Management of e-commerce and m-commerce

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Lecture 4
Mobile commerce: Characteristics and functions

Objectives:
• To explain the unique characteristics of mobile commerce
• To describe mobile commerce systems

M-commerce: Definition (Tarasewich, Nickerson, Warkentin)
Mobile e-commerce (mobile commerce, m-commerce) is the process of conducting business activities related to (potential) business transactions through communications networks, especially the Internet, that interface with wireless (or mobile) devices.

Notes on definition:
• The wireless characteristic (mobility) of m-commerce refers to the connection of the user device to the other parts of the system
• E-commerce conducted through wired connections to networks that have wireless connections within them is not m-commerce

M-commerce: Model
Three main parts
Mobile client (terminal) M-commerce service
Wireless communications link

M-commerce: Impact of mobility on e-commerce
• Ubiquity
  – M-commerce is available anywhere (m-commerce is also available anytime, as with wired e-commerce)
• Convenience
  – M-commerce is easily used by customer
• Localization
  – Products and services can be localized for customer
• Personalization
  – Products and services can be personalized for customer
• Instant connectivity
  – Customer can connect to Internet immediately
• Reachability
  – Customer can be reached anywhere, anytime

Agenda

E-commerce:
1. E-commerce: Characteristics and functions
2. E-commerce: Case study
3. E-commerce: European analysis

M-commerce:
4. M-commerce: Characteristics and functions
5. M-commerce: Technology
6. M-commerce: Applications
M-commerce:
Business drivers

- Near universality of mobile phones
- Increasing availability of wireless-enabled portable computers (PDAs, laptop computers)
- Widespread use of mobile phones for non-voice communication (e.g., SMS, iMode)
- Declining prices of wireless devices, wireless communication
- Limited use of wired e-commerce in Europe, Asia (extensive use in U.S. may be barrier)
- Improving bandwidth

M-commerce:
Business models and types

- All e-commerce business models apply to m-commerce
  - Brokerage, Advertising, Infomediary, Merchant, Manufacturer, Affiliate, Community, Subscription, Utility
  - Most m-commerce uses the Merchant business model at this time
- All e-commerce types apply to m-commerce
  - Most m-commerce is B2C at this time

M-commerce system definition

A mobile commerce (m-commerce) system is an electronic commerce system in which customers access electronic commerce activities through wireless (or mobile) devices.

M-commerce system functions

- Product presentation, Order entry, and Electronic payment: user interface must be customized for limitations of mobile client device (small screen, limited input, etc.)
- Order fulfillment: may be unique to mobile client device (e.g., download ring tones, MP3 music files)
- Customer service and Product support: minimal in mobile environment because of limitations of mobile client device
- Data acquisition and Data analysis: less data may be collected and analyzed because of limitations of mobile device input

M-commerce value chain

(Technology platform vendors
Infrastructure and equipment vendors
Application platform vendors
Application developers
Content providers
Content aggregators
Mobile portal providers
Mobile network operators
Mobile service providers
Handset vendors
Customers)
### M-commerce value chain

- **Technology platform providers**: supply basic software for mobile client devices (e.g., OS) (Palm, Microsoft)
- **Infrastructure and equipment vendors**: supply mobile network infrastructure (Motorola, Ericsson, Nokia, etc.)
- **Application platform vendors**: supply middleware to connect mobile client devices to service providers (e.g., WAP)

### M-commerce value chain

- **Application developers**: supply applications built on technology and application platform
- **Content providers**: supply content for distribution to mobile customers
- **Content aggregators**: repackage content for distribution to mobile customers
- **Mobile portal providers**: aggregate applications and content for distribution to mobile customers

### M-commerce value chain

- **Mobile network operators**: provide communication link to mobile customers
- **Mobile service providers**: has contract and billing relationship with mobile customers
- **Handset vendors**: supply mobile client devices to customers
- **Customers**:
  - **B2C**: individuals (mostly teens, students, young professionals at this time)
  - **B2B**: employees of client companies

### M-commerce technology

- **What mobile client devices are used in m-commerce?**
- **What wireless communications infrastructure is needed for m-commerce?**