

Management of e-commerce and m-commerce

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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

Lecture 6 Mobile commerce: Applications

Objectives:

- To describe common types of applications used in mobile commerce
- To discuss case studies of mobile commerce in businesses
- To identify the characteristics of applications that are appropriate for mobile commerce

Common types of applications

Some application types (Varshney and Vetter):

- Mobile financial services
- Mobile advertising
- Mobile inventory management
- Mobile product location and shopping
- Mobile proactive service management
- Mobile business services
- Mobile auction
- Mobile entertainment
- Mobile office
- Mobile distance education
- Mobile information access

Mobile financial services

- B2C and B2B
- Providing various types of financial services
- Mobile banking (m-banking)
 - Example: check bank-account balance
- Mobile brokering (m-brokering)
 - Example: purchase or sell stocks/securities
- Mobile funds transfer
 - Example: transfer funds between bank account and stock broker
- Mobile electronic payment
 - Example: pay bill, creditor
- Micro payments
 - Example: pay for small purchases such as Coca Cola, parking

Mobile advertising

- B2C
- Sending targeted advertisements to individual customers
- Examples:
 - Send advertisement to customer that is personalize for customer's interests/needs
 - Send advertisement to customer based on where customer is located (location-based marketing)
- Can be accomplished through SMS (Short Message Service): messages limited to 160 characters

Mobile inventory management	
	<ul style="list-style-type: none"> • B2C, B2B, B2E • Tracking location of goods, boxes, etc. • Tracking location of people, troops, etc. • Examples: <ul style="list-style-type: none"> - "Rolling inventory" management: management of inventory in trucks, trains, etc. - Just-in-time delivery of components in an assembly plant • Potential customers: shipping companies, assembly plants, airline industry, public transit industry, supermarket chains, etc.

Mobile product location and shopping	
	<ul style="list-style-type: none"> • B2C and B2B • Locating specific items for potential purchase • Could include comparing prices • May include purchasing item • Example: <ul style="list-style-type: none"> - Locate specific model of television at several stores - Compare prices of the same model television at different stores - Purchase television at one store

Mobile proactive service management	
	<ul style="list-style-type: none"> • B2C and B2B • Transmitting information related to the need for product service • Example: <ul style="list-style-type: none"> - Mobile automobile service - Equip cars with sensors that transmit information related to servicing needs - Service providers could compete for services

Mobile business services	
	<ul style="list-style-type: none"> • B2C and B2B • Providing business services to clients • Example: <ul style="list-style-type: none"> - Mobile automobile-insurance claims adjustment - May include uploading photo of damage

Mobile auction	
	<ul style="list-style-type: none"> • C2C or B2B • Providing auction services for customers to buy or sell items • Example: <ul style="list-style-type: none"> - Mobile auction of agricultural products conducted from the field

Mobile entertainment	
	<ul style="list-style-type: none"> • B2C • Providing entertainment services • Examples: <ul style="list-style-type: none"> - Games <ul style="list-style-type: none"> • Download game and play on mobile device • Play game online (multiple-player) - Download music and play on mobile device (MP3) - Video-on-demand - Gambling/betting

	Mobile office
	<ul style="list-style-type: none"> • B2E • Providing office services to employees who are away from the office • Example: <ul style="list-style-type: none"> - Access to e-mail for employees using mobile devices

	Mobile distance education
	<ul style="list-style-type: none"> • B2C • Taking courses online • May require streaming audio and video • Requires powerful processing capabilities found in notebook computers • Example: <ul style="list-style-type: none"> - Take course while commuting on public transit

	Mobile information access
	<ul style="list-style-type: none"> • B2C and B2B • Downloading information by customers, vendors • Examples: <ul style="list-style-type: none"> - Access product specifications prior to purchase - Access weather information - Access news

	Applications for vehicle-mounted devices
	<ul style="list-style-type: none"> • Applications that are designed for customers in moving vehicles • Telematics: vehicle-mounted system with wireless communication and device location technology • Examples: <ul style="list-style-type: none"> - Emergency notification - Travel mapping - Traffic advisory - Vehicle insurance rate adjustment

	Location-based commerce
	<ul style="list-style-type: none"> • Applications that rely on identifying location of customer • Sometimes called I-commerce • Requires that device have location technology • Examples: <ul style="list-style-type: none"> - Location-based marketing: target advertisement to location of customer - Emergency services: provide emergency services (e.g., ambulance) to location of customer - Delivery service (e.g., pizza delivery)

	Case studies
	<p>Review of four short cases (Radding):</p> <ul style="list-style-type: none"> • Fidelity Investments • United Air Lines • Thrifty Car Rental • Harris Bank

	Fidelity Investments
	<p>Fidelity Investments:</p> <ul style="list-style-type: none"> • Mutual fund investment firm • Manages over 150 mutual funds for individual investors <p>M-commerce application: Fidelity Anywhere</p> <ul style="list-style-type: none"> • Started in 1998 as "Instant Broker" • Customer can: <ul style="list-style-type: none"> - Receive real-time quotes and market indices - Initiate trades - Check order status - Monitor portfolio balance - Perform other tasks • Requires PDA with communications capability or Internet-enabled mobile phone • Features depend on device: more for PDA, less for mobile phone

	United Airlines
	<p>M-commerce application: United Easy/Access</p> <ul style="list-style-type: none"> • Started in 2000 as "Proactive Paging"; expanded several times • Customer can: <ul style="list-style-type: none"> - Check flight availability - Book a flight - Receive flight schedule changes - Check flight status - Check frequent flyer miles - Perform other tasks • Requires PDA with communications capability, Internet-enabled mobile phone, or pager • Features depend on device: more for PDA, less for phone, much less for pager

	Thrifty Rental Car
	<p>M-commerce application: Thrifty Wireless Bookings</p> <ul style="list-style-type: none"> • Started in 2000 • Customer can: <ul style="list-style-type: none"> - Book a rental car • Requires PDA with communications capability

	Harris Bank
	<p>Harris Bank</p> <ul style="list-style-type: none"> • Located in Chicago • Owned by Bank of Montreal <p>M-commerce application: Harris Wireless</p> <ul style="list-style-type: none"> • First U.S. bank to offer mobile banking • Started in 1999 • Customer can: <ul style="list-style-type: none"> - Transfer funds between accounts - Pay bills - View transactions - Access stock information - Access news and weather information • Requires Internet-enabled mobile phone

	Characteristics of m-commerce applications
	<ul style="list-style-type: none"> • Needed by customer/business at varying locations • Needed by customer/business immediately • Inconvenient or impossible to provide wired access • Small amount of: <ul style="list-style-type: none"> - Data entry required - Information displayed • Location specific • Not all these characteristics are necessary for m-commerce applications

	M-commerce: Final questions
	<ul style="list-style-type: none"> • Is m-commerce here to stay or is it a fad that will fade away in a few years? • What will come after m-commerce?