



CSC-370

E - Commerce

(BSc CSIT, TU)

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Benefits of EDI

- EDI can be a cost- and time-saving system, for many reasons.
- The automatic transfer of information from computer to computer reduces the need to rekey information and as such reduces costly errors to near zero.
- EDI transactions produce acknowledgments of receipt of data.
- Many firms are now finding that this acknowledgment can make the invoice obsolete and save many efforts now devoted to acquiring, receiving, and paying for goods
 - 1. Reduced paper-based systems**
 - 2. Improved problem resolution and customer service**
 - 3. Expanded customer/supplier base**

Benefits of EDI

1. Reduced paper-based systems :

- EDI can impact the effort and expense a company devotes to maintaining records, paper-related supplies, and to the personnel required to maintain all of these systems.
- Electronic transactions takeover most of the functions of paper forms and through automation drastically reduce the time spent to process them.
- EDI can also reduce postage bills because of the amounts of paper that no longer need be sent

Benefits of EDI

2. Improved problem resolution and customer service :

- EDI can minimize the time companies spend to identify and resolve inter-business problems.
- Many such problems come from data-entry errors somewhere along the way, and EDI can eliminate many of them.
- EDI can improve customer service by enabling the quick transfer of business documents and a marked decrease in errors and so can fill orders faster and by providing an automatic audit trail that frees accounting staff for more productive activities.

Benefits of EDI

3. Expanded customer/supplier base :

- Many large manufacturers and retailers are ordering their suppliers to institute an EDI program.
- Today, when evaluating a new product to carry or a new supplier to use, the ability to implement EDI is a big plus in their eyes.
- These same companies tend to stop doing business with suppliers who do not comply with EDI

EDI Applications in various fields of Business

- Although EDI was developed to improve transportation and trade, it has spread everywhere.
- An examination of EDI usage in various industries provides insight into the business problems that EDI is attempting to solve.
- We will present four very different scenarios in industries that use EDI extensively
 - **International or cross-border trade**
 - **Financial EDI or electronic funds transfer (EFT)**
 - **Health care EDI for insurance claims processing**
 - **Manufacturing and retail procurement**

EDI Applications in various fields of Business

1. International or cross-border trade :

- EDI has always been very closely linked with international trade.
- Over the last few years, significant progress has been made toward the establishment of more open and dynamic trade relations.
- These developments have meant the lifting of long-standing trade restrictions.
- Many countries, and in particular developing countries, have made significant efforts to liberalize and adjust their trade policies.
- In this context, trade efficiency, which allows faster, simpler, broader and less costly transactions, is a necessity.
- It is a widely held view that trade efficiency can be accomplished only by using EDI as a primary global transactions medium

EDI Applications in various fields of Business

2. Financial EDI or electronic funds transfer (EFT) :

- Financial EDI comprises the electronic transmission of payments and remittance information between a payer, payee, and their respective banks.
- This section examines the ways business-to-business payments are made today and describes the various methods for making financial EDI payments
- Financial EDI allows businesses to replace the labor-intensive activities associated with issuing, mailing, and collecting checks through the banking system with automated initiation, transmission, and processing of payment instructions.
- Thus it eliminates the delays inherent in processing checks

EDI Applications in various fields of Business

3. Health care EDI for insurance claims processing :

- Providing good and affordable health care is a universal problem.
- In 1994, the American public spent \$1 trillion on health care, nearly 15 percent of the gross domestic product (GDP).
- National health care expenditures have risen by 10.5 percent each year for the past eight years — more than double the rate of increase in the consumer price index.
- It is estimated that \$3.2 billion in administrative savings are expected to be achieved by switching from being paper-based to an EDI implementation.
- Employers could save \$70 million to \$110 million by using EDI for enrollment and to certify that a prescribed procedure is covered under the subscriber's health insurance contract

EDI Applications in various fields of Business

4. Manufacturing and retail procurement :

- Both manufacturing and retail procurement are already heavy users of EDI.
- In manufacturing, EDI is used to support just-in-time. In retailing, EDI is used to support quick response
- **Just-in-Time and EDI** : Companies using JIT and EDI no longer stock thousands of large parts in advance of their use. Instead, they calculate how many parts are needed each day based on the production schedule and electronically transmit orders and schedules to suppliers every day or its some cases every 30 minutes. Parts are delivered to the plant "just in time" for production activity
- **Quick Response and EDI** : Taking their cue from the efficiencies manufacturers have gained from just-in-time manufacturing techniques, retailers are redefining practices through the entire supply chain using quick response (QR) systems. For the customer, QR means better service and availability of a wider range of products. For the retailer and suppliers, QR may mean survival in a competitive marketplace

Security and Privacy issues of EDI

- Since in the case of EDI, we are dealing with trade between countries and corporations, issues of legal admissibility and computer security are important.
- Companies that deal with EDI often retain the services of a lawyer during the design of an EDI application so that the appropriate evidentiary/admissibility safeguards are implemented
 - **Legal Status of EDI Messages**
 - **Digital Signatures and EDI**

Security and Privacy issues of EDI

- **Legal Status of EDI Messages :**

- There has been considerable debate concerning the legal status of EDI messages and electronic messages in general.
- Although a lot of work is being done on legal framework, nothing concrete has come out these efforts.
- No rules exist that indicate how electronic messages may be considered binding in business or other related transactions
- The establishment of such a framework is essential if EDI is to become widespread

Security and Privacy issues of EDI

- **Digital Signatures and EDI :**

- The cryptographic community is exploring various technical uses of digital signatures by which messages might be time-stamped or digitally notarized to establish dates and times at which a recipient might claim to have had access or even read a particular message
- If digital signatures are to replace handwritten signatures, they must have the same legal status as handwritten signatures (documents signed with digital signatures must be legally binding).
- Digital signatures should have greater legal authority than handwritten signatures.
- For instance, if a ten-page contract is signed by hand on the tenth page, one cannot be sure that the first nine pages have not been altered.
- If the contract was signed by digital signatures, however, a third party can verify that not one byte of the contract has been altered.

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