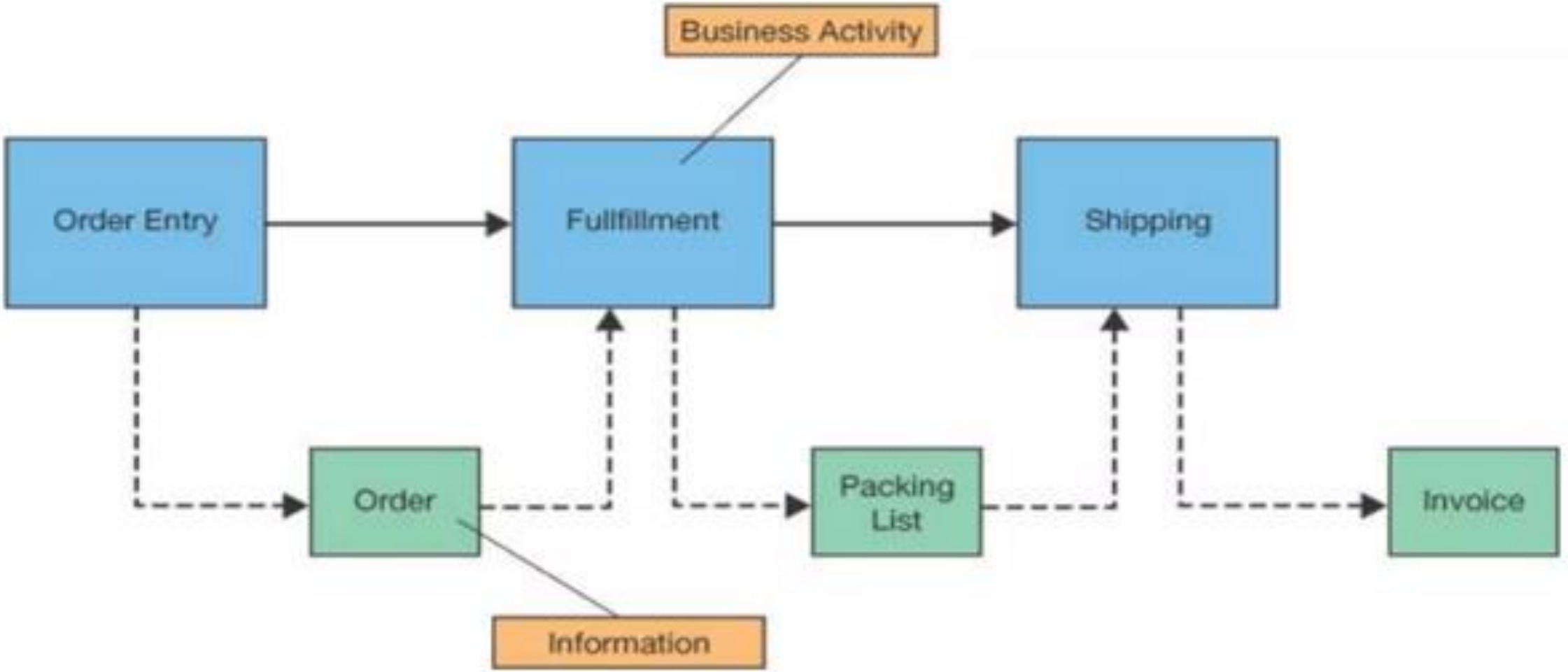
Step 2: Fulfilment department receives the order information

Step 3: Item is picked up from inventory- gets packed –packing list is produced

Step 4: Shipping department receives the package with packing list

Step 5: Shipment is arranged –invoice is produced – packet and invoice are dispatched to customer.

Example of an enterprise system's information flow,



Characteristics of ENTERPRISE

- Large scale or enterprise wide systems
- Integrated system with central data base
- Packaged systems with all functionalities
- Support processes and coordinate work
- Have impact of work of several people
- Require annual maintenance
- Shape the enterprise and its working
- Record event/document in shared data base
- Supports reporting, decision making
- Can be customized as per the needs
- Internal Control can be facilitated
- Require training on frequent basis

ROLE OF ENTERPRISE

Identification	Identify consulting firm, qualified professionals, proven methodology, excellent references
Facilitator	locally trained professionals who provide free and confidential support to entrepreneurs
Learning software packages	To learn and assimilate information about software – to achieve independence
Choosing Right people	To select right people to lead the project. People should be high up in the corporate ladder- dedicate
Selection	To select the package and people- all ingredients are present
Integration	Integration of various components
Additional Responsibilities	All users who supposed to participate – available at necessary times- reallocating responsibilities.

TYPES OF ENTERPRISE SYSTEM

- Management software – collect, store, manage data from planning, cost and development, manufacturing, delivery, marketing, sales

Enterprise Resource Planning (ERP)

- Planning method for internal and external factors. Taken into account that all factors –impact the enterprise.

Enterprise Planning System (EPS)

- Manages the customers of an organization./Both current& prospective customers- organize, automate and synchronize sales, marketing and all customer related activities.

Customer Relationship Management (CRM)

ENTERPRISE RESOURCE PLANNING

ENTERPRISE RESOURCE PLANNING

- What is ERP?
- Features of ERP
- Functions of ERP
- ERP Structure
- Elements of ERP
- Advantages of ERP
- Disadvantages of ERP
- Applications of ERP

What is ERP?

An ERP system is an attempt to integrate all functions across a company to a single computer system that can serve all those functions' specific needs.

"Integration" is the key word for ERP implementation.

What is ERP?

- It may also integrate key customers and suppliers as part of the enterprise's operation.
- It provides integrated database and custom-designed report systems.
- It adopts a set of "best practices" for carrying out all business processes.

Major Reasons for Adopting ERP

- Integrate financial information
- Integrate customer order information
- Standardize and speed up operations processes
- Reduce inventory
- Standardize Human Resources information

Potential Benefits of ERP

Internal Benefits

- Integration of a single source of data
- Common data definition
- A real-time system
- Increased productivity
- Reduced operating costs
- Improved internal communication
- Foundation for future improvement

External Benefits

- Improved customer service and order fulfillment
- Improved communication with suppliers and customers
- Enhanced competitive position
- Increased sales and profits

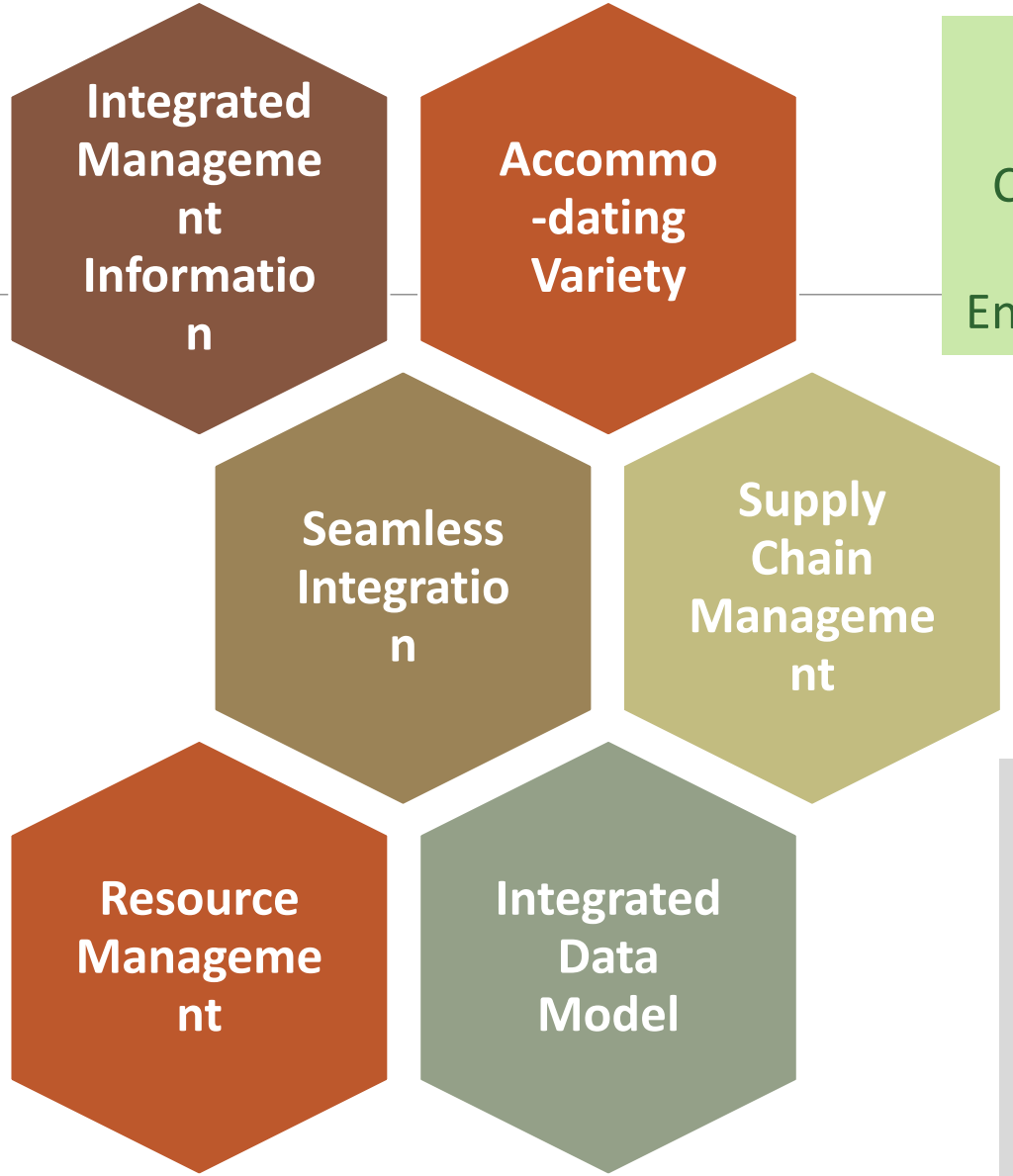
ERP System

Example,

a finance manager can use the ERP system to know the status of the shipment of the sales order (from warehouse) to plan working capital management for upcoming time.

FEATURES OF ERP

Accommodating Variety
Support multiple currencies, languages
Multi facility and multi-mode manufacturing



Seamless Integration
Introduction of new product Changes in the existing product are fully integrated. – called Engineering Change Management

Integrated Data Model
Creation of IDM is heart of ERP.
Integrate the data associated with entire ERP system.
Provide data to customers, suppliers and employees

Supply Chain Management
Multiple distribution networks and manufacturing units, Intelligent Resource Planning (IRP) is used to optimize the flow of demand and supply data.

FEATURES OF ERP Cont'd

Integrated Management Information

- No need to Depend on IS Department
- ERP Supports electronic data Interchange(EDI)
- ERP is able to display specification/drawings
- ERP stores information regarding controlling, monitoring of machines, attendance

Resource Management

- Online record- status, location of equipment
- Maintenance and operating cost is monitored
- Training/career planning
- Performance review
- Applicant tracking
- Job descriptions and evaluations

FUNCTIONS OF ERP

Finance Management

Client database

Financial analytics

Accounting system

Payment systems

Main task is to acquire adequate funds and utilize it according to the interest of one or all

Other Functions

Consolidation of company and books

Payable, receivable, and banks

Fixed asset management

Statutory and GST compliance

Financial managerial and tax accounting

Real-time accounting

FUNCTIONS OF ERP Cont'd

Manufacturing and Production Management

Manufacturing ERP delivers manufacturing-specific functionalities that streamline and automate core business and manufacturing processes.

- **Minimizing redundancy and automating processes to increase efficiency**
- **Optimizing manufacturing operations for enhanced productivity**
- **Improving supply chain, warehouse, transportation, and inventory management**
- **Equipment performance tracking**
- **Quality assurance**
- **With ERP, purchasing and requisition can be easily organized**
- **Manufacturing ERP software facilitates effective maintenance by centralizing scheduling**

FUNCTIONS OF ERP Cont'd

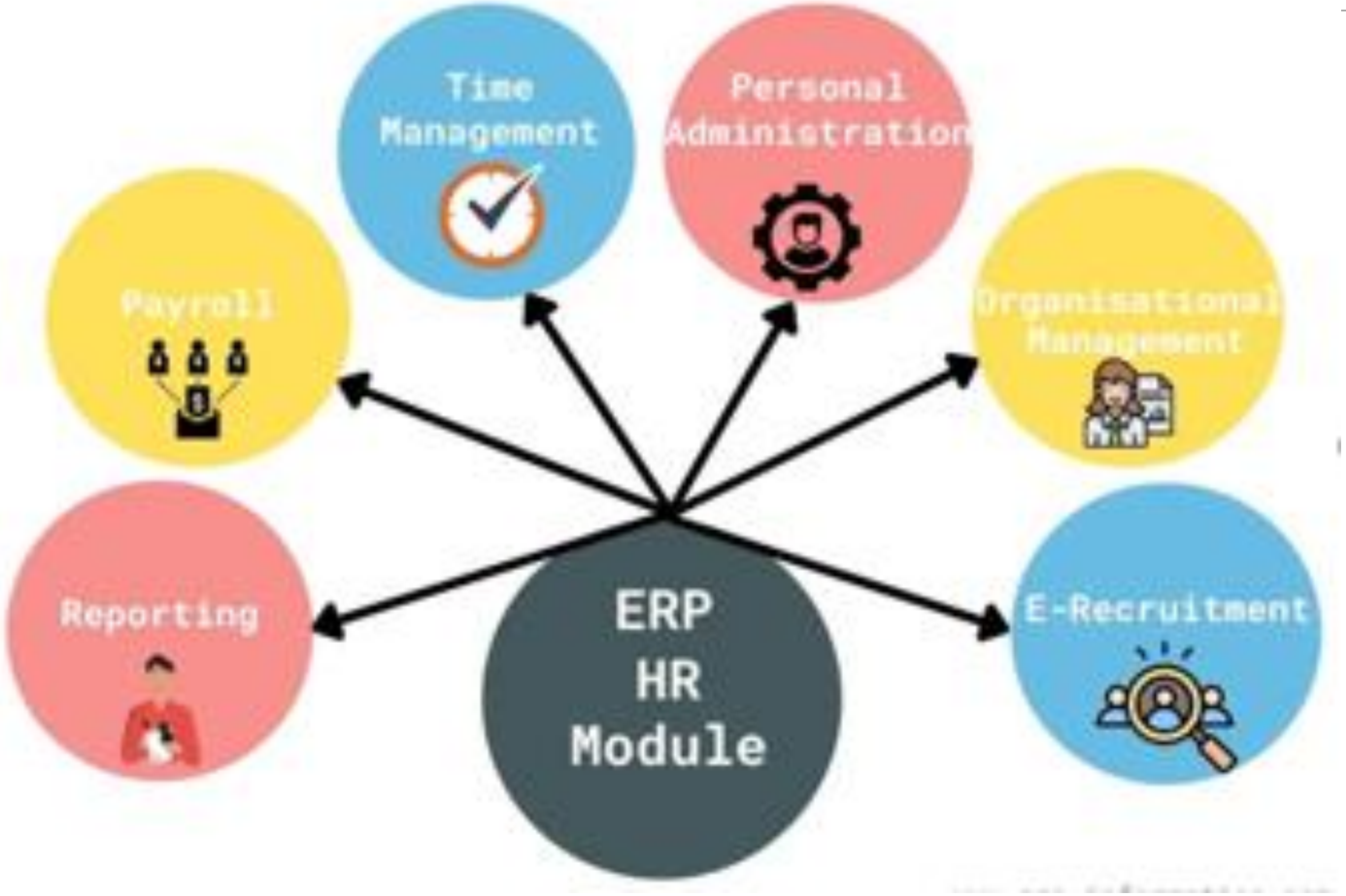
Sales and Distribution

- Hiring and onboarding sales executives
- Training new methods and sales techniques
- Motivating and mentoring the sales team
- Placing purchase order -Reduced Order Times
- Deliver product properly
- Maintain records regarding the orders, customers, and suppliers
- Generating professional quotations is simple with the customized ERP tool
- Check if the products/services delivered properly

- Reduced Data Entry
- Reduced Order Times
- Better Warehouse Management
- Delivery Scheduling

FUNCTIONS OF ERP Cont'd

Human Resources Management



- Reduces manpower in HR team
- Speed up various processes
- Forecasting requirements
- Appraising employees
- training

Plant Maintenance

- Provides an integrated solution for supporting the operational needs of an enterprise-wide system.
- All maintenance tasks such as inspection, servicing and repair activities are saved in a historical database
- Plant Maintenance in ERP provides you with technical and business reports and various presentation options, according to the criteria used

The major sub-systems of ERP

Plant Maintenance module are:

- Breakdown Repair Log
- Equipment Master Register
- Machine Breakdown Log
- Maintenance Type1
- Man Power for Machine Details
- Preventive Maintenance Record
- Spare Part Installation Log

FUNCTIONS OF ERP Cont'd

Material Management

- To monitor and manage the inventory properly
- Customers/Suppliers datails
- Integration between Material Management System and other sub-modules.
- Inspection, Certifications, Quality Management, Tracked Digitally

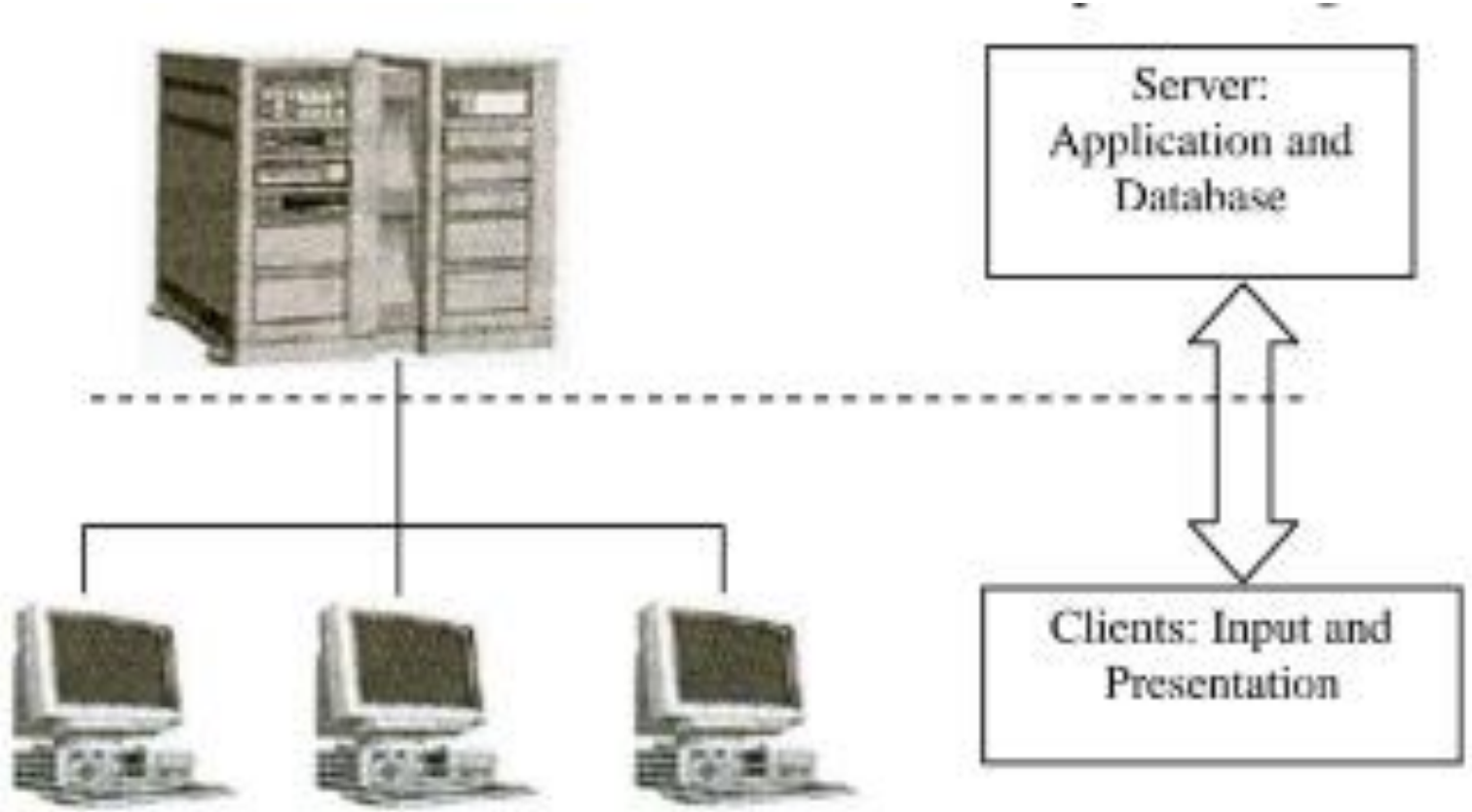
Purchasing and procurement cycle in MM ERP

Quality Management

- ISO 9000 Series and other standards define functions and elements in Quality Management
- Quality management practices Propagate through all process.
- Determining task priorities.
- Product development to procurements.
- Quality Planning / Quality Inspection /Quality certificates/Quality control/ Quality Notification

ERP STRUCTURE

Two-tier Architecture



Two-tier Architecture

- Two different ERP systems for different business units within a corporate organization.

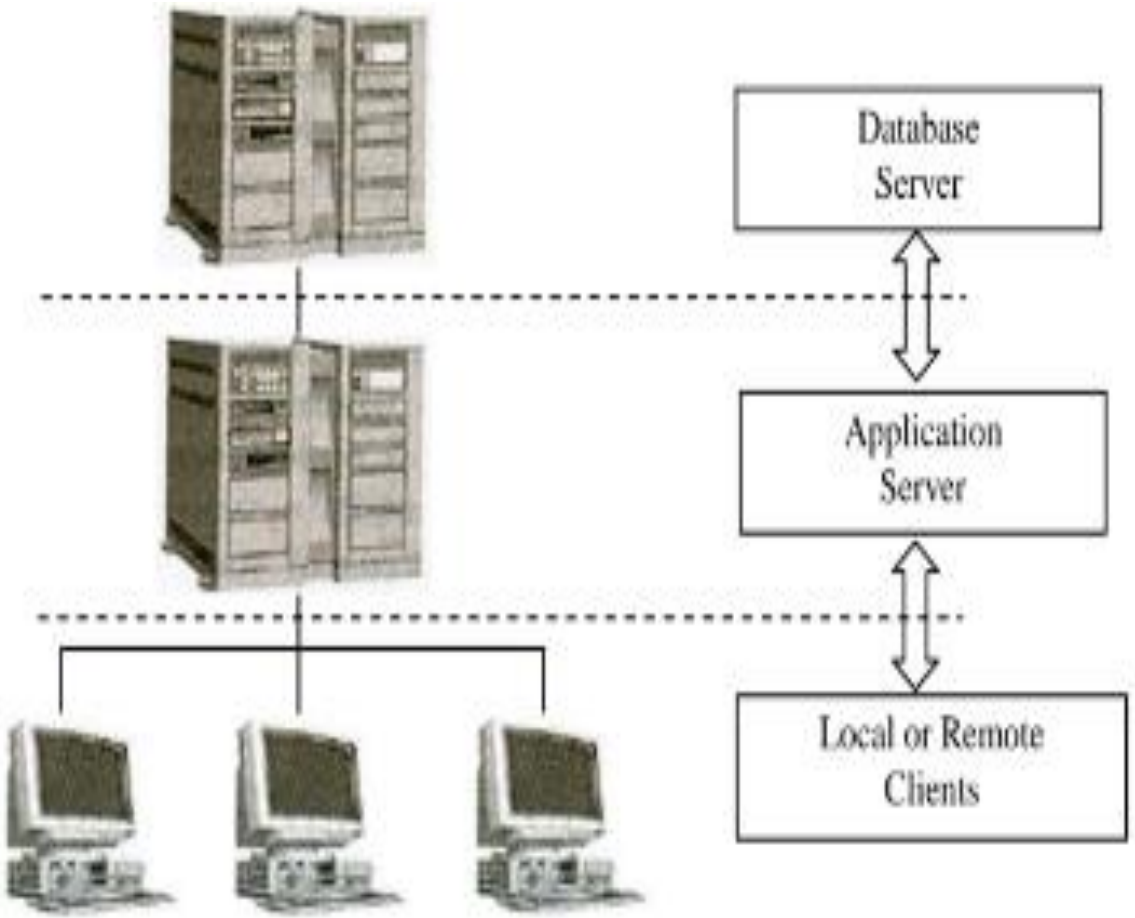
- Data base and application duties are handled by the server.

While designing ERP architecture, three functional areas to consider

1. Database
2. Clients
3. Application Component

ERP STRUCTURE Cont'd …

Three-tier Architecture



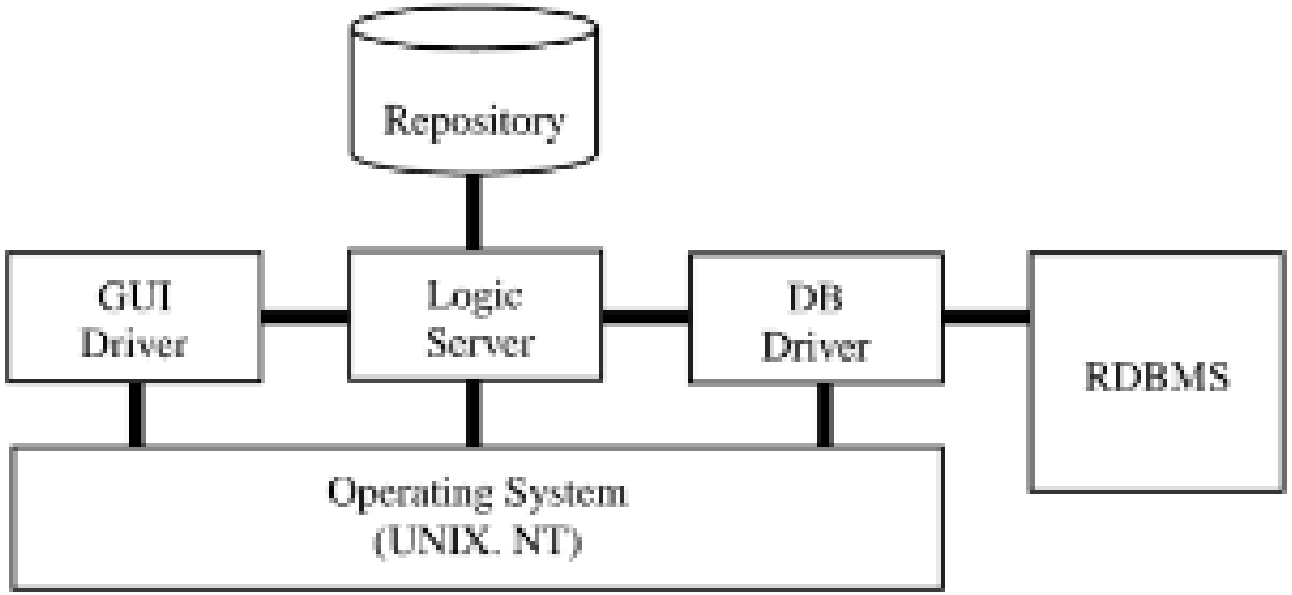
Three-tier Architecture

- Application and Database are separated from each other
- Client creates communication with the application server
- Application server establishes connection with the database server.
- **A Presentation Layer that sends content to browsers in the form of HTML/JS/CSS**
- **An Application Layer that uses an application server and processes the business logic for the application.**
- **A Data Layer which is a database management system that provides access to application data.**

Different Tier Architecture

Client, server, and Database are all present on the same machine.

ELEMENTS OF ERP



Elements in ERP Architecture

Graphical User Interfaces:

GUI determine interface models and design of menus, system messages, windows and operating elements

Some of popular style guides are

1. CUA – Common User Access (IBM)
2. Human Interface Guidelines (Apple)
3. OSF/Motif style guide(OSF)
4. Windows Interface (Microsoft)

ELEMENTS OF ERP Cont'd …

RDBMS

- All business applications carryout their functions with *large volume of data*
- *Transaction*" and " *master data*" requires large volume of disk space

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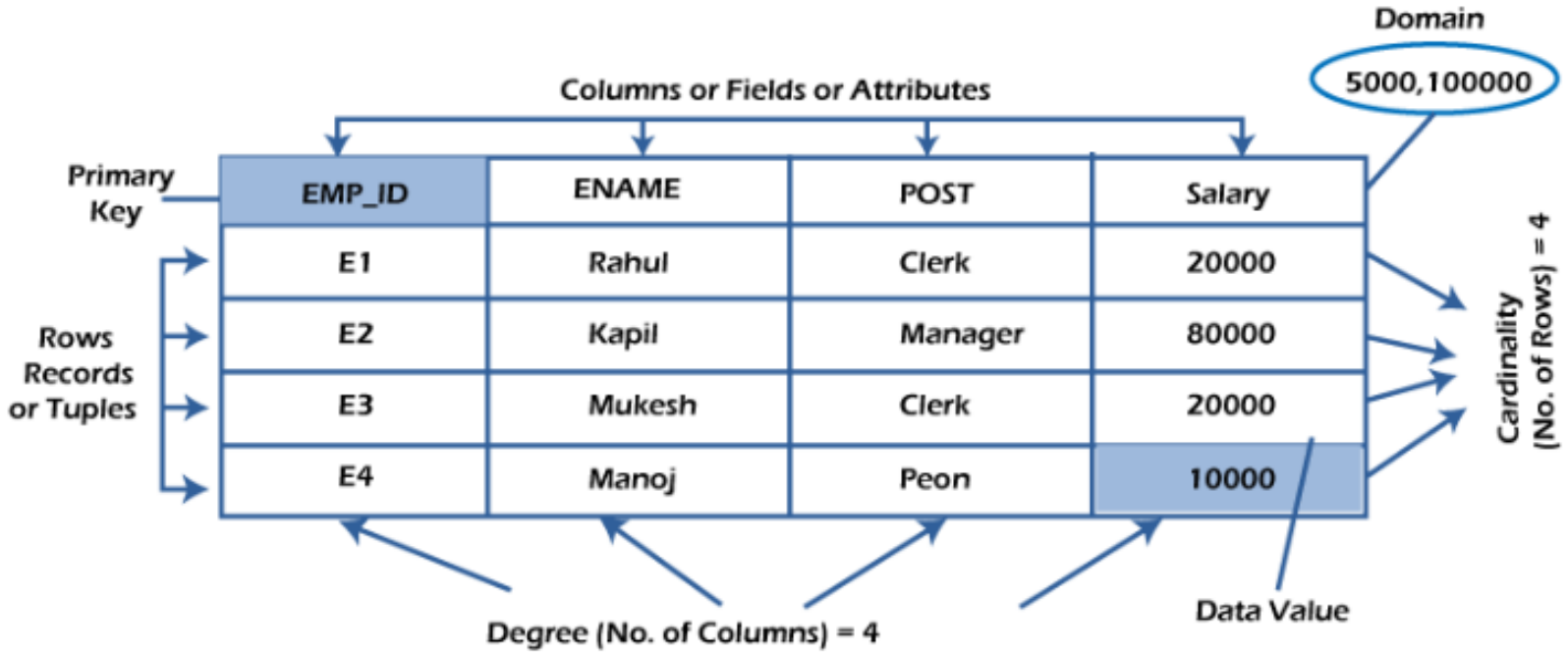
- *Powerful access and storage* methods are needed.
- Relational Database Management Systems are used (*RDBMS*)–Logically simple
- *Two dimensional tables* are used to store the data.

Example,



ELEMENTS OF ERP Cont'd …

Operating Systems

- Separate software layers is created by the operating system
- (lies between machine language and hardware on the one side and the middleware on the other side)
- It hides the application details(hardware and software used) from the user.
- It also manages processes and resources.

Desk top Operating System

- For single users/run on personal computers/support individual applications (spread sheet, word processor) Ex: Windows7, MS-DOS

Server Operating System

- Centralized and powerful in nature/Many applications/ Users can access the resources of such computers
- *Example: Red Hat Enterprise Linux, Windows Server*

ELEMENTS OF ERP Cont'd …

Repository

- A centralized place where data is stored and maintained in an organized way, typically in computer storage.
- The entire set of metadata of an enterprise is stored in the repository.
- Can be accessible globally.

ADVANTAGES OF ERP

Reduction of Lead Time : It is a time that elapsed between placing order and receiving it./ ERP plays important role in inventory control and purchasing process

On- Time shipment: ERP is flexible/ can change planning and manufacturing according to need.

Reduction in Cycle time: Time that elapsed between receiving the order and delivering the product./System will check whether the item is available as soon as the order is fed to the system. Or identifies other nearest warehouse for availability

Improved Resource Utilization: Detailed capacity planning/simulation capabilities

ADVANTAGES OF ERP Cont'd

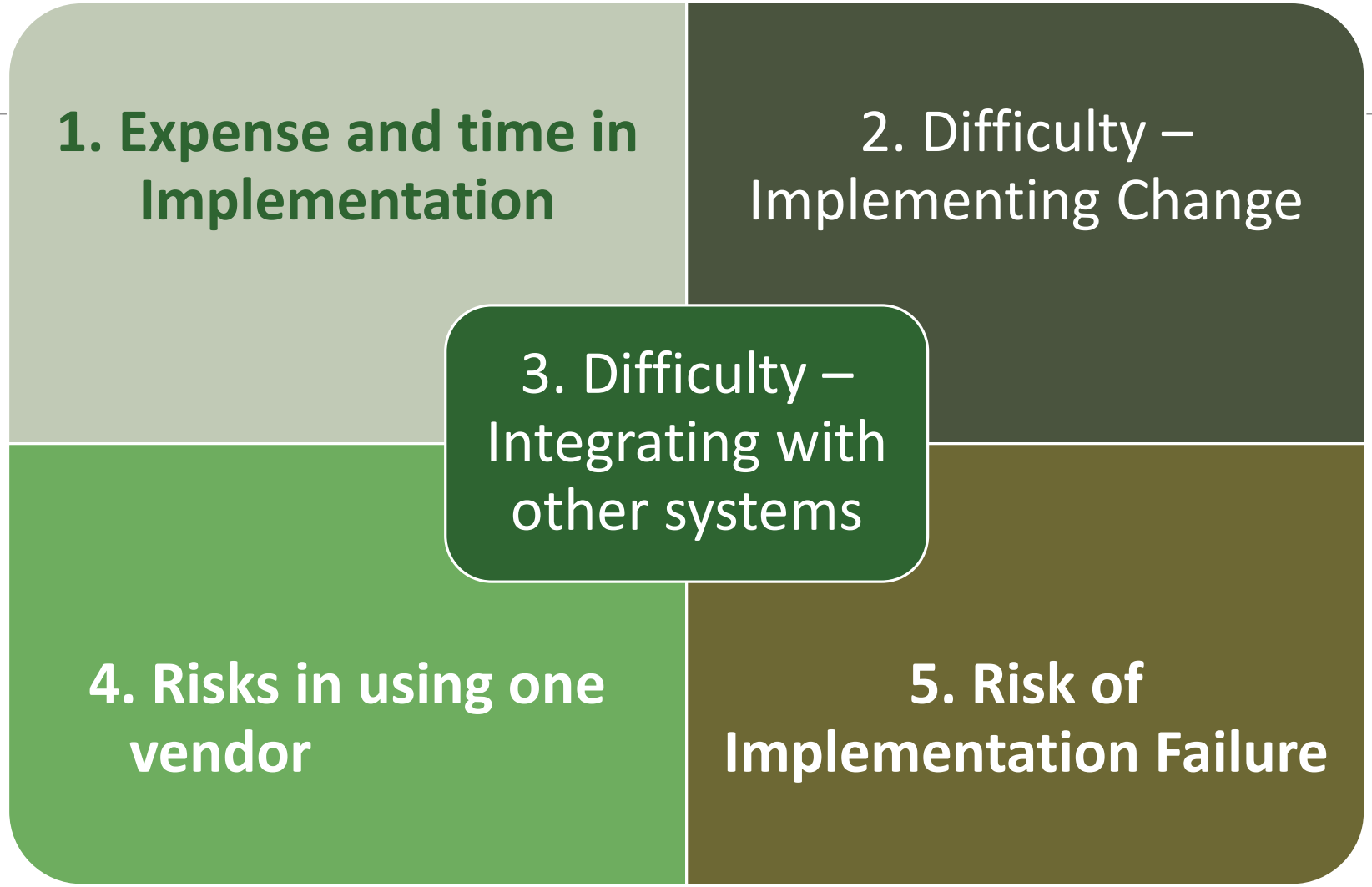
Better Customer Satisfaction : The make-to-order (MTO) strategy means that a firm only manufactures the end product once the customer places the order/flexible customization.

Improved Supplier Performance: Procurement support/vendor management/supports 'monitoring', 'negotiating', 'controlling procurement schedule' and 'costs'

Increased Flexibility : enhance flexibility by improving manufacturing operations

Decision-Making Capability : It is outcome of implementation of ERP

DISADVANTAGES OF ERP



APPLICATIONS OF ERP

Customer Relation Management (CRM)

Production Lifecycle Management (PLM)

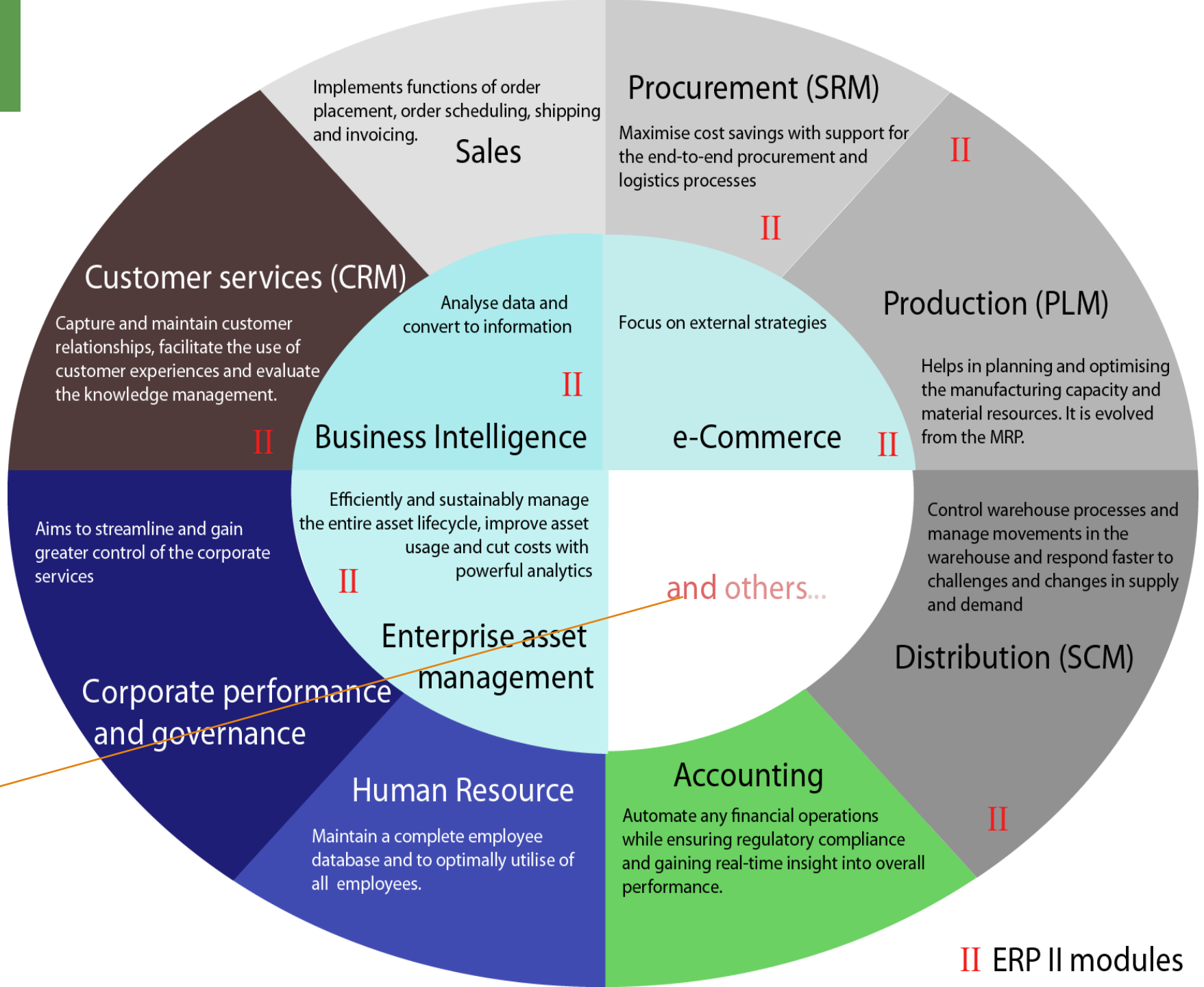
Supplier Relationship Management (SRM)

Finance

Plant Maintenance

Material Management

Quality Management



II ERP II modules

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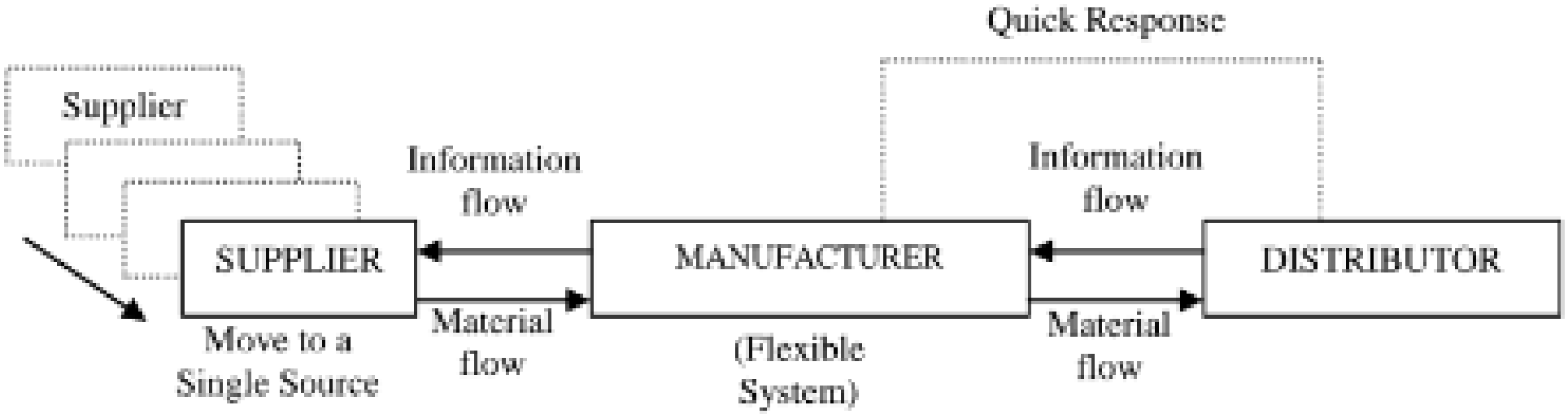
SUPPLY CHAIN MANAGEMENT (SCM)

Management of the flow of goods, data, and finances related to a product or service, from the procurement of raw materials to the delivery of the product at its final destination.



ENTERPRISE

CUSTOMER RELATIONSHIP MANAGEMENT (CRM)

Customer relationship management (CRM) is a technology for managing all your company's relationships and interactions with customers and potential customers.

"CRM is a Comprehensive strategy and process for acquiring, relating and partnering with selective customers to create superior value for the company and the customer"

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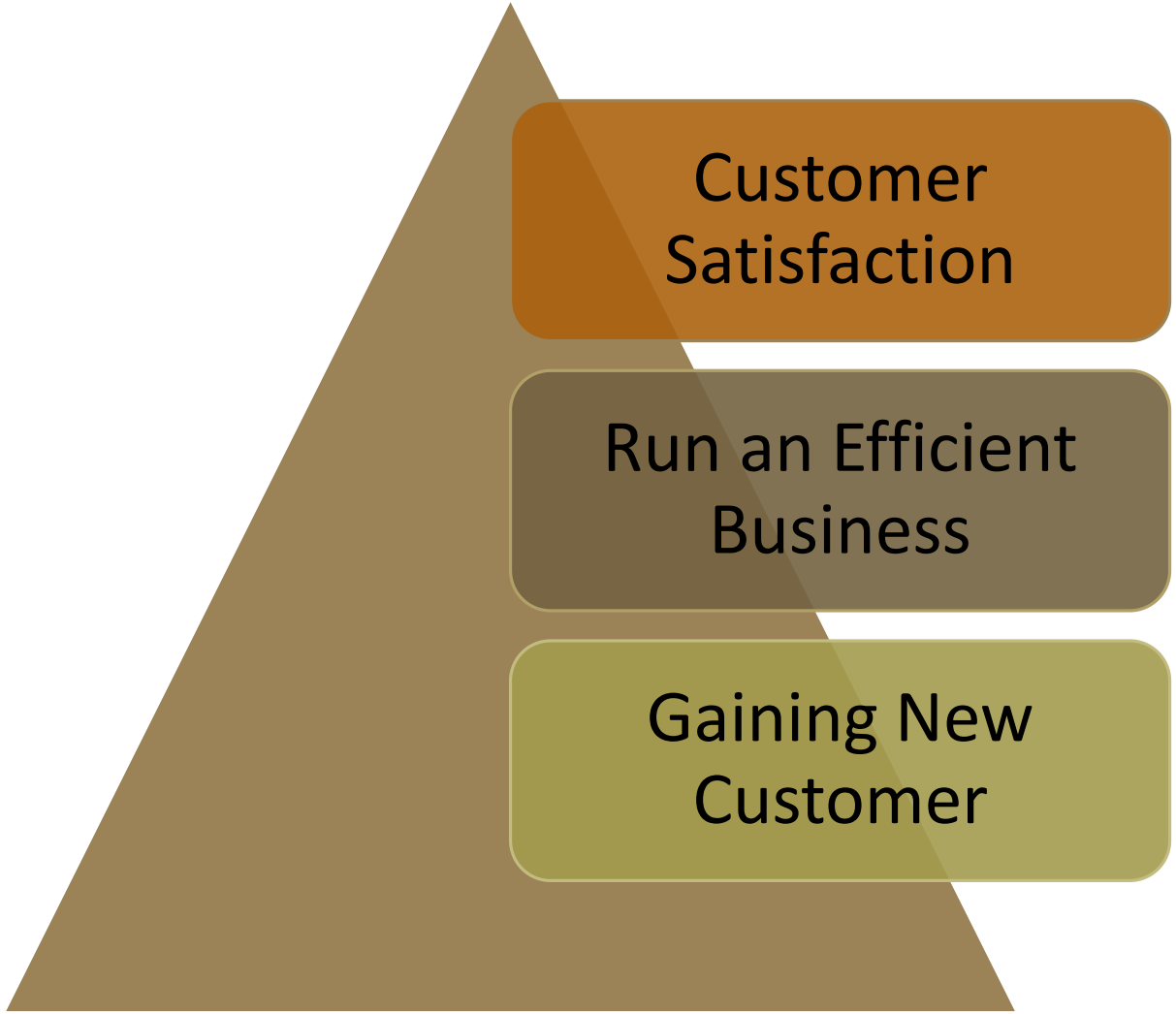
OBJECTIVES OF CRM



ENTERPRISE

PROCESS OF CRM

MARKETING

- Selecting target customers/method of targeting
- Selecting products to be offered
- Pricing strategy
- Managing campaign
- Use analytical tool

SELL

- Market information to sales force
- Selection of customers and sales persons
- Software vendors have targeted – sales force automation, personalization and configuration

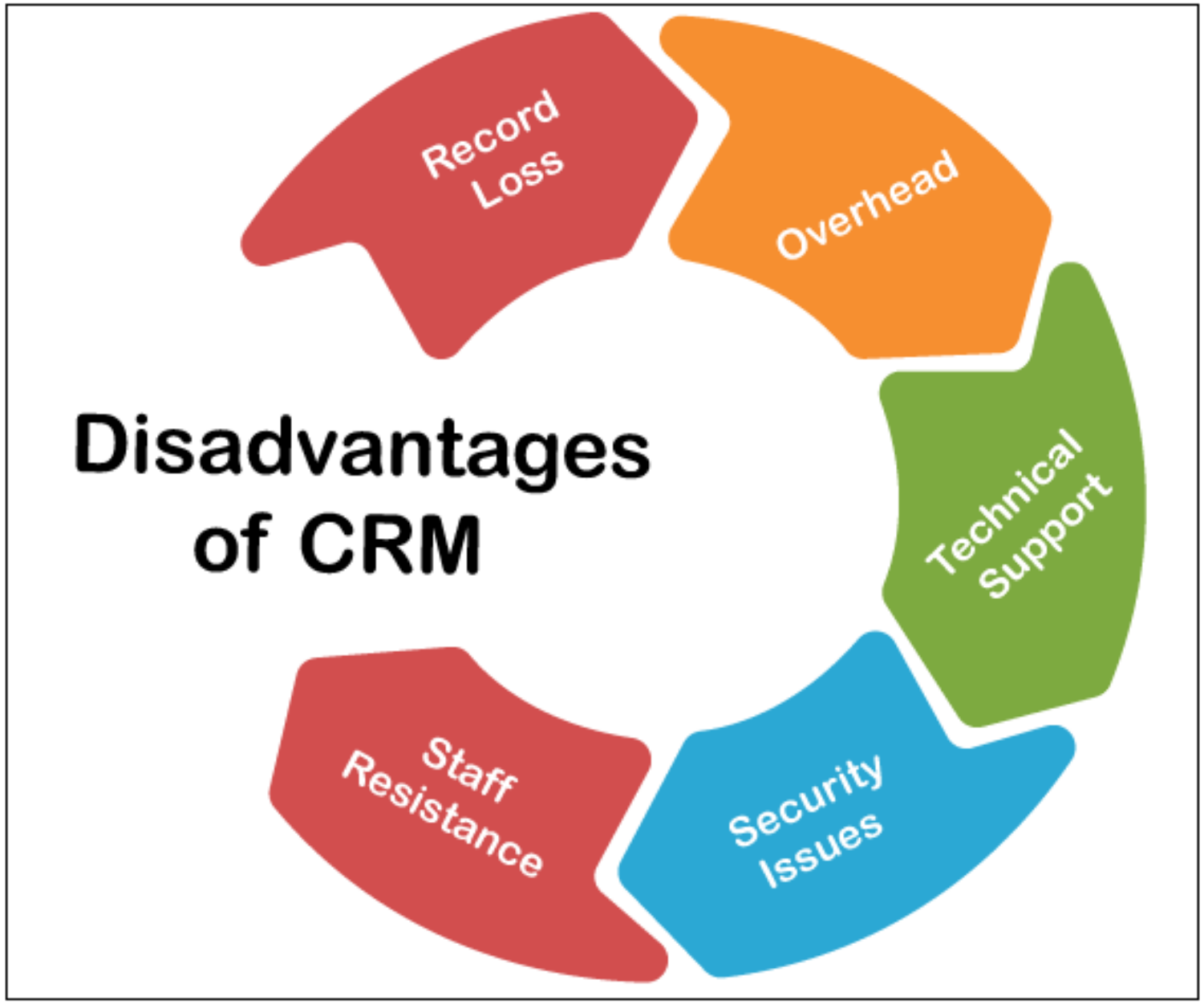
ORDER MANAGEMENT

- Customer to know ‘status of order’
- Company to ‘plan and execute delivery’

CALL/SERVICE CENTER

- Point of contact between company and customers
- Place orders/provide suggestions/get solutions
- Status of the order


Advantages of CRM
1 Beneficial for different department or teams of the business.
2. Customers are engaged across multiple channel
3. Provide streamline operations
4. Improve Customer Service
5. Data Mining
6. Helps in increasing sales.
7. CRM made targeting and marketing simple
8. Improve decision making and productivity
9. CRM growing scope in the market
10. Centralized data makes everything Convienient
11 Tracking of customer data


Disadvantages of CRM
Record Loss
Overhead
Technical Support
Security Issues
Staff Resistance