E-Commerce

How can Businesses Benefit from e-commerce?

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1. Introduction: What is e-Commerce?
2. Types of e-commerce
3. Which e-commerce technology can be used?
4. What is the legal framework of e-commerce?
5. Security and payment issues
6. Uses of e-commerce for your business
7. Conclusion and discussions
It's about time for e-commerce

- Internet enables businesses to exist around the globe,
  - without the need for physical existence
  - with low expenses
- This creates an attractive market for all products,
  - specially those that can be electronically transported
- Internet and other commercial networks provide new business opportunities
Secure Payment Methods Boosted Developments in e-Commerce

- But, so far, developments were limited
- In the last few years, there has been considerable developments in secure payment systems
- These led to a system that allows low cost and universal payments,
  - specially the payment of small amounts
Most of the Internet users today are in USA or EU

• but the share of other countries is increasing
Designing a web page is NOT e-commerce

e-commerce is the type of commerce where all transactions are done in electronic processing and communication media

REQUIRES

● new inputs and transactions
● Online selling
● Customer Relations Management
● Online processing of order, billing, delivery
● Fast money and service flow

E-commerce – commerce done by electronic means
Amazon.com is one of the world's most important Business to Consumer e-commerce sites. hepsiburada.com is one of Turkey's most important Business to Consumer e-commerce sites. Let's have a look at how e-commerce is done on these sites.
Many businesses perform transactions with their business partners and customers through partner extranets

- **Carnival Cruise Lines, Travel Agent Extranet**
  - CCL supports their agents for brand and image making
  - Travel agents directly use CCL mainframe ans SABRE reservation system for making reservations
  - Some examples for the system functions
    - Product info,
    - Agents records,
    - Special reductions,
    - Order follow-up,
    - Billing and
    - EDI connection
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E-commerce is NOT a new form of commerce

It is merely commerce realized in a new platform and new methods

- E-commerce
- E-state
- E-business
- E-bulletin
- E-ticket
- E-shop
- E-government
- E-magazine

- E-catalogue
- E-company
- E-meeting
- E-book
- E-Europe
- E-market
- E-noter
- E-person
Oracle Self Service Purchasing

1. Enter requisition on web using online forms and catalogues
2. Workflow approval
3. Supplier notified and delivers directly to you
4. Record receipt on the web

System electronically routes transactions, checks employee status, checks addition, creates PO release, pays supplier on receipt, etc.

Employees and suppliers may enquire online as to status of transaction anytime.
E-commerce usage rate is the highest in the finance and entertainment sectors.
E-commerce may take place between or inside the sectors.
Despite amazon.com being regarded as a typical e-commerce business site,
most of the e-commerce is done between businesses


%20  %80
Is this an e-commerce example?

- Electric meters are read by hand-held computers
- Customers pay the bill to the bank and get their receipts
- The bank transfers the money to the Electricity authorities account
Government related business transactions can be done successfully on the Internet:

- Tax payments
- Obtaining health certificates
- Obtaining licences to run a business
- Passport issues
- Changing identification information
- Registering your dog
- Applying for a resident permit
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Most of the web sites are managed through simple web servers
An application server environment is more complicated but it involves much more business logic.
One of the most important decisions to make is to decide which technology to choose.

- **Simple HTML**
  - simplest choice
  - difficult to update
  - no functions
  - Choose if you want to deliver online brochures

- **Web-server structure**
  - **PHP**
    - Simple to realize
    - update automatic
    - w/ simple functions
    - if you want a simple but easy to update system, choose this
  - **SSI**
    - many functions possible
    - manage the system without technical talents
    - if you want to do e-commerce but you do not have to much demands, choose this

- **Application structure**
  - **Standard System**
  - **Customized Standard System**
  - **Custom Design**
    - can have many functions dedicated to your own business
    - If you want to do Inventory control, customer relations management and e-commerce, chose this
You can do e-commerce outside the Internet using the EDI protocol and procedure.
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Despite e-commerce laws exist in European countries, general commerce rules applies.

Areas to be rearranged (Acquis Communautaire example)

- **Commerce Law**
  - Mobility of on-line services
  - Conditions and adaptation of electronic agreements
  - Conflict resolution
  - Electronic signature and validity conditions of the receipts

- **Copyright**
  - Protection of software and databases
  - Protection of the Web sites design and software

- **Tax laws**
  - Application of VAT in international transactions

- **Data Protection and Security**
  - Conditions and ways to use personal data
  - Conditions and ways to use Spam, spyware, cookies etc.

- **Punishment Law**
  - Banning hacking, sending viruses, ‘denial of service’ attack

- **Telecommunication law**
  - Regulatory bodies must be established to provide intense competition and low pricing
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Digital Signatures

Ali’s public key (not secret)

Signed Data + Message

Ali’s private key (secret)

mathematical transformation

unsigned data

Hostile Network

signature check

inverse mathematical transformation
Which payment scheme to use depends on different factors:

- Transaction amount
- The usage of the applied payment method by the target customers
- The salary scale per business and consumer
- Transaction security
- Technical feasibility approval/transaction
- Default risk

![Diagram showing different payment schemes (Credit card, E-cheque, E-money, Money transfer, Other) on a graph with axes of amount of transaction vs complexity.]
The most common payment tool is the credit card

- It has a standard payment infrastructure all around the world
- The most common payment scheme on Internet based commerce (the only one in Turkey)
- Based on the encoding of information, SSL and SET protocols are used during e-commerce in order to avoid the credit card information to be obtained by third parties
- E-commerce security is easily provided
Electronic money can be used for payment of smaller amounts

• Electronic money is a form of money (with a serial number) developed to be used in the Internet

• To benefit from the Electronic money system,
  • Special software of the companies using electronic money should be loaded in your computer
  • And an account should be opened in one of the banks working with the electronic money company

• Electronic money software enables a certain amount of money to be drawn from the bank account and saved in electronic media in order to be used in payment internet based expenses

• Some examples to companies giving electronic money services are: www.cybercash.com, www.digicash.com
you can use electronic cheque instead of credit card

bullet This payment system enables payment of the e-commerce transactions by electronic cheque
bullet In electronic cheque system, payments can be done without a credit card by entering the necessary bank account information to the forms in the e-commerce site
bullet The user, in a sense, pays the expenses by issuing a cheque to the e-commerce business site
bullet The bank system clears the money transfers every day and controls the necessary conditions of the bank account to complete the e-commerce transaction
bullet And informs the e-commerce site through encrypted channels about these conditions

www.echeck.org
There are many other payment methods…

- **Escrip**: used to pay very low amounts such as charity-donations
- **IPIN**: It reflects the e-commerce expenses on the ISP bills
- **PCPay**: Smart Card based payment method
- **ECharge My Phone**: method that integrates the e-commerce expenses and mobile phone bill
- **First Virtual**: a third party collects the payments and delivers them to the related party
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E-commerce

- First comers take the largest byte in the market: www.amazon.com, www.dell.com
- Low investment: any business can transform to e-commerce with a little investment
- Entering the Global Market: sale to whole world
- Reduced sale cost
- No need to face-to-face talk
- Turns the processes to automatic
- Not limited by time differences, region, climate
- Sale for 24 hours
- What if your rivals do it?
The benefits of e-commerce

- Low marketing and sale costs
- Low design and production costs
- Entering the remote markets
- Equal opportunity to reach the market
- Accessing the new markets
- Customer supported product and service quality
- Avoids unfair competition among commercial businesses.
- E-commerce develops
- Production quality improves
- Export grows, national economy grows
Integrate e-commerce into your business strategy

- Taking a place in the electronic market
- Effective Customer Relations Management
- E-commerce
- Supply Chain Management
- Inventory Management

These are in fact just the tools to realize your business objectives!
Critical Success Factors

The success of any Internet venture is a combination of distinctive value propositions and six main factors:

- **Virtual Customer Intimacy**: Collection and intelligent analyses of customer data for forecasting customer needs.
- **Service Excellence**: Development of world class customer service over all available channels.
- **Innovation/Experimentation**: Experimentation with emerging web models for continuous improvement.
- **Channel Integration**: Leveraging multiple channels to serve the on-line customer.
- **Alliances**: Development of strategic alliances to meet customer demands by utilizing core competencies of other providers.
- **Electronic Communities**: Design of value added content and functionality for strengthening relationships.
Prepare a business plan before entering Internet and the e-commerce

Description of the business model

- What are the most important merits of your business?
- Who are our customers?
- Who are our online customers?
- What kind of role can e-commerce play in your business success?
- How can you manage customer relations through Internet?
Prepare a business plan before entering Internet and the e-commerce

Technical Strategy

- What are your current systems?
- Will you built a new system or do Integration?
- What are the functions you need?
- How will you design your web page?
- What is the content?
- Who will update the system?
- How shall we attract customers attention continuously?
Prepare a business plan before entering Internet and the e-commerce

• Marketing Plan
  ● How will you promote your web site?
  ● How many visitors are you planning per week?

• Cost
  ● How much are you planning to invest?

• Income
  ● What do you need to reach the break-even point?

• When will you reach the break-even point?
• In what conditions?
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Thanks

See you in North Cyprus