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REVIEW ARTICLE

ISSUES AND CHALLENGES IN E-COMMERCE AND M-COMMERCE: A REVIEW

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ABSTRACT

E-commerce is widely considered the buying and selling of products over the internet, but any transaction that is completed solely through electronic measures can be considered e-commerce. E-commerce is subdivided into three categories: business to business or B2B, business to consumer or B2C and consumer to consumer or C2C also called electronic commerce. M-commerce is a term that is used to refer to the growing practice of conducting financial and promotional activities with the use of a wireless handheld device. The term m-commerce is short for mobile commerce, and recognizes that the transactions may be conducted using cell phones, personal digital assistants and other hand held devices that have operate with Internet access. E-commerce Security is a part of the Information Security framework and is specifically applied to the components that affect e-commerce that include Computer Security, Data security and other wider realms of the Information Security framework. E-commerce security has its own particular nuances and is one of the highest visible security components that affect the end user through their daily payment interaction with business. The purpose of this research paper is to identify factors affecting the adoption of M-commerce. The significant growth of M-commerce application is remarkable in India. More and more consumer is transferring to M-commerce to achieve better and fast transaction into market. M-commerce is emerging level in India. The astounding rate growth in mobile penetration in India, higher mobile technology and networking is coming day by day. Now a mobile phone is not only use for text SMS or phone call but also be used for many other activities like browsing of net chatting or other virtual activities. This paper's theoretical contribution is to explain how's M-commerce is developing in India and to identify clear contexts and assistant mechanism.

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INTRODUCTION

Electronic commerce, or e-commerce, refers to economic activity that occurs online. E-commerce includes all types of business activity, such as retail shopping, banking, investing and rentals. Even small businesses that provide personal services, such as hair and nail salons, can benefit from e-commerce by providing a website for the sale of related health and beauty products that normally are available only to their local customers. Electronic commerce draws on technologies such as mobile commerce, electronic funds transfer, supply chain management, Internet marketing, online transaction processing, electronic data interchange (EDI), inventory management systems, and automated data collection systems. Modern electronic commerce typically uses the World Wide Web at least at one point in the transaction's life-cycle, although it may encompass a wider range of technologies such

as e-mail, mobile devices social media, and telephones as well. E-commerce differs from e-business in that no commercial transaction, an exchange of value across organizational or individual boundaries, takes place in e-business. The buying and selling of products, services by business and consumers through an electronic medium, without using any paper documents. Less than a decade after the E-Commerce revolution and its associated global impact on the business environment, it appears that another step has been taken in the evolution of networked computing. Transitioning from wired to wireless networks, the latest buzz in the industry is mobile commerce or m-Commerce (Bushell, 2001). Mobile e-commerce, M-commerce is the term used to describe the growing trend of using networks that interface with wireless devices, such as laptops, handheld computers or mobile phones to initiate or complete online electronic commerce transactions. It May also be seen written as M-commerce or m-commerce. Mobile commerce involves all kind of electronic transactions by the use of mobile phone. The rapid growth of mobile telephony has provided a foundation for M-commerce namely E-commerce activities carried out via a mobile device, such as

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a cell phone it is called M-commerce. M-commerce also refers to the transaction conducted via mobile device or Wi-Fi network. M-Commerce could be viewed as a subset of E-Commerce. The name "M-Commerce" arises from the mobile nature of the wireless environment that supports mobile electronic business transactions. Devices, including digital cellular phones, Personal Digital Assistants (PDAs), pagers, notebooks, and even automobiles, can already access the Internet wirelessly and utilize its various capabilities, such as e-mail and Web browsing, for example (Little, 2001).

### Related works

Electronic Commerce is the very rapid growing field in today's scenario. It is used for Purchasing Order i.e. for buying and selling electronic goods and all other type of things. And there is need for development of a number of e-commerce protocols, which ensure integrity, confidentiality, atomicity and fair exchange. The main difference in M-commerce definition with E-commerce uses the wireless net for performing financial, services and purchases. In other words in M-commerce all kinds of trends such as business-to-consumer, business-to-business and consumer-to-consumer are there.

M-commerce is not possible without a secure environment, especially for those transactions involving monetary value. Depending on the point of views of the different participants in an m-commerce scenario, there are different security challenges. The main advantage of M-commerce comparing to E-commerce also exists in. In fact while the use of E-commerce is provided only when the user is at his/her own home or workplace or in any other location he/she has to access media such as, Internet. M-commerce merely need the Mobile-phone. However this doesn't bear the meaning that M-commerce is limited to ordinary applications like reading E-mail or reporting. Within the pass of time the services and ample abilities of M-commerce are getting more popular and more complete than the E-commerce. Generally, M-commerce has several major advantages to consumers

### Purpose of study

- \* Study the Overview of E-commerce and M-commerce.
- \* Understand the relationship between M-commerce and E-commerce.
- \* Discuss the current advantages and disadvantages of E-commerce and M-commerce.
- \* Analysis of Global e-commerce sales are growing
- \* Identify the M-Commerce Applications
- \* Discuss M-COMMERCE VERSUS E-COMMERCE
- \* Study of Security Issues in Online marketing

### Advantages and disadvantages of E-commerce

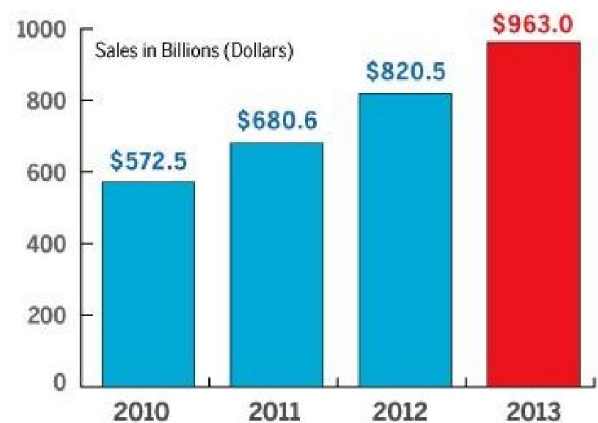
#### Advantages

Faster buying/selling procedure, as well as easy to find products. Buying/selling 24/7. More reach to customers, there is no theoretical geographic limitations. Low operational costs and better quality of services.

No need of physical company set-ups. Easy to start and manage a business. Customers can easily select products from different providers without moving around physically.

#### Disadvantages

Any one, good or bad, can easily start a business. And there are many bad sites which eat up customers' money. There is no guarantee of product quality. Mechanical failures can cause unpredictable effects on the total processes. As there is minimum chance of direct customer to company interactions, customer loyalty is always on a check. There are many hackers who look for opportunities, and thus an ecommerce site, service, payment gateways; all are always prone to attack.



Source: [http://en.wikipedia.org/wiki/File:Global\_ecommerce\_sales.jpg]

Fig. 1. Global e-commerce sales are growing at more than 19% per year



Source: [http://en.wikipedia.org/wiki/File:Global\_ecommerce\_sales\_by\_region.jpg]

Fig. 2. Global e-commerce sales by region

### Why we are seeing interest in E-commerce

The reason is the several E-commerce benefits which is enjoyed by both customers and merchants at the same time, a real win-win situation. Here's a summary of E-commerce benefits for you to view and consider.

- The market for a Web based business is not bound by any geographical constraints. This means lesser or NIL growth inhibitors due to various restrictions existing in different geographical regions.
- The transaction costs go down tremendously in a well set up site. The company saves on the costs of the people needed to interact with the customers, demonstrate the wares time and again, and take orders. All this gets automated online.
- Better, more inviting, convenient and comprehensive presentation of goods is conducive to greater sales. For instance, if you are at Amazon, you can take a look at what other people who ordered a book also purchased.
- Facilities such as being able to compare costs of several stores at the same time, keep a tab on your selections, the flexibility of being able to add, remove, and even come back later to carry on choosing instead of closing the deal in one online session itself are quite convenient to a customer.
- The Web business can be integrated into the regular business cycle and give customers more information than ever before. For instance, customers at Dell can see exactly at what stage their order is, at any given point of time.
- Improved customer interaction, at practically no cost, is a big asset to the company. By putting information on frequently asked questions on their website, organizations are saving costs by reducing the number of customer service representatives. Eventually which means that, the benefits of saved costs will be passed on to the customers -- lowering costs at the other end of connection, too?
- Small and large firms alike have the opportunity to set-up and conduct business on the internet. The barriers to entry to the e-commerce are miniscule.
- An inexpensive advertising medium for organizations, it allows organizations an opportunity for publicizing their products and services at minimal cost.
- Helps expand into new markets by virtue of its global reach.

Open your product and services to a new customer base and to maintain a leading edge technology position and image in the market place and against your competitors. All these e-commerce benefits are being gradually recognized the world over. Most of the businesses, big or small, are now setting up bases on the internet to reap the benefits of this golden era of e-commerce.

#### **Five reasons why mobile commerce in India may get bigger than online commerce**

E-Commerce industry is booming in India, and M-Commerce is following its lead. With both big and small online businesses developing special mobile websites and apps, it is evident that even they have realised how prominent this platform is. In a country where there are over 930 Mn mobile subscribers against 160 Mn Internet users (Including 86 Mn mobile Internet users) it is quite possible for M-Commerce to become even bigger than E-Commerce, because of the reasons mentioned below :-

#### **Affordability of Mobile Devices**

It is no denying fact that mobile devices like cell phones and tablets are far more affordable than desktops and laptops, and

an average Indian consumer doesn't have much disposable income in his hand to buy high end devices.



**Fig. 3. Why M-Commerce is on Rise**

Plus, one doesn't even really need expensive smart phones to shop online or make mobile transactions. According to a report by Avendus, there were over 36 Mn smart phone users in India, but over 431 Mn Internet capable mobile devices in use in India as of December 2012, thus forming a strong consumer base for m Commerce. Moreover, due to their mobility and affordability, even tablets are high indemand in India.

#### **Mobile Internet Connectivity**

M-Commerce customers are not bound by limited wired and WiFi Internet connections. In the last 3-4 years, the number of users who access the Internet through a 3G connection has grown to round 22 Mn. Now compare this with the 15 Mn fixed line broadband connections accrued over the last 17 years, there is a notable difference. Even though E-Commerce has spread its roots throughout the country, it still hasn't reached the places where people have no broadband or no computer. M-Commerce could and will change this.

#### **Security**

Mobile platforms are still relatively free from viruses and other threats. And even in case of a fraudulent activity, credit tracking by GSM/GPRS/GPS is easy and quick. Thus increasing the credibility, and giving better assurance to the sceptical India population. Also, seldom do people part from their phones, so there are less chances of misuse of login information that may happen on computer systems.

#### **Bridging Gap Between E-Commerce and Conventional Stores**

Brick and mortar stores are getting a lot of heat from online stores, which are luring their customers away by offering better product prices and discounts. When a person goes out for shopping, mobile acts as a conduit between the two poles,

people compare prices online before buying something. This could be, and is being used by retailers to their benefit by offering location based services, barcode scanning, and push notifications to improve the customer experience of shopping in physical stores.

### Greater Target Audience for Advertisements

The problem with online advertising is that people have to be 'online' to view it. Several E-Commerce players in India have come out with TV commercials to advertise their websites. However, mobile is a better platform to do the same. Even with Government's regulation on bulk messaging, companies could still target a mass of people collectively by sending promotional content via SMS if a user hasn't activated the DND service or wants to receive those ads.

### Advantages and disadvantages of M-commerce

M-Commerce is a part of E-commerce which is done through mobile phones. It allows the person to do the transaction through mobile phones. It gives each and every person a choice to shop from anywhere. It is a way by which companies and sellers come closer to the end user. Though there are many similarities, there are many differences between M-commerce and E-commerce, such as :-

- \* Internet connectivity is always needed in E-commerce but M-commerce does not have such boundaries.
- \* Video conferencing can also be done through M-commerce but it is not possible in E-commerce.
- \* M-commerce is costlier than E-commerce.
- \* M-commerce is much easier than E-commerce.
- \* Providing wider reach
- \* Reducing transaction cost
- \* Streamline business processes
- \* Competitive pricing
- \* Reducing time to order

### Below are some of its advantages

#### Convenience

It is a true convenience to do much from a handy device via M-Commerce. With wherever you are, in just a few clicks on your mobile device, you can already do shopping, banking and download media files.

#### Flexible accessibility

User can be accessible via mobile phones and at the same time be accessible online too through logging on to various mobile messengers like Yahoo and G-talk and other networking platforms. On the other hand, user may also choose not to be accessible by shutting down his mobile device, which at times can be a good things.

#### Easy connectivity

As long as the network signal is available, mobile devices can connect and do commerce transactions, mobile to mobile and

even mobile to other devices. No need for modem or WI-FI connectivity set up.

### Personalization

Each mobile device is usually dedicated to a specific user, it is personal. You can do whatever you want to your mobile device, modify the wallpaper, change view settings or modify contact information as you send emails or e- payments.

### Time efficient

Doing M-Commerce transactions do not require the user to plug anything like personal computer or wait for the laptop to load. Just hit the on button of your mobile device and your ready to go.

### The disadvantages of M-commerce

- \* Technology constraints of mobile devices (memory, Processing power, display capabilities, input methods).
- \* User interface is often difficult to learn how to use.
- \* Use of graphics limited
- \* WAP and SMS limited to small number of characters and Text.
- \* Limited bandwidth
- \* Small screens of most devices still limit types of file and data transfer.
- \* WAP and SMS limited to small number of characters and text.
- \* Cost of establishing mobile and wireless broadband Infrastructure.
- \* Small screens of most devices still limit types of file and data transfer (i.e. streaming videos, etc.)
- \* Standards guiding applications and technology development and connection(s)
- \* WAP and SMS limited to small number of characters and text.
- \* Use of graphics limited

### Conclusion

E-commerce is widely considered the buying and selling of products over the internet, but any transaction that is completed solely through electronic measures can be considered E-commerce. Day by day E-commerce and M-commerce playing very good role in online retail marketing and peoples using this technology day by day increasing all over the world. Mobile commerce involves all kind of electronic transactions by the use of mobile phone. M- Commerce is the term for making business transactions using mobile devices. There are already several existing M- Commerce applications and services nowadays that have been very helpful to us. Some are mobile banking, location maps, and variety of news, mobile shopping, ticketing and mobile file sharing. E-commerce security is the protection of e-commerce assets from unauthorized access, use, alteration, or destruction. Still there is a lot of work, which is to be done for M-commerce. We just keep in mind that M-commerce is a new Industry in India. Internet connectivity and mobile networking is still not accessible to entire population.

These industries see an astounding rate of growth. M-commerce market grows in India because so many growth drivers are favorable in India such as changing youth's perception, introduction of trusteeship model, growth of financial area and numbers of smart phone buyers are increasing.

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