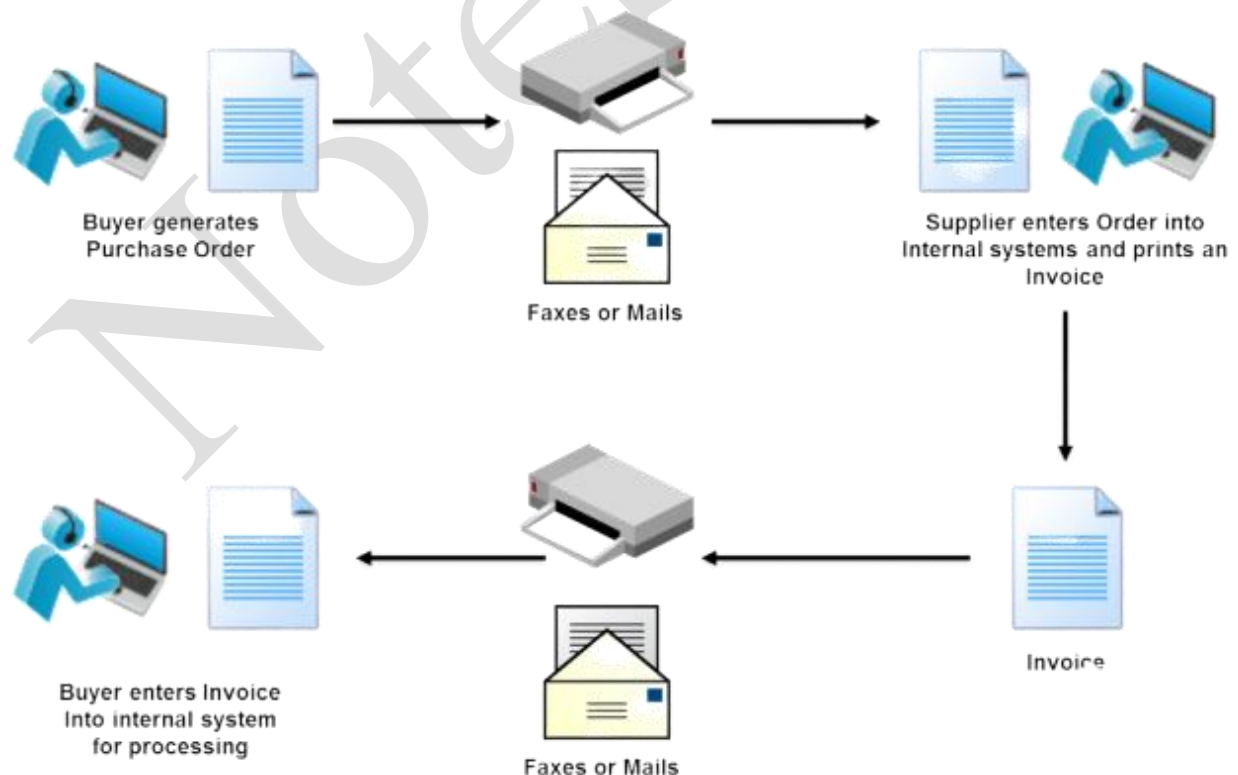# E-Commerce Applications

EDI

EDI or Electronic Data Interchange is the virtual exchange of data or business documents in electronic format between trading partners. This exchange of documents is generally between buyer and supplier and consists of transferring purchase orders, invoices, payments, shipping notices and various other documents and by nature eliminates paper trails, improves operational efficiency and enhances virtual exchanges with new trading partners.

Many business documents can be exchanged using EDI, but the two most common are purchase orders and invoices. At a minimum, EDI replaces the mail preparation and handling associated with traditional business communication. However, the real power of EDI is that it standardizes the information communicated in business documents, which makes possible a "paperless" exchange.

The traditional invoice illustrates what this can mean. Most companies create invoices using a computer system, print a paper copy of the invoice and mail it to the customer. Upon receipt, the customer frequently marks up the invoice and enters it into its own computer system. The entire process is nothing more than the transfer of information from the seller's computer to the customer's computer. EDI makes it possible to minimize or even eliminate the manual steps involved in this transfer.

Buyer generates Purchase Order

Faxes or Mails

Supplier enters Order into Internal systems and prints an Invoice

Invoice

Buyer enters Invoice Into internal system for processing

Faxes or Mails

Nature of EDI

- Exchange of structured business information in standard formats between computers.

- It has reduced data entry link, eliminates the need for a paper bases system and improved business cycle.

- EDI transfer structured business documents internally among groups of departments or externally with its suppliers, customers and subsidiaries.

- In EDI, information transferred over a network will not have to read, retyped or printed but must have predefine structure agreed between the two company's which send and receive data.

- The two companies or groups which exchanged information through EDI are called the Trading Partners.

Benefits of EDI

By implementing EDI, an organization can add value into itself by automatically processing information, reducing clerical tasks and eliminating data entry errors.

- **Cost savings:** EDI lowers associated operating expenses of storage, printing, postage, mailing and document retrieval. It drastically reduces administrative, resource and maintenance costs.

- **Speed:** Time is of the essence when it comes to order processing. EDI speeds up business cycles by 61% because it allows for process automation that significantly reduce, if not eliminate, time delays associated with manual processing that requires you to enter, file, and compare data. Inventories management is streamlined and made more efficient with real-time data updates.

- **Business efficiency:** Because human error is minimized, organizations can benefit from increased levels of efficiency. Rather than focusing on menial and tedious activities, employees can devote their attention to more important value-adding tasks. EDI can also improve an organization's customer and trading partner relationship management because of faster delivery of goods and services.

- **Enhanced quality of data:** EDI minimizes data entry errors, improves accounts payable/receivable times as processes become streamlined and can be used for forecasting

- **Accuracy:** Aside from their inefficiency, manual processes are also highly prone to error, often resulting from illegible handwriting, keying and re-keying errors, and incorrect document handling. EDI drastically improves an organization's data quality and eliminates the need to re-work orders by delivering at least a 30% to 40% reduction in transactions with errors.

- **Security:** EDI enhances the security of transactions by securely sharing data across a wide variety of communications protocols and security standards.

- **Environment-friendly:** The migration from paper-based to electronic transactions reduces CO_2 emissions, promoting corporate social responsibility.

Demerits of EDI

- EDI uses multiple standards which can often limit how many devices can be connected to the network. The XML web-text language, for example, does not have strict standardization and that allows for multiple programmers to contribute to the coding.

- There are various standards bodies with too many 'standard document formats' for EDI which can cause problems with cross compatibility.

- These standards bodies also push standards revisions annually which could cause problems if you have a more recent version of a document than a business partner.

- EDI systems are extremely expensive making it difficult for small businesses to implement.

- Many large organizations will only work with others who utilize EDI. This may limit the business small companies are able to do with such organizations and limit trading partners.