MOBILE COMMERCE : GATE WAY TO SUCCESSFUL BUSINESS

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ABSTRACT

This paper explores the Mobile Commerce which is the latest development in the field of business management. M-commerce (mobile commerce) is the buying and selling of goods and services through wireless handheld devices such as cellular telephone and personal digital assistants (PDAs). Known as next-generation e-commerce, m-commerce enables users to access the Internet without needing to find a place to plug in. The emerging technology behind m-commerce, which is based on the Wireless Application Protocol (WAP), has made far greater strides in Europe, where mobile devices equipped with Web-ready micro-browsers are much more common than in the United States.

The m-commerce market potential, handset manufacturers such as Nokia, Ericsson, Motorola, and Qualcomm are working with carriers such as AT&T Wireless and Sprint to develop WAP-enabled smart phones, the industry's answer to the Swiss Army Knife, and ways to reach them. Using Bluetooth technology, smart phones offer fax, e-mail, and phone capabilities all in one, paving the way for m-commerce to be accepted by an increasingly mobile workforce.

Keywords: M. Commerce, PDA, Mobile, SMS, Mobile Banking & Broking.

INTRODUCTION:

Mobile Commerce, also known as M-Commerce or M-Commerce, is the ability to conduct commerce using a mobile device, such as a mobile phone, a Personal digital assistantPDA, a smartphone, or other emerging mobile equipment such as dashtop mobile devices. Mobile Commerce has been defined as follows:

"Mobile Commerce is any transaction, involving the transfer of ownership or rights to use goods and services, which is initiated and/or completed by using mobile access to computer-mediated networks with the help of an electronic device."

M-commerce (mobile commerce) is the buying and selling of goods and services through wireless handheld devices such as cellular telephone and personal digital assistants (PDAs). Known as next-generation e-commerce, m-commerce enables users to access the Internet without needing to find a place to plug in. The emerging technology behind m-commerce, which is based on the Wireless Application Protocol (WAP), has made far greater strides in Europe, where mobile devices equipped with Web-ready micro-browsers are much more common than in the United States.

In order to exploit the m-commerce market potential, handset manufacturers such as Nokia, Ericsson, Motorola, and Qualcomm are working with carriers such as AT&T Wireless and Sprint to develop WAP-enabled smart phones, the industry's answer to the Swiss Army Knife, and ways to reach them. Using Bluetooth technology, smart phones offer fax, e-mail, and phone capabilities all in one, paving the way for m-commerce to be accepted by an increasingly mobile workforce.

As content delivery over wireless devices becomes faster, more secure, and scalable, there is wide speculation that m-commerce will surpass wireline e-commerce as the method of choice for digital commerce transactions. The industries affected by m-commerce include:

- Financial services, which includes mobile banking (when customers use their handheld devices to access their accounts and pay their bills) as well as brokerage services, in which stock quotes can be displayed and trading conducted from the same handheld device
- Telecommunications, in which service changes, bill payment and account reviews can all be conducted from the same handheld device
- Service/retail, as consumers are given the ability to place and pay for orders on-the-fly
- Information services, which include the delivery of financial news, sports figures and traffic updates to a single mobile device

IBM and other companies are experimenting with speech recognition software as a way to ensure security for m-commerce transactions.

HISTORY:

Mobile commerce was born in 1997 when the first two mobile-phone enabled Coca Cola vending machines were installed in the Helsinki area in Finland. The machines accepted payment via SMS text messages. The first mobile phone-based banking service was launched in 1997 by Merita Bank of Finland, also using SMS.

In 1998, the first sales of digital content as downloads to mobile phones were made possible when the first commercial downloadable ringtones were launched in Finland by Radiolinja (now part of Elisa Oyj). Two major national commercial platforms for mobile commerce were launched in 1999: Smart Money (http://smart.com.ph/money/) in the Philippines, and NTT DoCoMo's i-Mode Internet service in Japan. i-Mode offered a revolutionary revenue-sharing plan where NTT DoCoMo kept 9 percent of the fee users paid for content, and returned 91 percent to the content owner.

Mobile-commerce-related services spread rapidly in early 2000. Norway launched mobile parking payments. Austria offered train ticketing via mobile device. Japan offered mobile purchases of airline tickets.

The first conference dedicated to mobile commerce was held in London in July 2001.

The first book to cover mobile commerce was Tomi Ahonen's *M-profits* in 2002.

The first university short course to discuss mobile commerce was held at the University of Oxford in 2003, with Tomi Ahonen and Steve Jones lecturing. As of 2008, UCL Computer Science and Peter J. Bentley demonstrated the potential for medical applications on mobile devices.[2]

PDAs and cellular phones have become so popular that many businesses are beginning to use mobile commerce as a more efficient way to communicate with their customers.In order to exploit the potential mobile commerce market, mobile phone manufacturers such as Nokia, Ericsson, Motorola, and Qualcomm are working with carriers such as AT&T Wireless and Sprint to develop WAP-enabled smartphones. Smartphones offer fax, e-mail, and phone capabilities.

"Profitability for device vendors and carriers hinges on high-end mobile devices and the accompanying killer applications," said Burchett. Perennial early adopters, such as the youth market, which are the least price sensitive, as well as more open to premium mobile content and applications, must also be a key target for device vendors.

Since the launch of the iPhone, mobile commerce has moved away from SMS systems and into actual applications. SMS has significant security vulnerabilities and congestion problems, even though it is widely available and accessible. In addition, improvements in the capabilities of modern mobile devices make it prudent to place more of the resource burden on the mobile device.

More recently, brick and mortar business owners, and big-box retailers in particular, have made an effort to take advantage of mobile commerce by utilizing a number of mobile capabilities such as location based services, barcode scanning, and push notifications to improve the customer experience of shopping in physical stores. By creating what is referred to as a 'bricks & clicks' environment, physical retailers can allow customers to access the common benefits of shopping online (such as product reviews, information, and coupons) while still shopping in the physical store. This is seen as a bridge between the gap created by e-commerce and in-store shopping, and is being utilized by physical retailers as a way to compete with the lower prices typically seen through online retailers.

PRODUCTS AND SERVICES AVAILABLE:

Mobile ticketing:

Template: Main: Mobile ticketing Tickets can be sent to mobile phones using a variety of technologies. Users are then able to use their tickets immediately, by presenting their phones at the venue.

Tickets can be booked and cancelled on the mobile device with the help of simple application downloads, or by accessing the WAP portals of various travel agents or direct service providers.

Mobile vouchers, coupons and loyalty cards:

Mobile ticketing technology can also be used for the distribution of vouchers, coupons, and loyalty cards. These items are represented by a virtual token that is sent to the mobile phone. A customer

presenting a mobile phone with one of these tokens at the point of sale receives the same benefits as if they had the traditional token. Stores may send coupons to customers using location-based services to determine when the customer is nearby.it is very simple commerce method.

Content purchase and delivery:

Currently, mobile content purchase and delivery mainly consists of the sale of ring-tones, wallpapers, and games for mobile phones. The convergence of mobile phones, portable audio players, and video players into a single device is increasing the purchase and delivery of full-length music tracks and video. The download speeds available with 4G networks make it possible to buy a movie on a mobile device in a couple of seconds.

Location-based services:

The location of the mobile phone user is an important piece of information used during mobile commerce transactions. Knowing the location of the user allows for location-based services such

- Local discount offers

- Local weather

- Tracking and monitoring of people

INFORMATION SERVICES:

A wide variety of information services can be delivered to mobile phone users in much the same way as it is delivered to PCs. These services include:

- News

- Stock quotes

- Sports scores

- Financial records

- Traffic reporting

Customized traffic information, based on a user's actual travel patterns, can be sent to a mobile device. This customized data is more useful than a generic traffic-report broadcast, but was impractical before the invention of modern mobile devices due to the bandwidth requirements.

MOBILE BANKING:

Banks and other financial institutions use mobile commerce to allow their customers to access account information and make transactions, such as purchasing stocks, remitting money. This service is often referred to as *Mobile Banking*, or M-Banking.

MOBILE STOREFRONT:

The reinvention of the mobile phone as a touch sensitive handheld computer has for the first time made mobile commerce practically feasible. 'According to ABI Research, mobile is going to get a lot

bigger in the ecommerce market. The research firm is predicting that in 2015, $119bn worth of goods and services will be purchased via a mobile phone.'

MOBILE BROKERAGE:

Stock market services offered via mobile devices have also become more popular and are known as Mobile Brokerage. They allow the subscriber to react to market developments in a timely fashion and irrespective of their physical location.

AUCTIONS:

Over the past three years mobile reverse auction solutions have grown in popularity. Unlike traditional auctions, the reverse auction (or low-bid auction) bills the consumer's phone each time they place a bid. Many mobile SMS commerce solutions rely on a one-time purchase or one-time subscription; however, reverse auctions offer a high return for the mobile vendor as they require the consumer to make multiple transactions over a long period of time.

MOBILE BROWSING:

Using a mobile browser—a World Wide Web browser on a mobile device—customers can shop online without having to be at their personal computer.

MOBILE PURCHASE:

Catalog merchants can accept orders from customers electronically, via the customer's mobile device. In some cases, the merchant may even deliver the catalog electronically, rather than mailing a paper catalog to the customer. Some merchants provide mobile websites that are customized for the smaller screen and limited user interface of a mobile device.

MOBILE MARKETING AND ADVERTISING:

In the context of mobile commerce, **mobile marketing** refers to marketing sent to mobile devices. Companies have reported that they see better response from mobile marketing campaigns than from traditional campaigns.

INFLUENCE ON YOUTH MARKETS:

Mobile media is a rapidly changing field. New technologies, such as WiMax, act to accelerate innovation in mobile commerce. Early pioneers in mobile advertising include Vodafone, Orange, and SK Telecom. Mobile devices are heavily used in South Korea to conduct mobile commerce. Mobile companies in South Korea believed that mobile technology would become synonymous with youth life style, based on their experience with previous generations of South Koreans. "Profitability for device vendors and carriers hinges on high-end mobile devices and the accompanying killer applications," said Gibran Burchett.

MEMETIC RESEARCH:

Leveious Rolando, John Sokol and Gibran Burchett are memetic researchers who pioneered mobile advertising with their early experimentation of DVB-H in 1999 with Sony BMG recording artist Wu-Tang Clan. On a 2007 trip to South Korea, Rolando created a Venn-diagram model of rapidly evolving youth lifestyle trends. The diagram explained vital aspects of mobile adoption and sales of mobile global products and services. Rolando and his colleagues performed an experiment in which viral

marketing, in the form of mobile commercials (or "mobisodes"), was used to attract and retain an audience. The two tested a theory of rapid memetic dissemination. They observed the youth cultural styles and trends, combined with the rate at which the test subjects passed on particular information to others. One group of subjects were given words and phrases to be used regularly in conversation. The control group was not given such a list this experiment measured the rate at which ideas and phrases were typically transmitted.

Rolando conducted other experiments in Europe, South Korea, and Japan involving viral mobile direct-marketing campaigns delivering products and coupons with instant savings to mobile devices. These studies were commissioned by top mobile providers like Deutsche Telekom (operator of T-Mobile) and Orange. The experiments used disc jockeys and mobile youth street teams to drive instant purchases of event-ticket sales, and the sales of three different viable youth products to over 200,000 end-users in eight days. This demonstrated how the global youth mobile market can react autonomously and create trends. It also showed how products take on new life because of the mindset of the young, who tend to be early adopters of any form of social technology services.

These researchers, along with others, developed methods deployed globally through concerts and events involving any form of youth culture in 2008, in partnership with leading mobile software and network providers.

PAYMENT METHODS:

- Consumers can use many forms of payment in mobile commerce, including:

- Premium-rate telephone numbers', which apply charges to the consumer's long-distance bill

- Charges added to the consumer's mobile telephone bill, including deductions to pre-paid calling plans

- Credit cards

- Some providers allow credit cards to be linked to a phone's SIM card

- Micropayment services

- Stored-value cards, often used with mobile-device application stores or music stores

CONCLUSIONS:

From the research, following twenty reasons are found why every business should incorporate an M-commerce solution into the business operation. They are listed below.

1. To Establish A Presence
2. To Network
3. To Make Business Information Available
4. To Serve The Customers
5. To Heighten Public Interest
6. To Release Time Sensitive Material
7. To Sell Things

8. To make picture, sound and video available
9. To Reach a Highly Desirable Demographic Market
10. To Answer Frequently Asked Questions
11. To Stay in Contact with Salespeople
12. To Open International Market
13. To Create a 24 Hour Service
14. To Make Changing Information Available Quickly
15. To Allow Feedback From Customers
16. To Test Market New Services and Products
17. To Reach The Media
18. To Reach The Education and Youth Market
19. To Reach The Specialized Market
20. To Serve One's Local Market

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