CSC-370
E - Commerce
(BSc CSIT, TU)

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Limitations of E-Commerce

- There was much hype surrounding the Internet and e-commerce over the last few years of the twentieth century

1. **Limitations of e-commerce to organizations**
   - **Lack of sufficient system security, reliability, standards and communication protocols :** There are numerous reports of websites and databases being hacked into, and security holes in software. For example, Several banking and other business websites and government websites, have experienced breaches in security where 'a technical oversight' or 'a fault in its systems' led to confidential client information becoming available to all
   - **Rapidly evolving and changing technology :** there is always a feeling of trying to 'catch up' and not be left behind. Customers and developers have to be updated with the software updates.
   - **Pressure to innovate and develop business models :** to exploit the new opportunities which sometimes leads to strategies detrimental to the organization

Limitations of E-Commerce

1. **Limitations of e-commerce to organizations**
    4. **Facing increased competition from both national and international competitors often leads to price wars and subsequent unsustainable losses for the organization**
    5. **Problems with compatibility of older and 'newer' technology**

Limitations of E-Commerce

2. Limitations of e-commerce to consumers

- Computing equipment is needed for individuals to participate in the new 'digital' economy, which means an initial capital cost to customers
- A basic technical knowledge is required of both computing equipment and navigation of the Internet and the World Wide Web
- Cost of access to the Internet, whether dial-up or broadband tariffs
- Cost of computing equipment : Not just the initial cost of buying equipment but making sure that the technology is updated regularly to be compatible with the changing requirement of the Internet, websites and application
- Lack of security and privacy of personal data
- Physical contact and relationships are replaced by electronic processes. Customers are unable to touch and feel goods being sold on-line or determine voices and reactions of human beings
- A lack of trust because they are interacting with faceless computers

Limitations of E-Commerce

3. Limitations of e-commerce to society

- **Breakdown in human interaction :** As people become more used to interacting electronically there could be an erosion(divide) of personal and social skills which might eventually be detrimental to the world we live in where people are more comfortable interacting with a screen than face to face
- **Breakdown in human interaction :** As people become more used to interacting electronically there could be an erosion(divide) of personal and social skills which might eventually be harmful to the world we live in where people are more comfortable interacting with a screen than face to face.
- **Social division :** There is a potential danger that there will be an increase in the social divide between technical haves and have-nots – so people who do not have technical skills become unable to secure better-paid jobs and could form an underclass with potentially dangerous implications for social stability
- **Reliance on telecommunications infrastructure, power and IT skills :** which in developing countries nullifies the benefits when power, advanced telecommunications infrastructures and IT skills are unavailable or scarce or underdeveloped

Limitations of E-Commerce

3. Limitations of e-commerce to society

- Wasted resources : As new technology dates quickly how do you dispose of all the old computers, keyboards, monitors, speakers and other hardware or software?
- **Difficulty in policing the Internet :** which means that numerous crimes can be committed and often go undetected

Seven Unique Features of E-Commerce

1. Ubiquity

- In traditional commerce, a marketplace is restricted i.e. we can be in limited physical area to buy or sell.
- Whereas E-Commerce is ubiquitous meaning that it is available just about everywhere, at all times.
- It make possible to shop from your desktop, at home, at work or even from your car, using mobile commerce.
- The result is called a market space - a marketplace extended beyond traditional boundaries and removed from a temporal and geographic location.
- From a consumer perspective, ubiquity reduces transaction costs – the costs of participating in a market.
- To transact, it is no longer necessary that you spend time and money traveling to a market

Seven Unique Features of E-Commerce

2. Global Reach

- Unlike traditional commerce, e-commerce technology permits commercial transaction to cross cultural and national boundaries far more conveniently and cost effectively.
- As a result, the potential market size for e-commerce merchants is roughly equal to the size of the world's online population

3. Universal Standards

- One strikingly unusual feature of e-commerce technologies is that the technical standards of the Internet, and therefore the technical standards for conducting e-commerce, are universal standards – they are shared by all nation around the world.
- In contrast, most traditional commerce technologies differ from one nation to the next.
- For instance, television and radio standards differ around the world.
- The universal technical standards of e-commerce greatly lower market entry cost – the cost merchants must pay just to bring their goods to market

Seven Unique Features of E-Commerce

4. Richness

- With the use of e-commerce technology merchant can present their message in effective way.
- Information richness refers to the complexity and content of the message

5. Interactivity

- E-Commerce technologies are interactive, meaning they allow two-way communication between merchant and consumer.
- Television, for instant, cannot ask the viewer any questions, enter into a conversation with a viewer, or request customer information be entered into a form.
- In contrast, all of these activities are possible on an e-commerce Web site.
- Interactivity allows an online merchant to engage a consumer in a ways similar to a face-to-face experience, but on a much more massive, global scale

Seven Unique Features of E-Commerce

6. Information Density

- The Internet and the Web vastly increase information density - the total amount and quality of the information available to all market participants, consumers and merchants alike.
- E-commerce technologies reduce information collection, storage, processing and communication costs.
- At the same time, these technologies increase greatly the accuracy and timeliness of information - making information more useful and important than ever.
- As a result, information becomes more plentiful, cheaper and of higher quality

7. Personalization / Customization

- E-commerce technologies permit personalization: Merchants can target their marketing message to specific individuals by adjusting the message.
- The technology also permits customization - changing the delivered product or service based on a user's preference or prior behavior

E-Commerce Framework

- E-Commerce applications are built on the existing technology infrastructure - a myriad of computers, communication networks, and communication software forming the Information Superhighway.
- The technology infrastructure of the Internet is both an enabler and a driver of change.
- An infrastructure is defined as "the foundation of a system."
- In this case, the technological foundation of the Internet, simply put, enables the running of the e-commerce enterprises.
- The hardware backbone of computers, routers, servers, fiber optics, cables, modems, and other network technologies provides half of the technology equation.
- The other half includes the soft-ware and communications standards that run on top of the hardware, including the core protocols for the Web

E-Commerce Framework

- framework for e-Commerce consists of three parts as shown in below figure

E-Commerce Framework

- The first part consists of a **variety of electronic commerce applications** including both inter- and intra-organizational and electronic market. Such as *Supply Chain Management*, *Video-on-Demand*, *Procurement and purchasing*, *On-line marketing and advertising*, *Home shopping* etc.
- The second part of the building blocks of the infrastructure consists of :
  - **Common business services**, for facilitating the buying and selling process
  - **Messaging and information distribution**, as a means of sending and retrieving information (ex-EDI, e-mail, P2P file transfer)
  - **Multi-media content and network publishing**, for creating a product and a means to communicate about it.
  - **Information Superhighway infrastructure** consisting of telecommunication, cable operator, ISPs , Wireless technologies and Internet

E-Commerce Framework

- The third part consists of the *public policy* and *technical standards* necessary to support the applications and the infrastructure
  - **Public policies** govern issues like universal access, privacy, and information pricing. The public policy infrastructure affects not only the specific business but also direct and indirect competitors. It should take into consideration of :
    - Cost of accessing information
    - Regulation to protect consumers from fraud and protect their right to privacy.
    - Policies of global information traffic to detect information pirating and obscene sites
  - **Technical Standards** governs issues like technology for communication and as well as for Internet