

E-COMMERCE FOR ECONOMIC DEVELOPMENT IN NIGERIA

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Abstract - *Electronic commerce which is electronic transaction via the internet has the prospect to improve efficiency and productivity in many areas of the economy, and therefore, has received significant attention in many countries. Unfortunately, there has been some doubt about the importance of ecommerce for developing countries like Nigeria. This was made worst, by the absence of adequate basic ICT infrastructure; concern for security issues about online transactions was another issue hindering ecommerce growth. The study shows that, in order to adopt e-commerce in Nigeria, and to gain in the enormous benefit of e-commerce, cultural and security issues need to be considered. In this research work, we present and discuss these issues hindering e-commerce adoption in Nigeria, Risks associated with e-commerce and solution has been provided, by developing a secured platform for Nigeria made goods (www.madeinnigeriagoods.com.ng) while detailed research and analysis was done about the importance of e-commerce, Object oriented structural design was used for the interface and coding, WordPress and mysql was used for the front/back end. Advance in Internet revolution has created enormous benefits and this is the right time for Nigeria to embrace e-commerce as it has been proven to substantially boost the economy.*

Key Words: e-commerce, ICT, mobile commerce, internet and community development.

1. INTRODUCTION

With the rapid development in internet and mobile computing, it is now evident that internet and mobile devices are important Part of digital economy. The Adoption of ecommerce in devolved countries has contributed immensely to economic growth. Online transactions has transformed the way we do business, moving from tradition fixed location to mobile computing, where transaction takes place anytime, anywhere. New forms of mobile technologies are rapidly changing the marketplace. There is wide held believe that the new world economy will witness the transition of mobile devices from a simple communication device to a payments mechanism. E-Commerce contributes the potential to deliver most of what the internet can offer, plus the advantage of mobility. while there is has been boom in internet access in Nigeria in recent times, with internet access exceeding 100 million users in Nigeria, adoption of ecommerce has been relatively very low , Although this has come with great concern for security, the benefits of ecommerce outweighs it disadvantages. [1]

2. LITERATURE REVIEW

The phrase mobile commerce was originally coined in 1997 by Kevin Duffey at the launch of the Global Mobile Commerce Forum, to mean "the delivery of electronic commerce capabilities directly into the consumer's hand, anywhere, via wireless technology."

The Global Mobile Commerce Forum, which came to include over 100 organisations, had its fully minuted launch in London on 10 November 1997. Kevin Duffey was elected as the Executive Chairman at the first meeting in November 1997. The meeting was opened by Dr Mike Short, former chairman of the GSM Association, with the very first forecasts for mobile commerce from Kevin Duffey (Group Telecoms Director of Logica) and Tom Alexander (later CEO of Virgin Mobile and then of Orange). Over 100 companies joined the Forum within a year, many forming mobile commerce teams of their own, e.g. MasterCard and Motorola. Of these one hundred companies, the first two were Logica and Cellnet (which later became O2). Member organisations such as Nokia, Apple, Alcatel, and Vodafone began a series of trials and collaborations.[2] [3][6][8]

There has been lots of work done on e-commerce, which the researcher has extensively review and identified why e-commerce is yet to be adopted fully in Nigeria.

3. SECURITY CHALLENGE OF ECOMMERCE AND SOLUTIONS ARE DISCUSSED IN FIVE AREAS

3.1 Integrity

When message are not altered or tampered with, it is integrity. There are several chances for damage of data integrity in the E-commerce area. Threat to data integrity can be minimize in many ways. Back up of our data efficiently by updating it regularly can be maintained. There are modern technologies that provides security to data and good user interfaces that prevent the input of invalid data can be considered

3.2 Non-Repudiation

There is need to prevent any part (the buyer and the seller) from renegeing on an agreement after transaction. Both E-commerce and other electronic transactions, including ATMs (cash machines), all parties to a transaction must be confident that the transaction is secure; that all parties are who they say they are (authentication), and that the transaction is verified as final.

3.2 Life Risk

Reports of dispatchers death has become common in recent times, in many Nigerian cities, many dispatchers has met their untimely death, in the hands of customers who refused to pay on delivery, taking advantage of pay on delivery policy of some e-commerce sites. But instead of paying for the goods, they end up killing the dispatcher. Pay on delivery must be discouraged this is why non-repudiation is very important

3.4 Authentication

In E-commerce, the seller validates the information provided by the buyer like credit card information in the process called authentication. In this process verification of both the cardholder's identity and the payment card's details are checked.

Sellers should be very careful and provide correct payment authentication services. A well developed and implemented transaction authentication process will decrease the number of customer disputes and charged-back transactions.

3.5 Confidentiality/Privacy

When you protect data from unauthorized users, it is confidentiality. That means whatever the data or information shared by the merchant and the customers should be accessed by those two parties only. To maintain confidentiality we must follow good encryption and decryption methods, proper authentication and authorization procedures. We must use good antivirus or software error detections system. Privacy is also a concern, most e-commerce sites uses cookies to store users information, under Privacy a user must be made to know how his information will be used and how long the information is going to be stored in web site owner's database, digital certificates should conform to a standard, X.509. Digital certificates procedure should be adopte. There are lots of benefits to ecommerce, The Internet is crucial to the smooth operation of E-Commerce. Businesses using E-Commerce alone need a fast, reliable service. E-commerce comes with much advantage, [4]

- **Reduced Prices**

Users have the opportunity to compare prices, since ecommerce is competitive; buyers can compare prices from different vendors and buy per this choice and preference

- **Global Marketplace**

Here you all the whole world in your hand, the world is a global village ecommerce have made it easy for someone from Africa to buy from Australia from the comfort of his home.

- **24 Hour Access**

Like the traditional market where, mark has operation dates and time, ecommerce offers users all time access 24hours a day

To Businesses

- **Increased Potential Market Share**

Market share are increased by the adoption of ecommerce, many limitation of traditional market are overcome here

- **Low-Cost Advertising**

Business owners can advertise their goods and services at a very low cost, less are spent on ads, yet reaching millions of people as same time

- **Low Barriers to Entries**

Unlike in traditional market, there are like barriers to enter any market and countries, ecommerce has the potential to sale across borders

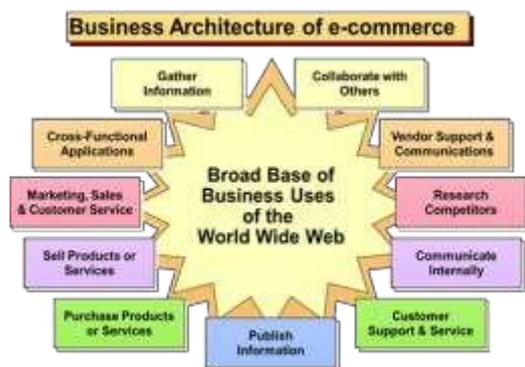


Fig. 1 e-commerce architecture

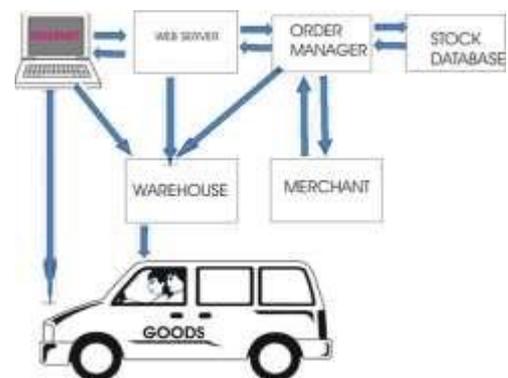


Fig. 2 e-commerce model

The Problem Facing E-commerce in Developing Countries

1. Awareness and education: inadequate awareness is a major barrier to the implementation of e-commerce in Nigeria

2. Market size: even though internet users has increased in Nigeria, there are still low level internet access compared to developed countries, the market size in Nigeria is still small

3. ICT infrastructure, government policies and lack of adequate infrastructure has hindered ecommerce adoption [6]

4. BACKGROUND OF THE STUDY

Nigeria like many developing countries has not fully adopted e-commerce, the study observed specific infrastructural barriers and problem facing the adoption of e-commerce in Nigeria and security issues about ecommerce. There are lots of reasons why ecommerce adoption in developing countries is hindered. Reasons vary among countries from infrastructure (technology, internet availability, ICT skills, qualified personnel); to cost factors (costs of ICT equipment and implementation); and security and trust factors (uncertainty of payment methods, and legal frameworks), poor distribution logistics. These problems has hindered Nigeria from adopting e-commerce

5. STATEMENT OF PROBLEM

The research quest to see Nigeria benefit from the enormous gain of e-commerce motivated the researcher to embark on the work. The main problem has been the very low adoption of e-commerce in Nigeria, compared to the devolved countries in Europe and North America. e-commerce compliances in Africa has been below 10%, finding ways and making African nation to understand the benefits of e-commerce inspired the research to embark on the project

6. AIM AND OBJECTIVE

The main objective of the work is to develop a secured e-commerce platform and to find ways e-commerce can be adopted in Nigeria, in addition to finding the benefits of e-commerce and providing solutions to barriers of e-commerce in Nigeria, and how e-commerce could be sustained.

7. METHODOLOGY

Since the work is majorly on the impact of e-commerce, the researcher made use of Interview: Through face-to face interactions with the e-commerce users, and to understand their experience in mobile commerce and how often they use their phone to buy, sale and advertise, phone calls and emails was sent to different governments to understand the impact of e-commerce on the development of the country and seen bellow [7]

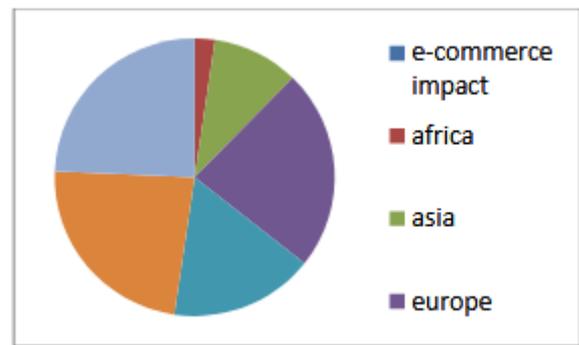


Chart 1: e-commerce impact

In order for the researcher to be able to implement a web based e-commerce administration site, the waterfall model was adopted to help in implementation. The waterfall model is the classical model of software engineering. This model is an activity centered process that prescribes that activities are executed sequentially. This model consists of five (5) as shown [8][9]

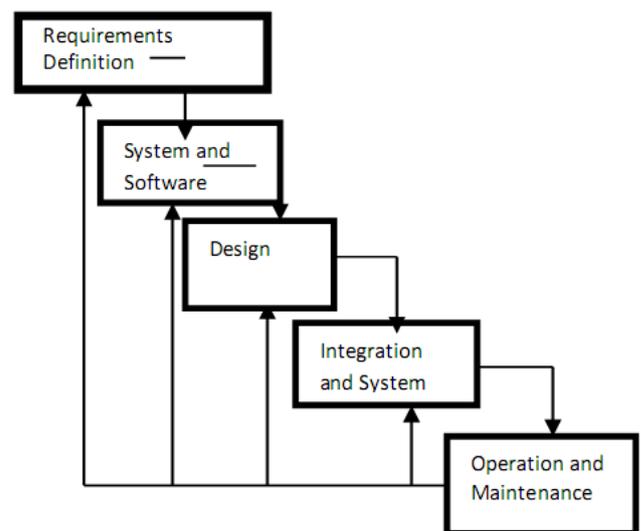


Figure3 The Waterfall Model (Munassar & Govardhan, 2010)

8. CONCLUSION

As e-commerce is rapidly growing in the United States; to the contrary, in many developing countries like Nigeria it is completely different. Although e-commerce is considered a significant instrument for development to the growing economy, Trade over the Internet has not been quickly adopted in Nigeria because there are a number of barriers that have delayed e-commerce from proper take off. Having identified the security issues and solution provided, Nigeria will be replicating the success in developed countries when e-commerce is adopted.

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