UNIT- V

Electronic Business:

Electronic business (e-business) refers to the use of the Web, Internet, intranets, extranets or some combination thereof to conduct business. E-business is similar to e-commerce, but it goes beyond the simple buying and selling of products and services online. E-business includes a much wider range of businesses processes, such as supply chain management, electronic order processing and customer relationship management. E-business processes, therefore, can help companies to operate more effectively and efficiently.

Electronic business is about transforming the way key business processes as done by integrating internet technology and services into a company's essential business processes. It links employees, suppliers, partners and customers.

Electronic business is market place where businesses are using internet technologies and network computing to securely transform :

- Their internal business processes (via Intranets)
- Their business relationships (via Extranets)
- The buying and selling of goods, services and information (via E-Commerce)

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Difference between E-business and E-commerce:

In both the cases, E stands for "Electronic networks " and describes the applications of Electronic network technology – including internet and electronic data interchange (EDI) – to improve and change business process . E-commerce covers outward - facing processes that touch customers, suppliers and external partners, including sales, marketing, order taking, delivery, customer service, purchasing of raw materials. E-business includes E-commerce but also covers internal process such as production, inventory management, products development, finance, human resources, E-business strategy, productivity and cost savings. Ex:-E-bay, Amazon.

Electronic Business applications :

E-business applications are web-based applications that can be implemented to perform tasks for businesses. These applications are not just for online businesses, but also for traditional ones. Behind the scenes, e-business applications usually rely on relationships between company servers and end user computers. Common e-business applications provide some way for a company to interact with consumers on the web or to perform tasks related to meeting consumer needs (such as online tracking of postal shipments).

Application Server

One example of an e-business application is a when a company builds an e-business application in which users interface with the application only through a web browser. The application server is responsible for returning HTML content (information) to users based on their requests. This server also collects information entered by users in their web browsers. The exchange of information between client and server and server and client always occurs through a web server.

Business Suite

Another type of e-business application is a business suite offered by a company like Oracle or IBM. This suite of applications interfaces with the company's existing information systems. For example, financial transaction data can be transferred to the company's accounting system with a financial application. An e-business suite might help a company to perform transactions such as collecting online payments, managing inventory, tracking sales patterns, planning routes of distribution, posting product descriptions to web pages and managing customer information in a database.

Enterprise Content Management Systems

An enterprise content management system (ECMS) helps a business that needs to manage a large amount of web content. Content may consist of many types of digital files, including text, audio, video, graphics, and financial data. A business uses a large database (sometimes powered by many servers) to manage information collected through web-based forms. For example, Memorial Health System in Colorado Springs partnered with IBM to create a Physician Link service using an ECMS. A local physician logs into Physician Link using a web browser located anywhere. She can view a patient's laboratory test results on the web and then phone in prescription orders to a hospital nurse on duty.

Emerging applications:

Emerging applications in electronic business includes:

1) Portals
2) Trading exchanges

3) Self service applications
4) B2B store fronts
5) Hosted services
6) Web enabled order management
7) Product life cycle management
8) Web based service

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E-Business Architecture :

E -Business is a comprehensive concept that generated dynamic and profound impacts on global business. Architecture can be explained in numerous ways as they can take many forms, including logical views, scenarios, physical views and deployment views. Each vision provides a particular type of information within the diagram and is directed to a certain audience that include Web architects, data architects, application architects and end users. Effective, consistent e-business architecture can serve as platform for upcoming e-business applications. To develop an e-business architecture, experts must ensure that they are developing and leveraging core components across manifold applications. Effectual e-business architecture should be built after a watchful analysis of the way a company does business. E-business architecture must be implemented in suitable manner for huge success. Current business framework must be considered while designing e-business architecture. It must be analysed that how they would like this structure to be if it's a new business, and from that point develop an architecture that will take the business to a next level of organization and management. E business architecture adopt Internet technologies and pioneering business processes to develop applications that expand beyond the conventional limits of time, space, departmental, organizational, and territorial borders. These solutions add value by cutting bottom-line costs through a lower cost of ownership, higher efficiencies, reduced transaction costs, and process improvements. They also lead to speedy development by helping companies to move faster, hold new markets, discover new distribution channels, and motivate creativity in their organizations. While e-business applications share many aspects with distributed client-server systems, they also have numerous differences.

E-business Architecture Design

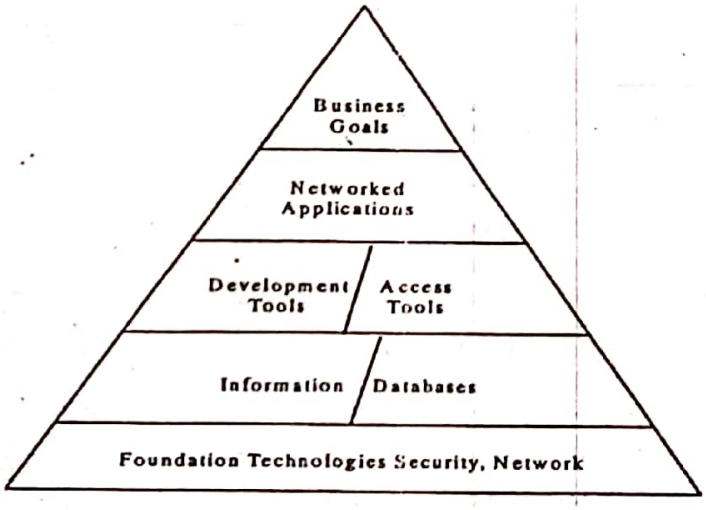
E-business architectures control Web technologies to execute mission-critical e-business applications. These architectures utilize small-footprint clients to access services, provided by resource managers that can be accessed across a strong and consistent system. These customers can be browsers running on personal computers, network devices, personal digital assistants, cell phones, and other pervasive computing devices. The e-business architecture is advanced technology and it is above range of

existing online technologies and products. It comprises of numerous architectural models and plan in that it explains a proposal that will meet the current and future needs of a different client population, and will adjust to varying business and technology needs.

The key elements that assist influence an e-business architecture include

- The organization's overall e-business strategy.
- Business drivers such as time to market, conversation customer service, and others;
- The current IT environment.
- IT vision, objectives, and strategies.
- Organizational constraints such as staff, budgets, risk tolerance, and others.
- New and emerging technologies

E-business architectures must also be developed to meet a key set of operational requirement such as the scalability to support many users, the capacity to handle volume loads that can vary dramatically over time, acceptable transaction response times under most conditions, a secure computing environment that protects sensitive information from unauthorized access, and continuous system availability.



In order to develop highly organized engineered architecture, experts must begin with clear understanding of the current environment and a clear visualization for the future. Subsequently, they must develop an effective plan that will move from the current environment toward the future state by taking into account the resources available for the effort and developing a good understanding of the constraints under which these architectures must be developed.

Architects who build E business architectures must use the following guiding principles:

- Develop architectures based on open standards and technologies. It will assist professionals to shift the application to a different hardware platform, or segment the application's workload. To develop such flexibility, they must understand the services model and choose products based on open technologies that provide these services.

- Segment application architecture into different layers, then ensure the layers are tightly coupled internally and loosely coupled to the model's other layers. This approach will provide the flexibility to establish the proper placement for these layers on the physical tiers of the architecture.
- confirm the technologies used in these architectures are proven and stable.
- Leverage investments in existing systems. The strength of e-business applications comes from building original processes by integrating with existing systems and databases, not by reinventing them.
- In a rigid labour market, search experts with good technical skills are both hard and expensive.
- The services model and layered-application model can provide a supportive framework to execute these principles.

Functional Level: The functional level of the e-business architectural model is linked with the elements of a value chain and ascertains the main process-to-process relationships, including those that relate to customer collaborations, corporate functions, supply collaboration and value chains. This level depends on buyer to explore solutions, real-time reporting of a competitive analysis, the ability to incorporate new technologies and integrated data storage. E-business should use the same business processes throughout the functional level.

Operational Level: The operational level of the e-business architectural model deals with the detailing and certification of integrations and process definitions within the dissimilar value chains and process areas. The operational level the e-business architectural model describe implementation activities, process roles, control points, supporting applications and process roles in order to support reliability and assimilation by using the same web services, operating systems and using a theoretical view of communication within the architectural model instead of a physical view.

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Dotcom Companies :

A dotcom, or dot-com, is a company that conducts business through its website. A dotcom company embraces the internet as the key component in its business.

Dot-coms may conduct business in one or more of the following areas:

Content, Commerce, and Connection.

Content companies provide information, either for free or for a charge, and earn most of their operating income from advertising. Commerce companies sell new and/or used goods directly over the Internet. Connection companies provide Internet services directly to customers.

Dotcoms are so named because of the URL customers type to visit the website to do business with the company, such as amazon.com. The .com at the end of the URL stands for commercial; by contrast, websites run by companies whose primary motivations are not commercial, such as

nonprofit companies, often have domain names ending in .org, which is short for organization. The largest number of startups in the last 20 years have been dotcoms.

Since the .com companies are web-based, often their products or services are delivered via web-based mechanisms, even when physical products are involved. On the other hand, some .com companies do not offer any physical products at all.

- *A dotcom, or dot-com, company is a company whose business model is based on the internet.*
- *Dotcoms are named after the .com at the end of their website URLs.*

The dotcom business model requires an internet presence in order for the business to function; this is the primary component of a dotcom. The majority of the company's offerings are delivered through internet-based mechanisms, though physical products may be involved. Some dotcoms do not offer any physical products.

Electronic Business Implementation :

Implementing E-Business places substantial demands on the internal business organization and IT. There is tight time pressure. There are external influences in terms of the industry, the competition, and emerging software and network technologies. Complexity also arises from the use of consultants and contractors to support internal and E-Business activities.

Complexity exists because in E-Business you must implement changes in multiple related business activities. These span departments across the firm—making communications and coordination more difficult. Adding to this E-Business implementation means that you will have to cut out exceptions and workarounds. You will have to eliminate department grown shadow systems. Moreover, you may have to restructure current business activities to place them in synchronization with E-Business ones.

To put it in a nutshell, E-Business is complex because of the following factors.

- There are high management expectations. This means greater management visibility of the project.
- E-Business implementation can be quite disruptive to the business staff.
- Business organizations such as marketing, customer service, and other departments must change to adapt to E-Business.
- There is severe time pressure to implement.
- E-Business and e-commerce software are evolving and will continue to evolve during the project. New products may come out. These factors create opportunities and challenges.
- The current IT staff are often already stressed enough doing other work such as production support, maintenance, new development, and enhancement. Adding E-Business makes things worse.
- The IT infrastructure part of the project may be complex and much different than the technologies you currently have in place.

Dynamic E-Business Implementation Management presents a step-by-step approach for successfully accomplishing the following:

- Define the purpose, scope, roles, and issues for E-Business implementation in a clear way to prevent scope creep and changing requirements.
- Get the E-Business implementation leaders and team members on board and working effectively and in a collaborative manner.
- Manage vendors, consultants, and contractors to support aspects of the implementation within the schedule and budget.
- Set up the E-Business project plan quickly with the involvement and commitment of the team and management.
- Present and market E-Business and the implementation plan to management and line organizations.
- Manage the work, quality, and results in the E-Business implementation.

- Address issues and opportunities that will arise during implementation.
- Measure implementation performance and results.
- Extract and use lessons learned for E-Business success.
- Expand E-Business after its initial roll out.

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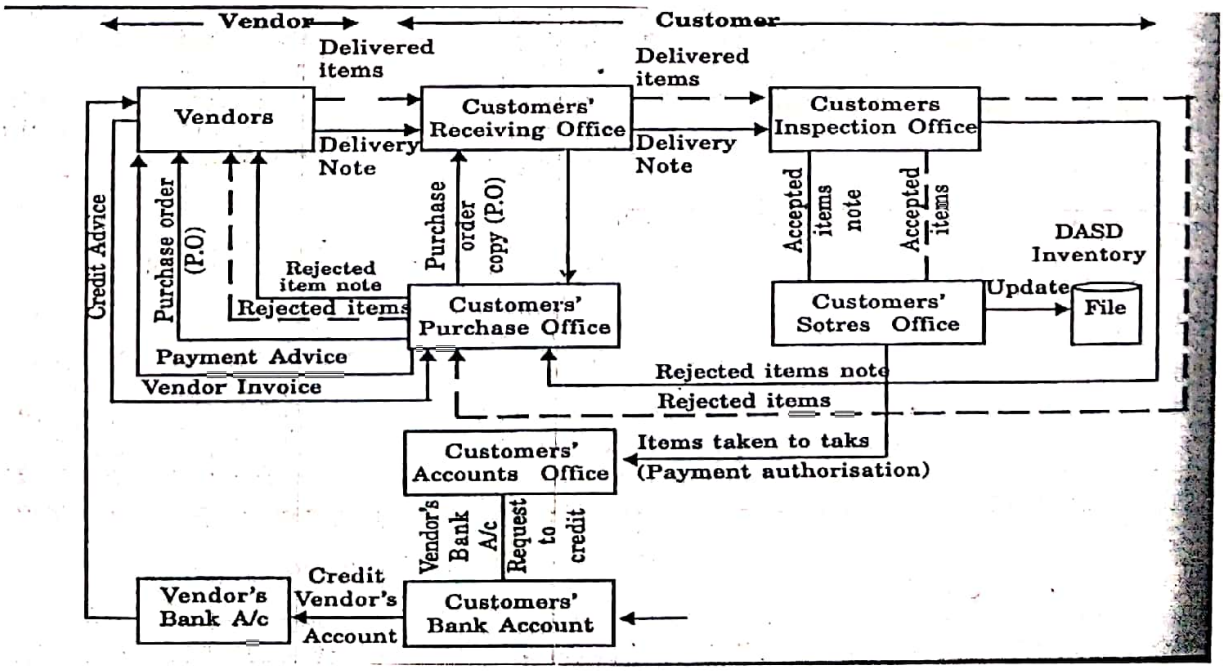
B2B Electronic Commerce

The benefits of B2B are immense. A well executed B2B system can take care of a wide spectrum of activities and not limited to only inventory and order management, product support and service, information delivery, order cataloguing, customer service, quality assurance, accounting, personnel management and sales.

B2B e-commerce diagram:



Business to Business transaction between a vendor and a purchase of goods will be as under.

1. A Purchase Order (PO) document is entered in the keyword of a PC by the customers purchase office and sent by e-mail to the vendor in a standard format for the purchase order through Electronic Data Interchange (EDI) standard.
2. The PO is stored in the vendor database and is acknowledged electronically through EDI. No manual transaction of entering the PO at the vendor's side.
3. The vendor physically (in a rail or truck etc) dispatches the items and the delivery note is sent through EDI standard. Delivery noted is compared with PO again through EDI. If no match is found, a discrepancy note is released electronically (through EDI).
4. The items received at the customer end will have a printed delivery note accompanying them and is sent to the inspection office at customers end which physically inspects items received and compares with the delivery note received electronically.

   The accepted items note is electronically sent via company's LAN to the stores office by the inspection office where as the rejected items note is sent electronically to the purchase office. Similarly, the accepted and rejected items are sent physically to the respective places.
5. The stores office computer updates the inventory automatically using the note sent by inspection office. The items accepted and taken into stock report is sent via LAN to the accounts office which would be considered as an authorized payment to the vendor.
6. The accounts office make the payment for the items accepted through Electronic Funds Transfer (EFT). Its banker is informed electronically to the debit its account by the specified amount and the same is to be credited to the vendor's bank account.

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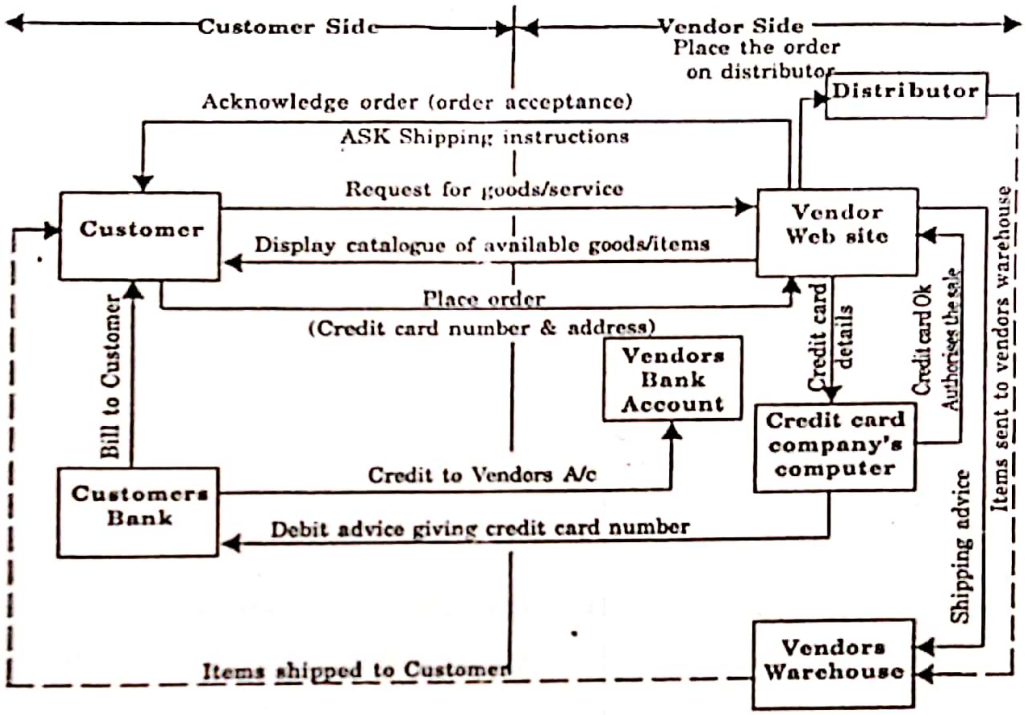
B2C Electronic Commerce :

There are several Internet based shops, particularly known as virtual shops, cyber shops, dot-com shops, E-stores etc.

Common characteristics of these shops are :

- Customers have access to the Internet. They operate from the homes or work places and wish to purchase items sold by the shops. One can shop at any time from the house and items will be delivered to the house. Through the web address of the shop(ending with .com known as dot-com shops) ,connected to the world wide web, customer operated. Eg: flipkart.com



- The customer uses a web browser such as google chrome and enters the web address of the shop. He selects the particular item from the list of items available. The shop also gives the contents page, reviews and cost of the items.
- If customer wants more items, he can add them. The vendor's computer enters the prices, adds them, provides discounts if any and shows the net amount payable.
- The customer is then asked to enter his interested payment mode and address to which the items are to be shifted.
- If the payment is by credit card, the details of the credit card is checked through bank.
- If the customer's credit card is ok, the credit card company authorizes the sale. The e-shop now can proceed to fulfill the order.
- The customer now receives an order acknowledgement from the e-shop's computer for having accepted the order and the customer is asked to send the shipping instructions to enable the e-shop to decide on the mode of transport and delivery period.
- The e-shop normally does not have the items in store, order them from a distributor electronically. On the receipt of the same at vendor's warehouse, the items are packed and dispatched to the customer.
- The credit card company sends a bill to the customer and credits the vendor's bank account the bills' amount.

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B2B Marketplace:

A B2B Marketplace is just a website where goods and services can be exchanged between a wide range of suppliers and buyers. It is a many to many web based trading and collaboration solution that enables companies to more efficiently buy, sell and collaborate on a global scale.

B2B marketplace can be categorized along the following lines:

a) 'Vertical' industry-specific marketplaces revolve around and satisfy the needs of a particular industry or sector.

b) 'Horizontal' product-specific marketplaces based on specific products from around a supply market that cuts across several industries.

c) Function–specific marketplaces focus on specific functions when there is value in concentrating functional skills.

An e-marketplace provides a shared Internet-based infrastructure for :

1) Commerce transactions that automate and streamline the entire requisition to payment process online, including procurement, selling and customer management.
2) A collaborate network for product-design, supply chain planning , optimization and fulfillment processes.
3) Industry-wide product information that is aggregated into a common classification and catalog structure.
4) An environment where sourcing, negotiations and other trading processes such a auctions can take place online, and in real time.
5) An online community for publishing and exchanging industry news, information and events.

Benefits for Buyers:

- E-marketplaces can help buyers reduce purchasing costs and achieve faster time-to-market.
- By aggregating purchasing across divisions and companies, buyers can achieve better, higher volume commercial terms with preferred suppliers. By aggregating multiple suppliers, selection costs are low.
- Buyers can aggregate multiple vendors and products details and compare them.
- Because of the market transparency, companies can enhance their reach and can source material from the best suppliers (in terms of cost, quality and other parameters) available on a global scale.

Benefits for Sellers:

- E-marketplaces can help sellers increase sales with existing customers, expand sales channels and reduce selling costs.
- Sellers can improve customer service and get more business from customers.
- Suppliers can anonymously post and liquidate excess inventory without jeopardizing established pricing norms.
- Sellers can reach out to new geographies, and reduce selling costs through lower inventory requirements, improved order accuracy and streamlined electronic processes.
- Sellers can also receive money through electronic payments.

Benefits for Everyone:

- An e-marketplace effectively brings players together in real time, using the Internet to streamline complex business processes and gain efficiencies.
- Byers and Sellers enjoy greater economies of scale and liquidity and so, can buy or sell anything easily, quickly and cost effectively.
- E-marketplaces enable companies to overcome geographical barriers, and expand globally to reach markets that were beyond reach earlier.
- E-marketplaces eliminate most of the administrative costs of the traditional or paper based processing.
- E-marketplaces enable businesses to react faster to changing market conditions through market intelligence, greater planning time and reduced volatility.

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