M-Commerce: An Edge over E-Commerce

APURU, Jonathan Iliya¹, AUDU, Kafwa Dodo², ANDEMBUBTOB, David Roland³
¹, ², ³ Department of Mathematical Sciences, Taraba State University, Jalingo

Abstract: Most organizations today utilize the capabilities of the electronic world to achieve greater profits for their businesses. The general E-devices may or may not be mobile as such. With advancement in electronic and communication technology, mobile devices are severally developed and implemented; which brings about what is called the Mobile-Commerce (or M-Commerce). This study shows that M-commerce (or mobile commerce) is advantageous over the general Electronic Commerce (or E-Commerce).

1. Introduction

The study compares M-Commerce with E-Commerce; and shows that the former has an edge over the later. The key terms used in this study include Commerce, E-Commerce (Electronic Commerce) and M-Commerce (Mobile Commerce). I have briefly examined the meaning of each of these as it is necessary to come up with any meaningful comparison of E-Commerce and M-Commerce as the study seeks to achieve.

2. Commerce

This is a branch of business that is concerned with the exchange of goods and services, especially on a large scale; and includes all those activities which directly or otherwise facilitate the exchange. In ancient times people used goods and services to purchase (or pay for) other goods and services in a system called ‘trade by barter’. Today, different currencies (money) introduced in various places have replaced this system of trade with a system where money is used to pay for both goods, services and even other currencies. Usually, the Producers and/or Suppliers of Goods and Services on commercial scale undertake production to sell off the products (goods or services) when they are ready. The Consumers (or Users) of these goods and services on the other hand, rely on the producers to have the products for use. While the Producers and Suppliers seek for the Users or Consumers when their products are ready for sale, the Consumers look out for the Producers or Suppliers that have the goods or services that they need per time.

2.1 E-Commerce

[3] see E-commerce as the buying and selling of information, products, and services using computer networks.

We can therefore say that Electronic Commerce (or E-Commerce) is commerce implemented via the use of electronics such as computers. Or, we can say E-Commerce is the exchange of goods and services that is carried out using the internet and the web whereby the parties involved do not necessarily have to meet throughout the transaction period.

2.2 M-Commerce

Mobile Commerce (or M-Commerce) simply means Commerce that utilizes the Internet and the Web whereby the Internet in use is carried about on handheld devices such as cell phones and other PDAs (Personal Digital Assistants), hence the name “Mobile”.

We can safely add that M-Commerce is actually E-Commerce carried out via Mobile Devices or E-Commerce-on-the-go as it is done on devices that are freely moved around.

Generally, the foundation for M-Commerce is provided by the rapid growth of Mobile Telephony. Advocates of M-Commerce believed that M-Commerce would surpass E-Commerce in growth and in scale. Some reasons for which these increases are not as rapid as was expected include delays in technology standardization, limited Internet coverage and sometimes, poor service quality.

According to [5], “Mobile phones and other small and powerful portable devices have revolutionized personal communication and affected the lifestyles of the people in the industrialized world.”

3. Advantage of M-Commerce

As stated by [3], “There is a great amount of interest in using cell phones in m-commerce as digital wallets, much as mobile devices have been used in some countries to activate vending machines. Other
possibilities include e-services models that use intelligent systems to ‘push’ information services linked to database and GPS functionality to business travellers’ phones, in order to provide automatic updates of travel reservations based on location-based data from their mobile devices.”

I strongly believe this as; Customers would always more appreciate what enhances their ease of operation and access to obtaining the products which they need. So, if the shortfalls of M-Commerce are significantly tackled, users would usually prefer M-Commerce to the general E-Commerce.

Mobile Commerce (M-Commerce) is actually gaining popularity because of the proliferation of mobile devices and widespread availability of wireless networks today. Though, the rate of adoption to M-Commerce is still lacking behind expectation, most likely due to the issues that come with these mobile devices.

4. Disadvantages of M-Commerce

According to [4], “The adoption of mobile commerce in service industries is lacking behind expectations. One reason is the missing trust of consumers in mobile devices as a shopping platform”.

I agree with their assertion as; consumers actually aren’t sure they can have the mobile devices all working well on the go. They think of the availability of Internet and the quality thereof, they think of the user interface provided by the usually smaller screens of the mobile devices and compare them with those of the Desktop and Laptop Computers used in the general E-Commerce. They are sceptical they could have any serious benefit using M-Commerce. But, I tend to believe that with a little effort geared towards removing the present predicaments of M-Commerce, users would become more attracted towards Commerce on these mobile devices.

[3] also stated how it was earlier hoped that M-Commerce had arrived, and would shortly provide unprecedented commercial functionality to the masses and how it was thought that cell phone users would be routinely accessing data online and speedy third-generation cellular standards would soon solve associated bandwidth difficulties. But, like they opined, it hasn’t quite worked out that way. Technological predictions sometimes take a few years or even more to see how rationality and market economics can skewer.

E-Commerce and M-Commerce are both computer assisted and require network environment to thrive. While E-Commerce and M-Commerce both share some aspects of each other, each of them also possesses unique characteristics that tend to define its state and functionality.

M-commerce is not always, strictly speaking, classical e-commerce. The idea of e-commerce is widely understood and there is also a certain agreement on what m-commerce is at a basic level, since the “m” in the name is self-evident. Both modalities are computer-assisted and network-enabled, so what are the differences?

[1] in their work researched on how to understand the Unique Characteristics of M-Commerce and to enhance and improve the User Interface. The distinctive characteristic of M-Commerce was investigated to discover its strength and vulnerabilities and they offered design prescriptions to enhance the interactivity of the interface that encourages users to adopt to M-Commerce. From their findings it is seen that customer purchase patterns are defined by two characteristics of the Mobile Internet and its Devices which are the Mobile Setting and the Mobile Device Constraints.

The Mobile Setting gives advantages to M-Commerce over E-Commerce as consumers enrich their shopping experience by taking advantage of the instant internet access.

There are however a few constraints with the current mobile devices which include slower limited Processing Power, less CPU speed, lower Bandwidth and awkward input and output devices.

[1] showed that for one to develop an effective M-Commerce interface one needs a reference framework that informs one on how customer interfaces are shaped. So, they chose the seven design elements of the customer interface which they named the 7Cs. The 7Cs of Commerce, Connection, Communication, Customization, Community, Content and Context provided a comprehensive framework for analysing M-Commerce.

[1] focused their research on how the 7Cs could be worked on to give the user an appreciably good interface to handle his commerce on the move.

I am in agreement with their reasoning and can say that despite the few challenges with the M-Commerce, if the interface is properly designed to be more user friendly then, M-Commerce will be preferred by the user since most times users are concerned about availability of the goods or services which he needs or wants; and the Mobile environment in M-Commerce provides the user with
the necessary information access to find what he needs or wants online. We could safely say therefore that M-Commerce has an edge an over the general E-Commerce.

[2] in his paper titled Commerce, E-Commerce, and M-Commerce: What Comes Next? examined the trend of Commerce; from the ancient form of commerce where people exchanged goods and services for other goods and services, through E-Commerce to present day M-Commerce. In his research, he opined that there is a general acknowledgement of the fact that the Internet is playing an important role in our daily lives. The Internet has become a vehicle for services rather than just a static repository of information. Airline and hotel reservations are examples of these services. Besides the new role of the Internet, there is a rapid progress in wireless and handheld technologies that is being witnessed in the IT world today. Telecom companies are offering new opportunities to users over mobile devices like cellular phones and personal digital assistants. Reading emails and sending SMS messages between cellular phones are becoming natural. He showed how Wireless Application Protocol (WAP) has enabled surfing the Web, which is further evidence of the wireless technology development. I am also convinced as he is, that the next stage (if we are not already in it) for telecom companies in partnership with businesses is to allow users to buy and sell without being connected to any wired network and believe that mobile commerce (m-commerce) is the new trend and is expected to drive the future development of e-commerce. Being able to buy and sell goods/services over mobile devices is an important step towards achieving an anywhere, anytime standard commerce in which case location and time will no longer be a constrain for people completing their transactions.

5. Conclusions

From the study I wish to state that M-Commerce generally has an edge over E-Commerce as it is, itself, ‘E-Commerce’ and yet moves ahead and gives users the opportunity to implement Commerce on the move.

6. References


