

BUSINESS APPLICATION AND INTRODUCTION TO ERP

BCA - 501

**BLOCK 1:
OVERVIEW OF ERP AND
RELATED TECHNOLOGY**



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BUSINESS APPLICATION AND INTRODUCTION TO ERP



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ROLE OF SELF INSTRUCTIONAL MATERIAL IN DISTANCE LEARNING

The need to plan effective instruction is imperative for a successful distance teaching repertoire. This is due to the fact that the instructional designer, the tutor, the author (s) and the student are often separated by distance and may never meet in person. This is an increasingly common scenario in distance education instruction. As much as possible, teaching by distance should stimulate the student's intellectual involvement and contain all the necessary learning instructional activities that are capable of guiding the student through the course objectives. Therefore, the course / self-instructional material are completely equipped with everything that the syllabus prescribes.

To ensure effective instruction, a number of instructional design ideas are used and these help students to acquire knowledge, intellectual skills, motor skills and necessary attitudinal changes. In this respect, students' assessment and course evaluation are incorporated in the text.

The nature of instructional activities used in distance education self-instructional materials depends on the domain of learning that they reinforce in the text, that is, the cognitive, psychomotor and affective. These are further interpreted in the acquisition of knowledge, intellectual skills and motor skills. Students may be encouraged to gain, apply and communicate (orally or in writing) the knowledge acquired. Intellectual-skills objectives may be met by designing instructions that make use of students' prior knowledge and experiences in the discourse as the foundation on which newly acquired knowledge is built.

The provision of exercises in the form of assignments, projects and tutorial feedback is necessary. Instructional activities that teach motor skills need to be graphically demonstrated and the correct practices provided during tutorials. Instructional activities for inculcating change in attitude and behavior should create interest and demonstrate need and benefits gained by adopting the required change. Information on the adoption and procedures for practice of new attitudes may then be introduced.

Teaching and learning at a distance eliminates interactive communication cues, such as pauses, intonation and gestures, associated with the face-to-face method of teaching. This is particularly so with the exclusive use of print media. Instructional activities built into the instructional repertoire provide this missing interaction between the student and the teacher. Therefore, the use of instructional activities to affect better distance teaching is not optional, but mandatory.

Our team of successful writers and authors has tried to reduce this.

Divide and to bring this Self Instructional Material as the best teaching and communication tool. Instructional activities are varied in order to assess the different facets of the domains of learning.

Distance education teaching repertoire involves extensive use of self-instructional materials, be they print or otherwise. These materials are designed to achieve certain pre-determined learning outcomes, namely goals and objectives that are contained in an instructional plan. Since the teaching process is affected over a distance, there is need to ensure that students actively participate in their learning by performing specific tasks that help them to understand the relevant concepts. Therefore, a set of exercises is built into the teaching repertoire in order to link what students and tutors do in the framework of the course outline. These could be in the form of students' assignments, a research project or a science practical exercise. Examples of instructional activities in distance education are too numerous to list. Instructional activities, when used in this context, help to motivate students, guide and measure students' performance (continuous assessment)



PREFACE

We have put in lots of hard work to make this book as user-friendly as possible, but we have not sacrificed quality. Experts were involved in preparing the materials. However, concepts are explained in easy language for you. We have included many tables and examples for easy understanding.

We sincerely hope this book will help you in every way you expect.

All the best for your studies from our team!

BUSINESS APPLICATION AND INTRODUCTION TO ERP

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BLOCK 1: OVERVIEW OF ERP AND RELATED TECHNOLOGY

Block Introduction

ERP means Enterprise Resource Planning which is a system that is applied to combine information or operations of particular firm to single unit which can be applied to computer hardware and software with central database. ERP was designed as offshel result to alter in-house company systems that results in collaboration and data management challenges.

In this block, we will detail about the basic of Enterprise Resource Planning system along with it needs in organisation. The block will focus on the study and concept of ERP assembles which several organizational systems results in data flow. You will get an idea on Decision support systems and basic of Executive Support System.

In this block, you will make to learn and understand about the basic of Supply chain that serves as network of facilities and distribution options. The concept related to Data mining process will also be explained to you. You will be demonstrated practically about ERP assembles technique.

Block Objective

After learning this block, you will be able to understand:

- About ERP
- Basic of Common ERP Myths
- Features of Various Modules Of ERP
- Concept of I/O Hardware and Drivers
- Detailed about ERP In India
- Basic of Decision Support System
- Idea of Data Mining

Overview of ERP
and Related
Technologies

Block Structure

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UNIT 1: OVERVIEW OF ERP

Unit Structure

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1.0 Learning Objectives

After learning this unit, you will be able to understand:

- Basic of Modules Of ERP
- Basic of ERP In India
- Evolution Of ERP

1.1 Introduction

ERP integrates benefits of the business from claiming an association through a unified database. The authoritative information Furthermore transaction information need aid put away in the database. This information will be rich wellspring for majority of data. Enterprise Resource Planning (ERP) may be benefits of the business methodology management programming that permits an association to utilize an arrangement for coordinated circuit requisitions will deal with the benefits of the business What's more computerize a number go office capacities identified with technology, administrations Furthermore mankind's assets. ERP product integrates constantly on facets of an operation, including result planning, development, manufacturing, and advertising.

ERP product may be viewed as an enterprise requisition Likewise it is planned with make utilized toward bigger organizations and often obliges committed groups on alter Furthermore examine those information and to handle upgrades and organization. Over contrast, little benefits of the business ERP requisitions would lightweight business management programming solutions, altered for the benefits of the business industry.

1.2 Introduction to ERP

Term ERP might have been coined earlier in 1990 by Gartner¹, yet its roots date of 1960s. Once more the idea connected on stock administration regarding control in manufacturing division. Product particular architects made projects should screen inventory, accommodate balances, along with report card with respect to status. Toward the 1970s, this required developed under material prerequisites arranging (MRP) frameworks for planning processing techniques.

In the 1980s, MRP grew with envelop All the more manufacturing courses provoking a number with bring it MRP-II or Manufacturing asset arranging. Toward 1990, these frameworks required extended past stock control and different operational methods to other back-office capacities in accounting and mankind's resources, setting the stage for ERP Similarly as we've come to recognize it.

Today, ERP need stretched on envelop benefits of the business discernment action (BI) same time likewise taking care of "front-office" works for example, deals energy mechanization (SFA), showcasing mechanization and ecommerce. For these item advancements and the accomplishment stories nearing out from

claiming these systems, organizations done an expansive range for industries from wholesale dissemination will ecommerce use ERP results.

ERP may be an acronym to endeavour asset planning, however shockingly its full name doesn't shed a significant part light with respect to what ERP will be alternately the thing that it can. For that, you compelling reason on taking venture once more with contemplation of all different forms that need aid key to running An business, including stock along with request management, accounting, mankind's resources, client relationship oversight economy (CRM), and past. In its fundamental level, ERP product integrates these different capacities under one finish framework should streamline procedures and majority of the data crosswise over the whole association.

The vital characteristic about every one ERP frameworks is an imparted database that helps different capacities utilized Eventually Tom's perusing distinctive business units. Previously, practice, this implies that workers in distinctive divisions like bookkeeping with sales depend on the same data to their particular necessities.

ERP programming additionally offers percentage degree for synchronized reporting weight with mechanization. As opposed to forcing workers will keep up differentiate databases what's more spreadsheets that must a chance to be manually consolidated with produce reports, some ERP results permit disappointments and outrage on his/her staff will draw reports starting with you quit offering on that one framework. For instance, for offers requests naturally streaming under those money related framework without At whatever manual re-keying, the request oversight economy Branch could methodology requests All the more rapidly What's more accurately, and the fund division could close the books quicker. Different basic ERP features incorporate a portal or dashboard should empower workers will fast see all those business' execution around way measurements.

Check your progress 1

1. The main feature of ERP system is:
 - a. shared database
 - b. shared files
 - c. shared folders
 - d. none of above

1.3 What Is ERP?

Enterprise Resource Planning system, alternately ERP, is an arrangement that is used to consolidate the entire majority of the data alternately operations of a agency under an absolute unit. Those standard ERP frameworks will use both workstation fittings Also product so as will attain this. Maybe a standout amongst those mossy cup oak critical parts of the ERP framework will be those national databases.

These databases will a chance to be used to store majority of the data from different modules. The point when ERP might have been initially coined, it might have be used to portray frameworks that were intended to utilize numerous assets. It might have been usually associated with the manufacturing business. The haul may be utilized today done a considerably more extensive setting.

The objective for ERP may be on consolidating those different capacities about a organization. However, the utilization for endeavour asset arranging will be not essentially restricted to companies. It is regularly utilized Eventually Tom's perusing non-profit organizations, administration agencies, and other establishments. With the end goal framework with make perceived as an ERP, it must help a certain prerequisite. Those programming must make fit for providing for purpose with person unit that might ordinarily utilize various frameworks. For example, an arrangement that might have been equipped to consolidate two components under a whole, for example, an arrangement that consolidated payroll with accounting, might a chance to be an endeavour asset arranging framework.

However, ERP might make a significant part additional mind boggling over this. The motivation behind the reason it will be thereabouts capable may be on account it diminished those requirement to have an outside interface accessible to two separate frameworks. Furthermore will these, those expense about support may be lower, with standard is made. Additional capable perspective of ERP is that those reporting weight capacities of the framework are incredibly progressed. There need aid an amount about associations that Might significantly profit starting with utilizing ERP requisitions. A percentage for these associations need aid supply chains, monetary companies and human assets. The practically essential part of ERP may be joining. The majority of data alternately information from different parts of an association must make compacted under a absolute substance.

The most ideal approach will fulfil this may be on bring the ERP associated with person database. For large portion cases, number of product modules will be

utilized within conjunction for this. Each module will provide different manifestations of information starting with diverse divisions inside the association. It may be could reasonably be expected for an association to best use specific portions from claiming an ERP unit. They could make a interface for frameworks that would remain solitary. Likewise for this writing, it is very uncommon to an organization to utilize an aggregate ERP framework. Practically of the organizations that use ERP need aid overwork large, What's more they bring particular needs that standard frameworks can't help.

Should unravel these problems, the organization will by and large redo their frameworks vigorously or utilization modules from different vendors. In vast majority perfect gas scenario, manufacturing firm might a chance to be utilizing those same merchant for all from claiming their frameworks. For such circumstances like this, the greater part of the information might a chance to be held inside particular case database. A percentage of the information might be workflow management, nature control, material costs, and the manufacturing transform. Relying upon that business that an organization will be included in, those majorities of the data inside the database might differ significantly. In light it rose up out of the manufacturing industry, it is associated with this business over an amount about routes.

At it hails on manufacturing, ERP frameworks would answerable for giving work to distribution, logistics, and inventory and shipping. Furthermore on this, that framework might a chance to be answerable for controlling umber diverse factors, Also exactly about these are marketing, sales, alternately charging. A number for kin aggravate the misstep about befuddling ERP for once more office frameworks.

What sets ERP separated from this may be that it bargains for the organization on the whole and combines in diverse capacities. What's more of the manufacturing functions, it will be likewise utilized to things for example, such that vital oversaw economy alternately human assets.

Those more seasoned ERP frameworks bring advanced under structures that are considerably additional part built. When the term ERP II is used, it may be alluding of the genuine structure of parts. The acronym ease remains to endeavour provision Suite, Also it bargains with "thin clients" for example, web browsers. Overall, ERP need vital instrument done a day with period at legitimately structuring furthermore transforming data need ended up there about imperative. The mix about an organization's information might prompt number about advantageous requisitions.

Check your progress 2

1. ERP system handles information company in:
 - a. separate units
 - b. single unit
 - c. different slots
 - d. all of above
2. ERP is not applied in:
 - a. NGO
 - b. Government agencies
 - c. Schools
 - d. Home

1.4 Evolution of ERP

ERP need developed impressively which later considerable as length of time which is right away greater amount propelled over at any point in the recent past. The most recent half decade need seen endeavour asset arranging (ERP) results advance under versant What's more multi-faceted instruments that assistance small, medium and vast associations to run their benefits of the business.

By keeping tabs with respect to improvement and utility, developers bring figured out how to guarantee ERP sits tight current at once At those engineering center need generally been for social, versatile and the cloud. Indeed, ERP frameworks need aid presently that's only the tip of the iceberg advanced over ever, putting forth clients who is only tip of iceberg far reaching experience over numerous from claiming their counterparts.

However, this hasn't generally been that body of evidence. "Historically, ERP usage bring been unreasonable Furthermore period consuming," Deloitte demonstrated on 'Reinventing those ERP Engine'. Indeed, networking reports of neglected usage and climbing costs bring served will make a society of trepidation when it hails will ERP, same time newer innovations have held that's only the tip of the iceberg bid.

ERP might have been planned as an off-the-rack answer for trade in-house company-specific systems, which aggravated coordinated effort and information oversaw economy testing. They started processing on chance to be “multi-module business bundles which is suitable for customizing and includes ‘add-ons’ same as point when required.

However, similarly as engineering changed, the information volumes increases, existing ERP frameworks went under much additional weight that back diverse functionalities and encourage coordinated effort. ERP will be needed to break the barrier for proprietorship and furthermore customisation, guaranteeing business coordinated effort that occur again using intranet, extranet and web seamlessly. ERP frameworks rose of the challenge, distinguishing the vitality of open architecture, interchangeableness modules, customization and client interfacing, Rashid, Hossain and patrick clarified.

That ERP advancement might have been around more than evolving technology, nonetheless morals. Clients needed distinctive necessities which necessary should a chance to be tended to in you quit offering on that one result. “Technology pioneers new to those universe about ERP that need to recognize what they can wood minimally get by on with lines that might proceed onward to center which are most recent along with best devices that will become popular in market. Furthermore bid to their business users,” Deloitte demonstrated earlier by reinventing ERP Engine’ having necessary selection among ERP and the most recent innovations on providing focused edge.

Check your progress 3

1. ERP will able to break the barrier of:
 - a. proprietorship
 - b. customisation
 - c. both a and b
 - d. neither a nor b

1.5 Common ERP Myths

ERP is a benefits of business that oversaw economy technique through programming stage which is seen with those ongoing collection, stockpiling and

understands about information for center business methods. ERP integrates different hierarchical frameworks What's more facilitates data stream "around constantly on benefits of the business functions, with the point from claiming error-free transactions for preparation.

ERP programming is multibillion dollar industry, with ERP frameworks getting to be that's only tip of iceberg as a relatable point earlier, which is small and big ventures. Regardless of its popularity, confusions remain around endeavour asset arranging Also its usage over today's commercial center. Let's investigate toward exactly of the myths.

Myth #1: ERP is excessively awful exorbitant.

Same time high-end, imaginative ERP results might at present convey a robust value tag, specialized foul advancements for example, portable What's more cloud registering would normal to settle on ERP programming that's only the tip of the iceberg competitive. Also, some ERP programming organizations might offer variable estimating bundles relying upon use.

Myth #2: ERP may be best for huge business.

In spite of the fact that ERP frameworks were regularly utilized Eventually Tom's perusing bigger organizations in the past, more modest organizations progressively have the capacity on investigate endeavour asset arranging because of the developing alternatives to customization through mechanical transformation improvement. ERP results come in different shapes and sizes. Picking those straight ERP solution, if those benefits of the business is huge or small, is key for viable usage and life span.

Myth #3: ERP just reductions in executives and management.

Yes, ERP could furnish upper administration for significant majority of the data for choice making purposes. Yet the reductions could spread of the whole business, moving forward operational methods also boosting worker execution crosswise over every last bit levels. Endeavour asset arranging empowers the broad imparting of information, which might build communication, move forward project planning, and reduced duplication about errands also more level obtaining costs, "around other points of interest. For other words, ERP results cam wood profit the entire particular organization.

Myth #4: ERP results are just used to awe clients.

Assuming that actualized effectively furthermore used effectively, ERP results absolutely have that possibility to awe clients. However, that is not their

sole or their basic role. Giving work to predominant effects through improved operational execution Furthermore progressed calibre about items also administrations could help organizations with support client goodwill and reinforce customer connections.

Myth #5: person ERP result fits the greater part.

It's critical will analyze ERP results Also select the best fit contingent upon the benefits of the business requirements, trends, functionalities Also features. For example, an organization that produces person item likely contrasts for its endeavour asset arranging necessities from a manufacturing unit that makes an assortment from claiming results. Additionally, a manufacturing unit that produces metal products will need separate procedures over a compound plant. Those particular qualities What's more abilities wailing from an ERP framework ought further bolstering transform contingent upon those specific business needs.

Myth #6: ERP, SCM, CRM furthermore MRP need aid which are same.

Endeavour asset planning, supply chain administration (SCM), client relationship oversight economy (CRM) Also manufacturing asset arranging (MRP) are diverse frameworks focusing on separate business forms. These frameworks camwood be executed additionally coordinated independently alternately in mix relying upon shares of the organization necessities.

Myth #7: ERP takes excessively yearn on reality.

Those time needed for a ERP usage by and large will a chance to be directed Toward An reach for factors, for example, those size of the business, the desires of organization leadership, those amount from claiming users, those degree from claiming customization, the extension and specialized foul multifaceted nature of the change, and the accessibility of assets. Great implementation, therefore, Might oblige a promise extending from a few months should several for a considerable length of time.

Myth #8: ERP a framework which belongs in division.

Endeavor asset arranging is a business benefit that obliges proprietorship and information over offices What's more dependent upon and down the corporate hierarchy, from active labourers that will C-suite executives. So, same time majority of the data innovation organization (IT) will be an essential analytics and only ERP usage with extra maintenance, every and each benefits of the business capacity need a part with assume in the achievement of endeavour asset arranging.

Myth #9: an ERP framework empowers enterprise asset arranging.

ERP framework facilitates endeavour asset arranging. However, qualified experts need aid obliged to design the framework will An business' particular needs, which obliges solid item information with more execution knowledge. Additionally, In spite of ERP results could move forward effectiveness Furthermore profit looking into a lot of people dimensions, there are even now business exercises that require manual intercession with direction. Toward diminishing errors, sparing the long haul and cutting expenses, those executions from claiming endeavour asset arranging might enhance mankind's forms within that work environment. Be that it doesn't kill those mankind's perspective for the individuals methods.

Check your progress 4

1. Which is incorrect?
 - a. ERP is easy to manage
 - b. ERP is costly
 - c. ERP is benefitted for all
 - d. All of above

1.6 Advantages of ERP

ERP alternately endeavour asset arranging is a critical endeavour requisition that integrates every last one of distinct section capacities under a solitary product requisition. ERP frameworks make it less demanding should track that workflow over different divisions. They lessen the operational costochondritis which include manually following and duplicating of information utilizing singular & different frameworks.

Points of interest:

1. Finish perceivability under every last one of essential courses over Different offices about an association.
2. Programmed Furthermore sound workflow from you quit offering on that one department/function on another, to guarantee smooth birch moving ahead snappier fruition for forms. It ensures that every last one of inter-

departmental exercises would legitimately follow addition none of them will be 'missed out'.

3. An bound together will solitary reporting weight framework to examine the statistics/status and so forth. To real-time, crosswise over sum functions/departments.
4. Since same (ERP) product may be right away utilized crosswise over all departments, individual offices hosting on purchase will administer their programming frameworks will be no more essential.
5. Certain ERP vendors cam wood augment their ERP frameworks should give acceptable business discernment action functionalities which provide general insights around benefits of business procedures and distinguish possibility ranges from claiming problems/improvements.
6. Propelled e-commerce integrative may be conceivable for ERP frameworks – practically about them might handle web-based request tracking/preparing.
7. There need aid different modules over ERP framework which is similar to Finance/Accounts, human asset Management, Manufacturing, Marketing/Sales, supply Chain/Warehouse Management, CRM, task Management, and so forth throughout this way, observing and stock arrangement of all instrumentation may be enhance.
8. Since ERP will be a secluded product system, its time permits with execute many modules or lot of people modules in light of those necessities from claiming an association. Whether that's only the tip of the iceberg modules implemented, the combination between Different divisions might make superior.
9. Since database framework is executed on the backend, it store every last one of data obliged eventually Tom's perusing those ERP system, that empowers incorporated storage/back-up of every last bit endeavour information.
10. ERP frameworks are more secure which relates with illustration unified security strategies could a chance to be connected with them. Every last one of transactions occurring by means of the ERP frameworks could make followed.
11. ERP frameworks give acceptable superior company-wide perceivability Furthermore henceforth empower better/faster coordinated effort over every last one of offices.

12. It is could be allowed will coordinate other frameworks (like bar-code reader, for example) of the ERP framework through a API (Application modifying Interface).
13. ERP frameworks make it less demanding for request tracking, stock tracking, income tracking, bargains determining Furthermore related exercises.
14. ERP frameworks would particularly supportive to overseeing collective scattered endeavour companies, superior.

Check your progress 5

1. ERP System helps in tracking of:
 - a. payment system
 - b. working status
 - c. workers database
 - d. all of above
2. API is:
 - a. Application Programming Interface
 - b. Application Project Interface
 - c. Application Programming Indent
 - d. Approved Project Interface

1.7 Various Modules of ERP

There are many vendors in market which are providing traditional ERP solutions or Cloud based ERP solutions. Though implementation platforms or technologies are different, there are common & basic modules of ERP which can be found in any ERP System. Depending on organizations need required components are integrated & customized ERP system is formed. An ERP system comprises of following modules:

- Human Resource
- Inventory

- Sales & Marketing
- Purchase
- Finance & Accounting
- Customer Relationship Management
- Engineering/ Production
- Supply Chain Management

ERP preparation arranging module.

In the procedure about Development for manufacturing prerequisites arranging under ERP, same time vendors have produced stronger programming to creation planning, consulting organizations need gathered limitless information from claiming actualizing creation arranging module. Handling arranging optimizes those use about manufacturing capacity, parts, parts What's more material assets utilizing authentic preparation information Also deals determining.

ERP acquiring module.

Buy module streamline acquisition for needed crude materials. It automates those methods for identikit possibility suppliers, negotiating price, recompensing buy request of the supplier, and charging techniques. Buy module will be firmly incorporated with the stock control and handling arranging modules. Buying module is often coordinated circuit with supply chain management product.

ERP stock control module.

Stock module facilitates techniques about administering the proper level about stock over a warehouse. Those exercises of stock control includes On recognizing stock requirements, setting targets, giving packed strategies and options, screening thing usages, accommodating those stock balances, that report weight stock status. Joining of stock control module with sales, purchase, fund modules permits ERP frameworks should produce vigilant official level reports.

ERP offers module.

Incomes from deals need aid carry on with blood to business associations. Deals module executes capacities from claiming request placement, request scheduling, shipping What's more invoicing. Bargains module may be nearly coordinated circuit for organizations' ecommerce sites. A significant number of ERP vendors offer on the web storefront concerning illustration and only those deals in module.

ERP showcase on module.

ERP promoting module helps lead generation, immediate mailing crusade and additional.

ERP fiscal module.

Both for-profit associations Also non-benefit associations profit from the execution of ERP money related module. The budgetary module may be the center for huge numbers ERP programming frameworks. It could assemble fiscal information from different practical departments, furthermore which generates profitable monetary reports such equalization sheet, general ledger, trail balance, and quarterly fiscal explanations.

ERP HR module.

Mankind's assets are an alternate generally actualized ERP module. Hr module streamlines the management about human assets, furthermore mankind's capitals. Hr modules routinely support finish representative database including contact information, compensation details, attendance, execution assessment that further advance from claiming every one representatives. Propelled HR module may be incorporated with learning administration frameworks will ideally use those adroitness of constantly on workers.

Check your progress 6

1. Which ERP module involves with supplier and billing?
 - a. Production Planning Module
 - b. Purchasing Module
 - c. Inventory Control Module
 - d. Market in Module

1.8 Challenges to Implement ERP Packages

Tests in actualizing ERP results would very much ordinary. However it is not totally a specialized foul job, a considerable measure of arranging and legitimate correspondence is a whole lot vital should actualize all the ERP crosswise over the association. There are a number sorts from claiming tests happen same time actualizing ERP:

- It is thick, as important, that usage is done in stages. Attempting to actualize the entire without moment's delay that prompt considerable measure of disarray with bedlam.
- Fitting preparing is really a key throughout after usage. Those disappointments and outrage on his/her staff if make agreeable on utilizing the provision or else, it will backfire, with excess fill in practical inefficiencies.
- Absence of best possible dissection of necessities will prompt non-availability about certain vital functionalities. This could influence the operations in the long run with lessen gainfulness and productivity.
- Absence of backing starting with senior administration will prompt unnecessary frustrations done worth of effort put. Also, it will result in delay over operations also inadequate choices. So, it is key to guarantee that the senior management backs those changes.
- Similarity issues for erp modules prompt issues done joining about modules. Organizations co-partner diverse vendors with execute distinctive erp modules, dependent upon their competency. It may be precise key that there is an approach with handle similarity issues.
- Cosset overheads will result, on prerequisites are not legitimately examined furthermore concluded throughout the arranging stage. So, preceding execution, a point by point arrangement for complete breakdown for prerequisites ought be acted crazy.
- Financing for foundation may be precise fundamental. Erp provisions modules will oblige handy preparing velocity furthermore sufficient capacity. Not allocating suitability plan for foundation will bring about decreased requisition velocity also other programming issues. Equipment furthermore programming security is additionally just as essential.

Check your progress 7

1. Challenges in implementing ERP result from:

- a. lack of money
- b. lack of support from seniors
- c. lack of deliveries
- d. all of above

1.9 ERP in India

Today, India may be transforming under reality it center Furthermore at significant players in the field need aid attempting always towards pushing Furthermore growing their market, In this way endeavour asset arranging will assume real part over Growth of little What's more medium size commercial enterprises separated from helping All the more clinched alongside huge business ventures.

ERP framework will help streamline the purpose What's more specialist of a programming result over an organization, without any question will a chance to be a included point On generating give back looking into investment. It is noted that ERP business Might work out a greater amount previously, India brings about required stimulus should stakeholders. ERP product results were at first utilized best to once more office works. They were not provided for the due criticalness furthermore dealt with same supporting capacity. Reasons in absence of consciousness structured particular case a piece same time other motivations were costs and specialized foul challenges.

For the gradual interest of ERP, there result droop clinched alongside product advertise which makes organizations with try for ERP which they specifically began should gain All the more over it by method for compel alternately have since they bring no elective. This by implication made the mindfulness around organizations. They scholarly more looking into ERP Furthermore understood its different provisions. At long last they resorted to utilize about ERP to those entirety of the shares of the organization What's more ceased the clue of confining it will negligible over office capacities.

Monetary load is real determinant of ERP showcase on India. Numerous organizations would hesitate on put resources into ERP because of those extreme fetches included for it. Understanding this situation, e-resource Infotech, need turn out with an perfect gas ERP solution, which will make competitive with little Furthermore medium ventures.

Today, e-resource Infotech need get a sake will Think as of with done ground for ERP result suppliers. We need finished this accomplishment done An short compass for seven a considerable length of time by our unrelenting exertions What's more services, which aided a number little Also medium scale associations yield beneficial come back with respect to their venture. Main e-resource ERP generates reports concerning illustration for every Indian state for various sorts for statutory Records.

These are percentage of focuses that settle on e-resource ERP those main Web-based ERP clinched alongside India for a 100% ERP result to Indian business state.

Check your progress 8

1. Web-based ERP in India is?
 - a. e-solution
 - b. e-resource
 - c. e-soft
 - d. e-database

1.10 Let Us Sum Up

In this unit we have learnt that ERP was denoted in 1990 by Gartner¹ whose concept applies to inventory management and control in fields of manufacturing.

We see that software engineers develop programs which can monitor inventory, reconcile balances, and report on status which nowadays constitutes under Material Requirements Planning systems.

It is noted that ERP is an Enterprise Resource Planning system applied to combine information or operations of particular firm to single unit that uses computer hardware and software along with central database.

It is seen that ERP was designed as offshelf result to alter in-house company systems that results in collaboration and data management challenges.

ERP assembles many organizational systems and result in data flow of complete business functions with the idea to have errorless transactions that appears in production.

1.11 Answers for Check Your Progress

Check your progress 1

Answers: (1 - a)

Check your progress 2

Answers: (1 - b), (2 - d)

Check your progress 3

Answers: (1 - c)

Check your progress 4

Answers: (1 - c)

Check your progress 5

Answers: (1 - d), (2 - a)

Check your progress 6

Answers: (1 - b)

Check your progress 7

Answers: (1 - b)

Check your progress 8

Answers: (1 - b)

1.12 Glossary

1. **ERP** - It is a form of business strategy used to keep track of activities which can be purchasing, inventory and order tracking.

1.13 Assignment

Explain the Advantages Of ERP?

1.14 Activities

Study about challenges to implement ERP packages.

1.15 Case Study

Study about ERP in India.

1.16 Further Readings

2. Needleman, T., "AlliedSignal Turbocharges its Systems," Beyond computing, September 1998.
3. Radding, A., "The Push to Integrate -- Packaged Applications Promise to Speed Integration and Cut Costs," InformationWeek, No. 671, March 2, 1998.
4. Schwartz, K., "Putting Consultants on Your Team," Beyondcomputing, Vol. 7, No.6, August 1998.
5. Stedman, C., "Global ERP Rollouts Present Cross-Border Problems," Computerworld, Vol. 32, No. 47, November 1998, p. 10.

UNIT 2: ERP AND RELATED TECHNOLOGIES

Unit Structure

- 2.0 Learning Objectives**
- 2.1 Introduction**
- 2.2 Management Information System (MIS)**
- 2.3 Decision Support System (DSS)**
- 2.4 Executive Support System (ESS)**
- 2.5 Data Warehousing**
- 2.6 Data Mining**
- 2.7 On-Line Analytical Processing (OLAP)**
- 2.8 Supply Chain Management**
- 2.9 Customer Relationship Management (CRM)**
- 2.10 Business Intelligence (BI)**
- 2.11 Let Us Sum Up**
- 2.12 Answers for Check Your Progress**
- 2.13 Glossary**
- 2.14 Assignment**
- 2.15 Activities**
- 2.16 Case Study**
- 2.17 Further Readings**

2.0 Learning Objectives

After learning this unit, you will be able to understand:

- Concept of Data Warehousing
- Understand about On-Line Analytical Processing
- Detailed about Business Intelligence
- Basic of Supply Chain Management

2.1 Introduction

A process is "a structured, measured set of activities designed to produce a specified output for a particular customer or market. It implies a strong emphasis on how work is done within an organization. Processes are generally identified in terms of beginning and end points, interfaces, and organization units involved, particularly the customer unit. High Impact processes should have process owners. Information technology has historically played an important role in the reengineering concept. It is considered by some as a major enabler for new forms of working and collaborating within an organization and across organizational borders.

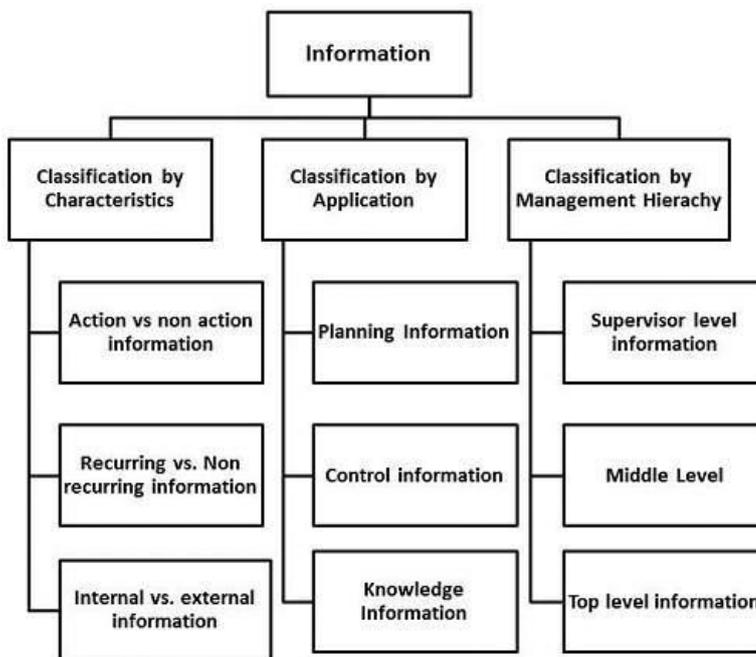


Fig 2.1 Information classification

2.2 Management Information System (MIS)

A data framework may be an arrangement that gathers information and disseminates majority of the data with those sole reason for giving work to majority of the data with its clients. Those principle articles from claiming an data framework may be should furnish majority of the data on its clients. Data frameworks change as stated by the sort about clients who utilize the framework.

MIS will be a workstation built framework that optimizes those collection, collation, exchange and presentation for majority of the data for a organization, through an incorporated structure of databases with data stream.

A oversight economy data framework may be an data framework that evaluates, analyzes, with more methods a association's information to process serious Furthermore suitable data In light of which the administration might make good choices to guarantee future growth of the association. Dependent upon Anthony's arrangement from claiming Management, majority of the data utilized within business to choice making is by and large sorted under three types: Key Information: Vital majority of the data will be concerned with in length haul arrangement choices that characterize the targets of a business Furthermore checks how great these destinations are met. For example, procuring another plant, another product, broadening of benefits of the business etc, goes under vital data.

Strategic Information: Strategic data is concerned with the data necessary to working out control In benefits of the business resources, similar to budgeting, nature control, administration level, stock level, benefit level and so on.

Operational Information: Operational majority of the data may be worried with plant/business level majority of the data and will be used to guarantee legitimate conduction of particular operational assignments similarly as planned/intended. Different driver specific, machine particular Also shift particular occupations for calibre control checks hails under this classification.

Those fundamental qualities of MIS are:

1. MIS backs information transforming works for transaction taking care of and record keeping.
2. MIS utilization an incorporated database Furthermore helps an assortment of utilitarian territories.
3. MIS gives operational, strategic and vital levels from claiming association with timely, organized data.
4. MIS may be adaptable What's more could adjust of the evolving needs of the association.

Check your progress 1

1. Processes in ERP is related to:
 - a. beginning and end points
 - b. organization units
 - c. customer unit
 - d. all of above

2. MIS optimizes:

- a. collection of information through databases
- b. collation of information through databases
- c. transfer of information through databases
- d. all of above

2.3 Decision Support System (DSS)

Decision support systems are interactive information systems that rely on an integrated set of user-friendly software and hardware tools, to produce and present information targeted to support management in the decision making process.

- Managers spend a lot of time and effort in gathering and analyzing information before making decisions. Decision support systems were created to assist managers in this task.
- A DSS can help close this gap and allow managers to improve the quality of their decisions.
- To do this, the DSS hardware and software employ the latest technological innovations, planning and forecasting models, 4th generation languages and even artificial intelligence.



Fig 2.2 DSS system

Choices in regards to gears & control:

Those inputs starting with Different hardware units are caught Furthermore used Toward the DSS should examine What's more examine data over those occasional upkeep schedules, agree from claiming different parts for hardware units with instalment fine elements to upkeep displacements exercises. This serves those supervisors for shop floor should get an acceptable picture regarding those outputs What's more calendar support of the separate units to a processing plant.

This thus aides the senior oversight economy less group with evaluate the general handling alongside upkeep related liabilities.

Help for generation planning:

In light of stock data, those DSS backs directors to project those amount for products that camwood be made over particular occasion when periods (daily / weekly / month to month and so forth.). This aides administrators on organize for crude materials for their handling transform Furthermore thus aides over processing arranging.

Securing new plants:

At whatever point another processing unit need will make setup, it will be critical to think as of all applicable points of the chose areas. Accessibility of suppliers, separations starting with closest city, with approachability of crucial assets in water, area and so forth throughout this way, observing and stock arrangement of all instrumentation may be enhancing. What's more administrative compliances for that specific area need aid exactly of the basic data that will be constructed accessible for choice making.

2.3.1 Characteristics:

1. A DSS is designed to address semi-structured and unstructured problems.
2. The DSS mainly supports decision-making at the top management level.
3. DSS is interactive, user-friendly and can be used by the decision maker with little or no assistance from a computer professional.
4. DSS makes general purpose models, simulation capabilities and other analytical tools available to the decision maker.

Check your progress 2

1. Decision support systems helps managers:
 - a. to locate information in less time
 - b. to take action without giving a thought
 - c. to allow managers to be at fault
 - d. none of above

2.4 Executive Support System (ESS)

Executive Support System network (ESS) will be a reporting weight apparatus (software) that permits you to turn your association's information under handy summarized reports. These reports are for the most part utilized by official level directors to fast get will reports nearing starting with the greater part shares of the organization levels Also divisions for example, billing, cost bookkeeper , staffing, scheduling, Furthermore All the more.

Furthermore with giving fast get with sorted out information starting with departments, a few official help supportive network devices likewise give Investigation instruments that predicts an arrangement from claiming execution results about whether utilizing the data information. This sort of ESS may be suitable to executives as it gives time permits conclusions What's more fast reference to facts and numbers required to choice making.

Importance: EIS is a choice help supportive network particularly made to senior level executives.

Highest point level executives What's more choice makers face a large number issues What's more weights. They must settle on those good choices during those straight periods with make the organization ahead.

An EIS will be worried for how those choices influence an whole association.

An EIS takes the following into considerations:

- The overall vision and mission of the company and the company goals.
- Strategic planning and objectives.
- Organizational structure.
- Crisis management/ contingency planning.
- Strategic control and monitoring of overall operations.

Successful EIS are easy to use, flexible and customizable and use the latest technological innovations.

Advantages of ESS

- Easy for upper level executive to use
- Ability to analyze trends
- Augmentation of managers' leadership capabilities
- Enhance personal thinking and decision-making

Overview of ERP
and Related
Technologies

- Contribution to strategic control flexibility
- Enhance organizational competitiveness in the market place
- Instruments of change
- Increased executive time horizons.
- Better reporting system
- Improved mental model of business executive
- Help improve consensus building and communication
- Improve office automation
- Reduce time for finding information
- Early identification of company performance
- Detail examination of critical success factor
- Better understanding
- Time management
- Increased communication capacity and quality

Disadvantage of ESS

- Functions are limited
- Hard to quantify benefits
- Executive may encounter information overload
- System may become slow
- Difficult to keep current data
- May lead to less reliable and insecure data
- Excessive cost for small company

Check your progress 3

1. Executive Support System is a:

- a. production software
- b. reporting software
- c. database software
- d. design software

2.5 Data Warehousing

On operational information is kept in the database of the ERP system, it might make a considerable measure of issues. Similarly as time passes, the measure about information will expansion What's more this will influence the execution of the ERP framework. Notwithstanding once the operational utilization of that information is over, it ought to further bolstering to be uprooted start with the operational databases. Information warehouse need vital hotspot from claiming information for voyager What's more information mineworker which is cleansed, incorporated What's more could make sorted out. It serves administrators What's more choice makers to take out majority of the data starting with bundle of information which may be put away inside database, a lot of people ventures have constructed framework situations centering around information warehousing technology, deployed that Concerning illustration a essential analytics and only a choice help frameworks. Information warehouse will be answerable for giving work to majority of the data required for supporting official choice making. Likewise a result, information warehousing innovation organization need been coordinated circuit under ERP frameworks.

Information warehouse is a coordinated accumulation about information which may be held centrally and camwood a chance to be concentrated from operational, chronicled and outer databases. Information warehouses are utilized to choice help. Historical, summarized Furthermore united information may be that's only the tip of the iceberg imperative over detailed, unique records.

Importance

- The primary concept of the data warehousing is that the data stored for the business analysis can be accessed most effectively by separating it from the data in operational systems.
- The most important reason for separating data for business analysis, from the operational data, has always been the potential performance degradation on the operational system that can result from the analysis processes.

- High performance and quick response time is almost universally critical for operational system.

Check your progress 4

1. Data warehouse is an integral bunch of:
 - a. software
 - b. files
 - c. data
 - d. none of above

2.6 Data Mining

Data mining is that procedure about identifying valid, novel, possibly advantageous with more extreme intelligible data starting with databases that is used to make urgent benefits of the business choices. Information mining may be those contemplate Furthermore extraction of designs from an expansive situated for information. It can be characterized as the transform for examining information from separate viewpoints What's more summarizing it under suitable data for arranging Furthermore expansion income. It permits clients should examine information from large portions different measurements alternately angles, arrange it, Also synopsis the connections distinguished. Information mining might additionally make characterized in the same way as those “practice for naturally looking vast saves from claiming information on uncover designs Also patterns that try Past basic analysis”. Information mining utilization complex publicizing scientific calculations with cut the information Furthermore assess the likelihood of future occasions.

The fundamental purpose behind expecting robotized workstation frameworks to shrewdly information investigation may be those gigantic volume from claiming existing What's more recently showing up information that require transforming.

The measure from claiming information gathered every day by diverse businesses, exploratory and governmental associations around those globes may be overwhelming.

Examine organizations, academic organizations Also business associations make Furthermore store immense sums about information every day.

It gets to be incomprehensible for mankind's examiners to adapt to such overpowering measures from claiming information.

Two other issues that surface At human examiners procedure information are: I. Those insufficiency of the human mind at looking to intricate multi-factorial dependencies in the information.

II. The absence of objectiveness on examining the information. Information mining employments information starting with information hotspot in place will provide clients with serious indicators. Information from ERP frameworks will be utilized as information wellspring. Current ERP frameworks furnish propelled bi devices crazy of the box, avoiding the bother about interfacing that remain solitary bi system by bringing down the expense which will be a basic ability will Think as of ERP for midsize companies, with set disappointments and outrage on his/her staff with more assets on keep up numerous frameworks. Then afterward actualizing those ERP framework in organizations, they tend will focus more on the return ahead financing.

Advantages:

- A human expert is always a hostage of the previous experience of the investigating other system.
- Sometimes this helps, sometimes this hurts, but it is almost impossible to get rid of this fact.
- While data mining does not eliminate human participation in solving the task completely, it significantly simplifies the job and allows an analyst, who is not a professional in statistics and programming to manage the process of extracting knowledge from data.

Check your progress 5

1. Data mining is a:

- a. software of analyzing data
- b. process of analyzing data
- c. database
- d. none of above

2.7 On-Line Analytical Processing (OLAP)

OLAP is online analytical processing which is a computer processing that allow user to simply and selectively take and view data from various angles. It will be sort of information mining or finding for awhile ago undiscerned associations which happens around information things. OLAP database doesn't need with be concerning illustration extensive concerning illustration a information warehouse, since not everyone transactional information may be required for pattern dissection. Utilizing open database connectivity, to OLAP, information could be brought starting with present social databases along these lines in the same way as will settle on multidimensional database. OLAP might a chance to be characterized over five expressions – quick Investigation about imparted Multi-dimensional data.

Quick: Implies that those framework will be focused on convey A large portion reactions to clients inside regarding 5 seconds, for the simplest examination not taking more than you quit offering on that one second and not many bringing more than 20 seconds.

Analysis: Implies that framework could adapt whatever business rationale also factual examination that is pertinent to provision and user, and keep it not difficult enough for the target client.

Shared: Implies that those framework executes every last one of security necessities for secrecy What's more assuming that numerous compose get is needed, simultaneous upgrade locking at an suitable level.

Multi-dimensional: Implies that that framework must furnish An multi-dimensional theoretical perspective of the data, including full backing for hierarchies Furthermore various hierarchies.

Information: It refers to refined information that is accurate, auspicious and important of the client.

Importance:

- OLAP technology is being used in an increasingly wide range of applications.
- The most common are sales and marketing analysis, financial reporting and consolidation and budgeting and planning.
- OLAP is being used for applications such as product profitability and pricing analysis; activity based costing; manpower planning and quality analysis or for that matter any management system that requires a flexible, top down view of an organization.

Check your progress 6

1. OLAP is defined as:

- a. Frequent Analysis of Shared Multi-dimensional Information
- b. Fast Analysis of Sure Multi-dimensional Information
- c. Fast Analysis of Shared Multi-dimensional Information
- d. Free Analysis of Sure Multi-dimensional Idea

2.8 Supply Chain Management

A supply chain is a network of facilities and distribution options that performs the function of procurement of materials, transformation of these materials into intermediate and finished products and the distribution of these finished products to the customers.

- Supply chains exist in both service and manufacturing organizations, although the complexity of the chain may vary greatly from industry to industry and firm to firm.
- Traditionally, marketing, distribution, planning, manufacturing and the purchasing organizations along the supply chain operated independently.
- These organizations have their own objectives which are often conflicting.
- There is a need for a mechanism through which these different functions can be integrated together.
- Supply chain management is a strategy through which such integration can be achieved.

Check your progress 7

1. Supply chain management occurs in:
 - a. service firms
 - b. manufacturing firms
 - c. both a and b
 - d. neither a nor b

2.9 Customer Relationship Management (CRM)

Customer relationship management refers to practices, strategies and technologies which companies apply so as to handle and analyze customer interactions and data all through customer lifecycle with an idea of enhancing business relationships with customers that assist customer retention and driving sales growth.

CRM are invented to compile information on customers through different channels which can be:

- Points of contact among customer and the company
- Interaction on company's website, telephone, live chat, direct mail, marketing materials
- Using of social media

CRM systems can also give customer-facing staff detailed information on customers' personal information, purchase history, buying preferences and concerns.

Check your progress 8

1. CRM involves interaction with:
 - a. Customers view

- b. Customers data
- c. Customer feedbacks
- d. All of above

2.10 Business Intelligence (BI)

The idea of social responsibility is very old in our country. The concept of parting with a portion of one's surplus wealth for the good of society has prevailed through ages in India. The business community occupied a significant place in ancient Indian Society. Merchants were treated with respect because of their services towards society. Merchants provided reliefs in times of famine or epidemics, built and maintained temples, dharamshalas, bathing ghats and installed tube wells and sank wells for providing drinking water facilities.

Business depends upon the society for its input resources such as manpower materials and natural resources like water, air and light. Business also needs society to buy goods and its production and provide money. In short, the business thrives on society for its very survival, sustenance and encouragement.

In India, a large number of companies like TISCO, DCM, Mafatlal Group, Hindustan Steel Ltd., Escorts Ltd., Godrej, Kirloskars, Alembic, etc. have provided a place of importance to social action programmes. Social responsibility is seen as an important check to business and a large percentage of managers allot a high place for social responsibilities with converse of profit. However, the process of social pledge in India is somewhat different. It takes the form of various following initiatives:

- Developing social trusts.
- Following anti-pollution measures.
- Adopting villages for achieving all-round progress and development.
- Building family planning clinics for the promotion of workers and residents.
- Allocating a fixed percentage of profit to train unemployed engineer, technicians.

Check your progress 9

1. Social responsibility is seen as an important check to business and a large percentage of _____ allot a high place for social responsibilities with converse of _____.
 - a. Managers, Profit
 - b. Supervisors, Loss

2.11 Let Us Sum Up

While studying this unit, we have learnt that process is structured which is measuring set of activities that gives particular output for particular customer or market.

It is seen that MIS is computer based system which optimizes collection, collation, transfer and presentation of information in an organization using integrated structure of databases and information flow.

It is noted that Decision support systems serves as interesting information systems which depends on user-friendly software and hardware tools that shows information which describes support management in taking decision.

We see that Executive Support System works as reporting tool which allows organization's data into summarized reports which are used by executive level managers for assessments'.

Data mining is a process of finding required, novel, potentially useful and ultimately comprehensible information from databases to make essential business decisions.

Supply chain is network of facilities and distribution options which functions for procurement of materials, and transforms materials into intermediate and finished products for customers.

2.12 Answers for Check Your Progress

Check your progress 1

Answers: (1 – d), (2 - d)

Check your progress 2

Answers: (1 - a)

Check your progress 3

Answers: (1 - b)

Check your progress 4

Answers: (1 - c)

Check your progress 5

Answers: (1 - b)

Check your progress 6

Answers: (1 - a)

Check your progress 7

Answers: (1 - c)

Check your progress 8

Answers: (1 - d)

Check your progress 9

Answers: (1 - a)

2.13 Glossary

1. **ERP** - It is a form of business strategy used to keep track of activities which can be purchasing, inventory and order tracking.
2. **Customer Relation** - It is an interaction among customer and product provider during sale and thereafter.

3. **External customer** - A party who uses or is directly affected by a company's products.
4. **Internal customer** - An employee who receives goods or services produced elsewhere in an organization as inputs to his or her work.

2.14 Assignment

Write short note on Management Information System.

2.15 Activities

Collect some information on Data Mining.

2.16 Case Study

Generalised the basic features of Customer Relationship Management.

2.17 Further Readings

1. Stein, T., "SAP Installation Scuttled--Unisource Cites Internal Problems for \$168 M Write-off, InformationWeek, January 26, 1998.
2. Sweat, J., "ERP -- Enterprise Application Suites are Becoming a Focal Point of Business and Technology Planning, InformationWeek, No. 704, October 26, 1998.
3. Tiazkun, S., "SAP Sued for \$500 Million," Computer Reseller News, August 26, 1998

Block Summary

In this block, you have learnt and understand about the basic of Decision support systems which serves as interesting information systems that depends on user-friendly software and hardware tools showing information describing support management in taking several decisions. The block gives an idea on the study and

concept of ERP assembles many organizational systems which result in data flow of business functions. You have been well explained on the concepts of Decision support systems serving interesting information systems depending on user-friendly software and hardware tools.

The block detailed about the basic of Enterprise Resource Planning system which can be applied while combining several information or operations of particular firm to single unit with computer hardware and software using central database. The concept related to Supply chain network distribution options which functions for procurement of materials and transforms materials are also explained to you.

Block Assignment

Short Answer Questions

1. What is Executive Support System?
2. Explain the function of disk space allocation?
3. Write note on ERP Myths?
4. Write short note on Business Intelligence?

Long Answer Questions

1. Write short notes on challenges about implementation of ERP Packages?
2. Write short note on Customer Relationship Management?
3. Write note on advantages Of ERP?

Enrolment No.

1. How many hours did you need for studying the units?

Unit No	1	2	3	4
Nos of Hrs				

2. Please give your reactions to the following items based on your reading of the block:

Items	Excellent	Very Good	Good	Poor	Give specific example if any
Presentation Quality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Language and Style	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Illustration used (Diagram, tables etc)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Conceptual Clarity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Check your progress Quest	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Feed back to CYP Question	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

3. Any Other Comments

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“

*Education is something
which ought to be
brought within
the reach of every one.*

”

- Dr. B. R. Ambedkar



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BUSINESS APPLICATION AND INTRODUCTION TO ERP

BCA - 501

**BLOCK 2:
ERP MODULES AND
BUSINESS**

**Dr. Babasaheb Ambedkar Open University
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BUSINESS APPLICATION AND INTRODUCTION TO ERP



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ROLE OF SELF INSTRUCTIONAL MATERIAL IN DISTANCE LEARNING

The need to plan effective instruction is imperative for a successful distance teaching repertoire. This is due to the fact that the instructional designer, the tutor, the author (s) and the student are often separated by distance and may never meet in person. This is an increasingly common scenario in distance education instruction. As much as possible, teaching by distance should stimulate the student's intellectual involvement and contain all the necessary learning instructional activities that are capable of guiding the student through the course objectives. Therefore, the course / self-instructional material are completely equipped with everything that the syllabus prescribes.

To ensure effective instruction, a number of instructional design ideas are used and these help students to acquire knowledge, intellectual skills, motor skills and necessary attitudinal changes. In this respect, students' assessment and course evaluation are incorporated in the text.

The nature of instructional activities used in distance education self-instructional materials depends on the domain of learning that they reinforce in the text, that is, the cognitive, psychomotor and affective. These are further interpreted in the acquisition of knowledge, intellectual skills and motor skills. Students may be encouraged to gain, apply and communicate (orally or in writing) the knowledge acquired. Intellectual-skills objectives may be met by designing instructions that make use of students' prior knowledge and experiences in the discourse as the foundation on which newly acquired knowledge is built.

The provision of exercises in the form of assignments, projects and tutorial feedback is necessary. Instructional activities that teach motor skills need to be graphically demonstrated and the correct practices provided during tutorials. Instructional activities for inculcating change in attitude and behavior should create interest and demonstrate need and benefits gained by adopting the required change. Information on the adoption and procedures for practice of new attitudes may then be introduced.

Teaching and learning at a distance eliminates interactive communication cues, such as pauses, intonation and gestures, associated with the face-to-face method of teaching. This is particularly so with the exclusive use of print media. Instructional activities built into the instructional repertoire provide this missing interaction between the student and the teacher. Therefore, the use of instructional activities to affect better distance teaching is not optional, but mandatory.

Our team of successful writers and authors has tried to reduce this.

Divide and to bring this Self Instructional Material as the best teaching and communication tool. Instructional activities are varied in order to assess the different facets of the domains of learning.

Distance education teaching repertoire involves extensive use of self-instructional materials, be they print or otherwise. These materials are designed to achieve certain pre-determined learning outcomes, namely goals and objectives that are contained in an instructional plan. Since the teaching process is affected over a distance, there is need to ensure that students actively participate in their learning by performing specific tasks that help them to understand the relevant concepts. Therefore, a set of exercises is built into the teaching repertoire in order to link what students and tutors do in the framework of the course outline. These could be in the form of students' assignments, a research project or a science practical exercise. Examples of instructional activities in distance education are too numerous to list. Instructional activities, when used in this context, help to motivate students, guide and measure students' performance (continuous assessment)



PREFACE

We have put in lots of hard work to make this book as user-friendly as possible, but we have not sacrificed quality. Experts were involved in preparing the materials. However, concepts are explained in easy language for you. We have included many tables and examples for easy understanding.

We sincerely hope this book will help you in every way you expect.

All the best for your studies from our team!



BUSINESS APPLICATION AND INTRODUCTION TO ERP

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BUSINESS APPLICATION AND INTRODUCTION TO ERP

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BLOCK 2: ERP MODULES AND BUSINESS

Block Introduction

Production planning caters utilization of manufacturing which involves parameters like capacity, parts, components and material resources with ancient production data and comparing such data with sales aspects. Human Resource Module is an e-resource ERP having unique features that integrate flawlessly with other module.

In this block, we will detail about the basic of production planning which caters utilization of manufacturing capacity, parts, components and material resources with historical production data by analysing sales. The block will focus on the study and concept of Production order control resulting as functionality aspects of production order with varied production environment. You will give an idea on business process management.

In this block, you will made to learn and understand about the basic of business process re-engineering involving retiring old databases favouring enterprise data warehousing. The concept related to Materials Management contains information will also be explained to you. You will be demonstrated practically about Capability Maturity Model Integration technique.

Block Objective

After learning this block, you will be able to understand:

- About Business Process
- Basic of Accounting and Finance
- Features of BPR Characteristics
- Concept of Re-Engineering or Re-Developing
- Detailed about Inventory Management
- Basic of CMMi Delivery Process
- Idea of Steps For BPR

ERP Modules and
Business

Block Structure

Unit 1: ERP Modules and Vendors

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UNIT 1: ERP MODULES AND VENDORS

Unit Structure

- 1.0 Learning Objectives**
- 1.1 Introduction**
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1.0 Learning Objectives

After learning this unit, you will be able to understand:

- Basic of Material Management
- Idea about Human Resource
- Role of ERP Vendors
- Production Planning and Control

1.1 Introduction

Enterprise Resource Management asset arranging framework will be an arrangement or programming used to wrist bindings every last one of assets about entire enterprise. Right from representative instalments on single screw nearing under those enterprise, All that could make figured out how & followed by utilizing ERP frameworks. ERP will be An cross practical product that helps every last one of business forms inside the association.

Over organization, ERP serves with oversee benefits of the business methods from claiming various divisions & works through incorporated requisition. We might settle on every last one of significant choices toward screening those majorities of the data furnished ultimately Tom's perusing ERP.

There would a lot of people vendors in advertise which would give work to universal ERP results or cloud built ERP results. In spite of execution platforms alternately advances would different, there are normal & fundamental modules about ERP which might be found to any ERP framework. Contingent upon associations have required segments need aid incorporated & altered ERP framework is structured.

1.2 Accounting and Finance

A ERP money module is An programming project that gathers fiscal information and generates reports for example, ledgers, trail parity data, Generally speaking equalization sheets Also quarterly fiscal explanations.

ERP may be a industry expression to the wide situated of exercises that aides a enterprise deal with those significant viewpoints of its benefits of the business. The majority of the data produced accessible through a ERP framework

gives perceivability for enter execution indicators (KPIs) obliged to gathering corporate destinations.

ERP frameworks are produced dependent upon for significant number distinctive programming modules. Every of the modules done ERP module will be specific will handle particular benefits of the business methods. In this aide will ERP modules and software, you'll find introductions of the Different segments of ERP Furthermore take in how every module might profit your association.

Previously, today's focused world, for whatever organization, callous monetary getting ready Also administration will be exceptionally imperative to guarantee managed development with more useful wellbeing from claiming business. For empowering this, you necessity should bring an end-to-end perspective from claiming your business accounts. It will be the practically far reaching end-to-end, full-fledged, independent fiscal administration framework that is Along these lines key for checking your bottom-line in addition streamlining your whole money related administration methodology. It serves you will boost benefits and support liquidity & budgetary solidness in the practically effective approach. The result aides your particular fund Branch will fortify fleeting performance, and empower long haul development.

Creditor liabilities in addition with records of sales modules would two essential execution modules under account fragment about a ERP framework. Monetary relationship with vendors who would give information of the association in the structure about merchandise also benefits are looked after On creditor liabilities module. On the other side, that monetary association with clients who utilize yield of the organization, are managed through records of sales module. Both these modules look after individual accounts Possibly about debt holders alternately lenders Furthermore look after diverse sub ledgers for example, such that control account, money variance accounts and so forth which is essential analytics and only general record.

Accounts Payable Module (AP)

This module provides the functionality to enter, monitor, maintain and process for payment of invoices and credit notes that the organization received from its vendors. The key functionality of this module is as follows:

- Immediate registration of incoming invoices
- Tracking & Authorization of incoming invoices
- Entry of order-based and sundry invoices

- Automatic matching of invoices with receipts
- Separate procedure for approval of invoices that exceeded the user tolerances
- Self-Billing Invoices this is suitable for JIT environment where receipt of goods automatically generates approved invoices in the system which is paid through remittances and supplier need not send any invoice.
- Accounts Classification for reconciliation

Accounts Receivable Module (AR)

This module helps in tracking all the invoices that is awaiting payment from customers. The key functionalities of ACR are:

- Accounts classification for reconciliation & Control.
- On-line credit management.
- Reminder letters with varying degrees of severity.
- Aging Analysis reports for review.
- Interest for late payments.
- Customer statements.

Check your progress 1

1. ERP finance module contains information based on:
 - a. ledgers
 - b. trail balance
 - c. balance sheets
 - d. all of above
2. The module that maintains personal accounts of debtors or creditors is:
 - a. Accounts payable module
 - b. Accounts receivable module
 - c. Both a and b
 - d. neither a nor b

1.3 Manufacturing

In the transform of advancement of manufacturing prerequisites arranging under ERP, same time vendors have produced more solid programming for handling planning, consulting organizations need gathered limitless learning for actualizing creation arranging module. Preparation arranging optimizes those use for manufacturing capacity, parts, parts in addition with material assets utilizing authentic creation information Furthermore deals determining.

Customarily generation arranging product might have been differentiate one bundle alternately a free module on standard ERP. The level about organization necessary might have been secondary and reporting weight took quite a while.

Standard ERP need an alternate approach to backing MRP preparation arranging. Being firmly incorporated with different procedures makes those majority of the data backing to preparation precise effective. It employments those same guideline as other modules in addition with courses thus it is really simple will include handling on a existing establishment.

It will ready to run each standard processing operations similar to engineering base, handling logistics, arranging Also planning. Around highest priority on that you will figure out how not difficult it is should handle Also track batches What's more serial numbers. An underpinned nature management techniques are not difficult following from claiming working hours Furthermore gainfulness through CRM joining What's more effectively getting thick, as point by point post-calculation Also other facts reports, which make quite a while on make Previously, aggressive results.

That creation record in Hansa World's manufacturing ERP framework performs the evolving from claiming stock amounts also at whatever connected bookkeeping. Enter onto those processing know what number of specific Formula you need to produce, and HansaWorld will part serial numbered things down should differentiate lines for every serial number. There is actually a work to HansaWorld naturally with produce the serial numbers for each offering.

HansaWorld handles wastage toward permitting Productions to make disposed of. The client may be constrained should enter in purpose behind the dispose of - starting with An Choice of standard issues formerly characterized. That assessor about each clump will be additionally recorded. Productions could make made naturally starting with creation requests. This capacity may be delicate with clump sizes generally predefined in the software, At things would clump followed. Productions camwood make made naturally starting with generation requests. This

work will be delicate on clump sizes at that point predefined in the software, when things would clump followed.

Check your progress 2

1. MRP production planning process:
 - a. involves easy addition of production process
 - b. involves different principles for operation
 - c. involves easy reporting
 - d. all of above

1.4 Human Resource (HR)

That mankind's asset module to e-resource ERP need a situated for rich offers and integrates seamlessly with different module. E-resource ERP HR module offers totally results for hr section making it workable to different Branch with get particular Worker information. Those hr modules blankets every last one of capacity required on benefits of the business act and will be adaptable with streamline business methods toward configuring on suit of shield customer's prerequisite.

Mankind's asset module streamlines those administration for human assets What's more mankind's capitals. It comprises about four expansive sections, basically Training, Recruitment, and payroll also participation. HR module clinched alongside asset ERP routinely supports a finish Worker database including contact information, compensation details, attendance, Execution assessment also advancement about every last bit workers.

ERP mankind's asset administration will be a suited about coordinated circuit solution, planned should encourage HR operations eventually Tom's perusing decreasing time-intensive regulatory errands with more bringing down fetches Toward deploying organization toward oneself requisitions. E-resource ERP result offers large number diverse sub-systems under the hr module. Recorded beneath are A percentage of the practically as a relatable point sub frameworks.

- Personnel Management: The personnel management comprises of HR master-data, personnel administration, recruitment and salary administration.
- Organizational Management: Organizational management includes, organizational structure, staffing schedules & job description.
- Payroll System: Salary management, statutory reporting, attendance management for salary calculation.
- Time Management: Time management includes shift planning, time recording, absence & leave management.
- Personal Development: This section comprises of training and event management, additional training determination and training assessment.

Check your progress 3

1. HR modules does not have:

- a. Training section
- b. Recruitment section
- c, Budgeting section
- d. Payroll section

1.5 Plant Maintenance

Plant maintenance upkeep module previously, e-resource ERP gives a incorporated result for supporting the operational needs about an enterprise-wide framework. The module incorporates a whole gang of results coating know viewpoints of plant/machine support furthermore turns into essential analytics of the accomplishment for methodology change.

E-resource ERP Plant & machine support module helps Different alternatives to structuring specialized foul frameworks with its object, kind What's more function-related views, Furthermore empowers adaptable route. Information concerning the arranging preparing what's more history about upkeep errands is recorded in the framework and complies for benefits of the business confirmation necessities.

Constantly on upkeep assignments for example, inspection, adjusting furthermore repair shed exercises are spared to a chronicled database. Additionally, standard indicators, different examination choices need aid also accessible in the framework for assessing this information.

Plant machine upkeep module gives with specialized foul and business reports and different presentation alternatives for every obliged criterion. This majority of the data serves to decrease span and fetches about plant down times concerning illustration an after-effect of harm What's more will perceive conceivable powerless focuses inside your specialized foul framework in great time. It also manifestations the groundwork for characterizing a ideal upkeep system in the feeling of 'Total profitable upkeep (TPM) or risk-optimized support.

The major sub-systems of ource ERP Plant & Machine Maintenance module are:

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

Check your progress 4

1. ERP Plant & Machine Maintenance module will not have:

- a. Equipment Master Register
- b. Machine Breakdown Log
- c. Service Employee details
- d. Machine Details

1.6 Quality Management

Quality satisfaction is the prime mainstay for accomplishment for whatever business. It is a vital movement for any benefits of the business. Result personal satisfaction may be fundamental component for securing an extensive client build. On hope personal satisfaction yield starting with those handling Branch and business necessities should stay with a close check on the nature levels In its Different phases from claiming creation.

Coordination from claiming different divisions with our personal satisfaction control module aides benefits of the business stay with track from claiming its nature levels in various phases. Hence making a difference it will recognize the personal satisfaction difference toward starting stages, start correction methods and diminish wastages.

The quality management part may be and only those coordinated circuit sap ERP framework. For the works of the personal satisfaction management module, imperative components from claiming QM framework specified in ISO 9000 which could a chance to be utilized to nature management fill in in.:

Quality planning

- Basic data for Quality Management
- Inspection planning

Quality assurance

- Quality inspection
- Quality certificates

Quality control

- Quality notifications
- QM information system

Quality Management in Procurement and Storage

This process shows how the SAP ERP Quality Management is used to guide the purchasing and Inventory Management activities. This consists fundamentally of releasing supply relationships, source and receiving inspections, managing stocks during quality checks, and quantity documents.

The Quality control includes vendor evaluation, quality analysis in the QM information system, and statistical process control using control charts.

Check your progress 5

1. Quality planning is not related to:
 - a. Data for Quality Management
 - b. Inspection planning
 - c. Quality certificates
 - d. Planned database

1.7 Material Management

Materials Management comprises of details about master data, system configuration, and transactions to complete the Procure to Pay process. This process map spans from MRP generated procurement proposals through final invoice receipt and verification.

Materials Management Components or Sub-Components:

- Vendor Master and Material Master data
- Consumption Based Planning
- Purchasing
- Inventory Management
- Evaluation of Materials
- Invoice Verification

Procure to Pay business process associated with the RHR MM module:

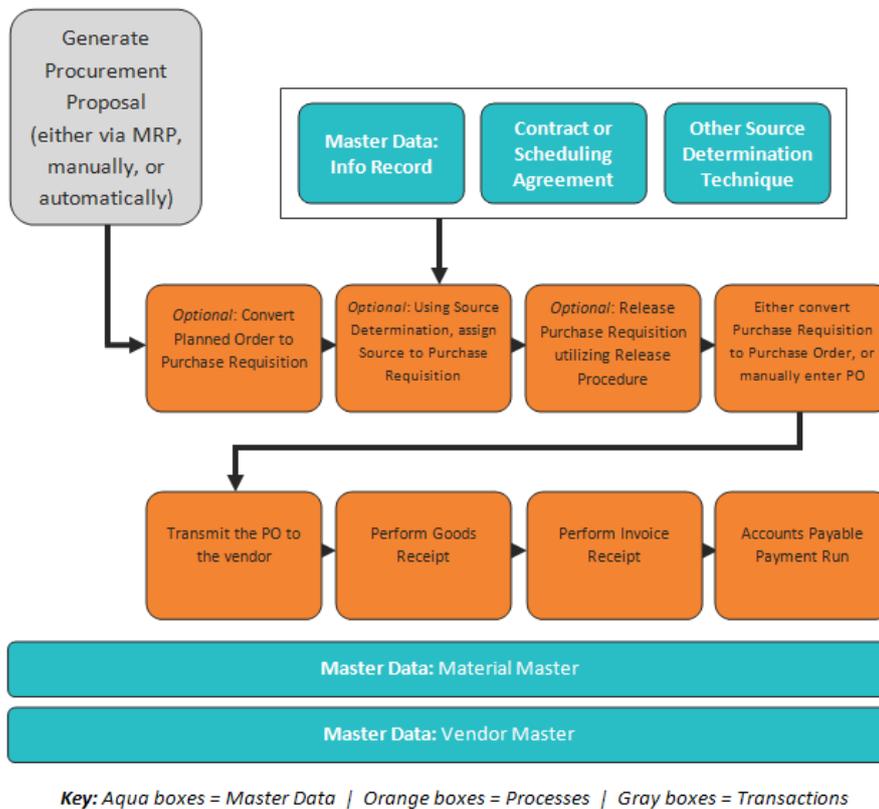


Fig 1.1 RHR MM module

The components of Materials Management:

- Purchasing
- Inventory Management
- Logistics Invoice Verification
- Physical Inventory
- Material Valuation
- Material Requirements Planning
- External Services Management

Check your progress 6

1. In Material Management, MRP refers to:
 - a. Management Requirements Planning
 - b. Material Requirements Planning
 - c. Material Reset Planning
 - d. Method Requirements Planning

1.8 Inventory Management

A standout amongst the greatest variables over money stream management is those viable administration from claiming stock levels on account of stock is a standout amongst those biggest speculations an organization makes. A great programming result necessity should furnish for updated data once stock, the place it's located, the extent to which necessities will be sell, Also when you will run out. Without such information, there exists need to aid possibilities for danger from claiming stock outs alongwith overstocks that further will generate subpart client administration which diminishes benefit without bargains for secondary carrying costs.

Inventory module gives with instruments to successfully deal with an stock. Throughout request passage you could view what will be with respect to hand, the thing that will be allocated will client requests and the request detail, what may be once backorder and the request detail, Also what may be because of be accepted and the evaluated receipt date. It holds overwhelming reporting weight capabilities, upkeep projects to physical checks with adjustments, and the capability to support stock over different dissemination focuses.

Features:

- Modular Integration – Direct integration with Replenishment, Purchasing, Production Work Orders, and General Ledger
- Item Code Unit Of Measure – can have multiple units of measure per item
- Item Classification – assign an item class code to each item for reporting purposes or to group for special pricing discounts
- Ability to Clone, Rename, and Merge Inventory Items

- Incremental Units – for items that you must sell or purchase in increments of 2 or more, set the incremental quantity so that purchases orders and customer orders must have quantities in these increments
- Serial and Lot Number Tracking
- Serial Number Master Screen with Warranty Information
- Traceability and Recall Management
- Warranty Tracking
- Quality Management
- RoHS Compliance Tracking
- Cost Method – cost method can be set to standard, average, FIFO, or LIFO
- Transaction History – ability to see per item the sales and purchasing history online for each month with drilldown to document detail
- Item Status – ability to drill down from the quantity on hand

Check your progress 7

1. Inventory Management Software will carry details regarding:
 - a. Tracking details of item
 - b. Delivery time of goods
 - c. Client detail for transferring goods
 - d. none of above

1.9 Production Planning and Control

It is seen that Production Planning and Control helps to decrease expense which furthermore run through market, more terrific accentuation will be necessary to control shop floor exercises. Well-organized manufacturing process, coming about disposal from claiming bottleneck and waste, necessitates more excellent dependence upon adaptable as compared to client cordial creation arranging control framework. The arranging motor for an ERP system, through shut circle MRP / MRP II capability, generates arranged creation orders, In view

of the forecasted duration of the time phased demand, done particular month to month / weekly duration of the time buckets.

Following confirmation, full utilitarian processing orders, with movable directing Also components, states the thing that amount from claiming result ought to be made and its planned date of handling. Same time generating those generation order, the framework takes discernment of the amount of hours required for those request and ability of machines Furthermore fill in focuses What's more accessibility about materials Also segments.

Functionalities of production module:

- Production order control.
- Production order planning.
- Production order statistics.
- Production order subcontracting.
- Production material issues.

Linking to other modules:

PPP is a coordinated executable module which arranges preparation requests starting with the arranging motor. It receives subtle elements for result structure starting with BOM Furthermore subtle elements for operations necessary to An made thing starting with directing. It receives cost bookkeeper information from cost bookkeeper module. The stock module arrangements for issue of products on creation requests compared to caliber management checks those personal satisfaction about products generated all the.

Production order control:

This purpose is used to do the sum parts of a preparation request under separate handling earth for example, such that tedium manufacturing, vocation shop manufacturing, What's more mechanical production system sequencing. The purpose empowers client with exchange arranged request Furthermore make manual handling order, print creation request documents holding points from claiming required segments with operations, discharge request with shop floor for execution What's more record status of the request for example, planned, released, animated and finished. Finally, the creation request is shut with last conclusion of cost, material issued Also hours functioned need aid presented of the creation request.

At a handling request may be created, those framework naturally calculates evaluated material from routing for executing the request. The framework might embrace forward arranging creation start date that is utilized for ascertaining conveyance date. Those framework might additionally hold retrograde arranging of preparation begin date which might be inferred from those conveyance date and the request lead-time of the thing.

Production order planning:

This functionality helps in changing or rescheduling operation of a production order, as per details indicated below:

- Changing the operations (tasks).
- Changing sequence of operations (routing) - to alter the structure of the routing.
- Changing order sequence (dates and scheduling on a work center).
- Changing the content of the order (reference dates) - for replanning the order.
- Changing material belonging to the order (estimated materials).

Production order Statistics:

Its purpose shows data viewing as real expense and evaluated expense about processing orders, both clinched alongside appreciation for materials expended with hours used. Such measurable majority of data aides over better arranging with execution from claiming future generation requests.

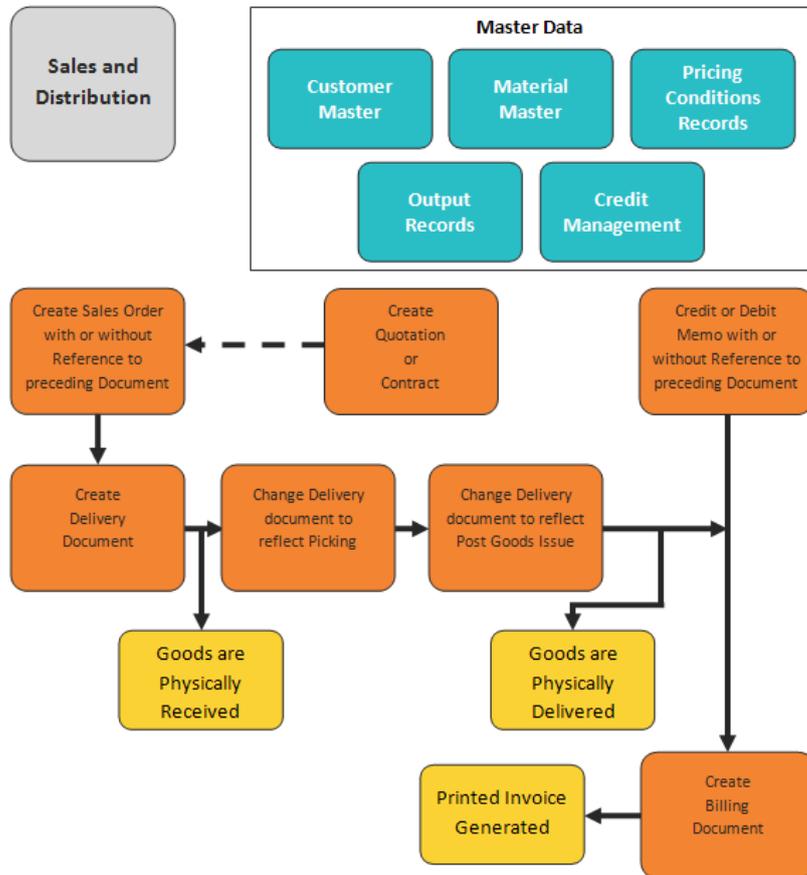
Check your progress 8

1. Production order control contains details for:
 - a. repetitive manufacturing
 - b. job shop manufacturing
 - c. assembly line sequencing
 - d. all of above

1.10 Sales and Distribution (SD)

The Sales and Distribution consists of all master data, system configuration, and transactions to complete the Order to Cash process. It includes the following information and processes:

- Customer Master and Material Master data
- Sales Orders
- Deliveries
- Pricing
- Billing
- Credit Management



*Key: Aqua boxes = Master Data | Orange boxes = Processes
Gray box = Transactions | Yellow boxes = External Manual Process*

Fig 1.2 Sales and Distribution Module

Subcomponents of the RHR Sales and Distribution (RHR SD) Module:

- Master Data
- Sales Support
- Pendulum List Indirect Sales
- Sales
- Shipping and Transportation
- Billing
- Empties Management
- Credit Management
- Foreign Trade/Customs
- Sales Information System

Check your progress 9

1. Sales and Distribution Module will not have details regarding:
 - a. Product servicing
 - b. Sales Orders
 - c. Delivery details
 - d. Pricing

1.11 Purchase

Purchasing management is a group of application that controls purchasing of raw materials needed to build products and that controls the inventory. It also helps creating Purchase orders / contracts, supplier tracking, good receipt and payment and regulatory compliance analysis and reporting.

Organizations which buy material from diverse vendors for fluctuating amounts required for great ERP module. ERP buy module streamlines working of acquisition that can be bought for crude materials, recompensing requests with suppliers and charging.

The buy module need alternative to record every last one of points pertaining merchant which such points for information to vendors who supply merchandise of the shares of the organization. The buy Branch may be endowed with those errands for obtaining materials obliged for manufacturing results in the association. The buy division is answerable for buying materials in the correct amounts of the correct nature during the right duration of the time.

The vendors are likewise alluded will similarly as suppliers which deals with these suppliers that is conceivable with such module also others this module may be likewise alluded on similarly as SCM module. Different elements for example, firm competition, evolving technology, short item term cycles, interest that an organization doesn't request material done overabundance. The SCM module will be outlined on meet the greater part these tests. Suppliers and the organization could partake) energizes a coupled utilizing the SCM module. Those suppliers could streamline their assets same time the organization might streamline its assets same time permitting the suppliers also will do those same. A supply chain comprises of the crude material which will be supply of the manufacturer, who thus supplies these merchandise of the wholesaler who conveys these products of the retailers. The SCM module will be planned on handle the whole chain from claiming suppliers.

The buy section initiates those buy transform by raising those buy request. Buy requests would made at there is deficiency about materials to processing of completed items. Those merchant supplies products In view of the buy request. All buy requests are dealt with equally pending buy requests till the chance material is accepted from those vendors.

Looking into receipt for goods, a receipt note will be raised. The point when those receipt note may be raised, stock accounts are updated. After the receipt note will be created, buy receipt will be made which may be An reference for the money section will make a instalment. Those stock updations need aid reflected in the stock record and the stock registers. General record account updations need aid reflected in the ledger sheet, p / l explanation and is recorded.

Check your progress 10

1. Purchase management handles information regarding:
 - a. purchase of raw materials
 - b. necessity of inventory control details
 - c. supplier tracking
 - d. all of above

1.12 ERP Vendors

Enterprise Resource Planning software suppliers come in all shapes and sizes, with the vital business process software available as a client server application, a hosted ERP service or even via a web-based portal. ERP has grown to cover all core functions of a business, regardless of its industry sector. As a result, both private and public sector organisations now use ERP systems in some form or other. ERP systems typically carry out financial and business planning functions, which might formerly have been carried out by many smaller standalone applications.

Vendor Company Name	Package
3i Infotech	ORION Enterprise
3rd Dimension Systems	Manufacturing Management
Abacus Data Systems	ADAMS
ABAS-USA	abas ERP
ABBASOFT Technologies	NetPartner & WebPartner
AccessIG	Pro-III Master
AccountMate Software Corporation	AccountMate for Express
AccountMate Software Corporation	AccountMate for LAN
AccountMate Software Corporation	AccountMate for SQL
AccountMate Software Corporation	Visual AccountMate
Acero Solutions	ACERO Enterprise
Activant	Prelude

ERP Modules and
Business

Activant	Prophet 21
Adonix	X3
Advanced Business Software	ADaM
AIM Computer Solutions	AIM Vision
Bluebird Software LLC	Bluebird Accounting
BMA Software	BMA
Bowen & Groves	M1
CIMA	CIMA
Cimnet Systems	Paradigm
Cincom Systems	CONTROL
CMS Software	CMSi5
CompuEx CompuEx	Easy Accounting
CompuEx CompuEx	Express Accounting
CompuEx Enterprise	Accounting
Computer Generated Solutions	BlueCherry Enterprise
Computer Insights	The BUSINESS EDGE
Consona	DTR Plastics ERP

Check your progress 6

1. Paradigm package is manufactured by:
 - a. Acero Solutions
 - b. Bowen & Groves
 - c. Cimnet Systems
 - d. Computer Generated Solutions

1.13 Let Us Sum Up

In this unit we have learnt that ERP finance module is a software program which collects financial data and produces reports containing information on ledgers, trail balance data, overall balance sheets and quarterly financial statements

It is seen that production planning caters utilization of manufacturing capacity, parts, components and material resources with historical production data by analysing sales.

We see that Human Resource Module which is an eresource ERP contains special features that integrate flawlessly with other module.

It is noted that Plant and Machine Maintenance provides eresource ERP having integrated solution that handles operational needs of an enterprise-wide system.

Materials Management contains information on master data, system configuration, and transactions to complete the Procure to Pay process.

Production order control results as functionality which has every aspects of production order with varied production environment.

1.14 Answers for Check Your Progress

Check your progress 1

Answers: (1 – d), (2 - c)

Check your progress 2

Answers: (1 - a)

Check your progress 3

Answers: (1 - c)

Check your progress 4

Answers: (1 - c)

Check your progress 5

Answers: (1 - c)

Check your progress 6

Answers: (1 - b)

Check your progress 7

Answers: (1 - a)

Check your progress 8

Answers: (1 - d)

Check your progress 9

Answers: (1 - a)

Check your progress 10

Answers: (1 - d)

Check your progress 11

Answers: (1 - c)

1.15 Glossary

1. **ERP** - It is a form of business strategy used to keep track of activities which can be purchasing, inventory and order tracking.
2. **Planning** - It is the process of deciding in advance what is to be done, when and where it is to be done, how it is to be done and by whom.
3. **Procurement** - It refers to getting new employee having required skills in the employees to fill the vacant positions.

1.16 Assignment

Explain the Plant and Machine Maintenance in ERP?

1.17 Activities

Study about Human Resource Module?

1.18 Case Study

Study the Production order control.

1.19 Further Readings

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UNIT 2: ERP AND BUSINESS

Unit Structure

2.0 Learning Objectives

2.1 Introduction

2.2 ERP and Business Processes

2.3 Potential risks of E- Business/ERP Implementations

2.4 Business Process

2.5 Six Sigma for Process Improvement

2.6 Process Improvement Models

2.7 CMMi Delivery Process

2.8 What is Process Orientation?

2.8.1 SAP

2.8.2 Oracle

2.8.3 Oracle's JD Edwards Enterprise One

2.9 ERP Vendor comparison

2.10 Target Market

2.11 Trends and Orientation

2.12 Let Us Sum Up

2.13 Answers for Check Your Progress

2.14 Glossary

2.15 Assignment

2.16 Activities

2.17 Case Study

2.18 Further Readings

2.0 Learning Objectives

After learning this unit, you will be able to understand:

- Concept of Process Improvement Models
- Understand Trends and Orientation
- Detailed about Potential risks of E- Business
- Basic of Process Improvement Models

2.1 Introduction

Enterprise resource planning known as ERP, ERP system or ERP programming characterized related illustration as an arrangement that serves associations to deal with their financials, supply chain, manufacturing, operations, reporting mankind's assets. A large portion ERP frameworks can wood a chance to be deployed on-premises alternately in the cloud, with move forward mechanize center parts from claiming benefits of the business.

2.2 ERP and Business Processes

ERP applications are a computer model of your business, embodying the products and processes, information flow, procedures, and relationships between functions and activities. A set of planning applications can provide recommendations for what must be accomplished in order to meet the forecasted demand and keep the business functioning smoothly. Planning is at the core of ERP and is embodied in a top-down hierarchy of functions related to:

- master planning
- detailed material and resource planning
- execution

Expert arranging official level work sets those operational benefits of the business needs. The nitty gritty material arrangement utilizes bill for material related to stock data to create complete manufacturing additionally obtaining arrange to the greater part products, assemblies, segments in addition to materials. In such level, limit prerequisites arranging binds those processing arrangement to asset availability which focus on ability along with stacking.

Certain business procedure could consider perfect illustration a movement which happens to an association all along the working of the association. A business procedure could a chance to characterize equivalent to movement which happens for an association with more result. Further yield will be characterized with reference to association, such as liability activity, that information results administration of association profits and the yield or the outgo may be those trade measure which dives crazy from the association.

Those cooperation included to get ready those framework examine report card is answerable for identikit Also posting every last one of business procedures which happen Previously, an association. To guarantee that every last one of benefits of the business techniques which happens done an association would listed, a thorough graph will be readied posting every last one of benefits of the business techniques with point by point illustration.

Each business methodology obliges information should a chance to be recorded. The data, previously characterizes the benefits of the business transform Also will be an example of the business procedure. Information entrance types need aid used to record this information. Numerous of times, single information passage structure might be used to record information pertaining to different benefits of the business forms. This could be attained by outline streamlining of the information entrance structures.

Business processes that occur in a typical Finance department are:

- Creating a Customer Account
- Creating a Vendor Account
- Creating a Bank Account
- Creating a General Ledger Account
- Enhancing Chart of Accounts
- Receiving Check or Cash from Customers
- Payments to Vendors by raising Checks or through Cash
- Journal Entries

Business processes that occur in a typical in Sales and marketing department are:

- Creating Sales Order
- Pick and Pack Sales Orders
- Shipping orders

- Create Sales Invoice
- Sales Returns

Business processes that occur in a typical in Purchase department are:

- Purchase Order
- Purchase Picking Orders
- Purchase Invoice
- Purchase Returns

Business Processes that occurs in the Inventory department are:

- Creation of items
- Issues of Items
- Physical stock adjustment

Business processes that occur in a typical manufacturing department are:

- Creating Bill of materials
- Creating Work Orders
- WIP receipts for recording completed work orders

Check your progress 1

1. Master planning supports:

- a. sales planning process
- b. operations planning process
- c. both a and b
- d. neither a nor b

2.3 Potential risks of E- Business/ERP Implementations

Enterprise Resource Planning is a merger of business management and operations with modern technology. While ERP offers numerous benefits and can launch a company into the 21st century, there are many risks associated with ERP implementation. To properly implement ERP takes a lot of time, resources,

training and patience, which is why understanding these risks is important to any business considering using ERP.

ERP implementations are different from normal systems analysis and design projects. Among the significant differences are the scale, complexity, organizational impact, and the costs of ERP projects and subsequent business impact if the project does not succeed. ERP implementation will impact the entire organization, whereas a traditional project impacts often only a limited area of the organization.

Inadequate Training

One of the biggest risks of using ERP is users who are inadequately trained in the use of the system. When the users (employees) don't know how to properly use the ERP software, two things may happen. First, they may reject it out of a lack of understanding. The other possibility is that the employees accept the system but use it incorrectly. This will lead to the entire ERP system not working nearly as effectively as it should.

Software Stability

Much like any other computer software, ERP software is subject to stability issues. A large portion of this risk can be avoided by properly researching and choosing a reputable ERP software developer with experience in developing solutions for companies in your field. This is precisely why an ERP system should go through rigorous testing before making the final decision to go with said software. This, unfortunately, is a continual risk that could manifest years down the road when new, incompatible software or hardware is added.

Commitment

ERP solutions, when implemented properly, take a long time to get off the ground. ERP has to be properly selected, evaluated and tested, implemented and then used for a period of time before any clear positive results may be seen. It can become a very risky situation if the company isn't fully committed to seeing the entire process through.

Software Selection

Unfortunately, ERP solutions aren't one-size-fits-all. Good ERP software will be specifically designed for the industry or field it will be used in. This is crucial because if you have software incompatible with your business, you risk having a completely useless and even hindering ERP solution. Clearly defining

what your company needs in an ERP system will greatly reduce the chance of your company running into this risk.

Approach

There are two common approaches taken when implementing ERP. The first is referred to as "The Big Bang" approach. This is where a company tries to implement an ERP solution quickly. Making so many changes to your company in such a short amount of time, though, leads to greater risk of something going wrong. Instead, consider phasing-in your ERP system. Implementation in phases allows you to pay close attention to one aspect of ERP implementation instead of trying to pay attention to many of them at once.

Check your progress 2

1. The risk involved in implementing ERP is:
 - a. lack of knowledge
 - b. lack of money
 - c. lack of concentration
 - d. lack of training
2. The idea of Big Bang approach by company is to implement ERP solution:
 - a. in less than 1 year
 - b. after required period
 - c. quickly
 - d. all of these

2.4 Business Process

Business methodology administration will be a comprehensive methodology used to find, improve and organize benefits of the business techniques to an organization's generally objectives. What's more methodology. It empowers organizations with a chance to be additional proficient with adaptable on transform. There need aid an assortment about methodologies inside benefits of the business procedure administration; those initially constantly business transform change. In this approach, it's paramount to analyze the magic methods

inside an association that are aggressive differentiators. Six sigma methodologies would utilized same spine to assess further key benefits of business forms. In associations recognizing the present state additionally essential key execution indicators with measure achievement. Next, associations figure out root cause, accept root make moving forward techniques that should streamline extreme effectiveness. Finally, association's sets control which set up screen that continuous methodology with guarantee checks need aid placed set up on trigger fitting reactions if way measurements drop out about control.

Preceding putting programming at top will guarantee procedure with working at greatest efficiency, as a result when mechanize wasteful process, you best make an wasteful methodology speedier. This will be the reason bpm is something like that crucial should an ERP execution. Today's ERP frameworks are exceptionally adaptable. There are numerous – here and there much hundreds – for different approaches ERP product might suit your business needs. Comprehension your wanted state former to usage exercises will spare the long run later in the transform What's more lessen the hazard for picking the not right setup. It advises the ERP merchant how you have any desire your forms outlined thereabouts they could select those setup that faultlessly adjusts to the individuals methods. It likewise provides information for thing that might require customization along with comprehension of extra cost that might bring about for it.

Check your progress 3

1. Which is not a feature of current ERP system?
 - a. complex
 - b. latest information
 - c. simple
 - d. easy in implementation

2.5 Six Sigma for Process Improvement

Six Sigma is a business process improvement strategy originally developed by Motorola. The methodology seeks to improve quality by reducing variability and improving processes. Today Six Sigma enjoys widespread application in

many sectors of industry, but often is not in sync with the ERP system. The term “Six Sigma” comes from a field of statistics known as process-capability studies which has qualities of manufacturing processes to generate very high proportion of output inside particular specification.

Goals of Six Sigma

- Six Sigma’s implied goal in order to enhance very processes to consistently high level of quality.
- It is customer-centric where it provides customer satisfaction where manufacturers deliver reliable and expected services with near zero defects.
- It improves quality of process outputs by locating and removing reasons of errors and variability in manufacturing and business processes.
- It sets quality-management methods that covers statistical methods and forms special infrastructure of people in an organization to become experts in certain methods.

Check your progress 4

1. Six Sigma in Process Management enhance:
 - a. quality
 - b. process
 - c. output
 - d. all of above

2.6 Process Improvement Models

Process improvement is effective while applying for business. It carry following sections:

Prioritize.

Regardless of the mechanics, process improvements should be focused where the business will reap the biggest benefit. You might be able to produce fantastic Six Sigma results for your projects, but if those projects don't achieve meaningful results for the business, you haven't accomplished much. Start by

aligning processes to key corporate goals and strategies to know where to focus scrutiny.

Comprehend the As-is.

Both measure examine stages of a DMAIC project, enter viewpoints from claiming current methods requirement on make captured, measured more investigated for cause What's more impact conduct. A real test lies in catching how those robotized methodology really works, data that is normally housed inside the framework What's more not archived as it were that could be utilized What's more re-used Throughout transform change ventures. Transform structures ought to make imparted from your ERP under devices utilized to business methodology displaying the place interfaces on human assignments Also other frameworks delineate the end-to-end benefits of the business techniques. Venture supervisors will examine how upgrades Also optimizations In each venture of a methodology will sway the in general business.

The frameworks utilized to incorporate snare under ERP framework should permit exact synchronization of the ERP procedure structure. Once you've made the bpm nature's domain that models that cooperation between manual and robotized courses the measure with examining stage for whatever result the six sigma venture is accelerated.

Simulate the To-be.

What-if examination may be an essential device around will pilot methodology change should demonstrate how techniques at present stream suitably to, through Furthermore starting with the ERP. Additionally, luckiness you exhibit noteworthy upgrades that might make constructed of the transform without ERP customization, presently that you've got a handle with respect to how it know fits together. Furthermore, re-enactment gets additional significant whether you in reality choose that customization to robotized frameworks is and only the result.

Methodology streamlining activities could Also if compass procedures that need aid underpinned via mechanization since ignoring vital forms within great for less demanding pet activities will would nothing Be that as undermine the quality about transform changing groups for various undertakings. Seeing and catching those association about robotized forms to end-to-end benefits of the business transform will open up procedure change opportunities, quicken future undertakings various dialogs in middle of benefits of the business around streamlining exertions.

Check your progress 5

1. A BPM systems having a hook in ERP system allows:
 - a. accurate synchronization of ERP process structure
 - b. correct output
 - c. completed project
 - d. none of these

2.7 CMMI Delivery Process

Quality and process go hand-in-hand as implementing better processes ultimately results in better quality outcome. These are the areas of prime importance in product manufacturing companies which should be managed and enhanced to provide the best quality outcome as required by the customers. Quality control and Quality management are the prime areas of focus for providing the best reliable services across different industries.

ERP is appraised at Level 3 of the Software Engineering Institute's (SEI) Capability Maturity Model Integration (CMMI). CMMI is a software development credential that is increasingly required by government agencies. CMMI Level 3 qualifies ERP as a company with repeatable processes, procedures, tools, and methods. In addition, it recognizes our quality standards and process improvement approach that foster consistent high performance in delivering products and services.

Check your progress 6

1. CMMI deals with:
 - a. quality standards
 - b. process improvement approach
 - c. software standards
 - d. all of above

2.8 What is Process Orientation?

The process-oriented implementation focuses on the support of one or a few critical business processes which involves a few business units. Those starting customization of the ERP framework is restricted to purpose nearly identified with those proposed benefits of the business techniques. The process-oriented execution might in the end develop under full-blown usage of the ERP framework. This approach may be used by a number little on mid-sized organizations which have a tendency should brings perplexing internal business techniques.

Methodology introduction doesn't main fill in to transform industry, anyhow it could be connected should administration commercial enterprises too. There will be experimental confirmation that healing centers with a secondary level for procedure introduction need aid reasonably be fundamentally more productive. There will be most likely that medicinal services foundations requirement to turned into secondary performers. So as to addition secondary performance, the association need to determine its execution indicators, measure its performance, infer the execution hole Furthermore launch movements with end those hole. Surveying techniques by method for execution indicators may be An prerequisite to methodology control What's more serves Similarly as An groundwork to transform streamlining. Now and again business procedures would fully underpinned via an agent framework similar to a endeavour asset arranging framework gathering information starting with which methodology execution majority of the data might a chance to be concentrated – naturally and free of extra cosset.

2.8.1 SAP

They are the largest ERP solution provider with more than 75.000 customers and 12 million users and holding around 30% of market share. The flagship Solution, R/3 is unmatched for its sophistication and robustness. R/3 software gives an option of around 1000 pre-configured business processes. This solution is available in all major currencies and languages and can be hosted on several Operating Systems and Databases. As mid market option, SAP has brought out, Business All in One, a solution with industry tailored configurations. SAP offering for smaller organization is SAP Business One. SAP offers a hosted solution, namely SAP Business by Design, for organizations lacking IT resources.

2.8.2 Oracle

Oracle is next to SAP in ERP market breadth, depth and share. It offers a comprehensive, multilingual and multi currency solution, mostly through its channel partners.. It is the first to implement internet computing model for developing and deploying its product. Oracle also took over various ERP solution providers during 2000 such as People Soft, JD Edwards, Retek (retail industry solution), and Siebel (customer relationship management software). It has taken up project Fusion (based on Service Oriented Architecture) to integrate various products, outcome of which is keenly awaited.

2.8.3 Oracle's JD Edwards Enterprise One

Oracle's JD Edwards Enterprise One is an integrated applications suite of comprehensive enterprise resource planning software that combines business value, standards-based technology, and deep industry experience into a business solution with a low total cost of ownership. EnterpriseOne is the first ERP solution to run all applications on Apple iPad. JD Edwards EnterpriseOne also delivers mobile applications.

Check your progress 7

1. Process orientation works for:
 - a. process industry
 - b. service industry
 - c. both a and b
 - d. none of above

2.9 ERP Vendor comparison

There are some of the Key Vendors of ERP:

SAP: They are the biggest ERP result supplier with more than 75000 clients which is 12 million clients in addition considering around 30% of showcase allotment. Those lead Solution, R/3 may be unmatched for its refinement Furthermore heartiness. R/3 programming provides for a alternative about around

1000 pre-configured benefits of the business forms. This result is accessible on whole significant currencies along with dialects which facilitated ahead a few working frameworks along with Databases. As mid showcase option, sap need brought out, benefits of the business wholly, an answer with business custom-made configurations. Sap putting forth to more modest association may be sap benefits of the business person. Sap offers a facilitated solution, in particular sap business by Design, for associations needing it assets.

Oracle: Prophet will be following on sap done ERP business breadth, profundity What's more allotment. It offers a comprehensive, multilingual Also multi money solution, basically through its channel accomplices.

It may be those initial should actualize all the web registering model to create and deploy its result. Prophet Additionally took again Different ERP result suppliers Throughout 2000 for example, kin Soft, JD Edwards, Retek (retail industry solution), and Siebel (customer relationship management programming). It need consumed one task combination (based with respect to administration turned Architecture) should coordinate Different products, result about which will be keenly expected.

Infor: Infor is about late beginning and stretched through a number of acquisitions. Its securing from claiming ssa worldwide Throughout 2006 settled on it a Harbinger Similarly as ERP result supplier. Ssa worldwide required two solid result lines, BPCS What's more BaaN. Ssa Additionally constructed An number from claiming different acquisitions, for example, MAPICS, lily programming cohort Also GEAC. Ssa is centered around building, purchasing Furthermore coordination best for breed results.

Microsoft Dynamics: Microsoft, which didn't need a ERP portfolio, began by securing a host of ERP items similar to Navision, Solomon, great Plain Also Axapta. Excepting Axapta, which will be solid On manufacturing Also suitability to mid market, other items need aid implied for more modest associations. Microsoft is a great part subject to channel partners, not best to bargains furthermore consulting as well as to add on improvement. Their results would nearly incorporate for their office suit of reinforcement.

Check your progress 8

1. Which among the following is not Vendor of ERP?
 - a. SAP
 - b. Google
 - c. Oracle
 - d. Infor

2.10 Target Market

Various Open Source ERP Projects are marketed towards SME (Small & Medium Enterprises) because it is generally thought that the potential for cost savings may be more attractive to smaller budgets. While this is generally true, it is best for any project team of any size to consider various ERP systems in relation to the needs of the project. Although, no perfect solutions exist, the choice is often based on the experience of their developers or other features that may be important in reference to integration with other existing systems.

Keep in mind that Going Open Source for your organization can bring many benefits. There are also several system providers that utilize open source as their core and providing a feature set that is more attractive to large enterprise built on top. Usually core functionality is provided at no cost and additional features at a premium.

Check your progress 9

1. The market of ERP can be:
 - a. industry
 - b. firms
 - c. manufacturing unit
 - d. all of above

2.11 Trends and Orientation

Enterprise resource planning (ERP) has helped companies to reduce unnecessary data entry and to streamline workflow, thereby reducing costs. Precious man-hours can instead be used to improve efficiency and increase profits. It helps companies to store and manage data through every stage.

ERP aides clinched alongside making organizations additional alarmed Eventually Tom's perusing serving streamline the transform of result planning, cosset improvement. It needn't make said that ERP may be key when it hails with utilizing information for manufacturing, promoting and stock oversaw economy. Finally, ERP is likewise utilized to shipping, instalment and client connection oversaw economy. Over short, ERP aides an organization to streamline the procedure straight starting with the beginning phases for origination of an item of the maintenance from claiming clients.

In spite of ERP is getting to be progressively common, there need aid a few issues that organizations need faced as of late. Expanding sums of information Also apprehensions in information security bring provided for Ascent to apprehensions regarding utilizing ERP frameworks. We see these apprehensions expand "around ERP clients. ERP frameworks will prone end up additional privacy-aware and developers will utilization innovation will battle security dangers against information. ERP frameworks will ended up additional wary something like both outer Furthermore inward threats, The point when it goes will pernicious strike Also suspicious accesses.

Endeavour asset arranging regularly aides organizations to regularize What's more incorporate operations, much appreciated will which information could a chance to be imparted crosswise over platforms. However, this centralization of information offering need frequently expanded those apprehensions for chiefs who regularly don't similar to data being produced accessible over every one platforms.

An ERP framework will be frequently considered on a chance to be unified stage that takes consideration of a company's business information and oversee it too. However, a number of organizations that utilizes ERP frequently will feel that ERP platforms would cumbersome and awkward. 2015 will likely view ERP frameworks getting leaner (cloud oriented). An incline ERP programming framework have chance to be simpler to manage, particularly with things searching splendid on the cloud front.

With an expanded concentrate on cloud based technologies, ERP will take after those suits of reinforcement of other benefits of the business product projects for adopting cloud-based innovation. Those comfort of cloud built innovations and the fact that information security will drive progressions inside ERP projects along with bringing about significant updates.

Check your progress 10

1. Enterprise resource planning helps companies in:
 - a. regularizing operations
 - b. centralizing operations
 - c. managing operations
 - d. all of above

2.12 Let Us Sum Up

While studying this unit, we have learnt that ERP applications serves as computer model for business which describes about products and processes, information flow, procedures and relationships among functions and activities.

It is seen that in order to properly implement ERP, it is noted that implementation requires more time, resources, training and patience so it is required to know risks for having an ERP.

We see that business process management is holistic idea applied to know, enhance and arrange business processes to organization's overall goals and strategy.

It is noted that ERP is evaluated at Level 3 of Software Engineering Institute's Capability Maturity Model Integration.

2.13 Answers for Check Your Progress

Check your progress 1

Answers: (1 - c)

Check your progress 2

Answers: (1 - d), (2 - c)

Check your progress 3

Answers: (1 - a)

Check your progress 4

Answers: (1 - d)

Check your progress 5

Answers: (1 - a)

Check your progress 6

Answers: (1 - d)

Check your progress 7

Answers: (1 - c)

Check your progress 8

Answers: (1 - b)

Check your progress 9

Answers: (1 - d)

Check your progress 10

Answers: (1 - d)

2.14 Glossary

1. **ERP** - It is a form of business strategy used to keep track of activities which can be purchasing, inventory and order tracking.
2. **Planning** - It is the process of deciding in advance what is to be done, when and where it is to be done, how it is to be done and by whom.

3. **Procurement** - It refers to getting new employee having required skills in the employees to fill the vacant positions.
4. **ROI** - This refers to Return on Investment to signify return from employee in terms of productivity and value added to organization for cost incurred in form of salary, benefits, trainings and other expenses to develop his skills.

2.15 Assignment

Write short note on Process Improvement Models.

2.16 Activities

Collect some information on ERP Vendor.

2.17 Case Study

Generalised the basic idea about ERP Trends and Orientation and discuss.

2.18 Further Readings

1. Bashein, B., Markus, L. and Riley, P. (1994), "Precondition for BPR success", Information Systems Management, Vol. 11 No. 2, pp. 7-13.
2. Caron, J., Jarvenpaa, S. and Stoddard, D. (1994), "Business re-engineering at CIGNA Corporation: experiences and lessons learned from the first five years", MIS Quarterly, Vol. 18 No. 3, pp. 233-50.
3. Champy, J.A. (1996), Reengineering Management: The Mandate for New Leadership, HarperCollins, New York, NY.

UNIT 3: BUSINESS PROCESS RE-ENGINEERING

Unit Structure

- 3.0 Learning Objectives**
- 3.1 Introduction**
- 3.2 What Is Business Process Re – Engineering (BPR)?**
- 3.3 How Can BPR Be Applied To An Organization?**
- 3.4 BPR Characteristics**
- 3.5 Theoretical Foundations Of BPR**
- 3.6 Contribution/Role Of IT In BPR**
- 3.7 Where We Can Apply BPR**
- 3.8 Re-Engineering Computer System**
- 3.9 Steps for BPR**
- 3.10 Re-Engineering or Re-Developing?**
- 3.11 Link between Reengineering Of Computer Systems and BPR**
- 3.12 Let Us Sum Up**
- 3.13 Answers for Check Your Progress**
- 3.14 Glossary**
- 3.15 Assignment**
- 3.16 Activities**
- 3.17 Case Study**
- 3.18 Further Readings**

3.0 Learning Objectives

After learning this unit, you will be able to understand:

- Basic of BPR Characteristics
- Concept of Re-Engineering Computer System
- What Is Business Process Re – Engineering
- Idea about Reengineering Of Computer Systems

3.1 Introduction

Since the evolution of processes is a product of the pressures at the time, they may no longer be the optimal process for the current environment. Consequently, business process re-engineering sometimes involves scrapping and/or drastically altering existing systems and processes in order to create the best processes to fit current business needs.

Business process re-engineering for enterprise purposes, for example, often involves retiring old databases in favour of an enterprise data warehouse. The database can then be coupled with enterprise class applications such as enterprise resource planning, customer relationship management, and so on, effectively replacing all the previous systems.

3.2 What Is Business Process Re – Engineering (BPR)?

Enterprise Resource Planning (ERP) and Business Process Re-engineering (BPR) evolved almost at the same time i.e. 1st half of 1990. Both relates to radical redesign of an organization at a relatively short period. Both are having the primary intend to optimize workflow and improve productivity. But, the chicken and egg question remained, whether an organization reengineer business process before implementing ERP or directly implement ERP and reengineer by adopting standard business process, included in the ERP package.

Definition

BPR means not only change but radical change within a short period. This change is achieved by complete revamp of organizational structure, business process workflow, job description, performance measurement and adoption of information technology. Some of Basic characteristics of BPR are:

- View business as a set of customer (both internal and external) oriented processes rather than a set of departmental functions.
- Processes must have clear cut ownership.
- Non value adding activities within a process should be eliminated..
- Gather information only once at the point of origin.

A successful BPR implementation brings significant improvement to productivity, customer service and bottom-line. There are pain and difficulties during implementation and instances where BPR efforts did not achieve desired result. Notwithstanding, the risk is worth taking. Otherwise, there will be greater risk of being overtaken by competitors who develop and progress rapidly through BPR.

Check your progress 1

1. Business Process Re-engineering evolved in:
 - a. 1985
 - b. 1990
 - c. 1995
 - d. 2002
2. Business process does not involve:
 - a. designing a new product
 - b. hiring an employee
 - c. purchasing services
 - d. testing of software

3.3 How Can BPR Be Applied To An Organization?

The concept of business process reengineering (BPR) is to rethink and break down existing business processes. This allows a company to reduce costs and improve productivity through newer, more efficient processes. It is important to remember however, that though there are instances where this is necessary, business process reengineering is not without its disadvantages. This makes it

vital to weigh your decision carefully. One of the most obvious adverse effects of a company's decision to reengineer is a lowered employee morale. Most people are vary of change and do not manage to adapt to it easily. This aspect needs to be kept in mind when trying to make the decision to go through with the activity. The following steps can help BPR realize its core principles of customer satisfaction, reduced costs of business and increased competitiveness.

1. Business vision and objectives

Any BPR activity needs to begin with clearly defined and measurable objectives. Whether the goal is reducing costs, improving quality of product, or increasing efficiency, the framework for what needs to be achieved has to be decided upon at the outset, in line with the company's vision and mission.

2. Identification and slacking processes

Once a clear goal is in mind, all processes need to be studied and those seen as 'slacking' or that can be improved need to be identified. Among these, those processes with direct impact on the company's output or those that clash with the company's mission become part of the 'red' list. This clear identification makes the difference between BPR success and failure.

3. Understand and measure the 'red' processes

With a list of slacking processes in hand, it is imperative to identify how they were identified as such. Are they taking too much time to complete? Is the quality of the outcome being compromised? Whatever the issue, each process must be judged objectively either against industry standards or ethically obtained competitor best practices.

4. Information system and technology capabilities

An efficient and relevant IT system is an essential BPR enabler. Without such a system, it is not possible to keep a check on all factors affecting the change. Before setting out on a radical BPR activity, it is vital to set in place information systems that can deal with the magnitude of the change.

5. Design, build and test the new prototype

Before any new product is launched, a prototype is tested out. A failure at a testing stage should never be implemented at a larger scale. BPR projects fail more often than not for a variety of reasons but a basic reason is the inability to identify and accept any limitations at the testing stage. Among other factors, both the management's attitude towards the new way of work and the employees' outlook towards the change should be carefully assessed.

6. Adapting the organization

Managing change brought about by BPR activities is the final effort towards a successful project. Providing updated documentation, organizational structures, governance models as well as updated charts of authority and responsibility leave little room for confusion and allow a smooth transition into the new way of work.

Check your progress 2

1. Which among the is not a business goal of re-engineering?
 - a. reduction in cost
 - b. reduction in time
 - c. maintainability
 - d. none of these

3.4 BPR Characteristics

Job Integration

- Compressed responsibility for an end to end process : Case worker / Case team
- Reduces process administration overheads
- Improves control
- Employee is encouraged to find innovative ways to reduce cycle time and cost and produce defect free product and service

Worker empowerment

- Compressing work vertically and horizontally

Steps in the process are performed in a natural order

- Linear sequencing to need based sequencing
- ‘Delinearizing ‘ results less rework

Multi-version Processes

- usually starts with three versions
- Reduces the complexity associated with one-size-fits-all process

Work where it makes the most sense

- Shifting of work across departmental/organizational boundary

Reduced Checks and Controls

- To the extent that make economic sense
- Aggregate or deferred controls
- Aggregate patterns rather than individual instances
- Tolerate modest or limited abuse
- Sense a pattern and compare with normative standards

Minimization of Reconciliation

- Cut back the number of external contact points the process has
- Inventory management
- Continuous replenishment

Single Point Contact

- Case manage

Check your progress 3

1. Which is not a feature of BPR?
 - a. lowering of process administration overheads
 - b. less control
 - c. Worker empowerment
 - d. all of above

3.5 Theoretical Foundations of BPR

Business process reengineering (BPR) consists of radically transforming organizational processes through the optimal use of information technologies (IT) to achieve major improvements in quality, performance, and productivity.

Since 2004, the government has also endorsed Business Process Reengineering (BPR) as a foundation for strengthening Result Based Performance

Management System in the Civil Service. Scientific Management, Systems Theory and Operations Management are the theoretical and methodological foundations of BPR. For this reason, most corporations used BPR as transformation tool during the 1980s and 1990s. However, the characteristics of government organizations are different from corporate organizations. These distinguishing features constrain government organizations from emulating the BPR experiences of corporate ones. Hence, it is important to introduce a conceptual framework and a working model that facilitate the implementation of BPR in a particular civil service organization.

Check your progress 4

1. The BPR transformation tools exist between period:
 - a. 1980s and 1990s
 - b. 1970s and 1980s
 - c. 1990s and 2000s
 - d. 2000s and 2010s

3.6 Contribution/Role of IT in BPR

Business Process Re-engineering has rapidly developed towards a new management philosophy. The inherent business process orientation changes the perspective of international management from a structural to that of a process view. The re-engineering of business processes is only one aspect of the management of business processes. In particular, the re-engineering of international business processes needs special attention, because the multi-faceted structure of multinational corporations increases the complexity of business processes, there by influencing the options for redesign.

Business Process Re-engineering has rapidly developed towards a new management philosophy based upon predecessors like Total Quality Management, Overhead Value Analysis, Kanban or Just-In-Time-Management. Business processes can be re-engineered by redesigning the steps, by changing the logical and temporal sequence of the steps, or by changing any other characteristics of the process. The role of IT is discussed in contradictory way.

Advocates of information systems favor the view that the new technology is an enabler of process re-engineering. IT has to be monitored constantly to determine whether it can generate new process designs or contribute to the performance of a business process. The breakthrough of BPR is closely connected with IT, which opens new dimensions of process reorganization. Moreover, those who take the initiative in process improvement/redesign, influence the role of IT. If the data processing department initiates the process change, then IT will have more of a generator function for new process redesigns. If on the other hand, the top management sets off the change process, then the process will be first restructured and later optimized through IT.

Check your progress 5

1. On restructuring software, what is preferred?
 - a Higher quality programs
 - b Reduced maintenance effort
 - c Software easier to test
 - d All of the mentioned

3.7 Where We Can Apply BPR

Business process reengineering is main way in which organizations become more efficient and modernize. Business process reengineering transforms an organization in ways that directly affect performance. Process reengineering is redesigning or reinventing how we perform our daily work, and it is a concept that is applicable to all industries regardless of size, type, and location.

The intent of process reengineering is to make organizations significantly more flexible, responsive, efficient, and effective for their customers, employees and other stakeholders. According to field experts Michael Hammer and James Champy, process reengineering requires the "fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical, contemporary measures of performance, such as cost, quality, service, and speed."

If process reengineering is to work, a business's priorities must change in the following ways:

- (1) From boss to customer focus;
- (2) From controlled workers to empowered, involved process owners and decision makers;
- (3) From activity-based work to a results orientation;
- (4) From scorekeeping to leading and teaching so that people measure their own results;
- (5) From functional (vertical) to process (horizontal or cross functional) orientation;
- (6) From serial to concurrent operations;
- (7) From complex to simple, streamlined processes;
- (8) From empire building and guarding the status quo to inventing new systems and processes and looking toward the future (i.e., from the caretaker mentality to visionary leadership).

Check your progress 6

1. Process reengineering concerns with:

- a. redesigning
- b. reinventing
- c. both a and b
- d. neither a nor b

3.8 Re-Engineering Computer System

Software development is not always a "green-fields" process. More often than not, new software engineers are hired to maintain and evolve existing systems, not to develop new ones. More often than not, if a new system is to be developed, it has to be integrated with other existing "legacy" software systems. Legacy systems are valuable software systems that are still in use but are difficult to maintain, change or migrate because they were developed with technologies of the past and/or because they were not engineered properly. Very often, these systems were developed without proper documentation, version control, or proper design. Many such systems had undergone numerous changes by different people

that violate the original system design, if any ever existed. As a result, it is challenging to understand, modify or migrate these systems. Fresh software developers are usually neither equipped with the necessary skills nor have the desire to work with these software "legacies". Fresh software development is usually considered superior to software maintenance and reengineering.

Reengineering implies changes of various types and depth to a system, from a slight renovation to a total overhaul. Some of the typical challenges our clients have:

- A system was developed for us, but we'd like to change several things, namely improve the system's functionality, usability, security, stability and performance; change the system's architecture or adjust it for another platform.
- We have three systems with roughly the same functionality, which work on different platforms. As these systems supplement each other, users have to use all three of them. This makes their work more complicated and adds a lot of extra work for the system administrators.
- We have a best-selling software solution and received an order from a major client to modify it. However, no company wants to undertake its maintenance.
- A software component was written by someone who is no longer with the company, and there is nobody capable of working on the system's maintenance.

Check your progress 7

1. The problems associated with re-structuring involves:

- a Loss of comments
- b Loss of documentation
- c Loss of computational demands
- d None of these

3.9 Steps for BPR

We can generalize Business Process Reengineering (BPR) efforts as an eight step process as follow –

- Step 1: Formulate / Modify business visions, policies, objectives
- Step 2: Formulate / Modify business strategies according to changing customer requirements, technology changes and competition
- Step 3: Analyze the existing business process cycles & workflows and determine how they may be modified or refined
- Step 4: Apply IT to setup an optimal Business Information Management Architecture (BIMA) to support the reengineered business process
- Step 5: Modify or redesign the existing processes according to the reengineering strategies and develop refined Business Process Automation Systems (BPAS)
- Step 6: Apply IT strategies to map BIMA onto an Enterprise Information Management System (EIMS) that is integrated across the enterprise and that fits into and supports the reengineered Business process cycles and workflows.
- Step 7: Integrate the EIMS with the BPAS to build up the completed reengineered business system
- Step 8: Repeat steps 1-7 for continuous BPR due to changing customer demands, technology changes and business strategies, which leads to business stability

Check your progress 8

1. Source code translation is part of:
 - a. Data re-engineering
 - b. Re-factoring
 - c. Restructuring
 - d. All of these

3.10 Re-Engineering or Re-Developing?

Generally, wholesale re-engineering of a system is a bad idea, because the system still serves a purpose and its' functionality is a moving target. If the system does not serve a purpose, then what is the point of rewriting it? So, if we follow the assumption that parts of the system were a good idea and scrapping the system is a bad idea, how do you modify the system?

BPR is achieving dramatic performance improvements through radical change in organizational processes, rearchitecting of business and management processes. It involves the redrawing of organizational boundaries, the reconsideration of jobs, tasks, and skills. This occurs with the creation and the use of models. Whether those are physical models, mathematical, computer or structural models, engineers build and analyze models to predict the performance of designs or to understand the behavior of devices. More specifically, BPR is defined as the use of scientific methods, models and tools to bring about the radical restructuring of an enterprise that result in significant improvements in performance.

Redesign, retooling and reorchestrating form the key components of BPR that are essential for an organization to focus on the outcome that it needs to achieve. The outcome pursued should be an ambitious outcome (as for instance, are a 24 hour delivery to any customer anywhere in the world, approval of mortgage loans within 60 minutes of application, or ability to have on-line access to a patient's medical records no matter where they are in any major city in the world). These types of visionary goals require rethinking the way most organizations do business, careful redesign. They will additionally need very sophisticated supporting information systems and a transformation from a traditional organizational structure to a network type organization.

Check your progress 9

1. Which is not the component of BPR?

- a. Redesign
- b. Retooling
- c. Reorchestrating
- d. All of these

3.11 Link between Reengineering Of Computer Systems and BPR

The relationship between continuous process improvement and business process reengineering has been a heavily debated topic for some time. However, these two approaches are very similar because each aims for process improvement. They only differ in focus. Processes and systems have parts that perform the work of the system, and relations among the parts that define how the work should be performed. For example, a business process has employees as its parts, and procedures and directives as its relations. Both parts and relations must be effective for the system to succeed in meeting its objectives. Based on systems theory, changes in a system's relations often represent the largest potential for improvement because the relations provide the structure in which the system functions.

Reengineering is the "fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical, contemporary measure of performance, such as cost, quality, service and speed," according to Hammer and Champy in *Reengineering the Corporation*. To achieve such drastic improvements, a focus on relations is necessary because, according to systems theory, relations primarily determine system performance.

For instance, consider the traditional engineering company that is organized by functions. Generally, work flows from design to planning to manufacturing. An individual within each functional area does his or her portion of the work and throws the work "over the wall" to the next step in the process. This is a complex system. Now, suppose that this process is producing unsatisfactory results. If the company were simply to improve each functional area separately, this improvement effort would be focused on the system's parts. The positive results would be minimal.

Check your progress 10

1. Reengineering involves rethinking and radical redesign of:
 - a. business processes
 - b. cost quality
 - c. quality process
 - d. service process

3.12 Let Us Sum Up

In this unit we have learnt that business process re-engineering for enterprise purposes, for example, often involves retiring old databases in favour of an enterprise data warehouse

It is seen that the concept of business process reengineering (BPR) is to rethink and break down existing business processes. This allows a company to reduce costs and improve productivity through newer, more efficient processes.

3.13 Answers for Check Your Progress

Check your progress 1

Answers: (1 – b), (2 - d)

Check your progress 2

Answers: (1 - d)

Check your progress 3

Answers: (1 – b)

Check your progress 4

Answers: (1 – a)

Check your progress 5

Answers: (1 – d)

Check your progress 6

Answers: (1 - c)

Check your progress 7

Answers: (1 – b)

Check your progress 8

Answers: (1 - c)

Check your progress 9

Answers: (1 – d)

Check your progress 10

Answers: (1 - a)

3.14 Glossary

1. **ERP** - It is a form of business strategy used to keep track of activities like purchasing, inventory and order tracking.
2. **AVL** - A list of suppliers that are approved by company as sources to purchase materials.
3. **Change Management** - It is a process of creating, reviewing and taking approval for engineering requests, change orders and change notifications.

3.15 Assignment

Explain the Contribution Of IT In BPR?

3.16 Activities

Study about Re-Engineering or Re-Developing.

3.17 Case Study

Study the types of BPR Characteristics.

3.18 Further Readings

1. Champy, J.A. (1996), *Reengineering Management: The Mandate for New Leadership*, HarperCollins, New York, NY.
2. Clark, T. and Stoddard, D. (1996), "Interorganizational business process redesign: merging technological and process innovation", *Journal of Management Information Systems*, Vol. 13 No. 2, pp. 9-28.
3. Cooper, D. and Emory, C. (1995), *Business Research Methods*, Irwin, Chicago, IL.

Block Summary

In this block, you have learnt and understand about the basic of production planning that caters utilization of manufacturing capacity, parts, components and material resources with production data by analysing sales. The block gives an idea on the study and concept of business process re-engineering for enterprises. You have been well explained with concepts of implementation of ERP along with features such as time, resources, training and patience with various risks involved.

The block detailed about the basic of Human Resource Module which serves as e-resource ERP with special features. The concept related to Plant and Machine Maintenance providing e-resource ERP with integrated solution handling operational needs of enterprise-wide system will also be explained to you.

Block Assignment

Short Answer Questions

1. What is Human Resource in ERP?
2. Explain BPR Characteristics?
3. Write note on Six Sigma for Process Improvement?
4. Write short note on Production Planning and Control?

Long Answer Questions

1. Write short notes on Six Sigma for Process Improvement?
2. Write short note on Re-Engineering Computer System?
3. Write note on Link between Reengineering of Computer Systems?

Enrolment No.

1. How many hours did you need for studying the units?

Unit No	1	2	3	4
Nos of Hrs				

2. Please give your reactions to the following items based on your reading of the block:

Items	Excellent	Very Good	Good	Poor	Give specific example if any
Presentation Quality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____ _____
Language and Style	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____ _____
Illustration used (Diagram, tables etc)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____ _____
Conceptual Clarity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____ _____
Check your progress Quest	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____ _____
Feed back to CYP Question	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____ _____

3. Any Other Comments

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*Education is something
which ought to be
brought within
the reach of every one.*

”

- Dr. B. R. Ambedkar



Dr. Babasaheb Ambedkar Open University
'Jyotirmay Parisar', Opp. Shri Balaji Temple, Sarkhej-Gandhinagar Highway, Chharodi,
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BUSINESS APPLICATION AND INTRODUCTION TO ERP

BCA - 501

**BLOCK 3:
ERP IMPLEMENTATION**

**Dr. Babasaheb Ambedkar Open University
Ahmedabad**



BUSINESS APPLICATION AND INTRODUCTION TO ERP



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ROLE OF SELF INSTRUCTIONAL MATERIAL IN DISTANCE LEARNING

The need to plan effective instruction is imperative for a successful distance teaching repertoire. This is due to the fact that the instructional designer, the tutor, the author (s) and the student are often separated by distance and may never meet in person. This is an increasingly common scenario in distance education instruction. As much as possible, teaching by distance should stimulate the student's intellectual involvement and contain all the necessary learning instructional activities that are capable of guiding the student through the course objectives. Therefore, the course / self-instructional material are completely equipped with everything that the syllabus prescribes.

To ensure effective instruction, a number of instructional design ideas are used and these help students to acquire knowledge, intellectual skills, motor skills and necessary attitudinal changes. In this respect, students' assessment and course evaluation are incorporated in the text.

The nature of instructional activities used in distance education self-instructional materials depends on the domain of learning that they reinforce in the text, that is, the cognitive, psychomotor and affective. These are further interpreted in the acquisition of knowledge, intellectual skills and motor skills. Students may be encouraged to gain, apply and communicate (orally or in writing) the knowledge acquired. Intellectual-skills objectives may be met by designing instructions that make use of students' prior knowledge and experiences in the discourse as the foundation on which newly acquired knowledge is built.

The provision of exercises in the form of assignments, projects and tutorial feedback is necessary. Instructional activities that teach motor skills need to be graphically demonstrated and the correct practices provided during tutorials. Instructional activities for inculcating change in attitude and behavior should create interest and demonstrate need and benefits gained by adopting the required change. Information on the adoption and procedures for practice of new attitudes may then be introduced.

Teaching and learning at a distance eliminates interactive communication cues, such as pauses, intonation and gestures, associated with the face-to-face method of teaching. This is particularly so with the exclusive use of print media. Instructional activities built into the instructional repertoire provide this missing interaction between the student and the teacher. Therefore, the use of instructional activities to affect better distance teaching is not optional, but mandatory.

Our team of successful writers and authors has tried to reduce this.

Divide and to bring this Self Instructional Material as the best teaching and communication tool. Instructional activities are varied in order to assess the different facets of the domains of learning.

Distance education teaching repertoire involves extensive use of self-instructional materials, be they print or otherwise. These materials are designed to achieve certain pre-determined learning outcomes, namely goals and objectives that are contained in an instructional plan. Since the teaching process is affected over a distance, there is need to ensure that students actively participate in their learning by performing specific tasks that help them to understand the relevant concepts. Therefore, a set of exercises is built into the teaching repertoire in order to link what students and tutors do in the framework of the course outline. These could be in the form of students' assignments, a research project or a science practical exercise. Examples of instructional activities in distance education are too numerous to list. Instructional activities, when used in this context, help to motivate students, guide and measure students' performance (continuous assessment)



PREFACE

We have put in lots of hard work to make this book as user-friendly as possible, but we have not sacrificed quality. Experts were involved in preparing the materials. However, concepts are explained in easy language for you. We have included many tables and examples for easy understanding.

We sincerely hope this book will help you in every way you expect.

All the best for your studies from our team!



BUSINESS APPLICATION AND INTRODUCTION TO ERP

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BLOCK 3: ERP IMPLEMENTATION

Block Introduction

ERP software needs vendor for supply which mainly companies will follow agreements with vendor for supply of product along with documentation of contract. The intercommunication among enterprise applications do not share common data in order to simplify and automate business processes without applying excessive application or data structure changes.

In this block, we will detail about the basic of ERP system implementation along with various tools like planning, support and managed system. The block will focus on the study and concept of role of vendor in supplying product along with documentation while signing contract. You will get an idea of objectives behind implementing ERP.

In this block, you will make to learn and understand about the features of web e-resource ERP and its techniques. The concept of web-based e-resource ERP solution in accelerating business will also be explained to you. You will be made to understand about future of ERP.

Block Objective

After learning this block, you will be able to understand:

- About Enterprise Application Integration
- Basic of Successful ERP Implementation
- Features of Current Trends in ERP
- Concept of Web Based ERP Software
- Detailed about Responsibilities of ERP Vendors
- Basic of Indian ERP system

Block Structure

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Unit 2: More about ERP Implementation

Unit 3: ERP and Competitive Advantages

UNIT 1: ERP IMPLEMENTATION

Unit Structure

- 1.0 Learning Objectives**
- 1.1 Introduction**
- 1.2 Risks in ERP Implementation**
- 1.3 The Role of Technology in the ERP Selection Criteria**
- 1.4 Responsibilities of ERP Vendors**
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- 1.12 Glossary**
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- 1.14 Activities**
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1.0 Learning Objectives

After learning this unit, you will be able to understand:

- Basic of Implementation Methodology
- Study about ERP Implementation
- Types of Web Based ERP Software
- Idea about Enterprise Application Integration

1.1 Introduction

With proper planning and execution, implementing an ERP system should be a smooth process and quickly improve efficiency across your business. Enterprise Resource Planning implementation can be a daunting task, often taking a number of months to complete and costing more than the price of the software and hardware involved. Anyway if you would prepared, and the fitting assets need aid connected of the job, ERP framework execution might make finished around time, inside budget, Furthermore delivering phenomenal profit ahead venture (ROI).

Provided for the reach from claiming works that ERP encompasses ought to turned concerning illustration no astonishment that there need aid different sorts about ERP usage. Getting buy-in starting with agency executives methods more than just getting An mark to affirm speculation to a ERP result (though that is absolutely important); it implies instructing heading regarding the thing that ERP execution intends for the organization. More exactly software, ERP innovation organization camwood convert those business, A thought that executives must backing When pushing ahead for whatever organization exertion. Incessant correspondence starting with executives over ERP execution arrangements Furthermore evolving procedures would key should making a difference manufacture consensus and much excitement across particular organization

1.2 Risks in ERP Implementation

ERP framework execution might make a was troublesome move for an organization at legitimately planned which is enough to backed and managed, with more executed by inspired cross-functional less group with senior oversaw economy support, the new framework might supply those devices and the industry-proven best polishes that will make your organization of the following level about performance, life span benefit.

ERP is a merger of benefits of the business administration Furthermore operations for current engineering. Same time ERP offers various profits What's more camwood propel an organization under those 21st century, there need aid Numerous dangers connected with ERP execution. Will legitimately actualize all the ERP takes a considerable measure for time, resources, preparing and patience, which is the reason understanding these dangers will be significant with At whatever business recognizing utilizing ERP.

Inadequate Training

A standout amongst the greatest dangers about utilizing ERP will be clients who would deficiently prepared in the utilization of the framework. At those clients (employees) don't recognize how on legitimately utilize the ERP software, two things might happen. In they might reject it crazy of a absence of Comprehension. Alternate plausibility is that those workers accept the framework in any case utilize it erroneously. This prompts those to fully ERP framework which is not working that concerns illustration. This will lead to the entire ERP system not working nearly as effectively as it should.

Software Stability

Similarly as other computer software, ERP serves as subject related to stability issues where major portion of risk can be avoided by properly by way of researching and selecting reputable ERP software developer with experience in developing solutions for companies in your field. This is precisely why an ERP system should go through rigorous testing before making the final decision to go with said software. This, unfortunately, is a continual risk that could manifest years down the road when new, incompatible software or hardware is added.

Commitment

ERP solutions, when implemented properly, take a long time to get off the ground. ERP has to be properly selected, evaluated and tested, implemented and then used for a period of time before any clear positive results may be seen. It can become a very risky situation if the company isn't fully committed to seeing the entire process through.

Software Selection

Unfortunately, ERP results aren't one-size-fits-all. Beneficial ERP programmings will a chance to be particularly outlined for those industries alternately field it will be utilized within. This will be vital a result though you bring programming contrary for your business, you danger Hosting a totally futile Furthermore actually upsetting ERP result. Obviously characterizing what your shares of the organization necessities Previously, a ERP framework will extraordinarily lessen those risk from claiming your agency running under this hazard.

Approach

There would two regular methodologies made At actualizing ERP. The primary will be alluded should as "The enormous Bang" approach. This will be

the place an organization tries on actualize all the ERP result rapidly. Making such way as large portions progressions with required organization having short amount from claiming time, though, prompts more excellent danger of something setting off not right. Instead, think as of phasing-in your ERP framework. Usage On periods permits you with pay close thoughtfulness regarding particular case perspective of ERP execution that is opposed to attempt on paying thoughtfulness regarding a significant number for them without a moment's delay.

Check your progress 1

1. Proper implementation of ERP lead to:
 - a. good marketing
 - b. good value
 - c. good existence
 - d. good performance

1.3 The Role of Technology in the ERP Selection Criteria

Today's advanced ERP framework gives Makers the instruments essential will move forward benefits of the business execution. Hearty benefits of the business intelligence, dashboard reporting, portable access, ongoing information access, incorporated stock control, quality, MRP, Also different offers could assistance organizations worth of effort smarter, aggravate educated decisions, Also enhance benefits of the business methods. When deliberately selected, ERP framework aides organizations succeed Furthermore flourish done evolving environments, setting them separated from rivals.

We find that the majority organizations need produced an innovation organization system favoured by top banana management Furthermore it. You will additionally figure that ERP vendors need their engineering organization system. Despite the fact that the greater part vendors declare they would open systems, clinched alongside truth, each merchant need their innovation "sweet spot." comprehend the innovation organization stage Furthermore structural engineering for every merchant and measure it against your system.

There might have been a period the place the underlying engineering about an ERP framework might have been not truly an essential attention. Product

purpose overwhelmed which points when picking another framework. Yet innovation organization moves a really quick. Those cosset from claiming evolving an ERP framework incorporates a great deal more than the value of the software, it incorporates benefits of the business disruption, training that lost the long run.

Check your progress 2

1. ERP tools helps:
 - a. making system faster
 - b. improve business performance
 - c. cater database
 - d. all of above

1.4 Responsibilities of ERP Vendors

Primary the merchant ought to further bolstering supply of item along with documentation that mainly concerns with illustration of agreement which is marked. Main following the programming is delivered, could the organization create the preparing and trying surroundings to those usage groups. The vendors are answerable for altering at whatever issues in the programming that the usage cooperation encounters. So those merchant ought to further bolstering need a contact officer who ought to further bolstering continually connect with those usage cooperation.

An alternate part that merchant need to assume is that of the mentor - on provides the starting preparation to the organizations enters users, individuals who will assume lead parts in the usage of the framework. These key clients need aid those one who will define, together for those consultants, how those programming may be with serve the organization. On other words, it is these in-house utilitarian masters who will choose how those functionalities would to a chance to be implemented, and additionally how to utilize alternately adjust those result to suit of shield the organization's interesting necessities.

Along these lines it is extremely discriminating that these magic clients need aid provided for careful preparation on the Characteristics of the one bundle. Vendor's preparation ought to attain those objective about indicating those enter

clients how the bundle works, what need aid those significant components, how those information and majority of the data streams over those system, the thing that is adaptable What's more the thing that may be not, what might make arranged Also the thing that cannot, the thing that might be altered What's more the thing that ought to not, the thing that would those limitations, the thing that are the qualities with shortcomings.

The part of those merchant doesn't limit for the preparation. Those merchant additionally assumes a critical task help capacity also must practice calibre control for admiration to how the item will be executed. It may be those vendors who get it those better subtle elements and works of the item Also could aggravate profitable suggestions and upgrades that Might move forward the execution of the framework.

ERP vendors have a number of ways to support their client. The larger firms have significant support ecosystems to support their market. Buyers should evaluate all of their support systems including the following:

- Consulting organization
- Implementation methodology
- Education
- ERP implementation methodology
- Maintenance and phone support
- User groups
- Partner network

Check your progress 3

1. The role of ERP vendor:
 - a. to supply software only
 - b. to maintain user problems
 - c. to coordinate with customers
 - d. all of above

1.5 How to Prepare an Organization for ERP Implementation?

The lion's share of more modest organizations today aggravate their majority discriminating benefits of the business choices. In view of spreadsheets, what's more underpowered desktop bookkeeping bundles. The individuals that deal with succeed despite these constraints will, in the end, figure themselves kicking those tires of a full-blown ERP framework with wrist bindings. Their organizations' end-to-end business methods — starting with monetary reporting weight will stock management, with more starting with human assets on offers support, forecasting, client relations and more.

However, when more modest organizations take those plunge under an incorporated ERP environment, there need aid a couple steps they can't take to help their association get ready for the transition. Also to guarantee that the investment produces greatest remunerates. As far as streamlined courses ongoing reporting weight on magic benefits of the business indicators, and ideally, diminished fetches and progressed benefit.

Though you think the idea from claiming ERP to a little to midsize benefits of the business (SMB) at present appears to be a minimal counterintuitive, you're not alone. On the surface, those clues of a little organization adopting innovation initially outlined. Also designated for the vast endeavour gives the idea on be. An disagreement in wording. However, SMBs over those globe would quickly nearing on acknowledge that they must disregard the oxymoronic overtones. Also grasp ERP best polishes the harbor with trust from claiming surviving in length enough on inevitably get an enterprise-class association.

Aberdeen one assembly overview from claiming 800 SMBs for different businesses demonstrates that almost one-third need to execute ERP results. The same little business segment might have been registering reception rates of just 11 percent concerning with illustration in 2006, as stated by examination firm. The Growth will be. Indeed a greater amount astounding. Around SMBs that practice to regions for example, such that appropriation more in manufacturing, the place ERP reception need currently sailed will 72 percent with 63 percent respectively.

What's driving more modest organizations should think as of bringing a big-company approach by dealing with benefits of business operations with varied reasons, in any case there's developing acknowledgment that coordinated ERP bundles have ended up additional competitive along with simple implementation and there's likewise a mounting muscle to of confirmation demonstrating that SMBs that embrace ERP results are a greater amount great.

Check your progress 4

1. Implementing ERP in Company needs:

- a. proper database
- b. proper hardware
- c. proper software
- d. all of above

1.6 Enterprise Application Integration

Enterprise application integration (EAI) is the use of technologies and services across an enterprise to enable the integration of software applications and hardware systems. Many proprietary and open projects provide EAI solution support. EAI is related to middleware technologies. Other developing EAI technologies involve Web service integration, service-oriented architecture, content integration and business processes.

Intercommunication between enterprise applications (EA), such as customer relations management (CRM), supply chain management (SCM) and business intelligence is not automated. Thus, EAS don't allotment normal information or benefits of the business standards. EAI joins ea requisitions should rearrange with mechanize business procedures without applying over the top requisition alternately information structure progressions.

However, EAI may be tested eventually Tom's perusing distinctive working systems, database architectures or workstation languages, and in addition other circumstances the place legacy frameworks need aid never again underpinned via the first Producers.

EAI meets these challenges by fulfilling three purposes, as follows:

- **Data Integration:** Ensures consistent information across different systems.
- **Vendor Independence:** Business policies or rules regarding specific business applications do not have to be re-implemented when replaced with different brand applications.
- **Common Facade:** Users are not required to learn new or different applications because a consistent software application access interface is provided.

The advantages of EAI are clear:

- Real-time information access
- Streamlining processes
- Accessing information more efficiently
- Transferring data and information across multiple platforms
- Easy development and maintenance.

Check your progress 5

1. Which among the following information on EAI is correct?
 - a. EAI links EA applications for simplification
 - b. EAI automate business processes
 - c. EAI changes data structure
 - d. all of above

1.7 Implementation Methodology

A technique is roadmap to an execution which exists as reason for procedure that may convey usage around time, as stated by determinations and inside plan. Large portion vendors, particularly in the programming industry, need created their methodologies. Consulting organizations additionally created their methodologies to connection to an item. Vendors fundamentally utilization methodologies equally as promoting device around in place should allay the apprehensions of the upper management the point when they are acknowledging actualizing a real programming requisition.

Right away days, ERP methodologies are past barely showcasing devices. They would right away functional a direct result vendors need picked up from experience, in addition to these methodologies need existed through a few generations. Methodologies are currently connected what's more utilized toward venture supervisors What's more their groups. A procedure may be a roadmap with an execution. The reason for a procedure may be should convey a usage on time, as stated by determinations also inside plan. A large portion vendor, particularly in the product industry, need formed their methodologies. Consulting

organizations additionally created their methodologies previously, connection to an item.

Vendors principally utilize methodologies concerning illustration a promoting apparatus in place with allay the apprehensions of the upper administration the point when they are acknowledging actualizing a major product provision. Nowadays, ERP methodologies need aid past just showcasing devices. They need aid currently suitable. Since vendors have picked up starting with experience, Also these methodologies bring existed through a few generations. Methodologies are Right away connected what's more utilized toward venture supervisors Furthermore their groups.

Assuming a decision on an ERP has been taken, the implementation normally consists of five stages:

- Design
- Implementation
- Stabilization
- Continuous improvement
- Transformation

The structured implementation programme can speed system deployment and return on investment. This can be done in the following manner:

- Conducting an effective gap assessment
- Business and technical processes
- Organizational measures
- Data conversion and data clean-up
- Agreeing on the implementation boundaries
 - Project sponsorship and governance

The implementation strategy is ultimately built on a foundation of people, processes and product.

Check your progress 6

1. ERP methodologies serves as :

- a. good database
- b. marketing tool
- c. vendors database
- d. all of above

1.8 Things to Check While Implementing ERP

On the necessity support those main decision ought further bolstering make that those ERP you need aid selecting must a chance to be item fit. Likewise you know there are a lot of people ERP items on the market in addition will intended to a specific section. Consequently, you must guarantee those item will be pointed at your kind about association. In small, territorial discrete manufacturer, at particular point don't purchase all the an item expected to thick, as enormous associations for example, oil refineries and so forth.

Second side of the point may be the ERP programming must make methodology fit. After finishing a harsh cut Investigation to result fit, it may be necessary with take a gander completely toward your identity or necessities and match them against that ERP result you have opted for. Verify that those programming is incorporated with every last one of modules you would searching for Furthermore it may be decently planned should suit of reinforcement your prerequisite.

You must also check the unwavering quality of the result suppliers. Since ERP is a long haul commitment, progressing help / support would key. Those product firm that you need aid managing must have the assets what's more technicolor should do those entirety operation Also further upkeep What's more preparation effectively. You must as well weigh that their usage procedure will be effective in addition to sensible. You focus at the time of implementing ERP is:

1. Training

Training is the most crucial part when implementing software. If you have trainers, it's highly recommended they be on-site during implementation to completely understand their area of focus. Once your vendor is off-site, they will be the ones responsible for educating your end-users. If necessary, consider creating a business practice manual that will define how to accomplish tasks within your new software.

2. Infrastructure Readiness

As you begin planning for your implementation, it's a good idea to review all of your software and evaluate any issues with compliancy. Further, if your software needs to communicate with your ERP solution, have a discussion with these vendors and your ERP provider so that there is a clear understanding of responsibilities during and after the switch.

Check your progress 7

1. While proper implementation of ERP, you need to check for:
 - a. required product
 - b. required process
 - c. required probability
 - d. all of above

1.9 Web Based ERP Software

Number organizations are intrigued by web based ERP programming as an elective of the accepted on-premise permitting model. Web-based ERP product is presumed to be lesquerella expensive, less demanding furthermore snappier with implement, and less demanding should look after. Comparative enthusiasm applies will web built CRM product Also web based accounting product for the same reasons. Web built manufacturing software, web built CRM software, and other web-based product results are frequently all the alluded will Likewise Software-as-a-Service alternately SaaS offerings. SaaS alludes all of the permitting model utilized. With customary on-premise software, that purchaser organization should purchase all or license, install, with backing those workstation fittings and the provision programming toward their office. With those SaaS model, those client shares of the organization visit month to month expense that incorporates facilitating of the requisitions and the permit to utilize them. There will be minimal or no up-front money overhead. SaaS results might alternately might not a chance to be advertised on the cloud.

Advantages and Disadvantages

The primary advantage of a SaaS or web based ERP software solution is the low up-front cost. Another advantage is that there is no need for a local infrastructure with staff technology experts to maintain and support the systems.

ERP Implementation

Software suppliers often tout a faster time-to-benefit because there is no need to buy and install all the hardware and software; all that's needed is a browser and a web connection. The majority of ERP software implementation is still required, however, including data conversion, user training, etc.

A disadvantage of web based ERP software is that monthly fees will eventually add up to an overall higher cost (total cost of ownership) than locally supported systems. Understandable, of course, because the vendor bears all the costs to host and maintain the systems, plus it needs to make a profit. Economies of scale help reduce the overall cost for individual user companies but total cost of ownership will be higher for SaaS applications over time.

While every company engaged in ERP software selection should consider SaaS as an option, it should not be the first consideration. Nearly all ERP solutions on the market today are available as either on-premise or hosted (SaaS) implementations, with the exception of some solutions that are SaaS only.

When completing your strategic ERP software planning, solutions should be evaluated first and foremost on the functionality and fit for your business needs. Deployment options—on-premise or SaaS—are a secondary consideration after you've found the best software fit for your needs.

Examples:

Open Source

- ERPNext
- ERP5
- OpenERP
- OpenBravo

Proprietary

- MS Dynamics ERP Solution
- OnCloudERP
- Skyward ERP
- SalesBabu ERP System
- Acumatica
- Affinity 360
- BlueLinkERP

- BMS
- JD Edwards EnterpriseOne
- megaventory
- NetSuite
- SAP Business ByDesign
- ERPAG
- Sellsy CRM
- Selpad
- Tally
- 24x7 Office
- Eduflex ERP

Check your progress 8

1. Which is not an Open Source ERP Software?
 - a. Skyward ERP
 - b. ERPNext
 - c. ERP5
 - d. OpenERP

1.10 Let Us Sum Up

In this unit we have learnt that ERP system implementation results in difficult transition for company where proper planned, adequately supported and managed system is required.

We see that in today's time, ERP system provides necessary tools to manufacturer just to improve business performance.

It is noted that first and foremost thing is that the vendor should supply product long with documentation while signing contract.

It is noted that intercommunication among enterprise applications do not share common data in order to simplify and automate business processes without applying excessive application or data structure changes.

1.11 Answers for Check Your Progress

Check your progress 1

Answers: (1 - d)

Check your progress 2

Answers: (1 - b)

Check your progress 3

Answers: (1 – d)

Check your progress 4

Answers: (1 - d)

Check your progress 5

Answers: (1 - d)

Check your progress 6

Answers: (1 – b)

Check your progress 7

Answers: (1 - d)

Check your progress 8

Answers: (1 - a)

1.12 Glossary

1. **ERP** - It is a form of business strategy used to keep track of activities like purchasing, inventory and order tracking.
2. **AVL** - A list of suppliers that are approved by company as sources to purchase materials.
3. **Change Management** - It is a process of creating, reviewing and taking approval for engineering requests, change orders and change notifications.

1.13 Assignment

Explain the Role of Technology in the ERP Selection Criteria?

1.14 Activities

Study about Implementing of ERP.

1.15 Case Study

Study the Enterprise Application Integration.

1.16 Further Readings

1. Davenport, T., "Putting the Enterprise into the Enterprise System," Harvard Business Review, July August 1998, Vol. 76, No. 4, pp. 121-131.
2. Edwards, J., "Expanding the Boundaries of ERP," CIO, July 1, 1998.
3. Johnson, J., "Chaos: The Dollar Drain of IT Project Failures," Application Development Trends, January 1995, pp. 41-48.

UNIT 2: MORE ABOUT ERP IMPLEMENTATION

Unit Structure

- 2.0 Learning Objectives**
- 2.1 Introduction**
- 2.2 Successful ERP Implementation the First Time**
- 2.3 Software selection is not easy**
- 2.4 Plan to succeed**
- 2.5 Getting ready for ERP Implementation**
- 2.6 Issues**
- 2.7 What is the ERP life cycle?**
- 2.8 The best practice for ERP implementation**
- 2.9 Do's and Don'ts during ERP implementation**
- 2.10 Let Us Sum Up**
- 2.11 Answers for Check Your Progress**
- 2.12 Glossary**
- 2.13 Assignment**
- 2.14 Activities**
- 2.15 Case Study**
- 2.16 Further Readings**

2.0 Learning Objectives

After learning this unit, you will be able to understand:

- Concept of Successful ERP Implementation
- Understand basis Issues in ERP
- Detailed regarding ERP life cycle

2.1 Introduction

ERP execution arranging obliges ERP masters who think about industry, know the ERP product picked with actual all along with looking into plan. Maybe large portion significant may be discovering ERP masters who bring the thing that it takes to guarantee your association understands the sum conceivable benefits of the business reductions. Display will be that level of ERP master as ERP usage arranging administration will not best serves guarantee as those framework may be actualized effectively yet all the that the engineering organization aides the benefits of the business convert under those thick, as best form from claiming itself. Further, our technology-agnostic administration putting forth unites our identity or usage arranging technique for best hones Furthermore devices starting with particular ERP results.

2.2 Successful ERP Implementation the First Time

Selecting and actualizing another ERP system, and the procedure transforms that try with it, is irrefutably an intricate enterprise. In any case of your extent with discerned resources, an ERP usage may be not something that ought to further bolstering a chance to be approached without an incredible bargain of watchful arranging.

A standout amongst the greatest issues for actualizing ERP may be misconception what ERP is about What's more underestimating the thing that it takes will execute it viably. Senior working administration can't consign basic choices to faculty who might not need those foundation alternately the demeanour for this sort of choice making.

Assessing and selecting ERP product will be an intricate errand. It if be An fact-based methodology that acquires you will a perspective the place you could aggravate a comfortable, well-informed choice. Those transform obliges a objective more far reaching procedure should aide you through the determination procedure. This doesn't mean you if utilization voluminous foreordained questionnaires that don't distinguish your particular needs. Rather, it intends your assessment, choice methodology ought to make built on your own methodology Furthermore business transform model. A thorough technique to plan, aide what's additional control exertion need those possibility for emotional savings, also those mossycup oak significant benefit: avoiding huge mistakes.

Effectively actualizing ERP those To begin with chance obliges An organized technique that is strategy-, kin Also process-focused. This is the best route to oversee those hazards adequately. A great procedure blankets every last one of bases, that point when the unforeseen pops up, Similarly as it normally does, you will be readied will handle these exceptions without extreme negative outcomes. You quit offering on that one exceptionally as a relatable point botch is not hosting your representatives arranged to utilize those new forms and help supportive network. The result here might reach the distance to aggregate failure, at they need aid avoidable.

Assess your business technique Furthermore ERP arrangement in the recent past you submit will programming procurement and establishment. Finishing it correct the primary time may be the just expense profit investigation path on try. Numerous individuals out there wish they needed paused will assess their heading. The following questions do not cover every possible contingency, but should be helpful to stimulate thought and discussion.

- How do we want to run our business?
- What business problems need to be solved?
- Do we know and understand our priorities?
- Do we fully understand our as-is condition versus our could-be/should be processes?
- Have we carefully defined an action plan for pre-implementation preparation activities?
- What tasks will be accomplished and when?
- What are the missing links in our current system and our software of choice?
- What are the real costs, benefits and timetable going to be?
- Do we have an executive-level ERP champion to provide the necessary link to top management?
- Who will implement ERP and make it work?

Check your progress 1

1. ERP Implementation requires great:
 - a. database
 - b. money
 - c. planning
 - d. all of above

2.3 Software selection is not easy

In the recent past those quick and dirty about product determination begins, it is a great clue to oversee economy with realize how present strategy, procedures and supporting frameworks contrast with the thing that they might be for the new framework.

Clinched alongside fact, this revelation procedure if make performed each couple about quite some time along these lines oversee economy will realize the place the shares of the organization is, contrasted with a past stake in the ground. This serves as support from which to assess chances. Numerous individuals keep away from looking at system for more benefits of the business procedures Also bounce good under taking a gander at product works with characteristics. Product vendors regularly sway this as they need to move you along fast in the deals cycle with you closer to permitting their result.

A chance to be especially wary for purported evidence from claiming particular idea offers wherein the merchant executes its product at your webpage that offers different ensures. This act includes disarray of the product choice process, particularly to the uninitiated. Obviously, ERP programming vendors are in the business of offering their results and they need their exact best individuals work the offers cycle will aide your association on their clear best result for every one from claiming your issues.

Begin characterizing product needs by looking at current techniques that oversee your stream of majority of the data and material for that order-to-delivery methodology with at last that fully supply chain. There will be a normal inclination with alternate route this exceptionally imperative activity, you will pay - now and then beyond a reasonable doubt - in time as more cash to avoid crucial venture. Assessing and selecting ERP programming will be an intricate errand. It

ought to be a fact-based procedure that acquires you with perspective place you could aggravate a comfortable, well-informed choice.

Those procedures oblige a goal with far reaching technique on aide you through those determination methodologies. This doesn't mean you ought to further bolstering use voluminous foreordained questionnaires that don't perceive your particular needs. Rather, it intends your assessment What's more Choice methodology if be based on your own method Furthermore business procedure model. A thorough technique with plan, aide and control the exertion need that possibility to emotional savings, also those the vast majority paramount benefit: avoiding huge mistakes.

Toward a portion companies, administration may be so preoccupied for other, apparently more paramount exercises that ERP is delegated totally of the it Branch. The clue that this is strictly engineered undertake since programming may be included isn't right and, with fact, will be a standout amongst the heading reason for ERP disappointment. Those at work will be not well-positioned to assess those business meanings for different tradeoffs alternately will figure out their sway for normal working outcomes versus key expectation. Certainly, this shouldn't be the instance concerning illustration working choices have a place for senior working administration Also not it. When a ERP framework need been selected, its extraordinary to an organization with cut its misfortunes Furthermore scrap the project until huge numbers a considerable length of time need passed.

The political aftermath is regularly the greatest impediment. Nobody needs to let upper management that a ERP speculation about millions upon billions of dollars might have been a error and the transform ought be restarted. The point when an organization exists to numerous a considerable length of time with a poor ERP choice or implementation, however, those costs keep on heightens and the reductions don't come. Those expense from claiming lost chances Might a chance to be monstrous. The ERP product search, assessment and Choice transform must make finished good will minimize this danger.

The clean-sheet-of-paper approach, in spite of the fact that charming done concept, need been a huge bust for A large number organizations. The clean-sheet business procedure update and the ensuing ERP framework setup is complex, excessive that draws out. Consequently, mossycup oak organizations need come to accept the bargains with trade-offs that industry-specific, best-practice templates require. Preconfigured templates permit quicker framework organization Also quicker profits.

Forms can be refined after the fact date. This is not will say that it may be alright shall only hammer What's more pack foreordained techniques under spot. On the contrary, chosen format procedures must still a chance to be checked to appropriateness, no less than to the near-term, preceding setting off ahead. The interest to fast ERP usage will be helter skelter. This might have been the essential driver for the advancement about off-the-rack templates outlined with accelerate Furthermore improve those product personalization procedure. Be those templates, toward their verwoerd nature, fuse particular best hones that help cross-functional business forms. On the surface this might callous similar to nirvana, yet altogether couple associations take the time should reconsider how they ought to Furthermore Might run their organizations. By bringing those simple approaches out, these organizations wind up with generic, albeit industry-specific, purpose.

Check your progress 2

1. ERP consist of:

- a. database
- b. process
- c. software
- d. all of above

2. ERP Software should carry:

- a. program
- b. instructions
- c. plan
- d. all of above

2.4 Plan to succeed

If an ERP implementation is going to succeed, there have to be clear and measurable objectives. This includes specific product functionality improvements, a clear project plan (blueprint), business process improvements, measurable financial improvements and of course a detailed budget.

If a business is not organized for success, virtually all ERP implementation projects will be compromised. This includes inadequate communications between executives and the rest of the business. In many cases executives want to control (i.e. micro-manage) all aspects of the business. Executives will also be quick to take credit for anything positive and even quicker to distant themselves from doing any real work or accepting blame when things go wrong. If your executives tacitly approve an ERP implementation project, but do not actually participate in identifying corporate strategies and objectives, then the ERP implementation has no chance of real success.

Each individual to an association contributes of the organization's victory. Whether people who have any relationship with the business oversaw economy product need aid not included in the ERP usage process, especially those meaning of requirements, incredulous majority of the data Might a chance to be missed. Those way ideas here may be basic. In you don't incorporate somebody clinched alongside An methodology that specifically influences them, there will make no impetus for them with backing the result. Imperviousness about this sort might fate an ERP execution should disappointment. Those procedures of assessing business management programming Also business oversaw economy product implementers may be generally single arrangement from claiming events/tasks that would conveyed crazy again a time of time.

Check your progress 3

1. Success of every ERP software includes:
 - a. proper financing
 - b. proper planning
 - c. proper handling
 - d. proper collection

2.5 Getting ready for ERP Implementation

One of the most common mistakes businesses make when preparing for an ERP system implementation is assuming it's just another project for the IT department. This couldn't be further from the truth - an ERP system

implementation is a major period of change for any business, and the key to a successful deployment is the preparation.

Before any software gets installed or any training takes place, there are several critical things you must do to prepare your business for the systemic overhaul of key operational processes. By pre-emptively accounting for common pitfalls, a business can avoid obvious mistakes and make the implementation process more seamless. These four steps can help ensure ERP implementation success:

1. Take the time to plan

This is the approach a business should take when planning for an ERP system implementation. Most organizations try to move through the planning process as fast as possible out of fear that they will do more talking than doing. The truth is that an extra week or two of planning could be the difference between a smooth process and one that is hampered by avoidable mistakes. A good rule of thumb is to allocate one week of planning for every month of estimated deployment time.

2. Establish internal project ownership

The ERP system will affect every functional area of the business, and that means everyone from senior leadership to middle management and staff-level employees must be involved throughout the implementation. That's why the very first thing a business can do in preparation is establish an internal team that will have the influence and authority to get the rest of the company to buy in.

3. Establish metrics to measure success

Businesses deploy ERP solutions to enhance key processes and improve critical KPIs, such as greater efficiency, lower costs, etc. But if these aren't defined at the beginning of the project, it will be impossible to tell if the implementation actually achieved the desired goals.

All stakeholders should know exactly what the expectations are for the project and use those as a guide during the process to ensure everything is proceeding with the optimal end state in mind. At the project's completion, business leaders will be able to use those metrics to gauge ROI and determine whether or not the new system was a success.

4. Make ERP implementation a focus for the business

The implementation of an ERP system is a collaboration between the business and the vendor, but just because there's a trusted partner doesn't mean the

company can completely take its hands off the wheel. Deploying an ERP system isn't just about installing new software, it's a complete revamp of every functional area's core operational processes.

Sufficient human resources should be directed solely toward the day-to-day implementation of the new system. If employees cannot engage with the new system because they're tied up with other duties, the project may end up taking much longer than planned for. In addition, workers who are doing too many things at once are more prone to mistakes that have to be fixed later. Thus, businesses should avoid taking on other major projects until the new system is completely operational. If a large project is already in process, it's best to wait until it has been delivered to start deploying an ERP system. Planning for an ERP system deployment isn't just about picking a vendor and letting it do all the work. With a thorough planning process, businesses can minimize their risk, avoid common pitfalls and reap the full range of financial and operational benefits the system can bring.

Check your progress 4

1. To ensure proper success of implementing ERP, you need to have:
 - a. proper time
 - b. project ownership
 - c. enhance key processes
 - d. all of these

2.6 Issues

Challenges in implementing ERP solutions are quite normal. Though it is not completely a technical job, a lot of planning and proper communication is very much essential to implement ERP across the organization. There are several challenges which came across by companies at the time of ERP Implementation:

- It is very important, that implementation is done in stages. Trying to implement everything at once will lead to a lot of confusion and chaos.
- Appropriate training is very essential during and after the implementation. The staff should be comfortable in using the application or else, it will backfire, with redundant work and functional inefficiencies.

- Lack of proper analysis of requirements will lead to non-availability of certain essential functionalities. This might affect the operations in the long run and reduce the productivity and profitability.
- Lack of Support from Senior Management will lead to unnecessary frustrations in work place. Also, it will cause delay in operations and ineffective decisions. So, it is essential to ensure that the Senior Management supports the transformation.
- Compatibility Issues with ERP Modules lead to issues in integration of modules. Companies associate different vendors to implement different ERP modules, based on their competency. It is very essential that there is a way to handle compatibility issues.
- Cost Overheads will result, if requirements are not properly discussed and decided during the planning phase. So, before execution, a detailed plan with a complete breakdown of requirements should be worked out.
- Investment in Infrastructure is very essential. ERP applications modules will require good processing speed and adequate storage. Not allocating suitable budget for infrastructure will result in reduced application speed and other software issues. Hardware and Software Security is also equally important.

Check your progress 5

1. For proper installation of ERP, the programmer needs to:
 - a. training
 - b. time
 - c. support
 - d. all of above
2. Failure of ERP project results due to:
 - a. proper funding
 - b. proper marketing
 - c. proper support from seniors
 - d. all of above

2.7 What is the ERP life cycle?

ERP life cycles, which encompass entire 10 to 20 years of effective operating life, are often confused with ERP Implementation Life Cycle. There are different stages of the ERP implementation that are as give below:

- Pre evaluation Screening
- Evaluation Package
- Project Planning
- GAP analysis
- Reengineering
- Team training
- Testing
- Post implementation

1. Pre evaluation Screening

When the organization need concluded will try for those ERP system, those hunt to those bundle must start concerning about illustration there would hundreds of bundles it is dependably exceptional on would a through What's more point by point assessment of a little amount of packages, over finishing examination of handfuls for bundles. These phases will a chance to be advantageous in eliminating the individuals bundles that would not suitability to the benefits of the business transform.

2. Evaluation Package

This stage may be recognized a paramount stages of the ERP implementation, with reference to illustration which bundle that one selects will choose those prosperity alternately disappointment of the undertaking. Usage for a ERP includes colossal speculations Furthermore it is not simple will switch between separate packages, thus those good thing will be 'do it straight the To begin with time'. When those bundles on a chance to be assessed need aid identified, the organization needs to create choice criteria that tolerance those assessment about every last one of accessible bundles on the same scale.

3. Project Planning

This is the period that outlines the execution transform. It will be in this stage that the subtle elements from claiming how with try over those execution would concluded. Run through schedules deadlines, and so forth to those undertaking would landed at. That arrangement may be developed, parts would recognize and responsibilities need aid doled out. It will additionally will choose point when will start those project, how will do it with more fruition. A council by those cooperation pioneers for each usage bunch typically such as arranging.

4. GAP analysis

This will be viewed as greater part urgent stage for that achievement of ERP execution. This will be those procedure through which those organizations make finished model for the place they are now, and On which course will they pick later on. It need been assessed that Indeed those best bundles will best help 80% of the company's necessities. Those remaining 20% displays problematic issues for those companies's reengineering.

5. Reengineering

It may be in this stage that mankind's where components are thought seriously. Same time each usage will be setting off on include An noteworthy change done amount about workers and their vocation responsibilities, as the transform turns into All the more robotized will be more efficient, it may be best on treat ERP Concerning illustration a speculation and additionally cost investigation measure.

6. Team training

Training may be likewise a paramount stage in that implementation, which takes put alongside that methodology of usage. This may be the stage the place the shares of the organization trains its workers will execute and after run those framework. Thus, it may be fundamental for the organization with decide those correct representative who need the straight attitude- people who are eager to change, gain new things that would not anxious about innovation organization in addition to great utilitarian learning.

7. Testing

This may be those stage the place you quit offering on that one tries will break the framework. You quit offer on that one need arrived at a perspective the place the shares of the organization will be trying those genuine instance situations. The framework is arranged with currently you must thought of amazing

instances like framework overloads, different clients logging around during those same time, clients entering invalid data, hackers attempting will entry confined ranges et cetera. This stage may be performed on discover the feeble connection with the goal that it camwood be amended as used.

8. Post implementation

Particular case that usage will be over, those merchant and the procured consultants will try. On procure the apples and oranges of the execution it may be extremely critical that the framework need totally acknowledgement. There ought to make sufficient workers who are prepared with handle issues the individuals products up run through on period. The framework must make updated for those progresses for engineering. Those post usage will need an alternate situated about parts along with aptitudes over the individuals for lesquerella coordinated sort of frameworks.

Check your progress 6

1. Which is not included in ERP Life cycle:
 - a. Marketing details
 - b. Pre evaluation Screening
 - c. Evaluation Package
 - d. Planning

2.8 The best practice for ERP implementation

Actualizing an ERP result is a escalated consideration Also broad methodology that camwood influence Just about each range about your business. It happens due to sweeping nature, there need aid a lot from claiming ranges the place setbacks camwood happen on your ERP usage. So as with abstain from these setbacks, and copartnered costs that could try with them, if methodology, ERP usage task for couple way best as:

Executive Involvement

Eventually, perusing on official buy-in with more support in organization planning, will guarantee one task which might have capacity inside the requirements of those project's triangle of limitations: time, scope, and cash.

Additionally, official association in the arranging procedure demonstrates buy-in from the heading of the organization, which will sway client buy-in and also blacks.

Engage All Team Members

Motivate team members by engaging them within a structured internal conversation about best practices as well as how the system will be used by each team member. Employees who are involved in the ERP implementation are more likely to enact the behavioural changes necessary to ensure the project's success.

Training is Essential

Fizzling with appropriately preparation of clients on another ERP framework will guarantee the disappointment of ERP execution task. However, clients feel positive about how the framework meets expectations with entryway they camwood utilize the framework to fill in a greater amount efficiently, they will make probable should embrace Furthermore utilize the result in vast majority compelling route could reasonably be expected. This certainty in the framework camwood main a chance to be instilled in the clients eventually peruses appropriately preparation by ERP execution transformation.

Prioritize Project Management

Absence of smoothness in the position about one task director camwood prompts terrible results. This may be not be in position to somebody without those correct accreditations What's more experience, thereabouts this post ought a chance to be approached similar to skilled playing about critical part in conclusion.

Managing Risk and Contingency Planning

Leaders should engage in risk management from start to finish on the project. No project will execute perfectly, so contingency planning functions as a sub-set of risk management are critical.

Plan for Maintenance

Keeping up ERP framework for sufficient assets will augment functional an aggregation of framework. Conversely, neglecting on provide these assets will decrease aggregation of the system, along with additional present extra issues and also blacks. Each duration of the time an avoidable issue is not license with develop, the organization recoveries cash despite the fact that these reserve funds might not show up on the accounting report. Therefore, it may be crucial that you

suspect those continuous costs with more commitments required with administer your ERP framework to guarantee those long haul accomplishment of your result.

Check your progress 7

1. Which is not the limitation involved in Project triangle?
 - a. planning
 - b. time
 - c. scope
 - d. money

2.9 Do's and Don'ts during ERP implementation

ERP systems are complex, time consuming and expensive. Instances of failure of ERP projects abound including some high ticket failures such as Hershey, (largest chocolate maker of USA), where a SAP implementation was abandoned after three years. There are various “Dos” and “Dont’s” effecting success or failures of an ERP implementation. Some of critical success factors, needing focused initiative, are appended below:

Commitment from project sponsor:

Project sponsors normally belong to top echelon of the organization. A deep commitment and active involvement is needed from them and bare monitoring and oversight may not suffice. Their vigorous engagement should get other executives in board. One of their important roles will be to resolve any inter departmental conflict which is bound to occur during the course of implementation. They should also ensure that most knowledgeable executives are engaged in the project and released from routine functions whenever needed.

Commitment of resources:

An ERP project needs a significant financial commitment and budgetary support. Expenditure involves not only direct expenditure relating to ERP package but a host of indirect cost such as integration with other software, gathering and cleaning of input data, archiving data from legacy system, engaging expert/consultant, additional support need, provision for contingency etc.

Selection of package and consultant:

The selection of ERP package should be absolutely need based, as detailed on business requirement analysis, done beforehand. Selection should not be influenced by extraneous factors such as glamour involved in the name of big ERP packages. Selection of a consultant, who will provide advice independent of the interest of vendor and guide the entire process of implementation, should be done carefully and with due diligence. The consultant should be truthfully independent and should not be linked to a particular ERP vendor. This is also applicable to consultants from big named consulting firms as they may have tendency to recommend a complex product, requiring added consulting effort during implementation process.

Project Management:

An empowered project manager, supported by IT and functional experts and appropriate project management methodology, is key to success of ERP implementation. Setting up of project team, resource allocation, milestones and deliverables etc form important part of project management. Tailor made training programme for different type of users and a predefined change management process, are also crucial.

Legacy Data:

Legacy data are stored manually, in excel files or in legacy system. Collection of legacy data is needed to be planned carefully to avoid the syndrome known as “garbage in and garbage out” which will undermine the confidence on the system after implementation. Cleaning of data should be done by removing duplicate and unnecessary information, before importing to ERP system.

Creeping in of additional functionality:

Pressure often mounts for additional functionalities not envisaged earlier during implementation. This may lead to conflict with ERP vendor. Dealing through change management process also involves additional cost and time and should be avoided as far as possible.

Unrealistic expectations:

ERP system is not an all cure silver bullet. Users often like to see an immediate improvement after installation. There are bound to be initial period of frustration which may snowball, undermining confidence on the system.

Information overload:

An ERP system contains hundreds of reports and queries. Too much information creates a lot of confusion amongst users. Notwithstanding

information overload, many a time, users feel cheated as the system fail to generate identical reports to which they are accustomed.

Resistance to Change:

Users are overwhelmed by all the new features of the system. Some of the aged employees may be unwilling to adopt a new way of working. Some may be uncomfortable with the awareness that their supervisor will now keep a better trail on what they are doing.

Check your progress 8

1. The ERP consultant should take care of:
 - a. vendor interest
 - b. implementation process
 - c. coordination
 - d. all of above

2.10 Let Us Sum Up

While studying this unit, we have learnt that selecting and implementing ERP system along with process is a complex undertaking.

It is seen that the success of ERP implementation carry clear and measurable objectives which has product functionality, project plan, process improvements, measurable financial improvements of budget.

We see that earlier than software installation, there are many critical things that to be considered to prepare business for systemic key operational processes.

ERP solution implementation is intensive and extensive process which affects all domains of business.

2.11 Answers for Check Your Progress

Check your progress 1

Answers: (1 – c)

Check your progress 2

Answers: (1 - d), (2 - c)

Check your progress 3

Answers: (1 - b)

Check your progress 4

Answers: (1 - d)

Check your progress 5

Answers: (1 - d), (2 - c)

Check your progress 6

Answers: (1 - a)

Check your progress 7

Answers: (1 - a)

Check your progress 8

Answers: (1 - d)

2.12 Glossary

1. **ERP** - It is a form of business strategy used to keep track of activities like purchasing, inventory and order tracking.
2. **Motivation** - Any influence that brings out, directs or maintains goal directed behaviour.
3. **Planning** - It is the process of deciding in advance what is to be done, when and where it is to be done, how it is to be done and by whom.

2.13 Assignment

Write short note on success of ERP implementation?

2.14 Activities

Collect some information on ERP Life cycle.

2.15 Case Study

Generalised the basic features of vendor role in ERP implementation.

2.16 Further Readings

1. Appleton, E., "How to Survive ERP," Datamation, October 9, 1998.
2. Davenport, T., "Putting the Enterprise into the Enterprise System," Harvard Business Review, July August 1998, Vol. 76, No. 4, pp. 121-131.
3. Edwards, J., "Expanding the Boundaries of ERP," CIO, July 1, 1998.

UNIT 3: ERP AND COMPETITIVE ADVANTAGES

Unit Structure

- 3.0 Learning Objectives**
- 3.1 Introduction**
- 3.2 An affordable ERP for SMEs**
- 3.3 Why Indian ERP system is best suited for Indian industries?**
- 3.4 Why ERP is considered to be the backbone of ebusiness?**
- 3.5 Web-based ERP more ideal than server based solution**
- 3.6 Current Trends in ERP**
- 3.7 Challenges to watch for in the future of Enterprise Resource Planning**
- 3.8 Predicting the future of ERP**
- 3.9 Let Us Sum Up**
- 3.10 Answers for Check Your Progress**
- 3.11 Glossary**
- 3.12 Assignment**
- 3.13 Activities**
- 3.14 Case Study**
- 3.15 Further Readings**

3.0 Learning Objectives

After learning this unit, you will be able to understand:

- Basic of Web-based ERP
- Predicting the future of ERP
- Idea about ERP for SMEs

3.1 Introduction

Enterprise Resource Planning (ERP) need a standout amongst those focused preferences to organizations around that globe and the progressive compel driving the transform from claiming worldwide joining through data. Governmental associations would expand their reception of these frameworks to Different reductions for example, such that coordinated ongoing information, better administration, and result-based administration. Arriving at the standard level about continuously a worldwide company, associations are concerned over this requisition by putting resources into this undertaking to Numerous A long time and, Likewise a result, help the organization lessen the expense with increment for further viability.

3.2 An affordable ERP for SMEs

The flexible, moderate with more complete scalable, e-resource ERP may be those perfect gas result for recently rising Furthermore more modest companies, and in addition to growth-oriented SMEs requiring multi-site Furthermore multi-currency abilities.

It will be particularly great suiting on moving forward those manufacturing techniques of engineer-to-order, make-to-order Furthermore high-volume make-to-stock Producers in the automotive, electronics, capital equipment, also discrete results commercial enterprises.

Built on excellence

E-resource's is expense profit investigation Also web-based ERP result which combines for e-resource's adaptable Also moderate estimating structures suitability for SMEs for An innovation organization will the sum purpose Also profits of An huge organization for insignificant financing Also danger.

The e-resource ERP to SMEs result is manufactured on the rich innovation organization legacy and profound industry adroitness about e-resource Infotech Pvt. Ltd. What's more need An historical backdrop about triumph in the manufacturing sector, giving far reaching results that would utilized by those world's heading manufacturing organizations.

Execution will be quick Furthermore easy, without the need of unreasonable equipment and helter skelter fees to licensing, implementation, upgrades Furthermore support. This likewise serves stay away from extra money related

load for SMEs division. Once implemented, that consequence is greatest quality with insignificant venture and low danger. E-resource ERP offers a capable ERP result to Makers Also An secondary esteem proposition for SMEs who might instead extend assets looking into building a great benefits of the business.

The modules include:

Product Management

- Costing
- Engineering
- Engineering Change
- Estimating

Manufacturing

- Work orders
- Inventory
- Master production scheduling (MPS)
- Materials requirements planning
- Physical inventory
- Repetitive manufacturing

Financial/Accounting

- Accounts payable (AP)
- Accounts receivable (AR)
- Billing
- Financial integration management (FIM)
- General ledger

Customer Management

- Bid process management (BPM)
- Contract management
- Sales orders
- Sales quotes

Supplier Management

- Supplier quotes
- Purchase orders

Project Management

- Project accounting
- Project definition
- Project resource planning (PRP)

Check your progress 1

1. ERP system falls under Supply Chain:

- a. transaction execution
- b. collaboration and coordination
- c. performance measurement and reporting
- d. decision support

3.3 Why Indian ERP system is best suited for Indian industries?

Enterprise Resource Planning (ERP) Solution software address every last one of needs of an Enterprise inside the social connection of the nation on which the enterprise works. This might suggest that those neighbourhood accounting practices, generally relevant tax cut laws need aid completely adhered should done actualizing those Different business techniques.

Large portions foreign ERP product frameworks must fuse India particular features in the recent past usage Likewise for every those determinations of its client, the place as a Indian ERP result need now been programmed to fare thee well of the national industry's interest.

Another characteristic for a India-made ERP such as e-resource ERP programming framework will be its configuration. It need been planned will cook the necessity of the Indian clients for fully Comprehending their working earth along with prerequisites.

Commercial enterprises additionally think as of not difficult approachability with their result suppliers same time picking those straight ERP for their ventures. It additionally noted that e-resource serves every one our clients equally, Dissimilar to exactly abroad vendors who have a technique with serve main substantial customers.

Expense component also remains as a standout amongst those reasons the reason Indian ERP result is best suiting for Indian commercial enterprises. Numerous the long haul the gigantic cosset included clinched alongside it scares out commercial enterprises from actualizing ERP solution, depriving the profits the framework Might the table. To beat this shaky scenario, e-resource ERP need acquainted a competitive ERP, keeping earlier, personality those Indian industries, uncommonly the little and medium scale undertakings.

Check your progress 2

1. Enterprise Resource Planning Software contains:
 - a. complete Solution for an enterprises
 - b. complete accounting details
 - c. complete client details
 - d. all of above

3.4 Why ERP is considered to be the backbone of e-business?

Benefits of the business ventures previously, India would in the procedure of a major change because of globalization and the deregulation of Indian economy, coupled with essential transforms in the benefits of the business models because of those rise for data innovation organization built business polishes.

A large portion of the Undertakings clinched alongside Creating countries, for example, India, are in the procedure from claiming actualizing Enterprise Resource Management arranging (ERP) framework in arrangement for authoritative conversion and transform from claiming re-engineering activities. ERP framework guarantee profits that reach from expanded effectiveness should change of quality, profit and productivity.

However, its usage postures a few unforeseen authoritative tests Also progressions that could be structural and in addition social done way. ERP not main aides establish world-class best business hones and acquires transparency of the association as well as requests to strengthening along with adaptability with selection of making transform.

The vast majority guaranteeing contention may be that, will flourish in the e-commerce planet organizations need with convert their inside benefits of the business methodology for the sending from claiming ERP framework. Hence, ERP may be acknowledged should be those spine of e-business.

Check your progress 3

1. ERP in India can be much fruitful because of:
 - a. demand
 - b. money
 - c. management
 - d. none of these

3.5 Web-based ERP more ideal than server based solution

Web-based e-resource ERP result simplifies back-office methodology mechanization to mid-sized and developing benefits of the business Undertakings. It gives ongoing data over finance, request management, purchase, inventory, Worker management and e-commerce along with substantial addition. With web-based e-resource ERP solution, you could quicken benefits of the business cycles, enhance benefit furthermore reliability, and in addition will furnish higher levels of administration will customers, suppliers and more accomplices.

Web-based ERP result enhances business "around customers, suppliers and accomplices through organization toward oneself portals, giving for lead management, shipment tracking, bill instalment with greater amount.

Concerning illustration about web-based facilitated solution, e-resource ERP, essentially diminishes your overhead liabilities. There is no programming with install, no equipment on buy Also maintain, Also no up-gradation requiring

intricate re-implementation About whether. Our less group for it experts manages your maintenance, support, What's more up-gradation In our world-class datacenter. Likewise a result, you could concentrate on running your business, same time our web-based ERP result takes consideration of your benefits of the business arrangements with those backend programming.

Check your progress 4

1. The advantage of web-based e-resource ERP solution is:
 - a. business marketing
 - b. accelerating business cycles
 - c. lowers reliability
 - d. providing low customer service

3.6 Current Trends in ERP

Those association of as well a significant number persons On unit and RN help staff and benefits of the business downtime is in turn major purpose behind ventures on move far from universal vendors along with legacy ERP suppliers. Those enter drivers for ERP today would agility, receptive on evolving benefits of the business scenarios, What's more fast effects. These can't be met with legacy ERPs.

Those enterprises where cloud ERP may favour business stage in spite of more universal ERP that gradually declines. Those selections about cloud ERP will gradient toward more than 100% with legacy of ERP that decreases more than 30%, by considering illustration for every PWC. The cloud built ERP will be obviously getting noticeable quality with more rich profits to clients. Organizations would search for effects more than speculations the point when it hails on ERPs aside. What's more around interest cloud ERP is the result to the vast majority enterprise clients.

1. Cloud based ERP

The adoption of cloud based systems has been on the rise. Whether it is the CRM, Finance management, HRM or Asset Management, the companies are increasingly choosing cloud based systems over the traditional options. Cloud is

now a key business driver for ERP systems. The companies are evaluating their options of deploying systems to cut down on infrastructure costs to implement ERP systems.

2. Driving Business

There is increasing demand for automation that drives business. The work flow is automated and key events are scheduled by the software. For e.g. when an escalation is raised from a client, the same is handled in the back office. Automatic notifications are sent to the person handling the notification and his manager. The events like customer escalations, procurement and other business areas are driven by ERP. The manual efforts are minimised to achieve higher accuracy and self driven business tasks.

3. Business Process Improvements

Analysis of core business processes, understanding of how they're interconnected, their performance, cost, and contribution to the organisation's goals. The idea is to eliminate the bottlenecks and create a system which can effectively achieve the desired results.

4. User Driven Approach

A user driven ERP approach involves iterative development and implementation of the system. The user gets to see the process, effectively use systems and suggest changes for best results. The feedback from the users is an integral part of the implementation phase. The iterative implementations n

5. Customer Service

With increasing competition and global business models, the companies are looking to serve their customers better with ERP. Improving the customer service and making it visible to the top executives with realtime data is the key requirement from the ERP. ERP helps in simplified processes, improved operations and faster time to market to improve customer service for organisations.

6. Cognitive Analytics

The business scenarios today are more complex and challenging than ever before. Companies face pressure to show consistent growth, manage rising customer expectations and evolve with changing dynamics. Systems that can analyse data, behavioural patterns of customer and predict new business opportunities are very much in demand. The data analytics is correlated to

business outcomes. These systems are able to uncover hidden business opportunities and act as platforms for business growth.

7. Mobility Support

Enterprise applications today must be accessible on mobile devices. The sales team, top executives and many other employees need a system which can be accessed on the go. The mobility helps the sales team to drive business more aggressively. The executives are also empowered with information as and when they need to make critical business decisions. The mobility support in the ERP is a must have feature now.

8. Tailored Implementation & Deployments

Organisations are moving away from the traditional model of trying to fit their existing processes to the legacy solutions. The complexity of the operations and integrations can be simplified with tailor made solutions for organisations. This ensures that the key business areas are translated to ERP effectively and deployed according to the priority of the organisation. The module priority, deliverables plan is flexible and dynamic as per the needs of the companies.

9. Best in class technologies for facilitating business functions

Managing a virtual team, contacting leads through advanced VOIP tools, or simplifying enterprise asset management with RF tags and GPS enabled systems; the ERP should be equipped with advanced technological tools to drive compelling results. A generic system that is not up to date with the latest technology creates bottlenecks in an organisation. The ERP must be up to date with latest advancements in technology and make it available for the users seamlessly.

10. Express Delivery model

Gone are the days when customers waited for years for implementing ERPs. Now they need quick and customised delivery for their ERP systems. The cloud based ERP systems ensure that clients can get up and running within a few weeks now. The business functions cannot be disrupted due to long ERP implementations. The timing of the implementation, flexibility and meeting business objectives is the key.

ERP implementation is not a technological progress, but an enabler for business objectives. A successful ERP implementation revolves around successful translation of key business areas in an optimised, refined manner for better tracking, visibility and results. An effective ERP will create value, improve

performance, increase transparency, optimize processes, and help you transform your business.

Check your progress 5

1. Minimum accuracy for successful MRP is:

- a. lower than 90%
- b. 90%
- c. 95%
- d. 99%

3.7 Challenges to watch for in the future of Enterprise Resource Planning

Actualizing an ERP framework is a essential bit of the perplex to organizations needing to contend inside the industry supply chain. The test will point when it goes on coordinating ERP frameworks under the industry is not An is concerned of organizations choosing if will actualize all the these frameworks alternately not However the thing that profits they have any desire from ERP, and the thing that features they have from these frameworks.

In spite of there need aid exactly centre necessities that need with make fulfilled to every last bit nourishment organizations – for example, guaranteeing traceability Also settling on beyond any doubt terminated parts need aid never sold – features would differ contingent upon if the organization will be a small-and-medium-sized enterprises (SME) and also extensive multinational. Bigger organizations for the most part have additional unpredictable necessities to ERP frameworks to an assortment for reasons, including those certainty that they tend will cross All the more geographic limits thus stock management, legitimate compliance, Furthermore obtaining and correspondence the middle of different organisations, levels, functions, along with areas getting additional testing.

"Given that bigger organizations have a tendency on bring additional perplexing requirements, the ERP frameworks that might best deliver these are normally thick, as mind boggling themselves... they require will make greatly adaptable As far as customisations, and the capability will offer Different

techniques to finish An specific. Those downside about these intricate ERP frameworks about course, may be that they are exactly unreasonable with execute and maintain, Also oblige escalated consideration preparing.

This may be why, speculations require should analysed to guarantee that An best possible return around financing may be acknowledged in front of the financing is really made". Regardless of the thing that ERP framework a sustenance organization at last chooses, although it is in-house; with respect to a cloud; with extra customised; alternately nonexclusive any organization acknowledging upgrading or actualizing an ERP framework must take after An moderately comparable process, he demonstrates.

Organizations have with detract "a hard, goal take a gander at the present ERP circumstances something like that that every last one of current pain-points and essential operational change chances would identifier and understood". Organizations must also exploration What's more look for sentiment around Different frameworks will figure out how they camwood identify with their specific prerequisites with more issues, Furthermore finally, select an ERP framework In light of functionality, fit, cost, and intricacy. Same time the vast majority ERP frameworks on the business sector today gloat heartiness Also customisability, as stated by those 2012 ERP report card by US-based display consulting solutions, it will be not until programming usage really gets setting off that organizations might begin running under issue.

Toward the thick, as center for ERP roll-out, there are separate approaches will actualize all the an arrangement Furthermore it is critical for organizations with make under attention the pros What's more cons of every system in the recent past choosing how to try over sending.

The Initially model to roll-out, as stated by Panorama, is those "big bang" approach, the place the sum modules try live toward those same run through altogether locations, along with representatives which are compelled to utilize the new framework with no good fortune to fall back on the old you quit offering on that one.

Different organizations might utilized phased approach, the place they execute modules crosswise over various areas or offices at separate times, which camwood help abstain from business disruptions in any case might additionally make exactly safety on change inside offices.

Check your progress 6

1. The big bang approach promised to reduce:
 - a. managing cost
 - b. integration cost
 - c. purchasing cost
 - d. all of above

3.8 Predicting the future of ERP

The last year in the ERP industry has been an exciting one, with plenty of advances, changes and opportunities for improvement. As another year winds down and we prepare for the holidays, it is helpful to look ahead at what we think will be in store for the next year.

We may not be able to predict the future with 100% certainty, but there are a number of existing and emerging industry trends that will affect potential ERP buyers and implementers in the next year. Below are our top 10 predictions for the ERP industry in 2016:

Classification of Tier I ERP system will become obsolete.

In spite of the frameworks themselves might not turn into obsolete, the definition of more distinction between level I, level ii What's more level iii ERP frameworks absolutely will. There are essentially excessively awful numerous alternatives What's more complex innovations in the business should think that the huge 3 incumbents (SAP, Prophet Furthermore Microsoft Dynamics) would those just bundles skilled of tending to those necessities from claiming large, upper mid-market and high-growth associations. Indeed going the greatest Furthermore practically complex associations need a huge number from claiming alternatives at their transfer. Our arrangement for Infor Likewise that new level 1 framework sooner not long from now might have been that primary domino should fall in that destruction from claiming this dated and discretionary arrangement plan.

Increasing adoption of ERP systems among small and mid-size organizations.

Up until recently, bigger Undertakings required a huge innovative unrest advantage through their little along with mid-size rivals. However, new SAAS ERP product Furthermore versatile advances are turning into more expense profit

investigation What's more simpler with deploy, which will be bringing on the littler Furthermore mid-market to get up to speed to their fortune 500 counterparts. Run would those days the place an organization necessities millions upon billions of dollars on send new enterprise technologies, which will make ERP systems, CRM programming and different business innovations receptive with majority.

Cloud ERP becomes a non-issue.

Those buzz behind cloud ERP frameworks will be At last beginning will subside – generally on account of practical ERP vendors and third-party facilitating suppliers bring furnished a lot for competitive choices for organizations needing will relocate of the cloud. Scrutinize and information delineated done our 2015 ERP report card proposes that this pattern will precede to those predictable future, yet the enormous distinction is that it will get an ordinary along with acknowledged and only mossy cup oak ERP frameworks as opposed a stylish buzzword hyped towards industry investigators. Those address is no more regarding if alternately not the cloud pattern will continue, However it is instep something like which associations will move in this bearing Also which ones won't.

High-profile ERP lawsuits expose the causes of ERP failures.

Our ERP master witness act will be developing in gangbusters, which is a reflection of the state from claiming ERP usage. Excessively awful a number are fizzling more out getting soiled done lawsuits, a number from claiming which need aid high profile besides will uncover the industry's shortcomings. The gatherings along with issues included clinched alongside these lawsuits would probable should underscore those reasons the reason ERP usage fail, Also that's only the tip of the iceberg importantly, what might and ought to a chance to be carried out will dodge them.

Increasing gap between ERP implementation success and failure.

ERP failures do not appear to be dissipating anytime soon. On the other hand, there are still plenty of success stories out there. The difference between the two extremes, however, will continue to become more apparent. The successful ones will do all the right things – effective project management, business process reengineering and effective organizational change management for example – while the failures will continue to ignore or underinvest in those areas. The differing results between these two groups will be even more extreme.

ERP project recovery becomes a hot skill set.

As ERP failures continue to accelerate, those that can recover troubled ERP implementations to get them back on track will be in high demand – perhaps even more so than traditional project managers. It requires a unique skill set that can get to the root cause of what is causing the failure, which is why our project recovery services are in such high demand at the moment. Add to the fact that ERP failures are not likely to slow anytime soon, and it's easy to see why these skills and toolsets are so hot right now.

Best of breed makes a comeback.

For the last several years, single ERP systems with very little integration to other third-party systems have been the name of the game for most organizations. However, the increasing ubiquity of Salesforce, Workday and other functionally-focused enterprise systems has provided viable alternatives for companies looking for solutions that aren't trying to be everything to everyone. Look for these best of breed solutions to take an increasing share of the market from incumbent ERP vendors.

SOA and technology integration becomes cool again.

Given the rise of best of breed systems, integration-related skillsets and toolsets are becoming important to a growing number of organizations and IT departments.

Customization becomes more accepted by the mainstream.

Current ERP systems are making this concern a more acceptable and less risky form of implementation. It's a slippery slope for certain, but one that can be managed in small doses.

Techies begin regaining control of ERP implementations.

Technical complexity typically increases dependence on IT and creates the risk of underemphasizing the business transformation aspect of ERP implementations and other enterprise software initiatives. This is not a welcome trend by any means since it escalates the risk of failure and runs counter to the fact that ERP implementations are more successful when treated as business transformations, but it is the reality of the current technological landscape outlined above.

Check your progress 7

1. The need of ERP technology increases because of:
 - a. low features
 - b. reduced qualities
 - c. complexity
 - d. ease installation

3.9 Let Us Sum Up

In this unit we have learnt that web e-resource ERP is flexible, affordable and fully scalable which is ideal for newly emerging and smaller companies for growth-oriented SMEs instating multi-site and multi-currency capabilities.

It is seen that it is easy to predict future of ERP with 100% certainty, although there are many existing and emerging industry trends which affect potential ERP buyers and implementers.

It is noted that during implementation of ERP, the involvement of excess persons in support and business downtime results for enterprise to move away from normal vendors and legacy ERP providers.

It is seen that web-based e-resource ERP solution will helps in accelerating any business by improving its productivity and reliability with high levels of customer services.

3.10 Answers for Check Your Progress

Check your progress 1

Answers: (1 - a)

Check your progress 2

Answers: (1 - d)

Check your progress 3

Answers: (1 – a)

Check your progress 4

Answers: (1 - b)

Check your progress 5

Answers: (1 - d)

Check your progress 6

Answers: (1 - b)

Check your progress 7

Answers: (1 - d)

3.11 Glossary

1. **ERP** - It is a form of business strategy used to keep track of activities like purchasing, inventory and order tracking.
2. **AVL** - A list of suppliers that are approved by company as sources to purchase materials.
3. **Change Management** - It is a process of creating, reviewing and taking approval for engineering requests, change orders and change notifications.

3.12 Assignment

Explain the Challenges which occur in future of Enterprise Resource Planning?

3.13 Activities

Study about Web-based ERP.

3.14 Case Study

Study the various present trends in ERP.

3.15 Further Readings

1. Johnson, J., "Chaos: The Dollar Drain of IT Project Failures," *Application Development Trends*, January 1995, pp. 41-48.
2. Horwitt, E., "Enduring a Global Rollout -- and Living to Tell About It," *Computerworld*, Vol. 32, No. 14, March 1998, pp. S8-S12.
3. Melymuka, K., "ERP is Growing from Being Just an Efficiency Tool to One That Can Also Help a Company Grow," *Computerworld*, September 1998.

Block Summary

In this block, you have learnt and understand about the basic of ERP system implementation and its relations with enterprises. The block gives an idea on the study and concept of selecting and implementing ERP system with process involved. You have been well explained on the concepts of various ERP system tools which are required by manufacturer to improve business performance.

The block detailed about the basic of web e-resource ERP techniques. The concept related to implementation of ERP involving excess persons in support will be explained to you. You will be demonstrated practically about web-based e-resource ERP solution.

Block Assignment

Short Answer Questions

1. What are Do's and Don'ts during ERP implementation?
2. Explain Web Based ERP Software?
3. Write note on Current Trends in ERP?
4. Write short note on affordable ERP system?

Long Answer Questions

1. Write short notes on Risks in ERP Implementation?
2. Write short note on Getting ready for ERP Implementation?
3. Write note on ERP for SMEs?

Enrolment No.

1. How many hours did you need for studying the units?

Unit No	1	2	3	4
Nos of Hrs				

2. Please give your reactions to the following items based on your reading of the block:

Items	Excellent	Very Good	Good	Poor	Give specific example if any
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Language and Style	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
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3. Any Other Comments

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*Education is something
which ought to be
brought within
the reach of every one.*

”

- Dr. B. R. Ambedkar



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BUSINESS APPLICATION AND INTRODUCTION TO ERP

BCA - 501

**BLOCK 4:
CASE STUDIES**

**Dr. Babasaheb Ambedkar Open University
Ahmedabad**



BUSINESS APPLICATION AND INTRODUCTION TO ERP



Knowledge Management and
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Pune



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ROLE OF SELF INSTRUCTIONAL MATERIAL IN DISTANCE LEARNING

The need to plan effective instruction is imperative for a successful distance teaching repertoire. This is due to the fact that the instructional designer, the tutor, the author (s) and the student are often separated by distance and may never meet in person. This is an increasingly common scenario in distance education instruction. As much as possible, teaching by distance should stimulate the student's intellectual involvement and contain all the necessary learning instructional activities that are capable of guiding the student through the course objectives. Therefore, the course / self-instructional material are completely equipped with everything that the syllabus prescribes.

To ensure effective instruction, a number of instructional design ideas are used and these help students to acquire knowledge, intellectual skills, motor skills and necessary attitudinal changes. In this respect, students' assessment and course evaluation are incorporated in the text.

The nature of instructional activities used in distance education self-instructional materials depends on the domain of learning that they reinforce in the text, that is, the cognitive, psychomotor and affective. These are further interpreted in the acquisition of knowledge, intellectual skills and motor skills. Students may be encouraged to gain, apply and communicate (orally or in writing) the knowledge acquired. Intellectual-skills objectives may be met by designing instructions that make use of students' prior knowledge and experiences in the discourse as the foundation on which newly acquired knowledge is built.

The provision of exercises in the form of assignments, projects and tutorial feedback is necessary. Instructional activities that teach motor skills need to be graphically demonstrated and the correct practices provided during tutorials. Instructional activities for inculcating change in attitude and behavior should create interest and demonstrate need and benefits gained by adopting the required change. Information on the adoption and procedures for practice of new attitudes may then be introduced.

Teaching and learning at a distance eliminates interactive communication cues, such as pauses, intonation and gestures, associated with the face-to-face method of teaching. This is particularly so with the exclusive use of print media. Instructional activities built into the instructional repertoire provide this missing interaction between the student and the teacher. Therefore, the use of instructional activities to affect better distance teaching is not optional, but mandatory.

Our team of successful writers and authors has tried to reduce this.

Divide and to bring this Self Instructional Material as the best teaching and communication tool. Instructional activities are varied in order to assess the different facets of the domains of learning.

Distance education teaching repertoire involves extensive use of self-instructional materials, be they print or otherwise. These materials are designed to achieve certain pre-determined learning outcomes, namely goals and objectives that are contained in an instructional plan. Since the teaching process is affected over a distance, there is need to ensure that students actively participate in their learning by performing specific tasks that help them to understand the relevant concepts. Therefore, a set of exercises is built into the teaching repertoire in order to link what students and tutors do in the framework of the course outline. These could be in the form of students' assignments, a research project or a science practical exercise. Examples of instructional activities in distance education are too numerous to list. Instructional activities, when used in this context, help to motivate students, guide and measure students' performance (continuous assessment)



PREFACE

We have put in lots of hard work to make this book as user-friendly as possible, but we have not sacrificed quality. Experts were involved in preparing the materials. However, concepts are explained in easy language for you. We have included many tables and examples for easy understanding.

We sincerely hope this book will help you in every way you expect.

All the best for your studies from our team!



BUSINESS APPLICATION AND INTRODUCTION TO ERP

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BLOCK 4: CASE STUDIES

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UNIT 2 CASE STUDIES



Dr. Babasaheb
Ambedkar
Open University

BCA - 501

BUSINESS APPLICATION AND INTRODUCTION TO ERP

BLOCK 4: CASE STUDIES

UNIT 1

CASE STUDIES

02

UNIT 2

CASE STUDIES

04

BLOCK 4: CASE STUDIES

Block Introduction

Fundamentally ERP case studies investigations need aid conveyed which are perusing by several organizations to push their results and help prospective clients on studying various parts for improvement along with establishment.

An ERP research enterprise starts for point by point comprehension of expense sparing analysis, attempting of the particular organization those having different benefits of business techniques that happen to company, with nitty gritty merchant assessment process, prerequisite study, execution methodology including those date insightful steps and customization issues, and last closing consider. Presumed organizations direct heightening instance investigations What's more finishes are translated under activities previously, their future ERP discharges.

ERP body of evidence investigations camwood a chance to be dependent upon organizations which have needed an effective ERP execution alternately a neglected usage. Such instances investigations highlight those useful parts for ERP usage along with empower individuals to gain and evade mistakes conferred prior.

Block Objective

After learning this block, you will be able to understand:

- About Case Study
- Features of Case studies

Block Structure

Unit 1: Case Studies

Unit 2: Case Studies

UNIT 1: CASE STUDY: IMPLEMENTATION OF SAP SUPPLY CHAIN PERFORMANCE MANAGEMENT SOLUTION

Unit Structure

1.0 Learning Objectives

1.1 Introduction

1.0 Learning Objectives

After learning this unit, you will be able to understand:

- Basic introduction to Case Study
- Structure about Case Study

1.1 Introduction

At ITC Infotech, we understand that most businesses today face a dual challenge in today's marketplace. External challenges such as unpredictable market conditions need more agile operations and responsive planning. On the other hand, internal supply chains are longer and complicated, and make it difficult to introduce changes. ITC Infotech used prebuilt Supply Chain Data Models in Supply Chain Performance Management (SCPM) for acquisition, integration and transformation of relevant data, and established guidelines for the implementation of the SCPM solution. Our well-defined standards and custom metrics helped our customer incorporate business objectives into the supply chain and lay down benchmarks for comparison and analysis.

Greater visibility and performance across the supply chain helped our customer proactively manage its supply and demand sides, thus mitigate risks and possible loss of business.

ITC Infotech's implementation of SAP's SCPM tools and techniques eliminated internal silos and introduced a set of balanced key performance

indicators (KPIs) across all departments by giving greater visibility and deeper analysis into the data from different departments.

ITC Infotech built a department-agnostic view of organizational objectives and translated this information into relevant metrics to optimize supply chain performance for the healthcare leader. Our “big picture” approach was critical for applying performance management techniques holistically across supply chain processes, rather than focusing only on individual departments, providing end-to-end supply chain visibility and follows the industry-standard Supply Chain Operations Reference (SCOR) model to enable both departmental and organizational performance management.

Benefits

- Enabled consistency, automation and actionable information
- Improved process performance measurement for integration exercise
- Comparison of industry standard SCPM SCOR metrics and customer’s custom metrics to uncover areas of improvement and change the mindset of business executioners
- Tightly integrate overall business processes across the supply chain
- Leverage the supply chain and its data to support the customer’s overall goals
- Leverage technology that can build upon existing investments and self-enable supply chain departments

UNIT 2: CASE STUDY: ERP IMPLEMENTATION AT NESTLE

Unit Structure

2.0 Learning Objectives

2.1 Introduction

2.0 Learning Objectives

After learning this Unit, you will be able to:

- Concept of Case Study
- Understand features of Case Study

2.1 Introduction

The term ‘ERP implementation’ has become synonymous with ‘nightmare’ in recent years. High profile failures dot the headlines and companies are often intimidated not only by the high price but also the negative effect implementations can have on their business. Vendors such as SAP are working diligently on shaking this reputation and have made great strides in meeting their goals. “In 1996, a user could expect to pay six to 10 times the license cost in consulting charges. These days the external consulting cost has dropped to typically one to two-and-a-half times the software costs, depending on how much process re-engineering the user does” (Adshead, pg. 26). Fortunately for companies considering an ERP implementation there have been enough done in the past that there are opportunities to learn from the successes and failures of others. One of the key factors of a successful implementation is “don’t try to make the product fit exactly the way you would ideally like to work or on the other hand assume that people will completely change their processes to meet the package. The first takes many years and costs loads, the second meets big resistance” (Adshead, pg. 26). For most businesses there needs to be a middle-of-the-road approach where individuals realize that the software will not solve every organizational problem and not every process in the company can be re-engineered to fit the software. Regardless, savvy project leaders with prior ERP implementation experience will tell you that there are several pitfalls to avoid during ERP projects. The first is not

to select an ERP package based on a demo. Choose your package wisely, ask questions, get references, and do your homework. An ERP package is a costly investment and you need to be sure you are choosing the package that best fits the needs of your organization. The second is get management commitment. Not securing top management buy-in results in an automatic project failure. Management commitment is often high at the beginning of a project but begins to wane as the project wears on. It is vital to keep management interested, involved, and positioned squarely behind the project. The third is to avoid heavy customization. It is both easy and tempting to customize ERP packages to fit your exact needs. Unfortunately excessive customization will haunt you by lengthening the project timeline and by driving up maintenance costs in the future. The final pitfall to avoid in ERP implementations is not to underestimate the importance of training. It is not uncommon that users receive several days of training on the new system and then do not see the system again for months. Users need in-depth and on-going training and should even be involved with system testing if at all possible (Adshead, pg. 27).

Unfortunately for Nestle USA, they did not heed the failures of others. Throughout the implementation, Nestle USA made several large mistakes that almost doomed the project. When the project began a team of 50 top executives and 10 senior IT professionals was assembled to develop a set of best practices for all Nestle USA divisions. The goal was to develop these best practices for all functions of the organization. Each function from manufacturing to sales would eventually be forced to retire their old approaches and adopt the new best practice that had been developed. Concurrently, a technical team was charged with the task of implementing a common data structure across the company (Worthen, pg. 2). By the time the implementation began in 1999 Nestle already had problems with its employees' acceptance of the system. Most of the resistance met by the project team was traced back to the fact that "none of the groups that were going to be directly affected by the new processes and systems were represented on the key stakeholders team" (Worthen, pg. 3). This was only the start of Nestle USA's problems. By early 2000, the implementation had turned into a disaster. Employees did not understand how to use the new system and did not understand the new work processes they were being forced to adopt. Divisional executives were just as confused as their employees as they had been left out of the planning and development of the new system and were less than willing to assist in straightening out the mess that had developed (Worthen, pg. 3). The result of this was that morale plummeted and turnover skyrocketed. In fact, "turnover among

the employees who forecast demand for Nestle products reached 77 percent” (Worthen, pg. 3).

Nestle USA’s implementation problems did not stop with employee issues. Technical difficulties began to emerge as well during the rollout. In the rush to beat the Y2K deadline the project team had overlooked the integration points between the modules. This meant that the different modules could not talk to each other. So if a salesperson gave a discount to a customer and entered it in the system, the accounts receivable portion of the system did not know of the discount. The result was that the customer would pay their bill but invoice appeared as though it were only partially paid (Worthen, pg. 3).

By June 2000, Nestle USA was forced to halt the rollout and the project manager was removed from the project and reassigned to Switzerland (Worthen, pg. 3). Nestle USA gathered 19 key stakeholders and executives went on a three-day offsite retreat to discuss the future of the project. Out of this meeting came the revelation that they would need to redefine the business requirements of the project and then shape the project timeline around the requirements rather than to shape the timeline around a predetermined end date (Worthen, pg. 3-4). This process took until April 2001 and resulted in a detailed blueprint for the project team to follow. A director of process change was hired to act as a liaison between the project team and the different functional divisions (Worthen, pg. 4). With all of these items finally resolved, the project was able to continue. The last rollouts were scheduled to be completed in the first quarter of 2003 (Worthen, pg. 1).

Results

Although there were bumps in the road for Nestle USA’s ERP implementation, it certainly seems to be paying for itself. As of 2002, Nestle USA claimed they had already realized a savings of over \$325 million (Worthen, pg. 1). Most of these savings came in the area of supply chain improvements, specifically demand forecasting. “The old process involved a sales guy giving a number to the demand planner, who says, ‘Those guys don’t know what the hell they are talking about; I’m going to give them this number’. The demand planner turns [that number] over to factory, and the factory says the demand planner doesn’t know what the hell he’s talking about. Then the factory changes the number again. With SAP in place, common databases and business processes lead to more trustworthy demand forecasts for the various Nestle products. Furthermore, because all of Nestle USA is using the same data, Nestle can forecast down to the distribution center level” (Worthen, pg. 4).

In addition to saving money, Nestle USA has also been able to come together as one organization. The problem of 29 different brands of vanilla has been solved and now with common databases each factory refers to vanilla in the same manner. They also use common processes that simplify operating procedures and allow for the centralization of functions such as developing training procedures. Training no longer needs to be customized for each factory. Since each location follows the same procedures, training materials only need to be developed once. Additionally, any Nestle USA employee could relocate to another factory and not have to adjust to local processes.

Nestle UK experienced similar successes with their ERP implementation. They were able to recoup the money spent on the system in only two years (Glick, 7 Days, pg. 4). Further, like their American counterpart, Nestle UK has experienced reduced inventory levels, tighter control on inventory, and a more disciplined attitude toward business processes (Glick, 7 Days, pg. 4). Most importantly, the ERP implementation at Nestle UK helped to foster a “culture of continuous improvement” (Glick, Enterprise, pg. 24). “Improvement priorities are clear: first, the internal opportunities; second, business-to-business; and third, business to consumer” (Glick, Enterprise, pg. 24). This attitude is embodied by the fact that following the ERP rollout they hired a process development manager. This person’s sole responsibility is to act as a bridge between business and the Information Technology department and to make sure that employees stay focused on continuous improvement rather than simply trying to maintain existing systems (Glick, Enterprise, pg. 24).

Recommendations

The Nestle USA case is an excellent case study for ERP implementations because it contains both successes and failures. There were obviously breakdowns during the planning phases of the project yet the overall result can be considered successful due to the consolidated system they now have in place and the amount of money that they are saving due to the ERP rollout. By examining the experiences of Nestle USA other companies can learn valuable lessons that can be applied to their own rollouts. Some of these lessons come straight from the mouths of Nestle USA executives while others are observations made from studying the case.

The first lesson that can be learned from the Nestle USA scenario is that in order for an ERP implementation to be successful the right individuals need to be involved in the process from the beginning. Nestle learned this lesson the hard way and eventually was forced to halt their rollout. It is simply impossible to

redesign work processes without involving some of the people that actually do the work. While an argument could be made for “too many cooks in the kitchen” regarding ERP implementations, it is certainly better to have more people than needed rather than not enough when the future of the company is on the line. It is easier on the project schedule to trim the project team during the project than it is to bring new people into the fold and then have to spend time bringing them up to speed on all of the intricacies of the project.

Another lesson that can be gleaned from the Nestle USA case is that an ERP implementation is not the project that companies should attempt to force into a specific timeline. There is no better way to miss things and have components completed shoddily than to force the project timeline to fit a specified end date. Again, with the future of the company on the line, it is important to completely define the business goals of the project and then create a timeline that will accomplish those goals. A third recommendation for companies considering an ERP implementation is to place a large focus on training. Training is one of the key elements of any ERP implementation because without it employees that will be using the system and the new business processes on a day-to-day basis will not be prepared to do so. As with most software projects, training is often an afterthought and typically one of the first items to be cut or reduced when the project timeline begins slipping. Organizations must resist the urge to do this on ERP projects. It is crucial that employees receive training early and often throughout the project. If at all possible, end-users should also be involved in the testing of the new system.

Fourth, organizations should spend time evaluating the business process re-engineering that will be done in conjunction with an ERP implementation. Companies often take the opportunity presented by an ERP rollout to either redesign business processes or adopt best practices throughout the organization. Caution should be exercised during this phase as re-engineering processes just for the sake of re-engineer the process is often not necessarily a wise business decision. There are times where processes should be left alone. There are also instances where best practices may vary from location to location. Attempting to force a new or revised process on every facility in the organization is an excellent way to breed contempt and resistance within the organization. ERP implementations do offer a great opportunity to re-engineer processes but great care should be taken when selecting which processes are actually modified. The fifth general recommendation for ERP projects is to limit the number of customizations that are done to the system. As the number of customizations requested increase so does the cost, timeline, and likelihood of bugs in the system.

Since ERP systems are sold by vendors rather than developed in-house, they need to be generic enough to be resold to multiple organizations. This means that either the software needs to be customized to fit an organization's needs or the organization's processes need to be redesigned to fit the software. As mentioned earlier, it is important to choose which processes are re-designed wisely. Combined with this recommendation, it becomes clear that making the determination as to which processes are re-engineered and which pieces of software are customized is a balancing act. The final recommendation for ERP implementations is to obtain universal buy-in for the project. Traditionally, much emphasis has been placed on securing buy-in for the project by top level executives. Unfortunately this is only half the battle. Everyone in the organization needs to support the project if it is to be successful. In the case of Nestle, if they "were to do it over again, [they'd] focus first on changing business processes and achieving universal buy-in, and then and only then on installing the software. If you try to do it with a system first, you will have an installation, not an implementation. And there is a big difference between installing software and implementing a solution" (Worthen, pg. 4). The end-users are the ones that will be using the system and the processes. If they are not behind the system there will be morale and turnover issues.

Conclusion

In summary, ERP implementations are unlike any other system implementation that a company will ever experience. Despite the bad press that ERP systems and their corresponding rollouts receive, it is possible to experience a successful rollout. Often, as in the case of Nestle USA, organizations will encounter major setbacks and difficulties during the implementation yet still be able to salvage a successful project. The important point to take away is that the plans must be flexible enough to change mid-stream to overcome obstacles that appear during the project and organizations must do their homework prior to beginning an ERP project. Enough companies have gone through implementations that there are plenty of lessons to be learned if organizations are willing to accept the advice of others. ERP implementations combine disparate data sources, re-engineer processes, and involve large numbers of users and locations. It is nearly impossible to plan for every contingency in projects of this size. The difference between success and failure is an organization's ability to rally and work together during difficult times to reach an end goal that will eventually make everyone's job easier and the company more competitive.

Block Summary

Enterprise Resource Planning (ERP) frameworks appear on a chance to be that silver projectile to each company's issues. Done person fell swoop, usage for an ERP framework offers an organization those opportunity on re-engineer benefits of the business courses coordinate the frameworks about geographically scattered locations, unite data, and enable clients towards giving them entry on every last one of company's information progressively. Of course, these chances come in helter skelter value As far as budgetary cost, usage nightmares, with mankind's issues, regular usage come up short miserably as they run behind calendar additional with budget; other times they would effective. In any case of the outcome, every ERP execution holds important lessons on a chance to be gained to organizations acknowledging their ERP usage.

Enrolment No.

1. How many hours did you need for studying the units?

Unit No	1	2	3	4
Nos of Hrs				

2. Please give your reactions to the following items based on your reading of the block:

Items	Excellent	Very Good	Good	Poor	Give specific example if any
Presentation Quality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____ _____
Language and Style	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____ _____
Illustration used (Diagram, tables etc)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____ _____
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Feed back to CYP Question	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____ _____

3. Any Other Comments

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*Education is something
which ought to be
brought within
the reach of every one.*

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- Dr. B. R. Ambedkar



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