

Concepts of planning & controlDr. Arun
ChaudharyThe nature of Managerial work

Managers are responsible for planning and control, they plan to minimize uncertainty and reduce risks, they also ~~exercise~~ exercise control to ensure adherence to plans. plan and control both involve decision making and leadership

Planning :- "planning is an attempt to control the development of future events"
planning activities includes: Scheduling, budgeting and resource allocation etc

Controlling :- (Once plans are in place, managers use them to control ongoing activities by comparing the planned outcome with the actual results. When discrepancies b/w planned and actual performance are found, managers determine the reason for the variance, If the performance is better than planned, then the plan may be modified)

Note :- The best control is the one which brings the process back into operation on the main track without outside intervention.

(A real time control system provides instant feedback and an instantaneous corrective action without any delay.)

Decision Making :- Decision Making is an integral part of mgt and occurs in every function and at all the levels.

Decision making includes four phases :-

- 1) finding occasions for making decisions (Intelligence)
- 2) finding Possible course of action (Design)
- 3) Choosing among alternatives (Choice)
- 4) Evaluating past choices (Review)

(Concepts of Organizational planning)

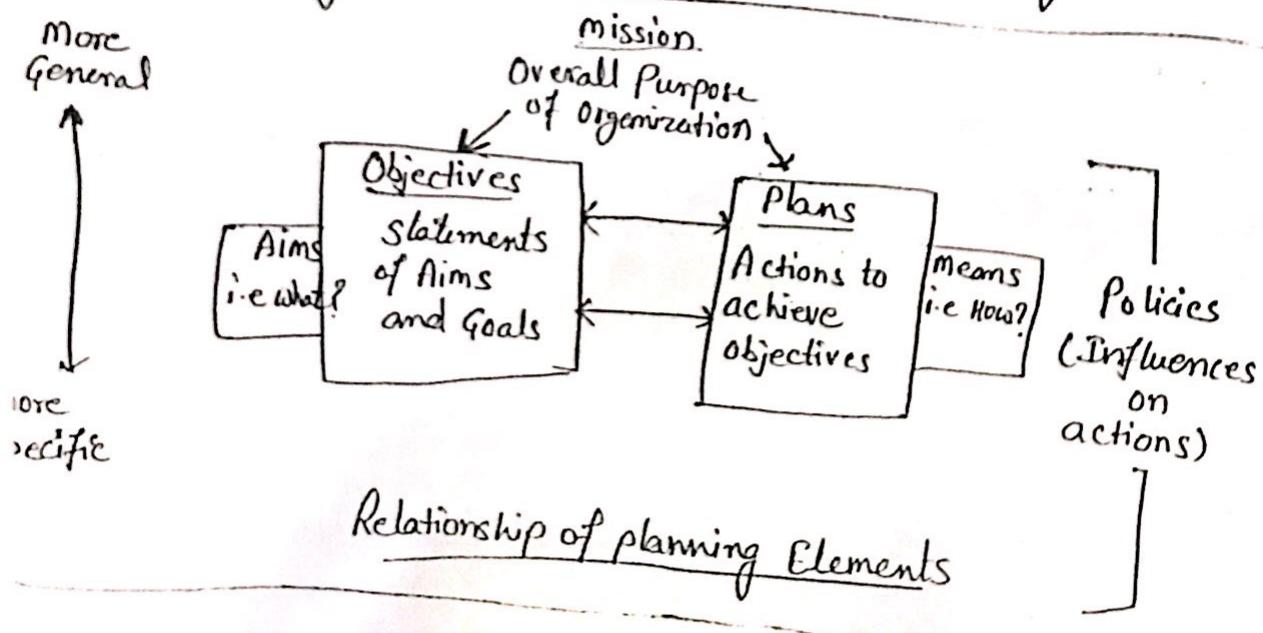
Managers would have some way of knowing what the future is likely to be. They could make their decisions accordingly. Planning is deciding what actions to take. It includes evaluating the organization's resources and environment and establishing organizational goals. Once these goals are established, the manager must develop tactics to achieve these goals and create a decision-making process that will monitor the results.

(The planning process) [what, how, when, who]

Planning is the managerial process of deciding in advance what is to be done, how to do it, when to do it, and who is to do it. Planning is not an end in itself, its primary purpose is to provide the guidelines necessary for decision making and resulting action, throughout the organization.

Planning deals with the future uncertainty i.e. flexibility must be incorporated into plans.

Planning starts with a long term mission and includes establishing goals and objectives, translating them into plans and creating policies to guide the managers.



Planning Process includes following steps] (3)

Step-1: Creating a mission statement: The first step in planning is to create a mission statement that details the Purpose of the Organization and its overall goals. Some organizations consider such statements as public relations exercise establishment and too general to relate to specific strategies. Long-term

Step-2: Defining Organizations Goals and Objective Goals are set within the framework of the mission statement. Goals are a wish list without specific quantities or dates. Wish list (<5 years) within the framework of each goal, top managers and middle managers set Objectives. Objectives are specific and can be measured. Whereas the mission statement is the basis for long-term planning, Objectives are the basis for short-term planning.

Step-3: Creating a plan of Operations to Achieve the mission.

After Objectives are outlined planning includes steps such as the calculation of size of staff needed, the detailed of a master production schedule, specification of quantities of raw materials and their supply times.

Each Objective has a plan for Operations, detailing the tasks involved, the department that will carry out the job and the time frame within which the job has to be accomplished.

Step-4: Creating the policies

Once the strategic and the tactical plans are in place and the tasks and resources have been allocated to each organizational unit in order to achieve Objectives, the policies are created. These policies govern the acquisition, use, and distribution of the resources.

Planning for Business Change with IT

MIS-Unit-3 (Dr. Brijendra Chaudhary)

Planning : → planning is deciding what to do before you do it

"Planning is thinking about the best way to reach a goal, before you begin to reach for it. You are planning, and your chances of accomplishing your goal should be enhanced."

Planning Terminology :

Shared vision : → It is common sense of Purpose and values shared by the members of a Team or ~~Org~~ Org.

Mission : → It is an Org's "Reason for being", basic purpose for which the Org exists.

Goals : → It is board statements of Org to accomplish Org mission.

Objectives : → "Are more specific, measurable elements of a goal."

Strategies : → "How goal ~~is~~ should be achieved, it includes tactics (Action's) that would implement Strategies."

Policies : → "Are general guidelines that direct and control decision making within an Org."

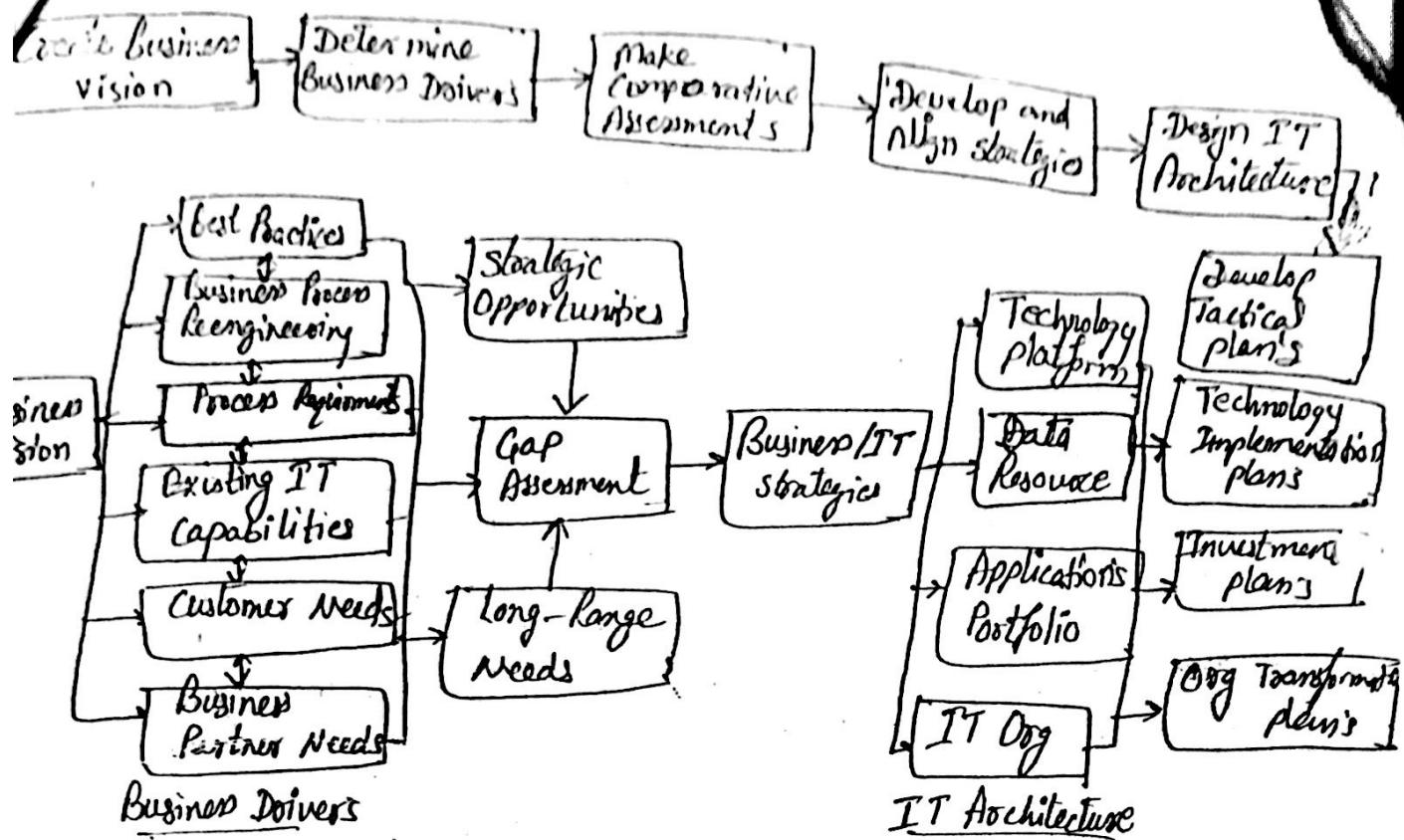
Rules : → "Implement's policies, which are more specific statements that direct decision making"

Types of planning (Information system)

- ① Strategic IS planning
- ② Tactical and Operational planning
- ③ Business system planning
- ④ planning for Competitive Advantage

1) Strategic IS Planning

Strategic planning deals with the development of an Org's mission, strategies and policies.



Strategic IS planning can be defined by four main activities:

- 1) Business Alignment : \rightarrow Aligning investment in IT with strategic business goals.
- 2) Competitive Advantage : \rightarrow To create innovative and strategic business info system for competitive advantage.
- 3) Resource Mgt : \rightarrow Developing plans for efficient and effective mgt of company's IS Resources, including IS personnel, Hardware, Software and data and network Resources.
- 4) Technology Architecture : \rightarrow Designing an IT Architecture for the Org.

Tactical and Operation planning :- Implement IT Architect value faces IS
Tactical planning is the development of new or improved IS that implement the PT architecture as created during strategic IS planning.

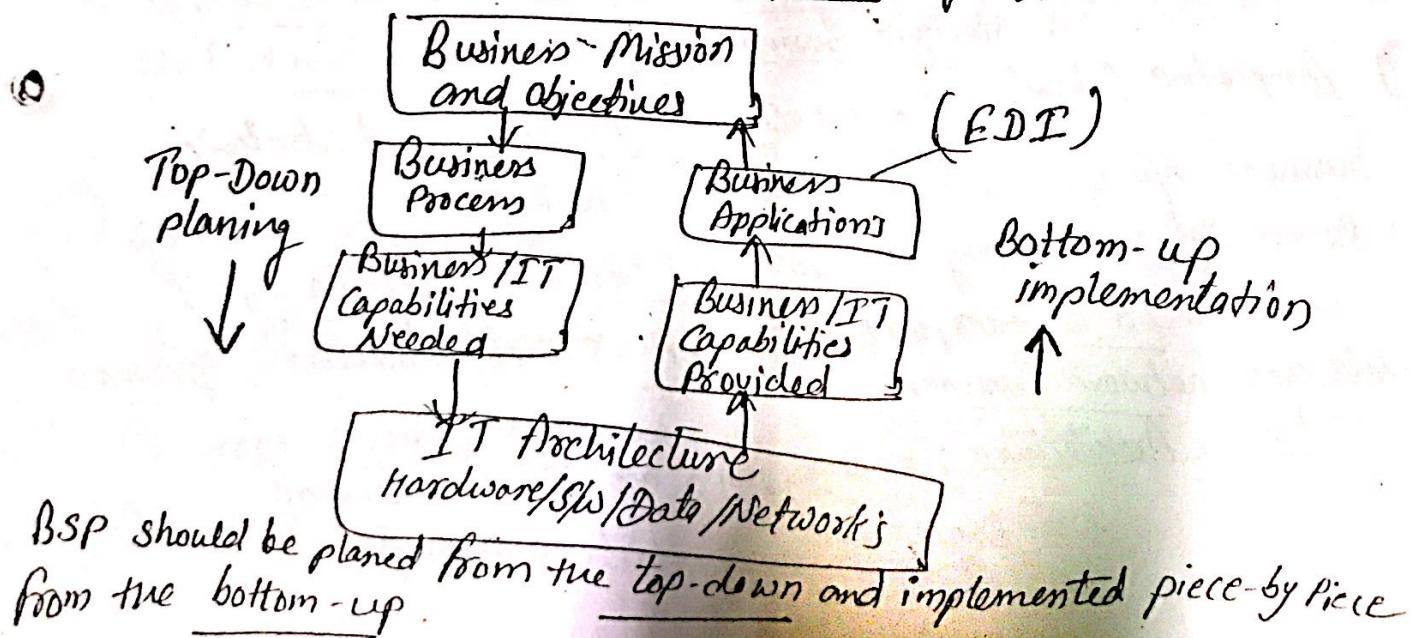
It involves the design of tactics, the setting of objectives, and the development of procedures, rules, schedules and budgets.

Operation IS planning ^{IS} detailed planning for the accomplishment of new info systems development & projects, including the preparation of operating budgets. Allocation of financial and other resources and maintenance activities are also comes under operation IS planning.

② Project mgmt effort that plan's and controls the implementation of business projects, which ensure that a project is completed on time and within its proposed budget and meets its design objectives are ^{also} comes under operation IS planning.

③ Business system planning :- (BSP)

It is a structured approach that assists an org in developing IS plans to satisfy its short- and long-term info requirements.

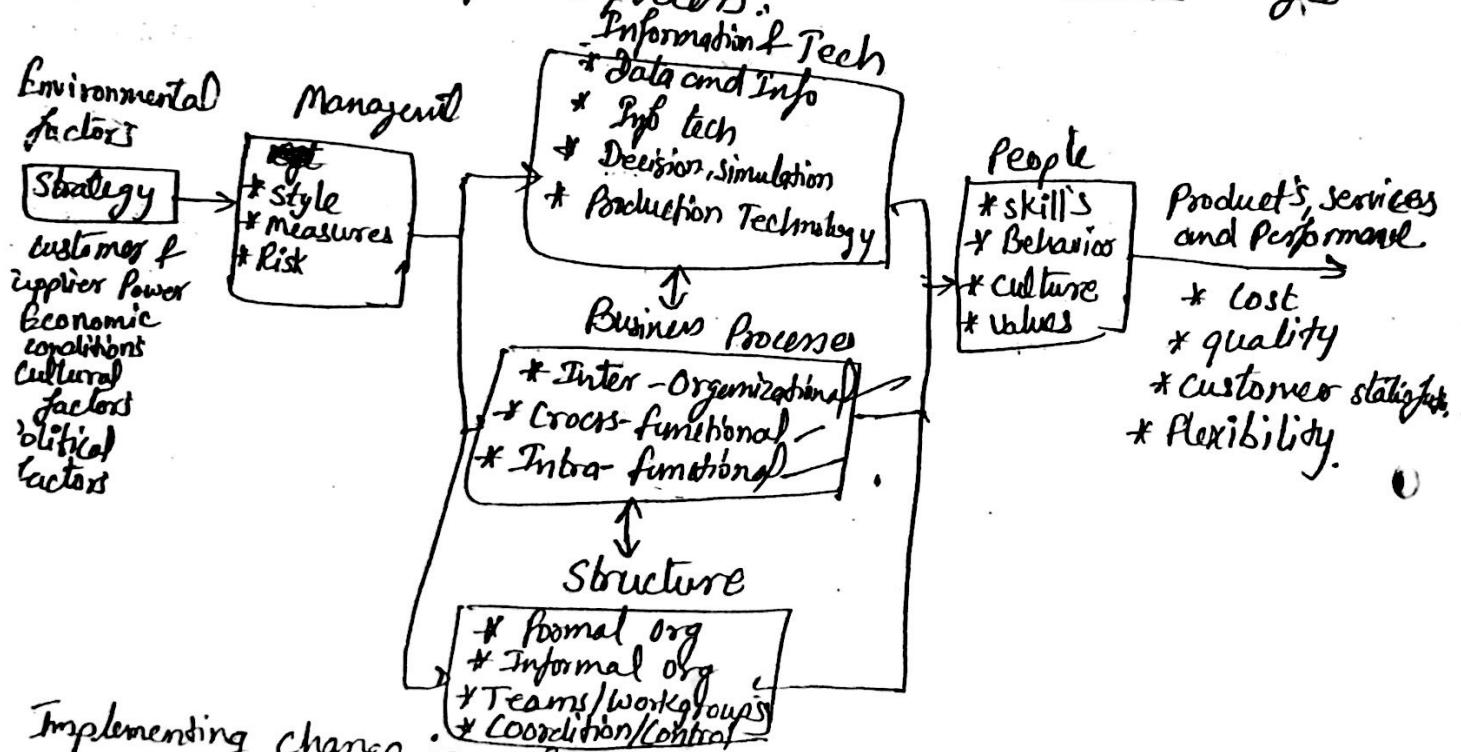


100% competitive Advantage

It specifies strategic IS planning which involves an evaluation of the potential benefits and Risks a company faces when using info technology for competitive advantage. It will include competitive strategies for Cost leadership, differentiation, growth, innovation and alliances.

Implementing Business Change with IT

The implementation process can also be viewed as a major stage that follows investigation, analysis and design stages of the system development process.



Implementing change in Info technology is large process activity which includes the following activities:-

- ① Environmental factors
- ② Management
- ③ Info and Tech
- ④ Business Processes
- ⑤ Structure
- ⑥ People
- ⑦ Product's, services and Performance

It also supports change Mgt activity which requires the involvement and commitment of top mgt and formal Process of Org design.

In knowledge mgt system in business are different factors which must be managed properly i.e. give below

- * User Resistance to sharing knowledge
- * Immaturity of Tech
- * Immaturity of knowledge mgt industry
- * Cost
- * Lack of Need

These are some of the factors which must be considered while implementing change in the Org.

The implementation process for newly designed info system involves following activities:-

- 1 * Acquisition
- 2 * Software development
- 3 * Training
- 4 * Testing
- 5 * Documentation
- 6 * Conversion. (Parallel, Pilot, phased etc).

Thus implementation is a vital step in ensuring the success of new systems. Even a well-designed system can fail if it is not properly implemented.

Internet for Business : IT plays a very imp. role for the companies using internet. As companies are able to use IT as a marketing channel which is a place to publish info about themselves and their products. It is also used to communicate with customers and business partners. Internet is not only used for electronic info exchange, it is also used for strategic business appl'n. Internet can be used for collaboration among business partners, researching competitors, providing customer & vendor support, buying & selling of products & services.

Companies are using internet for the business info into following major categories-

- ① Electronic commerce
- ② Co-ordination
- ③ Strategic alliances
- ④ Interactive marketing

IT provides new meaning to the business activities (goods, services & payments). It produces the following 3 elements -

- ① good's information
- ② services info &
- ③ electronic payments

E-commerce

"Doing business over electronic channels or over interconnected networks and using web-based technology is called e-commerce".

The internet defines the model of e-commerce that support seller to buyer relationship.

It specifies the entire on-line process of developing, marketing, selling, delivering, securing & paying for the product & services.

E-commerce have different definitions:

1) From comm. perspective :

E-commerce is the delivery of info, products or services & payments through telephone lines, wireless communication channel & other comm. networks.

From Business Perspective

Business e-commerce is the appl' of technology towards the automation of transactions & workflows.

i) From the service perspective

e-commerce is the tool that addresses the desires of the firms, consumers, mgt to cut down the service cost while improving the quality of goods and increase the speed of service delivery.

ii) From an On-line perspective

e-com. provides the capability of buying & selling of a product ^{8 into} on the internet and other on-line services.

Different categories of E-commerce

i) Inter Organizational E-commerce (Business-to-Business)

a) Supplier Mgt

- b) Inventory mgt
- c) Distribution mgt
- d) Channel mgt
- e) Payment mgt

This type of e-commerce help companies to conduct or to fulfill their day to day needs by means of doing all the business activities electronically. This type of e-com. is also known as business - to - business type of e-com.

This category of e-com includes the business bet. 2 or more organizations where the transaction is too big. It can facilitate the following business

- a) Supply mgt - This electronic appln helps company to reduce the no. of supplies and facilitates the business partnership and by reducing purchase order processing cost and cycle times. It also increases of no. of purchase order purchase.
- b) Inventory mgt - By applying this appln business partners are electronically linked

one sent by fax or e-mail can now be transmitted instantly. Business can also back these documents to ensure that they were received and is improving auditing capabilities.

This also helps to reduce and inventory levels and eliminate out-of-stock occurrences.

1) Distribution mgt - This facilitates the transmission of shipping documents such as bill of lading of the product (lading charge, purchase orders, advance lading slip notices).

It enables better resource mgt by ensuring that the documents themselves contain more accurate data.

2) Channel mgt - This is appl" quickly manages info about changing operational "word" with the partners. It also helps to get technical, product & pricing info.

By automatically linking the companies, it can eliminate thousands of labour hours & more accurate info sharing.

~~the~~

① Payment-mgt : Electronic appl" link companies with suppliers & distributors so that the payment can be received and sent electronically. This appl" provides on-line banking bank of facilities for e-payment. c- payment reduces clerical errors and increase the speed of computing invoices. It reduces the transaction & cost.

② Intra organizational e-commerce (within the org.)

- Work-group communication
- Electronic Publishing
- Sales ^{base} ~~face~~ Productivity

purpose of intra-org. "appl" is to help company to maintain the relationship within the organization. It includes the integration of various functions of the org. It involves the following business appln:-

- a) Work-group comm - These appln enable managers to ^{comm.} employes by using e-mails, video-conferencing, chatting etc. The outcome of this appln is better informed employes.
- b) e-publishing - These appln enables companies to organize, publish & distribute human resource manuals, product specifications & meeting schedules by using different web based technologies. The goal is to improve the info and enable better strategic & technical decision making throughout the organization.

On-line publishing have the benefits such as - it reduces the cost of printing & distribution of documents. It provides faster delivery of info and reduces outdated info.

c) Sales - Force Productivity - These appl" improve the flow of info bet. the production & sales forces. It also improves the relation bet diff. people ^{& departments} with in the organization.

With these appl" comp'ies can have info about the market & the competitors.

The goal is to allow org. to collect market intelligence quickly and to analyze it more thoroughly.

Consumer to Business

Consumer to Business type of e-commerce is the most traditional way of business. It includes direct interaction between consumer and the organization. This direct ^{interaction} reduces cycle time to process purchase order of the customer (purchase order + payment info).

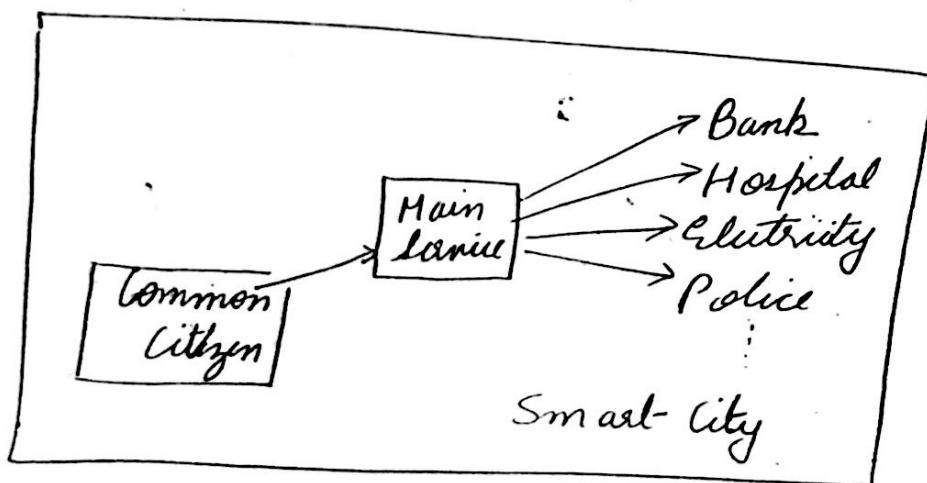
Consumer to business e-commerce can be defined with following applⁿ:

- a) Interactive marketing - This type of business provides more interactive type of business environment which provides all the related info about the product and services to both the parties
- b) Purchase of product & services - This category of e-commerce facilitates consumers to place their orders electronically. It also provides multiple options to the consumers for online payment - (i.e. digital cash, credit cards, debit cards, etc.)

③ Collaboration

This appl" provides more interaction way of providing the info about companies product and their services. It'll also be useful for different people to get their desired info about the product at the desired place.

④ E-Governance



E-Governance uses common database for various government department to support their services.

This reduces the maintenance of redundant

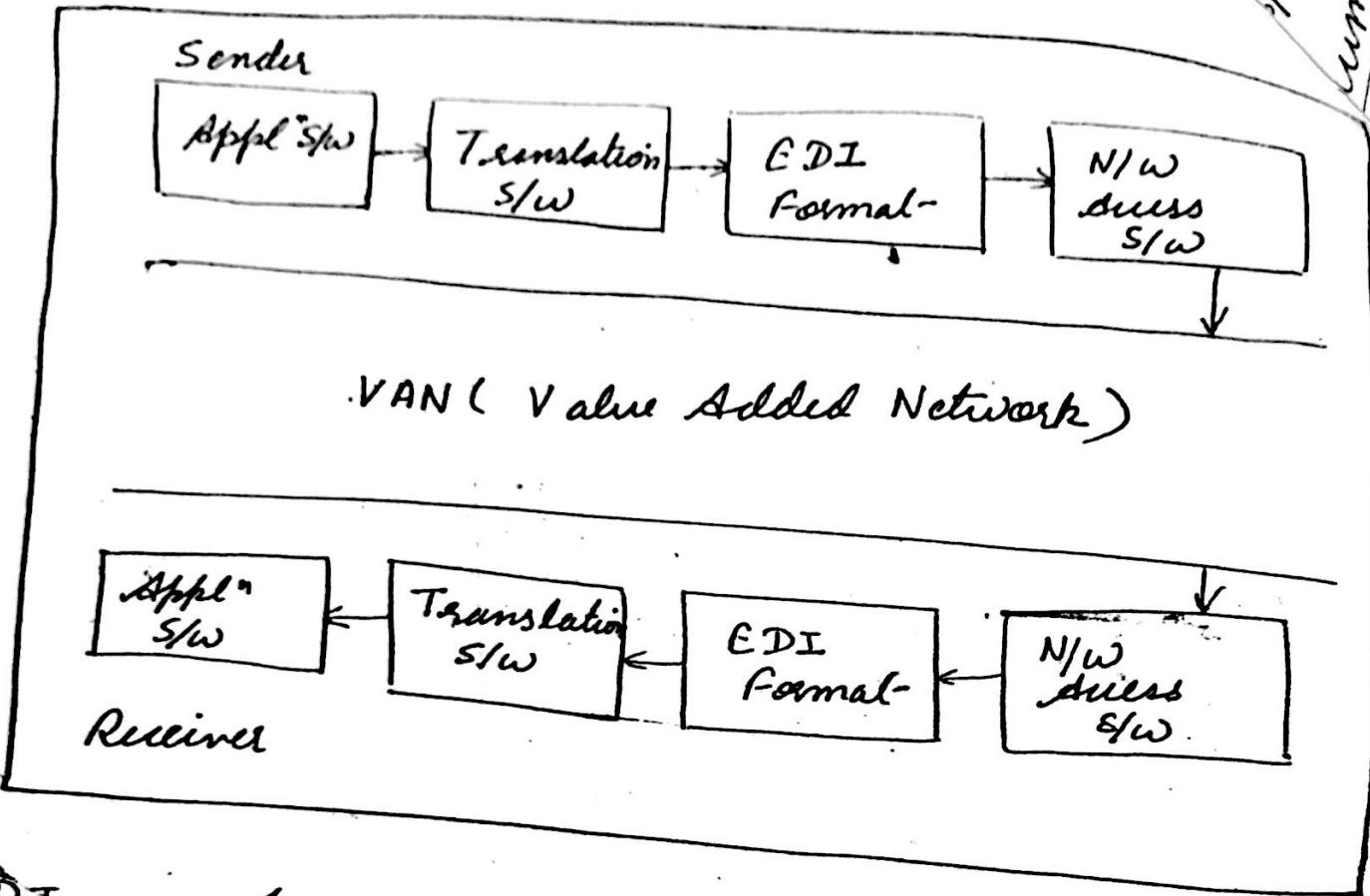
comes of citizens of same large amount of money. Through e-gov. different govt. deptt. departments are interacting with each other. For eg. there are separate nos. for electricity, gas agency, income tax, passport no., Ration card no., etc.

For any person all these informations can be consolidated into a single entry. This single entry of the person can be known as social security no.

This concept of communication between common citizen & govt. have improved the work of govt. department & bridge the gap between govt. & citizen.

"E-gov. makes common man's life IT enabled for their daily requirements".

EDI (Electronic Data Interchange)



EDI involves the electronic exchange of business transaction documents over computer networks between trading partners.

Data representing a variety of business transaction documents such as purchase orders, invoices, request for quotations & shipping notices, etc) are electronically exchanged between computers by using standard messaging formats.

Now is used to convert companies' own document format into std EDI formats which is specified by various industries & international protocols.

Formatted data transactions transmitted over data links directly bet computers without paper documents or human intervention.

EDI is used to reduce paper, postage & labour cost, faster flow of transactions, reduction in errors, increase in productivity, support of just in time (JIT) inventory policies & red in inventory levels.

Info of the business transmitted over comm. channels contains very imp. info (for eg. purchase order + customer's credit info i.e. credit card no. are called value added info).

By using EDI we can reduce the cycle time of processing of customer's request

and we can also reduce extra burden on
inventory mgt

ERACTIVE
SOP

COMMUNICATION AND COLLABORATION

The internet, intranet & extranet- supports global
comm. & collaboration among employees,
customers, suppliers & other business partners.

Intranet websites, e-mails, bulletin
board sys, discussion groups, audio & video
conferencing & other internet features enable
internal & external business info. to be
researched, distributed, & shared

This enables members of different-
organizations & people at different- locations
to work together as the members of virtual
teams on business project developments,
production, marketing & maintenance of
product & services.

INTERACTIVE MARKETING

Step 1 : Segment and identify potential customer
Step 2 Create advertising and educational material

Step 3 : Put material to customer's computer screen.

Pull Method - Use of www, web browser etc.

Push Method - web broadcasts, net broadcasters
e.g. of s/w's - Point cast, broadcast, castcast

Step 4 : Interaction with customers

Step 5 : Learning from customers

Step 6 : On-line customer service

Internet has made possible marketing of a company & its product and services an interactive process.

The internet & web-enabled companies dealt a dialogue with customers through online customers discussion groups, bulletin boards, electronic newsletters, mailing list, newsletters & e-mail.

exchanging facilities. New customers will be interactively involved in the development, marketing, sales & support of product & services along with companies, market researchers, product designers, marketing & sales staff.

The interactive marketing process on the internet- can be defined with the alone written steps.

- Step 1: Segment and identify potential customer - Initial market research for the identification of customers will be done by searching groups.
- Step 2: Create Advertising and educational materials - It includes product info & complimentary products, order forms & questionnaires for the customers. For
- Step 3: Put the material of to customer's comp screen - This activity can be performed by 2 methods - (a) Push based marketing (direct marketing)

~~pull based marketing (mainly)~~
Step 4: Interaction with customers
It involves dialogues with customers
interactive discussions among customers
about various features offered by the
company.

Step 5: Learning from customers
It involves feedback from customers
in advertising, marketing strategies &
identification of new market place.

Step 6: Online customer service: It specifies
fast & friendly, solutions of customer's
problems.

Push vs Pull Based Marketing

The interactive marketing process outlines a choice
between push & pull marketing methods i.e
marketing materials can be provided on
customer's computer by using either push or
pull technologies.

Push Marketing: It relies primarily on s/w called web broadcasters or one broadcasters. For eg. Pointcast s/w, backweb and cast-net. These s/ws used to get desirable info from customers automatically. This info can be transmitted into variety of info forms.

In this type of marketing info transmitted to the customer's m/c can be from sources & on the topics that customer wants or can be sent to the customer via companies' local nw. This web cast info can immediately be appeared as a download, as a continuous scrolling banners or in other forms on customer's p/c's screens.

Pull marketing - It relies on the customer to access the services of the internet or the web by using webbrowsers only. Customer would use their browser to find & read or download multimedia marketing material from companies' website.

Fundamentals of electronic commerce

Doing business over interconnected networks using web-based technologies is electronic commerce.

The Internet defines the medium for electronic commerce that supports seller-to-buyer relationships.

e-Commerce specifies the entire online process of developing, Marketing, selling, delivering, servicing and Paying for products and services.

~~e-Commerce has different definitions.~~

~~Defn.~~ Such applications include interactive Order processing, electronic Data interchange (EDI) of business transaction, Secure electronic funds transfer (EFT) Payment system.

2) Communication and collaboration:
→ (Next Notes) details

Internet, intranets and extranets enables global communications and collaboration among employees, customers, suppliers and other Business partners. It includes the use of Interactive web sites, e-mail, bulletin board systems, discussion groups, audio and video conferencing.

It enables members of different organizations and people at different locations to work together as members of virtual teams on business projects to develop, produce, market and maintain products and services.

3) Interactive Marketing:
→ Internet and the web enable companies are creating dialog with customers through online discussion groups, bulletin boards, electronic questionnaires, mailing lists, e-mail exchanges.

4) Interactive marketing enables multilevel interaction b/w companies' Marketing, development and services.

Customers are now becoming passive participants

~~Unit 11~~ (MIS) / E-commerce

~~Impact of E-commerce~~ Business Applications of information Technology

Business use of the internet

Companies are using the internet as a marketing channel, a place to publish information about themselves and their products. It is also used to communicate with customers and business partners.

Internet is not only used for electronic information exchange it is also used for strategic business applications, Internet can be used for Collaboration among business partners, researching competitors, Providing customer and vendor support, buying and selling products and services have become major business use of internet.

Companies are using the internet for business into a few

(major applications categories:-)

- 1) Electronic Commerce.
- 2) Communications and Collaboration.
- 3) Interactive Marketing.
- 4) Strategic Alliances.
- 5) ~~Interactive Marketing~~

(15)

- 5.3.3. ~~Uses for interactive marketing process~~
- Segment and identify potential customers
 - >Create promotional, advertising and educational material
 - Step 3: → Put the material on customers Computer screens
 - Push-based marketing → Direct marketing using e-mail
 - Pull-based marketing → Indirect marketing using www Pages.
 - Step 4: → Interacting with customers.
↓ (Dialogue with customers by questions/answers.)
 - Step 5: → Learning from customers (Evaluating customer's feedback and modify the working or strategies)
- ψ
- Step 6: → Online customer service
(Fast, friendly solutions to customer problems).
- Interactive marketing process can be divided into two parts:
-) Push marketing
 -) Pull marketing

① Push marketing

It is direct marketing which is customer specific method of marketing

- relies primarily on s/w called web broadcasters or net broadcasters
- Ex: Point Cast, Back web, Castnet Automatically transmit's info from web to customers P.C.

② Pull marketing

It is indirect marketing which does not require any additional s/w to download any info from web. A simple web browser's can be use to access any info from websites. These s/w is easy to get and cheap, where the info is available in HTML Pages.

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Pushing info to users save time and effort, ~~and~~
Providing ~~push~~ ^{prompt delivery} delivery of critical info ~~block~~ ^{Limit}

Whereas in Pull marketing surfing the web or e-mail, voice mail paper messages are time consuming.

Both push and pull marketing is important to provide ~~any~~ company's info delivery systems.

(4) Strategic alliances :- Internet enables companies to form strategic alliances with customers, suppliers, consultants and with competitors, these alliances creates Virtual Companies.

It also enables global alliances by business partners to be quickly formed to take advantage of market opportunities by interconnecting the unique strengths of each partner into an integrated network of business resources and capabilities.

A Strategic Alliance also known as strategic partnership is an agreement b/w two or more parties to pursue a set of agreed upon objectives needed while remaining independent organizations. It is usually a legal partnership entity relationship.

Generally two companies form a strategic alliance when each possesses one or more business assets or have expertise that will help the other by enhancing their business. This form of cooperation lies between mergers and acquisition and organic growth.

(5) Strategic alliances occurs when two or more organizations join together to pursue mutual benefits.

Types of electronic commerce

Unit 11 / MJS (C)

Four basic

There are ~~four~~ 9 categories of electronic commerce applications.

- 1) Inter-Organizational (Business-to-Business)
- 2) Intra-Organizational (within business)
- 3) Customer-to-business (Business-to-customer) (B-to-c)
- 4) ~~E-Governance~~ E-Governance [Business-to-Government]

① Inter-Organizational (Business-to-Business)

This type of business is conducted b/w organizations

to fulfil their day-to-day needs, it can facilitates

the following business applications: → [B-to-B is business b/w large org's. It is also known as wholesaling on the web.]

- 1) Supplier management
- 2) Inventory management
- 3) Distribution management
- 4) Channel management
- 5) Payment management

① Supplier Mgt

(This electronic applications help companies to reduce the number of supplies and facilitate business partnerships by reducing purchase order (PO's) processing cost and cycle times, and increasing the number of PO's processed.)

(2) Inventory Management

By applying this application business partners are linked, information once sent by fax or mail can now instantly transmitted. Businesses can also track their delivery to ensure that they were received, i.e. improving auditing capabilities. This also helps to reduce inventory levels and eliminate out-of-stock occurrences.

(3) Distribution Management

This electronic applications facilitate the transmission of shipping documents such as bills of lading, purchase orders, advanced ship notices.

It enables better resource mgt by ensuring that the documents themselves contain more accurate data.

(4) Channel mgt

This electronic application quickly manages information about changing operational conditions with trading partners. It also helps to get technical, products and pricing information. By electronically linking companies can eliminate thousands of labor hours and ensure accurate information sharing.

(5) Payment management

Electronic applications link companies with suppliers and distributors so that payment can be sent and received electronically. Electronic payment reduces clerical errors, and increase the speed of computing invoices, reduce the transaction fees and cost's. \rightarrow EDI used

Intra-Organizational e-Commerce

purpose of intra-org applications is to help a company to maintain the relationships within the organization. It includes the integration of various functions of the organization. It involves the following business applications.

1) Workgroup communication: These applications enables managers to communicate with employees using electronic mail, videoconferencing and bulletin boards. It is resulting better informed employees.

2) Electronic publishing: → These applications enables companies to organize, publish and disseminate human resources manuals, product specifications and meeting schedules using www. The goal is to provide the information to enable better strategic and tactical decision making throughout the org. Online publishing have benefits: reduced cost of printing and distributing documentation, faster delivery of info and reduction of outdated information.

3) Sales force productivity: → These applications improve the flow of information b/w the production and sales forces and w the firms and customers. With this applications companies have information about market and competitors. The goal is to allow firms to collect market intelligence quickly and analyze it more thoroughly.

(3) Customer-to-Business e-commerce

In electronically customer-to-business transaction, customers learn about product's through electronic publishing, buy product's with electronic cash and other secure payment systems and have information about the goods delivery over the network.

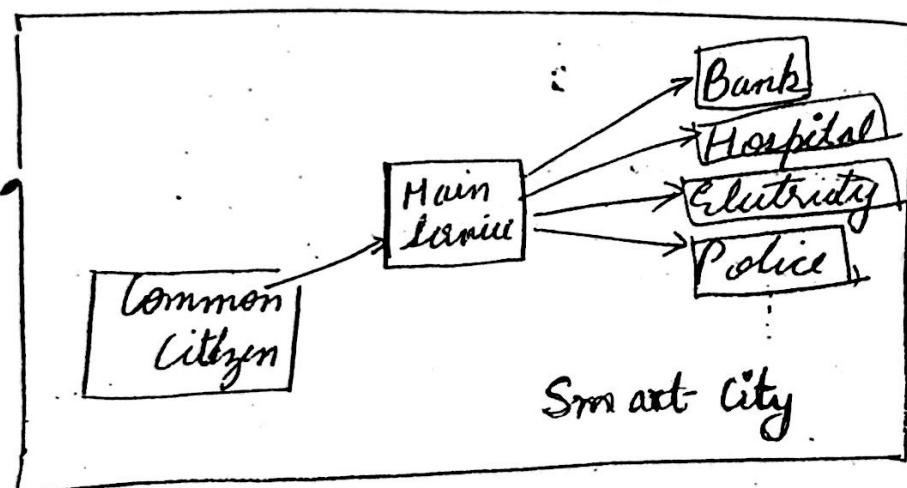
This application may include following economic transactions:-

- ① Social interaction :-> Electronic applications enable consumers to comm with each other through e-mail, video conference
- ② Personal finance mgt :-> By using Online banking tools consumers are able to manage investments and personal finances.
- ③ Purchasing products and information :-
Electronic applications enable consumers to find online information about existing and new product/services.
E-commerce provides consumers with convenient and secure processes shopping methods, from online catalog Ordering. Electronic commerce facilitates factory orders by eliminating many intermediary steps, i.e. lowering manufacturers, inventory and distribution costs.
- ④ Interactive Marketing :- Provides more interactive type of business environment with provides all the related info about the product and services to both the parties in interactive way.

~~Collaboration~~ Interaction among the consumers

This applⁿ provides more interactive way of providing the info about companies' product and their services. It'll be also be useful for different people to get their desired info about the products at the desired place.

1) E-Governance



E-governance uses common database for various government-department to support their services.

- This reduces the maintenance of redundant

data of citizens & save large amount of money. Through e-gov. different govt. departmental services are interacting with each other. For eg. there are a spouse nos for electricity, gas agency, income tax, passport no., Ration card no., etc.

For any person all these informations can be combined into a single entry. This single entry of the person can be known as social security no.

This concept of communication between common citizen & govt. have improved the work of govt. department & bridge the gap between govt. & citizen.

"E-gov. makes common man's life ST
bled for their daily requirements"

E-Governance

Unit-3 MIS: Dr. Irom Chaudhury

E-Governance has become an essential part of any firm in globalisation process. Increasing demands of clearness in administration, rapid information transfer, more competent performance and improved public service has pushed organizations to choose electronic means for success in business. Organizations can give better performance through innovative use of information technology and e-governance. There are many advantages of e-governance and impact public management through, for example, improved access to services, decreased operational costs, enhanced knowledge management, and strengthened coordination of government agencies. E-governance has been major developments of the web. It is well established that Internet supported digital communities, they present the national governments with a number of challenges and opportunities. The application of ICT and e-governance has huge potential for intermediate organizations in developing countries. The main goal of e-governance is to support and simplify governance for all parties' government, citizens and businesses. E-governance uses electronic medium to support and motivate good governance. Therefore the purpose of e-governance are analogous to the objectives of good governance. Good governance can be seen as an application of economic, political, and administrative authority to smoothly manage business activities of a country at, national and local level.

Concept of E-Governance

E-governance is the good usage of information and communication technologies to transform and enhance the efficiency, effectiveness, transparency and accountability of informational and transactional exchanges with in government, between government agencies at National, State, Municipal & Local levels, citizen & businesses, and to authorise citizens through access and use of information. Fundamentally, E-governance, entails electronic governance which uses information and communication technologies at various levels of the government and the public sector to improve governance. Theoretical studies demonstrated that E-Governance is the process of change of the relationship of government with its constituents the citizens, the businesses and between its own organs, through the use of tools of information and communication technology.

"Governance implies the processes and institutions, both formal and informal that guide and restrain the collective activities of a group. Government is the subset that acts with authority and creates formal obligations. Governance need not necessarily be conducted exclusively by governments. Private firms, associations of firms, nongovernmental organizations (NGOs), and associations of NGOs all engage in it, often in association with governmental bodies, to create governance and sometimes without governmental authority."

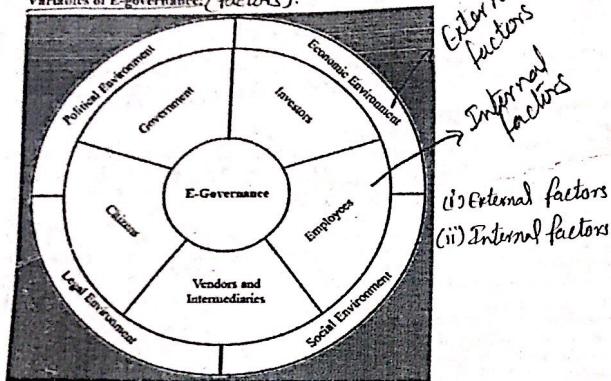
The objective of e governance is to embrace information and communication technologies and offer an opportunity to citizens, so they can get involve in decision making process.

E-governance is the public sector's use of information and communication technologies in order to enhance information and service delivery, motivating inhabitant involvement in the decision-making process and making government more accountable, transparent and effective.

E-governance involves new styles of management, novel ways to decide policy and investment, new ways of accessing education, and listening to citizens and new ways of organizing and delivering information and services. The purpose is to give better access, accountability and efficiency in the delivery of government information and services. E-Governance has capability to provide all government information and services on internet to the public and private sector. An e-governance initiatives and innovations will ensure a more democratic, transparent and

work for the public and private apparatus to operate in. The government developing countries must establish a suitable environment for e-governance. E-governance is the method of service delivery and information dissemination to citizens using electronic means providing many benefits over the conventional system. These include increased efficiency in various Governmental processes, transparency and anticorruption in all transactions, empowerment of citizens and encouragement of their participation in governance. E-governance should also include the aspects of internal working which cover use of information technology to increase competence and effectiveness of internal functions and internal communications and networking. Internal aspects cover the overall change of government hierarchy to adjust to the new requirements and expectations of efficient and improved services, simplification and rationalization in the business process to better serve the stake-holders in a transparent and cost-effective manner.

Variables of E-governance: (factors).



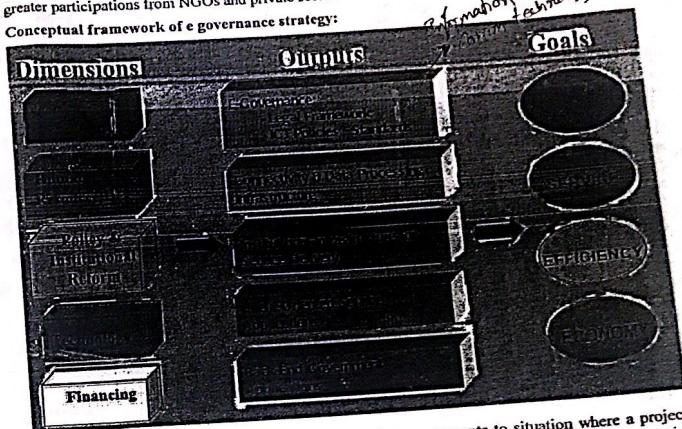
Historical evaluation of E-governance

With the technical development of internet technology in the nineties, there was global shift towards increased deployment of IT by governments. The technology as well as e-governance initiatives emerged a long way since that time. World Wide Web offered good opportunities to global population to exploit their new mode of access in wide ranging ways. People have great expectation to get information and services online from governments and corporate organizations to further their civic, professional and personal lives, thus creating plentiful evidence that the new "e-citizenship" is taking hold. In India, the notion of e-governance during the seventies with a focus on development of in-house government applications in the areas of defence, economic monitoring, planning and the deployment of IT to manage data intensive functions related to elections, census, and tax administration. The National Informatics Center made great efforts to

2

link all the district headquarters in the decade of eighties. Since the beginning of nineties, IT technologies were enhanced by information and communication technology to expand its use for wider sectorial applications with policy emphasis on reaching out to rural areas and taking in greater participations from NGOs and private sectors.

Conceptual framework of e governance strategy:



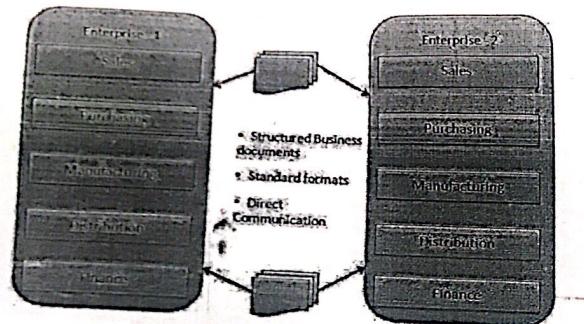
The e-governance model can serve as a reference for governments to situation where a project fits in the overall development of an e-governance strategy. An e-governance strategy is essential to accomplish the corporate goals. Projects have structural value for development when entrenched in vision and supported by policies. Anderson had described the process of implementing e governance projects. He has perception of Think big, start small, and scale fast.

Thinking big is vital to set the general vision and objectives of e-governance. Starting small is crucial to build immediate success and keep a positive driving force, both internally as well as externally. Scaling fast is only possible with a deep strategy that protects all necessary resources are available in time.

3

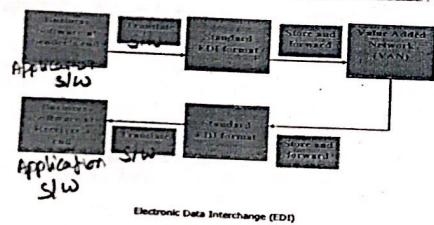
E-Commerce – EDI (Electronic Data Interchange)

EDI is an electronic way of transferring business documents in an organization internally between its various departments or externally with suppliers, customers or any subsidiaries etc. In EDI, paper documents are replaced with electronic documents like word documents, spreadsheets etc.



EDI Architecture

EDI Architecture Diagram



4

12

EDI Documents

Following are few important documents used in EDI :

- Invoices
- Purchase orders
- Shipping Requests
- Acknowledgement
- Business Correspondence letters
- Financial information letters

Steps in an EDI System :

Following are the steps in an EDI System.

- A program generates the file which contains the processed document.
- The document is converted into an agreed standard format.
- The file containing the document is sent electronically on network.
- The trading partner receives the file.
- An acknowledgement document is generated and sent to the originating organization.

fig for reference (Notes also)

Advantages of an EDI System

Following are the advantages of an EDI System.

- ✓ **Reduction in data entry errors** – Chances of errors are much less being use of computer in data entry.
- ✓ **Shorter processing life cycle** – As orders can be processed as soon as they are entered into the system. This reduced the processing time of the transfer documents.
- ✓ **Electronic form of data** – It is quite easy to transfer or share data being in electronic format.
- ✓ **Reduction in paperwork** – As lot of paper documents are replaced with electronic documents there is huge reduction in paperwork.
- ✓ **Cost Effective** – As time is saved and orders are processed very effectively. EDI proves to be highly cost effective.
- ✓ **Standard Means of communication** – EDI enforces standards on the content of data and its format which leads to clearer communication.

5

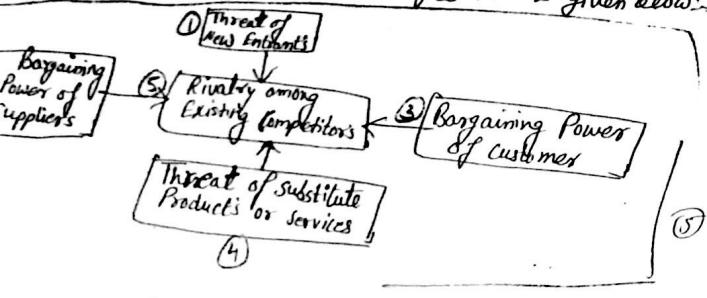
Strategic role of IS involves using info technology to develop products, services, and capabilities that give a company strategic advantages over the competitors.

Info system that support or shape the competitive position and strategies of an enterprise is called strategic Info system.

- We can define strategic info system with following characteristics:
- 1) Information system that support competitive strategies.
 - 2) Improving Business processes
 - 3) Promoting Business Innovation
 - 4) Developing a strategic info base
 - 5) Breaking Business Barriers

1) Support competitive strategies

Strategic info system can be useful to make strategies for the competitors. There can be 5 competitive forces that must be identified to get the competitive benefits. This is given below:



By managing more customers, the org can move into competitive strategies:

1) Cost leadership strategy: Low cost producer of products and services can make you more effective over competitors.

2) Differentiation strategy:

It provides a way to differentiate a firm's products and services from its competitors.

3) Innovation strategy:

It is finding new ways of doing business. It may involve the development of unique products and services. This strategy may encourage customers to use their products and services.

4) Growth strategy: It is expanding company's capacity to produce goods and services or expanding into global markets.

5) Alliance strategy:

Establishing new business alliances with customers, suppliers, consultants, competitors and other companies. This may form a "Virtual Companies".

2) Improving Business Process

It is the process which includes major improvements in a company's business processes. By using Info Technology Org's operational processes can become more efficient and its managerial processes much more effective.

By doing such improvements to its business processes, enable a company to cut costs, improve quality and customer service and develop innovative products for new markets.

Information system for strategic Advantage Unit-III
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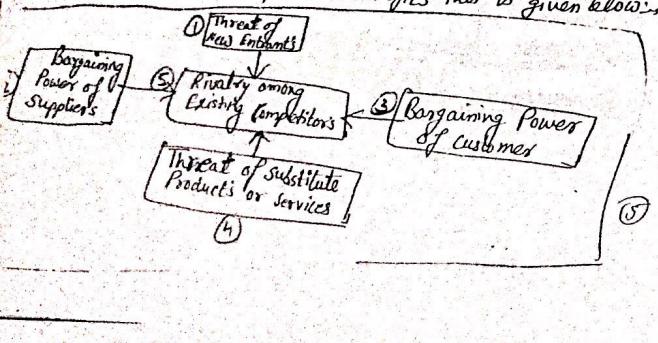
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③ Promoting Business Innovation

IT enables to develop unique products and services. This can create new business opportunities for a Org. Internet can be known as innovative use for electronic commerce. ATM (Automated Teller Machine) in banking can be another example of innovative use of IT for strategic info system. Use of Mobile application for Smart phones, Web application, etc.

④ Strategic Information Base

Info system also allow a firm to develop a strategic information base that can provide info support for companies competitive strategies.

Information in a companies corporate database has always used in promoting efficient operations and effective Mgt of a firm.

These info which is stored in corporate database is now viewed as strategic resource.

⑤ Breaking Business Barriers

Information technology has break traditional barriers to strategic business success. It can be defined with four major categories

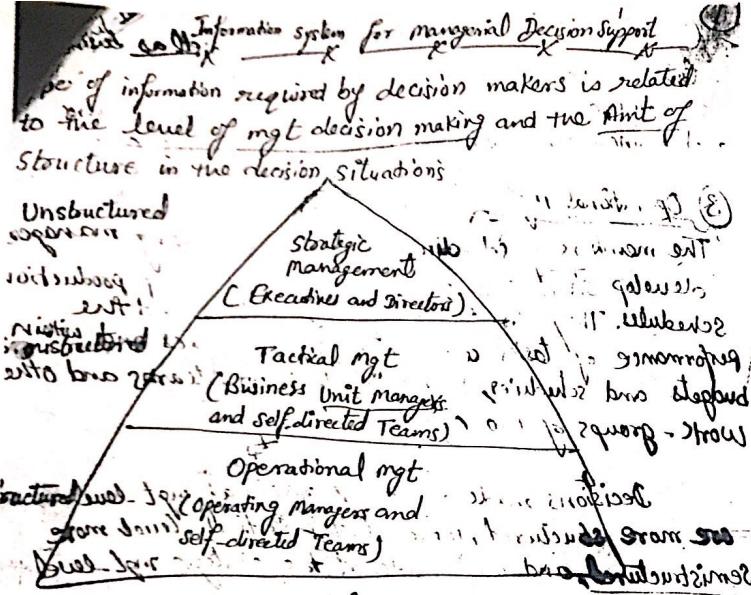
- ① ~~Breaking~~ Breaking Time Barriers
- ② Breaking Geographic Barriers
- ③ Breaking Cost Barriers
- ④ Breaking Structural Barriers

Strategic implications of information technology

- ① Business Process Reengineering ✓
- ② Improving Business Quality ✓
- ③ Becoming an Agile competitor
- ④ Creating Virtual Company ✓
- ⑤ Building Knowledge creating Company ✓
- ⑥ Using Internet Technologies ✓

① Business Process Reengineering :

It is defined as a fundamental rethinking and radical redesign of business process to improve in cost, quality, speed and service.



Managerial Pyramid. The hierarchical structure of managerial decision making that must be supported by information technology can be divided into three categories.

(i) Strategic mgt :> Board of directors and an executive's planning committee of the CEO and top executives develop overall organizational goals, strategies, policies and objectives of a strategic planning process. They also monitor the overall performance of the org and its overall direction in political, economic and competitive business environment.

(2) Tactical mgt :> Self directed teams as well as Business Unit managers develop short and medium-range plans, schedules, and budgets and specify the policies, procedures and business objectives for their subunits of the org.

(3) Operational mgt :> The members of self-directed teams or operating managers develop short-range plans such as weekly production schedules. They direct the use of resources and the performance of tasks according to procedures and budgets and schedules they establish for the teams and other work-groups of the organization.

Decisions made at the operational mgt level are more structured, those at the tactical level more semi-structured, and those made at the strategic mgt level more unstructured.

Therefore, information systems must be designed to produce a variety of info products to meet the changing needs of decision makers throughout an organization. For developing mgt support system business use IT in following categories:-

(i) Management information system
 (ii) Decision support system
 (iii) Executive info system

(1) Management Information Systems

MIS produces information products that support many of the day-to-day decision-making needs of management.

Reports, displays and responses produced by such systems

to predefined information that managers have specified in advance.

Such predefined information products satisfy the information needs of decision makers at the operational and tactical levels of the organization who is more structural way of decision

situations.

Management information systems provide a variety of info products to managers. Four major reporting alternatives are given by this system:

* Periodic Schedule Reporting: → Managers use a prespecified format designed to provide managers with information on a regular basis.
Ex: → Reports are daily or weekly sales analysis reports and monthly financial statements.

* Exception Reports: → Reports are produced only when exceptional conditions occurs.

Ex: Report that contains only info on customers who exceed their credit limits.

* Demanded Reports and Responses: → Information is available whenever manager demands it.

Ex: web browsers and DBMS query languages and report generator enable manager to obtain customized reports as a result of their requests for the information they.

* Push Reporting: → Info is pushed to a managers networked workstation companies using webcasting SW to selectively broadcast reports and other info to the networked PC of managers over their corporate intranets.

(3)

(2) Decision support systems.

It is a major category of mgt support systems, they are computer-based info systems that provide interactive info support to managers during the decision-making process.

DSS use: (1) analytical Models (2) specialized databases

(3) A decision makers own insights and judgments

(4) An interactive, computer-based modeling process to support the making of semistructured and unstructured decisions by individual managers.

(DSS rely on model bases as well as databases as vital system resources.)

(3) Executive information system

EIS are information systems that combine many of the features of MIS and DSS. Their main focus was on meeting the strategic info needs of top mgt.

Key factors that are critical to accomplishing an org's strategic objectives.

most executive info systems ~~uses~~ use of GUI and graphical displays that can be customized to the info.

(4) Artificial Intelligence

Artificial Intelligence include variety of applications in cognitive science, robotics and natural interfaces. The goal of AI is the development of computer functions normally associated with human physical and mental capabilities, such as robots that see, hear, talk, feel and move, and SW capable of reasoning, learning, and problem solving.

(Perception)

Expert systems

Expert systems are knowledge based systems having a knowledge base about a specific, complex application area. It is expert consultant to users in many areas of technical applications. S/W includes an inference program that makes inference based on the facts and rules stored in the knowledge base. (It is based of learning, reasoning, problem solving.)

⑥ Other AI Technologies:

6. Neural networks, fuzzy logic, Virtual reality and intelligent agents are applications of AI.

Neural networks are hardware or software systems based on simple models of the brain's neuron structure that can learn to recognize patterns in data.

fuzzy logic systems use rules of approximate reasoning to solve problems where ~~data~~ are incomplete or ambiguous. Genetic algorithms use selection, randomizing and other mathematical functions to simulate an evolutionary process.

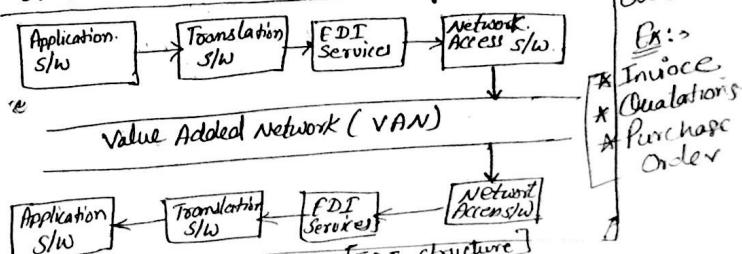
Virtual reality systems are multisensory systems that enable human users to experience computer-simulated environment as if they actually existed.

as if they actually existed. Intelligent agents (also called intelligent assistants and wizards) are special-purpose knowledge based info systems. A ~~sw~~ surrogate for ^{an} end users or process that fulfills a stated need or activity.

Electronic Data Interchange (EDI)

EDI, involves the electronic exchange of business transaction documents over computer networks between trading partners. Data representing a variety of business transaction documents (such as purchase orders, invoices, requests for quotations and shipping notices) are electronically exchanged b/w computers using standard document message formats. EDI software is used to convert a company's own document formats into standardized EDI formats as specified by various industry and international protocols.

Formatted transaction data are transmitted over network links directly b/w computers without paper documents or human intervention. ^{Mutually Agreed electronic business transaction doc}



EDI is used to reduce Paper, Postage and Labor costs, faster flow of transactions, reductions in errors, increase in productivity, support of just in time inventory policies and reductions in inventory levels.

② Communications and Collaboration :
The internet, intranets and extranets support global communication and collaboration among employees, customers, suppliers and other business partners. Interactive web sites, e-mail, bulletin board systems, discussion groups, audio and video conferencing and other internet features enable internal and external business information to be researched, solicited, disseminated and shared. This enables members of different orgs and people at different locations to work together as a member of virtual teams on business projects to develop, produce, market and maintain products and services.

③ Strategic Alliances : - The internet enables companies to form strategic alliances with customers, suppliers, consultants, subcontractors and even competitors. Internet and extranet global links to other business partners, support network organizational structure and formation of virtual companies. i.e. the internet enables local alliances of business partners to be quickly formed to take advantage of market opportunities by interconnecting the unique strengths of each partner into an integrated network of business resources and capabilities.

Interactive Marketing :> Internet has made possible marketing of a company and its products and services an interactive process. The internet and the web enable companies to create a dialog with customers through online discussion groups, bulletin boards, electronic questionnaires, mailing lists, newsletters and e-mail exchanges. Here customers can be interactively involved in the development, marketing, sales and support of products and services along with company's market researchers, product designers, marketing and sales staff.

The interactive marketing process on the internet can be defined with following steps: -

- 1. :> Segment and identify potential customers.
[Initial market research done by tracking groups].
- 2. :> Create advertising and educational material
[Product information and complementary products, Order forms and questionnaires].
- 3. :> Put the material on customer's computer screens.
[Push-based marketing → Direct marketing using web broadcasting, newsgroups, ~~bulletin~~ E-mail].
Pull-based marketing → Indirect (static) Marketing - www pages
- 4. :> Interacting with customers
[Dialogue with customers, interactive discussion among customers about various features offered by company].
- 5. :> Learning from customers
[Feedback from customers in advertising, marketing strategy, identifying new markets].
- 6. :> Online customer service
[Fast and friendly solutions to customer problems]

Push Versus Pull Marketing :-

The interactive marketing process outlined a choice b/w Push or pull marketing methods. i.e. marketing material can be put on customer's computer using either Push or pull technologies.

Pull marketing :- Relies on you to access the services of the internet or the web using your web browser.

customers would use their browser to find and read or download multimedia marketing material from a company's web site.

Push marketing :- Relies primarily on software called web broadcasters or net broadcasters. Ex:- PointCast, BackWeb and castNet automatically transmits a variety of information from the web or other sources to customers' PC.

In this type of marketing information transmitted to you can be from sources and on topics that customer wants, or can be sent to the customers via company's ^{immediately} internet. Webcast information can intermittently appear as a screen saver, as a continuous scrolling ^{customers} banner, or in other forms on ~~your~~ PC screens

9, 12, 34,
42, 50

Characteristics of a Good planning Process

MIS: Dr. Amrit Chawla
useful to distinguish the process by which plans are created (the planning process) and the product of that process (the plans).

The characteristics of a good planning process includes the following:-

Maturity :- For complex activities maturity leads to a divide-and-conquer approach. i.e. to create a set of interrelated plans.

Iterative :- An iterative planning process recognizes that a one-pass approach to planning is not realistic.

Validation :- To confirm that previously drafted portions are correct as more details are learned.

Consensus :- The content of a plan among those who will implement it. this is achieved most easily if the term who will execute the plan also developed it.

Adaptation :- A good planning process is flexible to allow the adaptation of the plan's contents to the particular needs of a project or group.

Characteristics of a Good plan

Appropriateness for Purpose :- A good plan is focused on the correct things in order to accomplish identified goals.

Clarity :- Good plans communicate unambiguously what is going to be done and why, how it will be approached, what resources will be required.

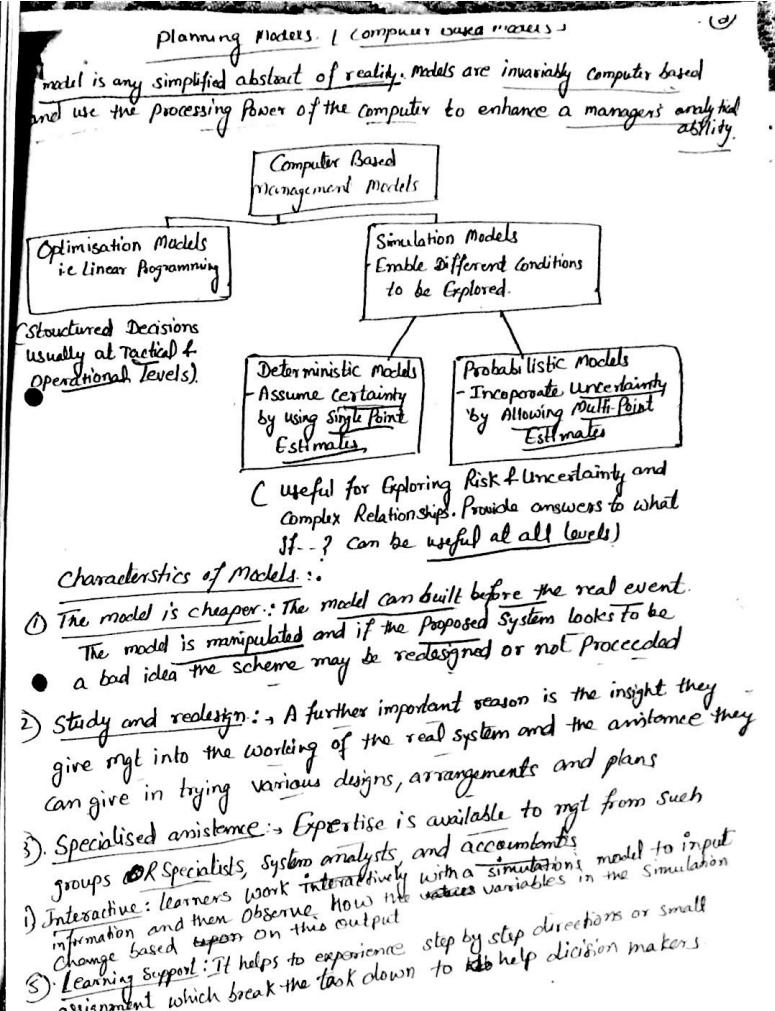
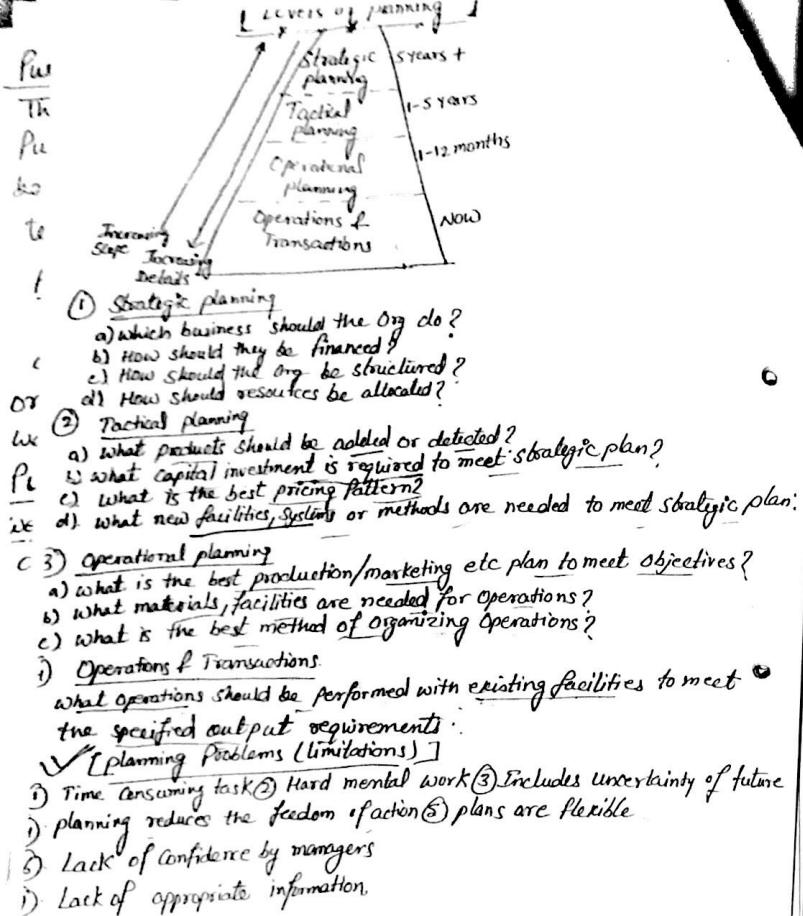
Length :- If a plan is too lengthy, it will be difficult to use and maintain.

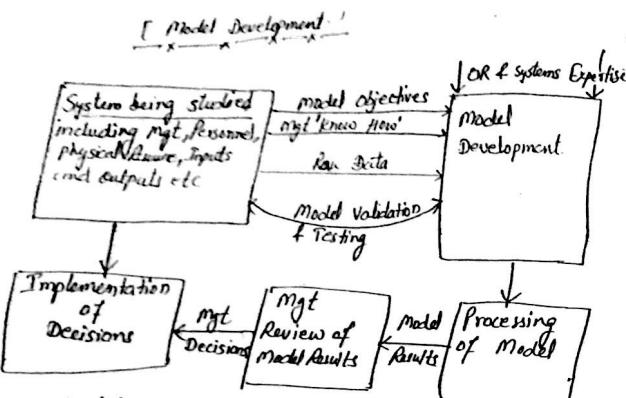
Sufficient details :- A plan should be brief but not so brief as to lack clarity.

Internal modularity :- Supporting details should be separated from the body of the plan. Volatile information should be separated from information that will be stable throughout the life of the plan.

Internal and external consistency and traceability :- A good plan should not contradict itself.

Usability :- A good plan is usable.





- * Model should have a purpose and be Objective Oriented.
- * Model building is an iterative, creative process with the aim of identifying those variables and relationships which must be included in the model, so that it is capable of predicting overall system performance.

(Dr. Suresh Chauhan)

Decision Support System (DSS)-Unit-2-MIS

A decision support system (DSS) is a computer-based information system that supports business or organizational decision-making activities. DSSs serve the management, operations, and planning levels of an organization (usually mid and higher management) and help people make decisions about problems that may be rapidly changing and not easily specified in advance - i.e. Unstructured and Semi-Structured decision problems. Decision support systems can be either fully computerized, human-powered or a combination of both.

Definitions:

- ✓ 1. DSS tends to be aimed at the less well structured, underspecified problem that upper level managers typically face;
- ✓ 2. DSS attempts to combine the use of models or analytic techniques with traditional data access and retrieval functions;
- ✓ 3. DSS specifically focuses on features which make them easy to use by non computer people in an interactive mode; and
- ✓ 4. DSS emphasizes flexibility and adaptability to accommodate changes in environment and the decision making approach of the user.
- ✓ 5. A decision support system (DSS) is a computer program application that analyzes business data and presents it so that users can make business decisions more easily.

(Ans) DSSs include knowledge-based systems: A properly designed DSS is an interactive software-based system intended to help decision makers compile useful information from a combination of raw data, documents, and personal knowledge, or business models to identify and solve problems and make decisions.)

Herbert Simon's model of DSS

4 steps

Herbert A. Simon developed a model of decision making. The model consisted of four steps, intelligence, design, choice and implementation. In the intelligence phase, the problem is identified, and information is collected concerning the problem. This can be a long process, as the decision to be made comes from the information. The design phase develops several possible solutions for the problem, the choice phase chooses the solution. Finally in the implementation phase defines final the decision that is ultimately carried out.

Four phases of decision-making

1. Intelligence Phase ✓
2. Design Phase ✓
3. Choice Phase ✓
4. Implementation Phase ✓ (Review)

(1) Intelligence Phase (Define Problem)

1

The intelligence phase consists of finding, identifying, and formulating the problem or situation that calls for a decision. This has been called deciding what to decide. The intelligence stage may involve, for example, comparing the current status of a project or process with its plan. The end result of the intelligence phase is a decision statement.

The name of this phase, "intelligence," can be confusing. Intelligence as we usually use the term when we are talking about decision making, it is what we use after we know a decision must be made. Simon borrowed the term from its military meaning, which involves the gathering of information without necessarily knowing what it will lead to in terms of decisions to be made. In business decision making, we must often collect a great deal of information before we realize that a decision is called for.

The decision maker examines reality and identifies and defines the problem. Problem ownership is established as well.

Problem identification via

① Scanning - Gathering information & data

- 1. External sources ✓
- 2. Internal sources ✓

② Problem Classification ✓
Problem decomposition ✓
Problem ownership ✓

③ Design Phase (Develop Alternatives)

The design phase is where we develop alternatives. This phase may involve a great deal of research into the available options. During the design phase we should also state our objectives for the decision we are to make.

[finding or developing and analyzing possible courses of action.]

Involves (Activities)

- ④ Inventing, developing, and analyzing the different decision alternatives and testing the feasibility of implementation. Assess the value of the decision outcome.
- ⇒ In the design phase, the manager develops a model of problem situation on which he can generate and test the different decisions to facilitate its implementation.
- ⇒ If the model developed is useful in generating the decision alternative, it then further moves into phase of selected called choice.
- finding ✓
 - developing ✓
 - analysing ✓
 - alternative courses of action ✓
 - Testing courses of action ✓
 - modeling ✓
 - determining outcomes of each possible course of action

(3) Choice Phase (Select Solution / Design Solution)

In the choice phase, we evaluate the alternatives that we developed in the design phase and choose one of them. The end product of this phase is a decision that we can carry out.

"the actual decision is made and the commitment to follow a certain course of action is made."

Described as the critical act of decision-making

- Decision is made
- 1. Choose the optimum / 'best' course of action
- Commitment given to decision

Phase includes:

- Search for ✓
- Evaluation of ✓
- Recommendation of ✓
- the optimum / 'best' course of action ✓

(4) Implementation and Review Phase (Implement Solution)

The decision that is ultimately carried out. In this phase, decision implemented is evaluated. Was the course of action taken a good choice?

(putting a recommended solution to work.)

- a "new order of things"
- introduces change which needs to be managed
- A decision support system may present information graphically and may include an expert system or artificial intelligence (AI). It may be aimed at business executives or some other group of knowledge workers.
- Typical information that a decision support application might gather and present would be, (a) Accessing all information assets, including legacy and relational data sources; (b) Comparative data figures; (c) Projected figures based on new data or assumptions; (d) Consequences of different decision alternatives, given past experience in a specific context.
- There are a number of Decision Support Systems. These can be categorized into five types:

1. Communication-driven DSS

Most communications-driven DSSs are targeted at internal teams, including partners. Its purpose

Meeting / 16th session -

are to help conduct a meeting or for users to collaborate. The most common technology used to deploy the DSS is a web or client server. Examples: chats and instant messaging softwares, online collaboration and net-meeting systems.

2. Data-driven DSS.

Most data-driven DSSs are targeted at managers, staff and also product/service suppliers. It is used to query a database or data warehouse to seek specific answers for specific purposes. It is deployed via a main frame system, client/server link, or via the web. Examples: computer-based databases that have a query system to check (including the incorporation of data to add value to existing databases).

3. Document-driven DSS (Search web pages on keywords)

Document-driven DSSs are more common, targeted at a broad base of user groups. The purpose of such a DSS is to search web pages and find documents on a specific set of keywords or search terms. The usual technology used to set up such DSSs are via the web or a client/server system. Examples: focused on the retrieval & mgt of unstructured documents, these doc are not in uniform/standard format, hence IT people. 4. Knowledge-driven DSS: need a way to transform these doc into usable formats. Knowledge-driven DSSs or 'knowledgebase' are they are known, are a catch-all category covering a broad range of systems covering users within the organization setting it up, but may also include others interacting with the organization - for example, consumers of a business. It is essentially used to provide management advice or to choose products/services. The typical deployment technology used to set up such systems could be client/server systems, the web, or software running on stand-alone PCs.

5. Model-driven DSS

Complex System

Model-driven DSSs are complex systems that help analyse decisions or choose between different options. These are used by managers and staff members of a business, or people who interact with the organization, for a number of purposes depending on how the model is set up - scheduling, decision analyses etc. These DSSs can be deployed via software/hardware in stand-alone PCs, client/server systems, or the web.

(It emphasize on access to and manipulation of a Model, Ex: Statistical, financial, optimization / and/or simulation Models. In general Model-driven DSS use complex financial, simulation optimization or multi-criteria models to provide decision support.

Unit-IV / MIS.

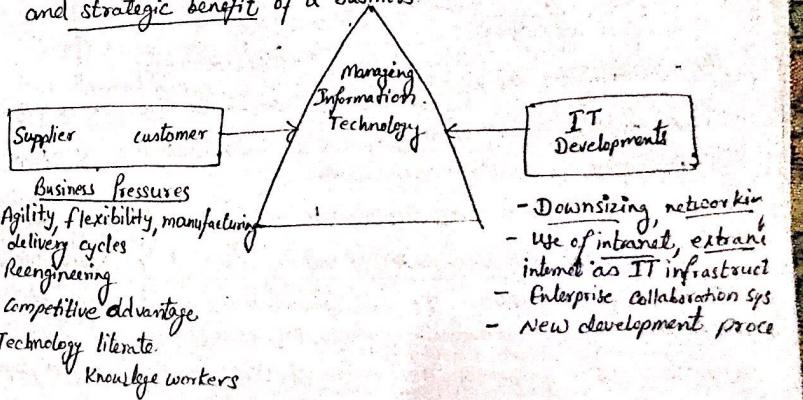
Dr. Anu Chaudhary

Managing IT: Enterprise and Global Management

Enterprise Infor Tech Management

(Managers and IT):

Information technology's major. managerial challenge is Information Resource Management (IRM) i.e. data, information, computer hardware, s/w, telecommunications networks and personnel should be viewed as resources that must be managed by every business manager to ensure the effective use of information technology for the operational and strategic benefit of a business.

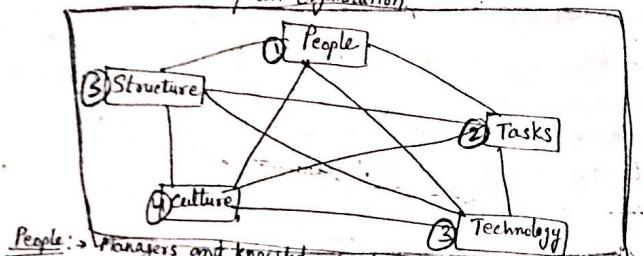


Information technology with today's business and Technology environment

Organizations and Information Technology:

One way to understand the organizational impact of information technology, is to view an organization as a socio-technical system.

Which includes people, tasks, technology, culture and structure as basic components of an organization.



People : Managers and knowledge workers are individuals with a variety of preferences for information and diverse capabilities for effective using information.

Tasks : The tasks of many organizations have become quite complex and inefficient. By Reengineering of business processes It has reduced organizational complexity. It developments such as electronic data interchange (EDI) dramatically reduce the need for several departments to be involved in preparing, authorizing, checking and sending paper business documents.

Technology : The technology of computer-based information systems grow more sophisticated and complex, however, this technology should not dictate the information needs of end users in the performance of their org tasks. It should accommodate the management culture and structure of each organization.

Reengineering : fundamental rethinking and radical redesign of business processes to dramatically improve in critical measures of performance.

Culture : → Organizations and their subunits have a culture that is shared by managers and other employees. i.e. they have a unique set of organizational values and styles.

for example managers at some Org share an informal and collaborative information. Managers at other Orgs may stress a more formal "do it by the book", go through the chain of command" approach.

Structure : → Orgs structure their mgt, employees and jobs into variety of Org subunits. IT can also support Org redesign.

Information Resource Management (IRM)

Along with people, money and machine, Information tech has fourth major resource for executives to shape and operate an organization. IRM provides integrated view of managing the entire life-cycle of information from generation, to dissemination, to archiving.

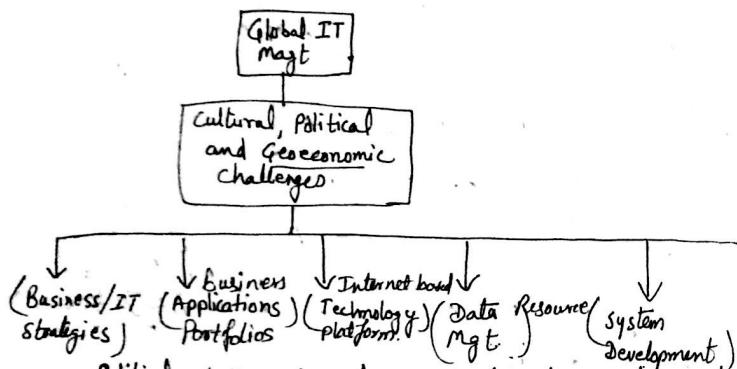
It enables Info Res Mgt of org into five major dimensions :

- (1) Strategic Mgt : → IT must be managed to a Org's strategic Objectives and competitive advantages.
- (2) Operational Mgt : → IT and Infor system should also manage functional and process-based Org structures (operations).
- (3) Resource Mgt : → Data and Infor, hardware and SW, telecom networks and IS Personnel are vital org resources that must be managed like other business assets.
- (4) Technology Mgt : → All technology that process, store and communicate data and infor throughout the Org.
- (5) Distributed Mgt : → managing the life of info tech and info system in business units or workgroups is a key responsibility, of their managers.

Global Information Tech Management

All global IT activities must be adjusted to take into account the cultural, Political and geoeconomic challenges that exist in the international business community.

To develop appropriate business and IT strategies for the global marketplace the first step in global IT Management.



Political challenge is that many countries have rules regulating or prohibiting transfer of data across their national boundaries.

Geoeconomic challenges in global business and IT refer to the effects of geography on the economic realities of international business activities.

Cultural challenges : It includes differences in languages, cultural interests, religions, customs, social attitudes and political

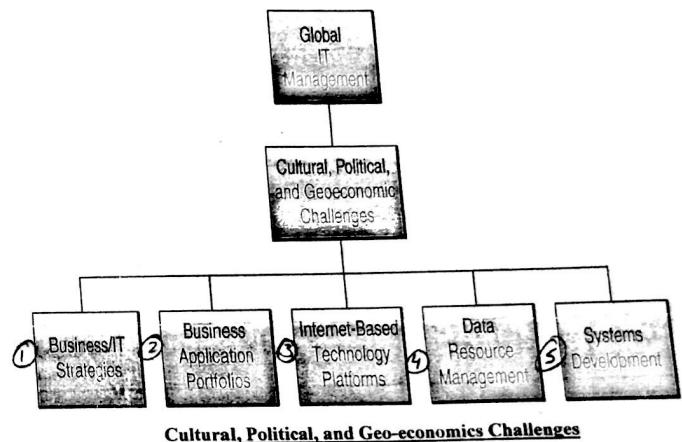
Note : IT applications depend on a variety of global business philosophies, drivers, caused by the nature of the industry and its competitive or environmental forces. Global Customers, Global products

Managing Global IT MIS - (Unit-4)

"A vital part of managing an e-business enterprise in the internet worked global economies and markets of today"

All global IT activities must be adjusted to take account the Cultural, Political and Geo-economics Challenges that exists in the international business community.

To develop appropriate business and IT strategies for the global marketplace these challenges needs to be addressed properly.



Cultural, Political, and Geo-economics Challenges

A) Cultural challenges

- Differences in languages
- Cultural interests
- Religions
- Customs
- Social attitudes
- Political philosophies

(It includes differences in languages, cultural interests, religions, customs, social attitudes, political philosophies etc.)

B) Political challenges

- Rules regulating or prohibiting transfer of data across their national boundaries
- Severe restrictions, taxes, or prohibitions against imports of hardware and software
- Local content laws
- Reciprocal trade agreements

(Many countries have rules regulating or prohibiting transfer of data across their national boundaries)

C) Geo-economics Challenges

- The effects of geography on the economic realities of international business activities
 - Distance
 - Real-time communication
 - Lack of good-quality telephone and telecommunications service
 - Lack of job skills
 - Cost of living and labor costs

(These challenges in global business and IT refers to the effects of geography on the economic realities of international business activities.)

1) Global e-Business Strategies

Moving away from

- Autonomous foreign subsidiaries
 - ✓ Autonomous foreign subsidiaries, dependent on headquarters for new processes, products, and ideas
 - Close management of worldwide operations by headquarters
- Moving toward
- ✓ - Reliance on information systems and Internet technologies to help integrate global business activities
 - ✓ An integrated, cooperative worldwide hardware, software, and Internet-based architecture for IT platforms

2) Global e-Business Applications

IT applications depend on a variety of global business drivers caused by the nature of the industry and its competitive or environmental forces

- ✓ a. Global customers
- ✓ b. Global products

2

✓ c. Global operations

✓ d. Global resources

✓ e. Global collaboration

3) Global IT Platforms

- The technology infrastructure
- Technically complex
- Major political and cultural implications
- Challenges
 - Managing international data communications networks

• The Internet as a Global IT Platform

- Companies can
 - Expand markets
 - Reduce communications and distribution costs
 - Improve their profit margins
- Low cost interactive channel for communications and data exchange

4) Global Data Access Issues (Data Resource Mgt)

✓ Transborder data flows (TDF)

- ✓ Data flow across international borders over telecommunications networks of global information systems
- ✓ Many countries view TDF as violating their national sovereignty (Cisjordan) - Author
- ✓ Others, as violating their laws to protect the local IT industry or to protect local jobs
- ✓ May view TDF as a violation of their privacy legislation
 - Internet Access Issues
 - High government access fees
 - Government monitored access
 - Government filtered access
 - No public access allowed

5) Global Systems Development

Challenges

- ✓ Conflicts over local versus global system requirements

3

- ✓ Difficulties agreeing on common system features
- ✓ Disturbances caused by systems implementation and maintenance activities
- ✓ Trade-offs between developing one system that can run on multiple computer and operating system platforms, or letting each local site customize the software for its own platform
- ✓ Global standardization of data definitions

Systems Development Strategies

- ✓ Transforming an application used by the home office into a global application
- ✓ Setting up a multinational development team to ensure the system design meets the needs of local sites as well as headquarters
- ✓ Parallel development
- ✓ Centers of excellence

Dr. Anil Chaudhary Managing IT: Security and Ethical challenges unit 10/11
 Control is the activity which provide information system security which includes accuracy, integrity, and safety of info system and Resources. Control can also provide quality assurance for info systems

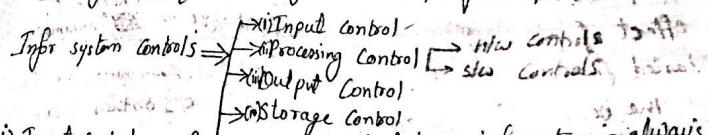
Control → Three major types of Control's must be developed to ensure the quality and security of information systems

- ① Information system Control's
- ② Facility Control's (info security)
- ③ Procedural Control's

Managing Security Dr. Anil Chaudhary IT

① Information system Control's

Control's in IS must be developed to ensure proper data entry, processing techniques, storage methods, Info Output



(i) Input Control : → Proper entry of data into an info system is always required. ~~It is important to~~ Inaccurate data entry may cause following problems : → * Customer confusion
 * Slow response to customer questions
 * Customer dissatisfaction about the quality of data
 * Lack of standard procedures

(ii) Processing Control's :

Once business data is entered correctly into a computer system, it must be processed properly. It is developed to identify errors in arithmetic calculations and logical operations. They are also used to ensure the data are not lost or do not go unprocessed. It can also include

(1) Hardware Control: It is special control but into the hardware to verify the accuracy of computer processing.

(I) Off-line detection: - here within a computer or telecomm

(II) Processor can monitor their operations. (Ex: Parity check's)

(III) Redundant component: - Multiple read-write heads on magnetic tape and disk drives check the accuracy of reading and writing activities.

(IV) Special purpose equipment: To support remote diagnostics and handle problems via network links to the computer.

(2) Software Control: - Software control ensure that the right data are being processed. Major software control is the establishment of checkpoints during the processing of a program. Checkpoints minimize the effect of processing errors or failures, since processing can be restarted from the last checkpoint (called rollback) rather than from the beginning of the program.

(III) Output Control

Output controls are developed to ensure that info products are correct and complete and are available to authorized users in a timely manner.

Output control is used by security codes that identify which user's can receive output and the type of output they are authorized to receive.

(IV) Storage Control

It specifies how data resources are secured. These employees are responsible for maintaining and controlling access to the database of IT, it also protects from unauthorized access to the database of IT.

(2) Facility Control's (Network security)
Facility controls are methods that protect an org's computing and network from loss or destruction. Various safeguards and control procedures are necessary to protect the hardware, software, network and data resources of a company. This security feature allows more and more companies to use e-commerce. Facility Control's or Network Security can be divided into following categories :-

1* System Security Monitors

2* Encryption

3* Fire walls

4* Physical Protection Controls

5* Biometric Controls

(1) System Security Monitors

System security monitors are programs that monitor the use of computer systems and networks and protect them from unauthorized use, and detect such programs provide the security measures needed to allow only authorized users to access the networks.

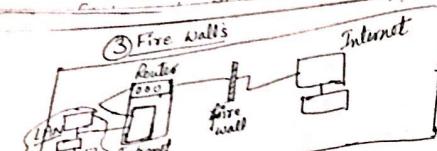
Identification codes and passwords are frequently used for this purpose. It also controls the use of hardware, software and data resources of a computer system.

(2) Encryption

By Encryption Passwords, messages, files and other data can be transmitted in encrypted form and can be decrypted by computer system for authorized user's only.

Encryption involves using special mathematical algorithm's or keys to transform digital data into a scrambled code before they are transmitted.

Encryption uses pair of public and private key to send secure digital data over network.



Firewall computers and software are use for control and security of the Internet and other networks. Fire wall is the combination of hardware and software.

Network firewall is a "gatekeeper" computer system that protect's a company's intranet's and other computer network's from intrusion by serving as a filter and safe transfer point for access to and from the Internet and other networks.

Some Org allow only "safe" info to pass Ex: A fire wall may permit users to read E-mail from remote location but not to send reply to them.

(4) Physical Protection Control's

It is physical protection control which protect's Org by using identification badges, electronic door locks, Alarms, security Policy

(5) Biometric Control's

It is fast-growing area of computer security. It measure physical traits (characteristics) that make each individual unique.

This includes voice verification, fingerprints, hand geometry, signature dynamics, face recognition.

Biometric control's use special purpose sensor's to measure and digitize a biometric profile of an individual.

(3) Procedural Control's

Procedural control's are methods that specify how an org's own and network resources should be operated for max security.

IS Org develops and follows standard procedures for the operation of info system. Using standard procedures improves quality and mini the chances of errors.

Procedural Control also review the process of authorization of Org important documents

(3) Fair-Trade

Managing IT: Ethical and Societal challenges

Manager's must consider the ethical dimension of the business use of IT. It will include following Examples:

1. Electronically monitor your employee's work activities and E-mail
2. Should your employees take copies of software for their personal use
3. Should you sell customer info to other companies.
4. Should you electronically access your emp personal records.

Ethical and Societal Dimension of IT

use of IT in business has major impact's on society and thus raises serious ethical considerations.

IT can have beneficial effect as well as negative effect in Societal and Ethical dimension

Another way to understand the ethical dimension of IT is to consider the basic ethical issues to gather, process, store, and distribute information.

Discuss can be ethical and societal dimension of IT

- (1) Employment
- (2) Individuality
- (3) Working Conditions
- (4) Privacy Issues
- (5) Computer Crime
- (6) Health Issues
- (7) Social Solutions

(1) Employment

IT has created new jobs and increased productivity, which is also causing a significant reduction in some types of job opportunities.

Jobs created by IT within a computer-using org require different types of skills and education.

Computer-using orgs have created many jobs, like intern webmasters, system analysts, computer programmers, and user consultants.

(2) Individuality

One of the IT criticism is concern's with its negative effect on individuality of people. Computer-based systems are criticized as impersonal systems that dehumanize and depersonalize activities that have been computerized, since they eliminate the human relationships present in noncomputer systems.

People-oriented and user-friendly info system can thus be developed to give more facilities to the computer users.

(3) Working Conditions

IT has provided working conditions which has increased the productivity. For ex. word processing and desktop publishing make producing office documents a lot easier. While robots have taken over repetitive tasks in the automotive industry.

IT allows people to concentrate on more challenging and interesting assignments, requiring highly developed skills in the computer industry.

(4) Privacy Issues

IT makes it technically and economically feasible to collect, store, interchange and retrieve data and info quickly and easily.

It has also have negative effect on the Right to Privacy of every individual.

Confidential info on individual's is being collected every time they visit a site on the www.

Unauthorized use of such info has seriously damaged the privacy of individual's.

(5) Computer Crime

Computer crime is the threat caused by the criminal of computer users who are taking advantage of the widespread use of computer networks in our society.

It seriously threatens to integrity, safety and quality of most business info system. Thus makes the development of security measures at top priority. Computer crime can be defined as below:-

- * Money Theft
- * Service Theft
- * Software Theft

ERP automates the tasks necessary to perform a business process such as order fulfillment, which involves taking an Order from a customer, shipping it and billing for it. With ERP, when a customer service representative takes an order, he or she has all the necessary info like customer's credit rating and Order history etc.

Everyone else in the Company can view the same info and has access to the single database that holds the Order. When one dept. finishes with the Order, it is automatically routed via the ERP system to the next dept.

To find out where the Order is at any point, one need to log into the system (ERP system).

ERP Definition?

Definition 1: ERP is an attempt to ~~integrate~~ integrate all dept's and functions across a Company to create a single software program that runs ~~over~~ one database.

Definition 2: "ERP is method of effective planning of all the resources in an Org".

Def 3 "ERP combines corporate mission, objectives, attitudes, beliefs, values, functions and people who makes Org".

Advantages of ERP

- * Business Integration
- * Flexibility
- * Better Analysis and planning Capabilities
- * Use of latest Technology

* Business Integration
ERP integrates all the dept's of Org, it enables automatic data updation that is possible among the related business dept. It also provides info at any time which is useful for decision making.

* Flexibility
ERP enables different languages, currencies, accounting standards and so on & into One system. Functions that comprehensively manage multiple location of a company can be packaged and implemented automatically. Flexibility is required for companies globalization and expansion. Flexibility in Org is important for development, maintenance and management.

* Better Analysis and planning Capabilities
By enabling the comprehensive and unified mgmt of related activities and its data, it becomes possible to fully utilise many types of decision support systems and simulation functions. Since it becomes possible to carry out flexibility, the filing data and analysis of data from a variety of dimension's, thus enables to make better and informed decisions.

* Use of Latest Technology
ERP quickly adapts to use latest info Tech that makes flex adaptation to changes in future business environments possible. With this feature of ERP it makes the incorporation of the latest technology ~~possible~~ possible during system customisation and expansion phases.

ERP activates the left hemisphere.

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1.2.2. ~~Flexibility~~

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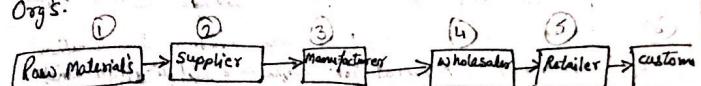
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Supply chain Management (scm)

A supply chain is a network of facilities and distribution option's that performs the functions of Procurement of materials, transformation of these material's into intermediate and finished Product's, and the distribution of these finished product's to customer's.

Supply chain's exist in both service and Manufacturing

Orgs:



Supply-Chain Management - From Raw materials to customer

SCM is also known as intelligent Resource planning (IRP) which allows an enterprise to build relationships between various activities to Optimally identify the demand Supply chain.

It should include Interplant Order processing, availability checking and Cost Optimization.

Checking and Cost Optimizations.
One of the crucial phase of supply chain Mgt is inventory Mgt that must allow flexibility how inventory is stored and controlled.

~~Is an Org there/will be different activities involve to convert Raw Materials into customer places~~

"Supply chain Mgt is a strategy which integrates all the individual activities from ^{procurement of} Raw Materials to the delivery of complete products to customers."

complete process is called SCM can be divided into two categories:-

- ① strategic (It is made for long time period)
- ② operational (It is made for day-to-day basic, short time period)

Supply chain of org can be effected by four basic elements:-

(1) Location

(2) Production

(3) Inventory Control

(4) Transportation (Distribution).

(1) Location : → The geographic placement of production facilities, storage points and sourcing points is the first step in creating supply chain. Once the size, number and location of these are determined, the possible paths by which the product flows through to the final customer. Location will determine production costs, taxes, duties, distribution costs and production limitations.

(2) Production: → It includes the knowledge of what products to produce and which plants to produce them in.

It gives the info about the existence of the facilities, It also specifies the exact path(s) through which a product flows to and from these facilities.

Operational decisions are also discussed here which focus on detailed production scheduling.

These decisions include the construction of the master production schedule, scheduling production on machines and equipment maintenance.

Other considerations include workload balancing and quality control measures.

(3) Inventory Control

It is related to the management of inventory. Inventories exist at every stage of supply chain as either raw materials, semi-finished or finished goods, etc.

Inventory can also be processed between locations. It includes the determination of the optimal level's of order quantities and reorder points and setting safety stock levels at each stocking location.

(4) Transportation (Distribution)

Transportation is closely linked to the inventory control. Selection of distribution is always related with facilities available for transportation.

It will include customer service levels and geographic locations.

Shipment sizes, routing and scheduling of equipment are key in effective mgmt of the firm's transport strategy.

... in terms of company-wide efficiency can lead to

Customer Relationship Management (CRM)

CRM software is extended the capabilities to ERP system. A Company uses CRM software to determine each customer's needs and then uses that knowledge to build a long-term relationship with each customer.

(Customer Relationship Mgt is a set of related Marketing-oriented activities.)

The first step in building the relationship is to build an integrated company-wide view of each customer and then present a single "face" to each customer.

Customer Relationship's can be identified by the No of sales or the dollar volume of sales it makes to the customer.

CRM implementation, CRM software is nothing but to merge with CRM all customer contacts are recorded in company's database (data warehouse). These data, along with sales and other transaction data, allow the company to maintain a history and build a profile of the customer. This comprehensive customer's info is available to all company employees who work with customer. Thus when the customer contacts the company employees work with the customer the company can use this info to meet customer's need in a coordinated and efficient way.

CRM software exists to accomplish a variety of activities. One of the most important activities is Segmenting.

Segmenting customer: ERP stores large amounts of data in one central database, important subsets of these data can be copied into separate repository called a data warehouse. A data warehouse is a database, but it is separate from company's Operational data. When user's access data in the warehouse, they can analyze and,

Once the data warehouse is in place, companies can use data mining techniques to help them shift transaction data in the data warehouse.

Advantages of CRM :-

- ① One-to-one Marketing : Once the customer is categorized, Promotions and pricing can be tailored accordingly.
- ② Sales Force Automation (SFA) : Customer contact's are logged in the company's database. Customer that contact to company can be automatically routed to a sales representative by SFA Software.
- ③ Sales Campaign Soft : This software lets a company to organize a marketing campaign and compile its results.
- ④ Marketing Encyclopedias : This software makes grouping to customers by using data warehouse. This data can be routed to sales representatives or customers as needed.
- ⑤ Call center Automation : When customers call a company to get assistance with a company's products, representatives can query a knowledge mgmt database containing info about the product.
- ⑥ Lower cost's : CRM can lead to operational efficiencies, such as better response time in call center operations and better use of sales force time, which lowers cost.
- ⑦ Higher Revenue : By segmenting customers, better selling opportunities present themselves and revenue increase.
- ⑧ Improved strategy and performance measurement :

With CRM management can think about different performance measures, for ex should sales person be rewarded for exceeding sales quotas and marketing people rewarded for finding new customers. It can lead to org's functional thinking and can lead to all personnel thinking in terms of company-wide effort.

Procurement management system provides a solution to conduct centralized Purchases based on the demands which individual submitted and approved by competent authorities.

Procurement management system plays the role of a middleman that manages the process of Purchasing ^{and} Transaction with this system we deal with two types of clients: One is Consumer, and the other is Supplier. Each of them uses different kinds of services and functions.

(It provides an interface to initiate the demands that are appraised electronically after which it combine Purchases, then it includes automatic receipt of approval, generation of Comparative ~~set~~ statements, generation of FAX for multiple demands and preparation of Purchase Orders etc.

Different categories of procurement can be define as

- ① Transactional ~~and~~ strategic Procurement.
- ② Strategic procurement.
- ③ Direct Procurement.
- ④ Indirect procurement.

(1) Transactional procurement

Transactional procurement represent the activities involved in Procurement process in exchanging the Purchase documents b/w the buyers, suppliers and the trading partners, these doc includes such as Request for quotations, Purchase Orders, invoices, shipping

When users access warehouse, they can analyze and