DESIGN AND IMPLEMENTATION OF AN E-COMMERCE SYSTEM

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BEING A PROJECT WORK SUMMITED TO THE DEPARTMENT OF COMPUTER SCIENCE, SCHOOL OF INFORMATION AND COMMUNICATION TECHNOLOGY, AUCHI POLYTECHNIC, AUCHI, EDO STATE.

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CERTIFICATION

We, the undersigned certify that this project work was carried out by **Usman Paul Joseph** with a Matriculation Number **ICT/2251940475**of the department of computer science.

We also certify that the work is adequate in scope and quality in partial fulfillment of the requirements for the award of **Higher National Diploma (HND)** in computer science.

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(Project Supervisor)

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DEDICATION

This project work is dedicated to My late mother Mrs. Mary Joseph Usman

ACKNOWLEDGEMENT

The road to success they say is not an easy road but with God all things are possible. May His holy name be glorified.

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ABSTRACT

The concept of electronic commerce (e-commerce) is the current most visible business use of the World Wide Web (WWW). The main target of an e-commerce web site is to sell products and various services online. Corporate sections and household individuals of the country require different products to fulfill their day by day needs. For that reason they have to go to the shops for fulfilling their needs physically in long and time consuming process. There is also a chance of not getting their desired product in that specific shop, region or country as there is no way to know whether the product or service is available in users region or not. This project tries to come out with successful outcomes of this shortcoming by developing an e-commerce web site for online product sale. The users, in this web site will be providing a producer category to choose from his/her needs. In order to ease the process, a shopping cart provided to the web registered users who will be able to buy products from the product list and also take shipments of the product just being in his current location thought his/her pc using the Internet. This paper provides an in depth description of the system from an implementation point of view.

Keywords: Business-to-business B2B), business-to-consumer (B2C), e-commerce, World Wide Web (WWW).

CHAPTER ONE

INTRODUCTION

1.0 Background of the Study

The boom of Information and Communication Technology (ICT) together with Internet is making it possible to share vast amount of knowledge and information and is driving all round socio-economic changes and growth. There has been a tremendous rise in the Global internet usage and for a developing country like Nigeria this growth has been phenomenal.

According to Osayande (2014), E-commerce is fast gaining ground as an accepted and used business paradigm. More and more business houses are implementing web sites providing functionality for performing commercial transactions over the web. It is reasonable to say that the process of shopping on the web is becoming commonplace and the agricultural sector is not left behind in this revolution.

According to Kate (2010), an online store is a virtual store on the Internet where customers can browse the catalog and select products of interest. The selected items may be collected in a shopping cart. At checkout time, the items in the shopping cart will be presented as an order. At that time, more information will be needed to complete the transaction. Usually, the customer will be asked to fill or select a billing address, a shipping address, a shipping option, and payment

information such as credit card number. An e-mail notification is sent to the customer as soon as the order is placed.

Wikipedia (2018) defines Electronic commerce better known as E-commerce, consists of the buying or selling of products via electronic means such as the internet or other electronic services.

1.1 Statement of the Problem

In some developing and under-developed countries, farmers are finding it difficult to market their product quickly which usually leads to spoilage of their product and they in turn get low profit. This research is set to address this problem.

1.2. Objectives of the Study

The objective of this research project is to design and implement an online store for agricultural produce.

1.3 Significance of the Study

E-commerce has become an increasingly important part of many organization sales strategy offering consumers and businesses the flexibility to shop and buy over the Internet. Having an online presence for agricultural products will improve revenues for all agricultural businesses irrespective of their size or market.

1.4 Scope of the Study

This project is aimed at how agricultural companies can improve the efficiency of the services. Online Shopping is one of the applications to improve the marketing of the company's products. This web application involves almost all the features of the online shopping; the future implementation will be online help for the customers and chatting with website in charge.

1.5 Limitation of the Study.

Usually, every work has some limitations and this study is not exempted. The two major limitations of this study are the time limits within which the study is expected to be completed as well as financial constraints. The time constraint prevents the researcher to have an in depth study and analysis on the subject matter. While the issue of financial constraint limits the frequency of investigation to the company toward gathering the necessary information relevant for the study.

1.6   Definition of Terms

Marketing: Marketing is the process of intentionally stimulating demand for and purchases of goods and services; potentially including selection of a target audience; selection of certain attributes or themes.

Marketplace: is a convenient destination for people to discover, buy and sell items

E-commerce: (electronic commerce) is the buying and selling of goods and services, or the transmitting of funds or data, over an electronic network, primarily the internet.

System: A system is a collection of objection of objects or set detailed methods, procedures, and routines created to carry out a specific activity, perform a duty or solve a problem.

Database: A systematically arranged collection of computer data, structured so that it can be automatically retrieved or manipulated. It is also called databank.

Text: A writing consisting of multiple glyphs, characters, symbols or sentences.

Date: This can be defined as groups of non-random symbols (words value figures) which represent things that have happened.

Information: This is the resource that enables the collection management control and dissemination of information throughout an organization.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

E-commerce is attracting converts at an overwhelmingly increasing level. In short, e-commerce has moved beyond its developing days and is getting down to serious business, becoming a natural part of multi-channel efforts to make sales and improve the bottom line. Lou (2011). In order to rip the full benefits of e commerce, businesses are redesigning their processes as a whole rather than doing the same things in a different way.

As the world becomes a global village due to the internet revolution, Nigeria though not a frontrunner is not behind in the pack. Infrastructural deficiencies have impeded the development of digitalization in the Nation's body polity but satisfactory signals are emerging that Government intends to actively promote and support the required and relevant structures Okowara (2014). Nigeria being one of the few nations in the world blessed with abundant mineral resources, an entrepreneurial population and a productive agricultural base. By virtue of size, population location is well positioned to be the hub of economic activities in Africa. E-commerce is an opportunity for businesses to explore the great benefits that the internet has brought in the form of new business models. This study

emphasizes the importance of these new business models and also tries to find ways in which business models can be changed.

2.1 Definitions of E-Commerce

It is important to elaborate on the definitions of e-commerce as that will help to determine the scope and perspective of this chapter. Electronic commerce (ecommerce) is the wireless transfer of business information and transaction via electronic data interchange (EDI), e-mail, electronic bulletin boards, fax machines and electronic funds transfer Benard (2013). The concept of e-commerce is all About using the Internet to do business better and faster. It is about giving customers controlled access to your computer systems and letting people customize products and services for themselves and delivering the products and services in due time. These personalized automated services are of great financial benefits to a business in the form of increased revenue and decreased cost of doing business. It is about committing your company to a serious online effort and integrating your Web site with the heart of your business.

Furthermore, there are some elements of commerce that are necessary for any transactions to take place, which are as true for regular bricks-and-mortar commerce as they are for e-commerce.

According to Wamako (2013), trading activity usually consists four main elements, which are, quoting, ordering, payment and delivery. If any of these

stages is carried out online, that means e-commerce has taken place. In a more practical example, if one purchases a downloadable musie album from notjustok.com, all the four trading stages from quoting to delivery are carried out online. If one buys a digital camera from ebay.com, the ordering and payments are done online while the delivery involves couple of offline approaches. These transactions can all be termed e-commerce.

2.2 E-Commerce and E-Business

E-business is often used synonymously with e-commerce. However, they are a bit different as the former is broader than the later. There are many definitions that are found in literature and some of them will be discussed here. According to Weill & Vitale (2001), e-business is marketing, buying, selling, delivering, servicing, and paying for products and services, and information across networks linking an enterprise and its prospects, customers, agents, suppliers, competitors, allies, and complementors. However, Greenstein and Vasarhelyi (2002) moved to argue that e-business involves exchange of information not directly related to the actual buying and selling of good, activities such as use of electronic mechanisms to distribute information and provide customer support. E-business refers to the initiating arranging, and carrying out electronic business processes (Meier & Stormer 2009),

2.3 History of E-Commerce

E-commerce might be a relatively recent concept as compared to other Phenomenon, nevertheless, it would be worthwhile to talk about the history no Matter how brief. The invention of the Electronic Data Interchange (which is widely known as EDI) in the 1960s is believed to be a sort of spring board so far as the history of e-commerce is concerned. The EDI facilitated electronic transaction as well as the transfer of important business information. However, the history of ecommerce can be divided into three periods. History of e-commerce(2011).

2.3.1 1995-2000 Innovation: The early years of e-commerce brought about rapid growth and ground-breaking innovation, beginning in 1995 with the fist widespread use of the web to advertise products. It was also a time when a lot of internet/online based companies were established with billions of dollars as their capital base. Stakeholders such as computer scientists and information technologists believed the overwhelming early success of e-commerce was a vindication of the fantastic work they have put into the development of information technology for over four decades extending from the development of the early internet to the PC, to local area networks. The economists believed e-commerce has brought about the prospect of a perfect competitive market where cost, price and quality information are distributed equally, and suppliers compete against one another and buyers have unlimited access to all market information. Entrepreneurs

see this as an opportunity to earn far above normal returns of investments while having access to billions of consumers worldwide. Thus, the early years of e-commerce were characterized young entrepreneurs' vision of profiting from new technology, hyper competition and achieving first mover advantages. But it is worth noting that only 10% the online businesses formed in 1995 survived and only a tiny percentage of them are profitable.

2.3.2 2001-2006 Consolidation: During this period, emphasis moved to a business driven approach. Key players started to focus on how to strengthen their positions in the market as against the creation of new brands. Startup businesses in the period were primarily financed by traditional methods. Intermediaries strengthened and e-commerce was dominated by retail giants while the more successful businesses used a mixed "bricks and clicks" strategy, by combining traditional sales efforts with online efforts. 2.4.3 2006-Present Reinvention: E-commerce entered a third period in 2006 which extends to this present day. This period, while still business-driven is also audience, customer and community driven. In addition, many large online firms are now entering the market and acquiring early stage firms such as MySpace and YouTube through buy-outs while first-mover advantages are returning in new markets as traditional Web players catch up. (Laudon & Traver 2009). Also, the breadth of e-commerce offerings continue growing. especially in travel, information clearing houses, entertainment, retail

apparel, appliances, and home furnishings while online sites continue to strengthen profitability by refining their business models and leveraging the capabilities of the Internet.

2.4 Types of E-Commerce

E-commerce utilizes information and communication technologies to carry out business transactions between two or more parties. However, e-commerce can be

2.4.1 Business-To-Customer (B2c) E-Commerce: This is the most commonly known type of e-commerce. Emphasis is placed on providing goods and services directly to the consumer via the Web. Business-to-consumer e-commerce offers consumers the possibility to shop for a wider range 19 of products and services from different merchants and at reasonable prices online. The B2C model of e commerce transaction is ideally suited for the following types of merchandise:

i. Goods that can be easily transformed into digital format, such as books, music clips and videos, and software packages.

ii. Items that follow standard specifications such as Pinter ribbons, ink Cartridges e.t.c.

iii. Highly rated branded items or items with return security like Dell. Hp and Compaq computers e.t.c

iv. Items sold in packets that cannot be opened even in physical stores.

Items that can be experienced online, such as an online Mp3 music album. Existing businesses utilizes B2C e-commerce to gain more market space as well as to maximize profit through the reduction in transaction cost. Also, small businesses looking to surpass entry barriers use it as a tool for a smooth entry into the market while established consumer merchandisers like Dell computers adopt it so as to reach out to global customers. Online based B2B e-commerce businesses are those kind of businesses that started off online and carry out most of their commercial activities via the internet. These businesses do not have a physical store. Amazon.com is a good example of B2C e-commerce that is solely built on the Web. Amazon is a US based retailer company which started as an online book store in 1995 and has grown to include stores for computer software, video games, electronics, furniture, food, toys, apparel and various CDs, DVDs and Mp3 downloads. In addition, since the internet provides opportunity for small businesses to have access to global consumers as well as the expansion of their market place, many 20 small businesses can also benefit from the advantages of e commerce. Usually, e-commerce businesses have to choose between either creating their own online store or become a part of an intermediary running a cluster of businesses. However, creating own e-commerce websites may not always attract customers, and as a result most small businesses might opt to be part

of an intermediary. Yahoo Small Business is a good example of an intermediary model of the B2C ecommerce Bhasker (2006).

2.4.2 Business-To-Business (B2b) E-Commerce: In B2B e-commerce, businesses focus on selling to other businesses directly or through an intermediary. Many transactions worth huge amounts are carried out between companies through e commerce channels, dealing in all kind of products and services Grefen (2010). According to Quaddus & Xu (2010), "B2B covers a broad spectrum of applications that enable businesses to form electronic relationships with their distributors, re sellers, suppliers, customers, and other business partners". In addition, B2B e commerce is believed to be by far the largest and successful form of e-commerce in terms of turnover and transactions made as it accounted for over 90% of all e commerce transactions made in 2009 (Economist Intelligence Unit 2009). In fact, the growth of B2B e-commerce has been rapid over the last decade.

2.5 Agriculture E-Commerce

Agriculture E-commerce is a situation whereby buying and selling of agriculture products and services are carried out electronically with the use of computer systems linked together over inter network protocols and standards Fego (2013). The various parties involved in the electronic business dealings agree to conform to the norms, rules and regulation guiding the industry.

A typical scenario in commercial transactions in most countries today, would include business dealings through physical contact. This method has been in use for some time and its relevance is not in doubt. The use of computer systems has brought about improvement and efficiency over the previous manual operations such as payroll processing, stock inventory analysis and control and scientific processes. In the same vein, the Agric E-commerce is going to change the way agricultural products are purchased.

According to Enoma (2015), Agricultural E-commerce is any method of using Electronic communications and computer technology to conduct agricultural business, so that trading partners can share a wide range of communiqué and data. Agricultural E-commerce transforms the way agricultural products are sold and the way farms interact with each other and customers through communication channels. In order words, this technology is a subject of the larger world of both Information Technology and Agriculture.

Furthermore Agricultural E-commerce enables good trading possibilities by supporting different business models as multi-supplier, e-sales and several types of auctions.

Agricultural E-commerce converts the way people buy agricultural goods and services in the physical world to buying and selling in the virtual world Agricultural E-commerce blurs the distinction between the physical world and the

virtual world, as electronic presence of people, places and products become a common place. Eventually the movement of people, paper and products within an agricultural farm are replaced with IT Internet representations. Both small and large farms are opened to the same resources so the size of the farming plant does not matter.

2.6 Benefits of Electronic Commerce

E-commerce has continued to change the face of global business since its evolution years ago. In fact, few innovations in history have provided as much benefits to the world as e-commerce has. Its emergence has brought advantages to the society, organization, individuals, industries and even the government. The global reach offered by the Web enables a company to place their products and services in front of the entire world. This benefits a company in that; they are able to transact business with anyone from anywhere in the world and at any given time over the Web. This also means that products and services can be accessible from any internet-connected device. Thus, reducing the time and cost of making transactions. The global access makes it possible for companies to explore more easily new business opportunities and new markets. Therefore, it is easy for a new entrant to compete with well-established companies. Amazon.com was able to carve a market niche and subsequently became an established firm as an online bookstore despite the fact there were already a lot of established bookstore firms

(but with no online stores). Furthermore, the use of online advertising enables organizations to reach target markets in a much more cost-effective manner than traditional print media or TV commercials. Huge investments are now being pumped into online advertising by organizations due to the benefits it offers. Companies now advertise on social networks like Facebook. According to reports, internet advertising is expected to grow by around 12-15% in 2011 and it also accounts for around 15% of global advertising expenses Digital media (2011). These figures go a long way to show how important and beneficial online advertisement has turned out to be. Through e-commerce, organizations can capture valuable data about their customers, which can be used to reach targeted market segments and support customer relationship marketing. Organizations utilize digital direct marketing to disseminate messages to potential customer groups about products and services within their specific areas of interest. Also, organizations have an opportunity to interact with their customers in a way that allows them to build increased customer loyalty. The ubiquitous nature of e commerce means that customers are to access a vast number of products and services from suppliers around the globe, thus providing a much wider range of choices in suppliers, price, quality and features. Buyers are able to shop and make product comparisons with different online stores from the convenience of their homes at any time of the day or night. There is no limit to the market place, and

this is in sharp contrast to traditional commerce where consumers have to visit a market place in order to make a purchase. Also, delivery costs and time are dramatically reduced for products that can be delivered over the internet such as games, e-books, music, software, and videos. (Reynolds 2009, 206-207.) 24 Talking about social network technology, e-commerce provides a many-to-many model of communication via social media. Nowadays, people can share videos, pictures, music on social networks like facebook, twitter, YouTube, and MySpace. These social networks serve as a medium for people to strengthen ties with existing friends and meet new ones. Businesses now use these social technology as a tool for advertising thereby, getting their messages across to millions of people using these social medias.

2.7 Limitations of Electronic Commerce

Despite all the benefits that can be enjoyed from the use of electronic commerce, there are also some limitations and potential problems associated with it's adoption. Most of these disadvantages arise from the rapidly developing pace of the underlying technologies. However, these limitations are expected to disappear once e-commerce more available to and widely accepted. The sale of perishable grocery products such as, fruits and vegetables online has proved to be a great issue because buyers want to examine these items for freshness and quality. This means online grocery stores must build warehouses and physical stores within

the geographic areas in which they operate because perishable products must always get to the customer in time to avoid losing freshness and quality. An American online grocer, peapod nearly went out of business in the early 2000s because it lacked the infrastructure to deal with the ever growing customer base. However, some online grocery stores like Tesco, Fresh Direct and Disco Virtual have been more successful by limiting their service areas to densely populated urban Environments that offer sufficiently large numbers of customers within relatively small geographic areas, which makes their delivery routes profitable. For businesses, the calculation or return-on-investments in e-commerce has been more difficult because it is hard to quantify the costs and benefits. The costs of implementing e-commerce projects can change dramatically due to rapid changes in the underlying technologies. Also, firms that want to do business online have problem with the integration of current databases and transaction-processing software which was originally meant for traditional commerce into the software that enables e-commerce. Financially, tying the existing systems into new online business systems can be very expensive. There are still concems over the security of the internet. Consumers have concerns about whether online data is secured from being accesses by unauthorized users or fraudsters. This is the more reason why some people prefer not to buy from the internet as it would require them to provide credit card information when it comes to payment. Therefore, it is the

responsibilities of companies to preserve their good image by putting in place powerful safeguards to protect their customers. They must demonstrate the ability to operate in a safe and reliable manner that builds the trust of their customers. Schneider(2010)

2.8 Internet Penetration and Electronic Commerce Trends in Nigeria

Internet usage in Nigeria is still relatively at a low level and therefore e-commerce is at a developing stage. However, researchers believe that there is an increasing awareness of the benefits and potential opportunities arising from e-commerce and as a result, e-commerce is slowly but surely taking off gradually in Nigeria (Folorunsho, Awe, Sharma & Jeff 2006). In the last decade, there were just a couple of dial-up email providers and internet service providers (ISPS) in Nigeria. Today, there are about 130 licensed ISPs as well as a number of data carriers, internet exchange and gateway operators. Nigeria is one of the biggest and fastest growing telecom markets in Africa, attracting huge amounts of foreign investments, haven overtaken South Africa to become the continent's largest mobile market with now over 75 million subscribers. However, subscriber growth slowed significantly during 2009, partly as a result of the global economic crisis Much of the remaining addressable market is in the country's rural areas where network rollouts and operations are expensive. This in combination with declining ARPU (Average revenue per user) levels is forcing the networks to streamline their

operations and to develop new revenue streams from services such as 3G mobile broadband, mobile payments/banking, and others. The internet protocol (II)-based next generation networks (NGN) are enabling the convergence of voice. Data/internet, and video, realizing the provision of triple-play services will also involve the country's competitive broadcasting sector. The 50 Nigerian Telecommunications' (NITEL) market monopoly which lasted for decades has been broken with the privatization of the telecom sector which resulted in the new entrants venturing into the market and providing more competition. At the moment, there are over 25 telecom operators in the country. The arrival of a third international submarine fibre-optic cable by Globacom, another telecommunication company and is set to revolutionize the market by reducing the cost of international bandwidth by up to 90%. (Lange 2010).

2.9 Problems of Electronic Commerce Adoption in Nigerian Businesses

Despite all the impressive developments discussed in the preceding section, there is still a relative low level of internet penetration in Africa and this has been a major impediment to the adoption of e-commerce. The successful adoption of ecommerce in most Nigerian businesses is being hindered by factors such as lack of infrastructure, corruption, cost of implementation, security, lack of government support, authenticity, privacy among others (Folorunsho 2006, Apulu &Latham 2009). Details of these will be discussed below.

➤ Cost of Implementation – this is defined as the total amount it will cost business organizations to set-up an e-commerce system. Most Nigerian businesses ignore the adoption of e-commerce because of the high cost of its implementation and will rather opt for some other options of making fast profits.

➤ Accessibility – this is the extent to which the technologies such as internet, credit cards e.t.c needed for e-commerce are available for individual use. In Nigeria, the ease of accessibility to infrastructures and technologies that aid e-commerce is poor.

➤ Corruption – the issue of corruption is pandemic in Nigeria. Funds released for the development of e-commerce awareness campaigns in the country are being diverted into personal use by government officials.

➤ Owner Enthusiasm – business owners are not familiar with the potential Benefits of adopting e-commerce. An owner's enthusiasm for technology is a major factor in the adoption of e-commerce. There is a need for owners to attend training programmes that will enlighten them on the advantages of adopting e-commerce.

➤ Cultural barriers- e-commerce adoption initiatives require openness and Knowledge sharing, and cultures that lack these two ingredients cannot

Provide the required human input needed for such initiatives. Nigeria's Cultural diversity makes this a challenge for organizations.

➢ Lack of policy/ institutional framework – though Nigeria has a formulated policy on information technology, this has not been properly implemented. These kind of policies are meant to support businesses' e-commerce Initiatives.

➢ Electricity constraint – limited electricity supply in urban areas and lack of it in rural areas negatively affect the adoption of e-commerce. Electricity is needed to facilitate many e-commerce business processes and the lack of it hinders businesses from adopting e-commerce which results in the loss of potential benefits that can be derived from it. Security - by this the researcher means to what extent consumers internet their online payment is free from unauthorized access, use, alterations, and destruction. Various surveys have shown that Nigeria is the riskiest country for online transactions, as a result many Nigerians believe their credit card details are not safe over the internet.

➢ Authenticity - this is the ability of quality of goods and services displayed over the internet to be the exact quality it possesses. Nigerian businesses often misguide customers by over exaggerating what the real quality or contents of a product and/or service normally should be. As a result,

customers will prefer to see and examine products and services physically before giving out their money

➢ Privacy and Confidentiality-many Nigerians are unwilling to give out their personal information to companies based on the case with which consumers' personal information can be captured online and misused. The lack of a good and enforceable data protection act negatively affects the successful adoption and implementation e-commerce in Nigerian businesses.

➢ Network Reliability - this describes the ability of a company to rely on the transfer confidential and critical information over the internet. Nigeria being a developing country means internet network signals are often very slow and as a result, internet users waste hours buying products they would normally have purchased in a matter of minutes.

CHAPTER THREE

SYSTEM ANALYSIS AND DESIGN

3.0 System Analysis

Systems analysis is a process of designing the most effective and reliable procedure to accomplish a given task within an establishment. It is necessary that new system should be devoid of clogs and iota of errors, that's why it expedient that the system analysis should understand the weakness of the present system and strive to alleviated it. It can also be the method of determining how best to use computer with other resources to perform tasks, which meet the information needs of an establishment. System analysis extends form examining an existing to design and implementation of new system entirely. The analysis stage describes the process of collecting and analyzing facts in respect to the existing operations, procedures and systems in order to obtain a full picture of the situation prevailing so that efficient and effective computerized system may be designed and implemented if proved feasible.

3.1 Existing System and Problems

All commerce activities require buying and selling. This can be done in two ways i.e. through the traditional mode or modern mode. The traditional mode of commerce involves the display of goods on shelves, hawking of goods etc. The modern mode of commerce is done electronically over the internet.

Presently, some markets uses the traditional mode of commerce in which goods is displayed on shelves, where people come for shopping, pick what they want then pay the cashier for the goods. The customers have to or usually demand for description about the goods before making payment and most often, try to bargain for reduction of price. Payment is done directly to the cashier who issues a receipt to customers. The cashier records the sales into an invoice for administrative use, and at the end of the day's activities, the organization's account is balanced using the total amount of goods sold and the physical cash present. There must be a balance between the two to show a success business day. The cash is then kept in the safe waiting to be deposited into bank the following day.

Structure of the Existing System
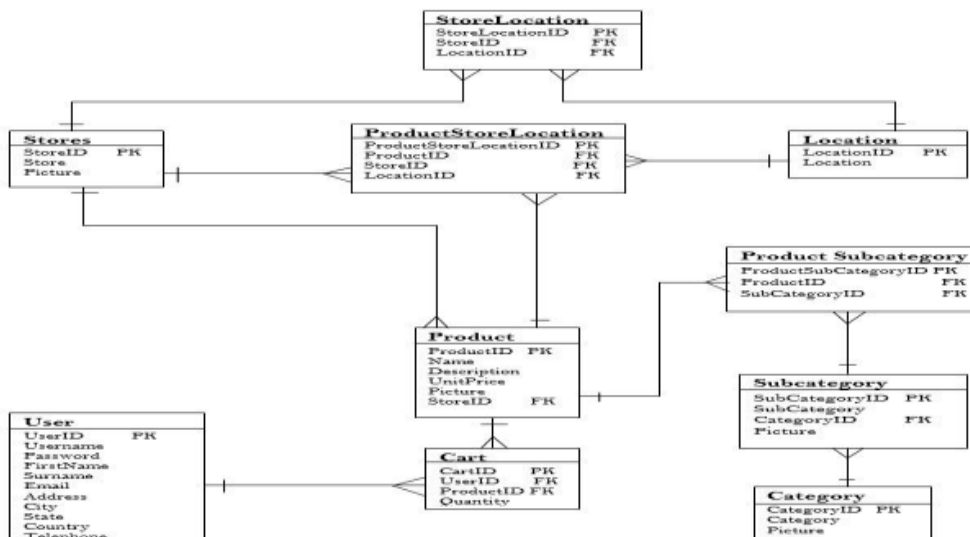
Fig 3.1 Existing System Analysis

3.2 Problems of the Existing System

Farmers face a very big and tasking job attending to their customers and offering them satisfactory services. Some of the problem facing the existing system can be put as follows;

1. Difficulty marketing or advertising their products to the prospective customer as it is very expensive to do so through the print and broadcast media.

2. Having a lot of customers to attend at the same time

3. Inability of the system to adjust prices automatically.

4. Time wasting in sorting of goods with their variation in prices.

On the customer's hand, he or she faces some difficulty also. Notable among them Are:

1. Series of complaints about the prices of commodity on most of the e-Commence website because of lack of regular price update

2. Poor pricing model of most of the system.

3. Not getting adequate information as to what stocks or goods the farmer shop has before coming for shopping etc.

3.3 Proposed System

This new system will be able to proffer solutions or address the problems of the existing system. This system being a computerized one has the computational

ability to handle customers' questions and demand for information and also process their orders. It regulates prices as new goods are being added into the stock, the price change will be of great importance because the pricing of goods on the system will be the same with that of the market.

3.4 Benefits of Proposed System

The secured site for online marketplace at its completion is expected to place the board for

- Immediate delivery of goods once the transaction is completed.

- Reduce the risk of carrying money as buyers can register their money Online or trade with their credit card.

- Fast update and retrieval of information.

- Accessibility irrespective of location.

3.5 Data Collection

The above methodology was augmented using interviews, Observation, and review of problem manuals.

A) **Interview:** is said to be face to face interpersonal role situations in which questions are raised and answers are supplied. Personal interview seems to be the most powerful and useful tool in the method of obtaining information. It is most common, continuous process and through it a better understanding of the system problem was achieved. Similarly, basic flows associated with

the manual system were made known. It also gave an insight as to certain operational activities that cannot be mere observation.

B) Observation Method: Due to the importance attached to the collection of accurate information from the right, authentic and reliable source. It is embarked on observing the mode of carrying out activities.

C) Framework For Consumers' Intention To Shop on the Internet
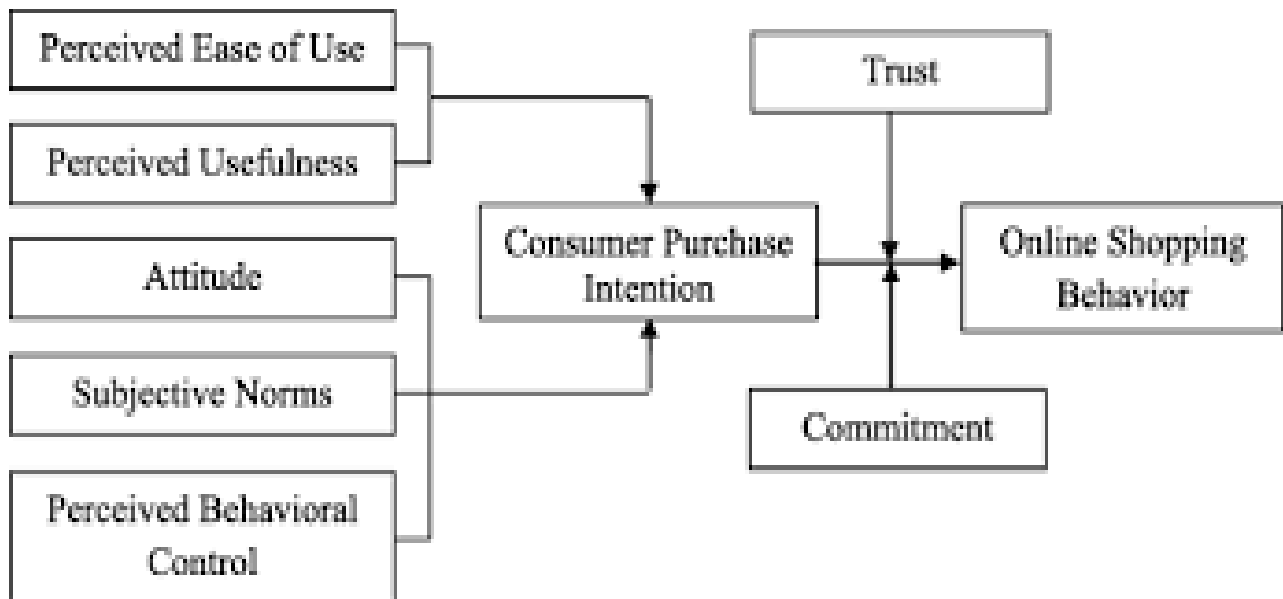
Fig 3.1 Customers Intention Analysis to Shop online

3.6 System Design

System design is the process of defining the architecture, modules, interfaces and data for a system to satisfy a specified requirement. It is the process whereby information developed through system analysis is synthesized with related knowledge in order to achieve the desired goal. The new system was designed to gain full user experience hence bootstrap framework was used to make the system

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mobile responsive. The design of the software will help the user achieve some of the following objectives.

i. Design of a menu driven program so that the forms will be neatly arranged and utilized.

ii. Less javascript and also online font is used minimally so the system will be fast in its operation.

iii. Administrator will be able to view full user details and also carry out operation in an interactive interface hence reducing chances of errors.

The system is logically divided into two (2). They are

a) The web store/ e-shop

b) The Database

The web stores/ e-shops

The web store has a welcome page with Home, Contact us, shopping cart. The marketer and items needs to purchase can be accessed from the home page. The catalogue contains information about the product to be sold and the price. It offers a link to the database where the transaction can be processed. Apart from these functions, the web stores also help to advertise the product of the marketers or sellers.

Login Page of the Web Store

3.8 The Database (Specification)

This involves specifying the nature and the structure of the database, the data being stored in the database and the data security measures enforced. It also specifies the data type and size. The system is dynamic when you can be able to change or update the system. These are known as scalable systems. A scalable system is one whose design can handle a large database or ant number of users. Scalable systems are desirable because they can be implemented at one level, and then expanded to keep up with growth or changes. Any alternation can be stored in the system's database.

The system has an up datable database. The database consists of tables that offer relational attributes with both primary and foreign keys. The database consist of tables that include

a) Buyer registered table

b) Shopping cart table

c) Sellers items table

d) E-transact pin code table

e) Product order table.

3.9 Overall Database Structure

3.10 Register Table

3.11 Program Flow Charts

Fig. 3.1 Flow Chart for Admin login
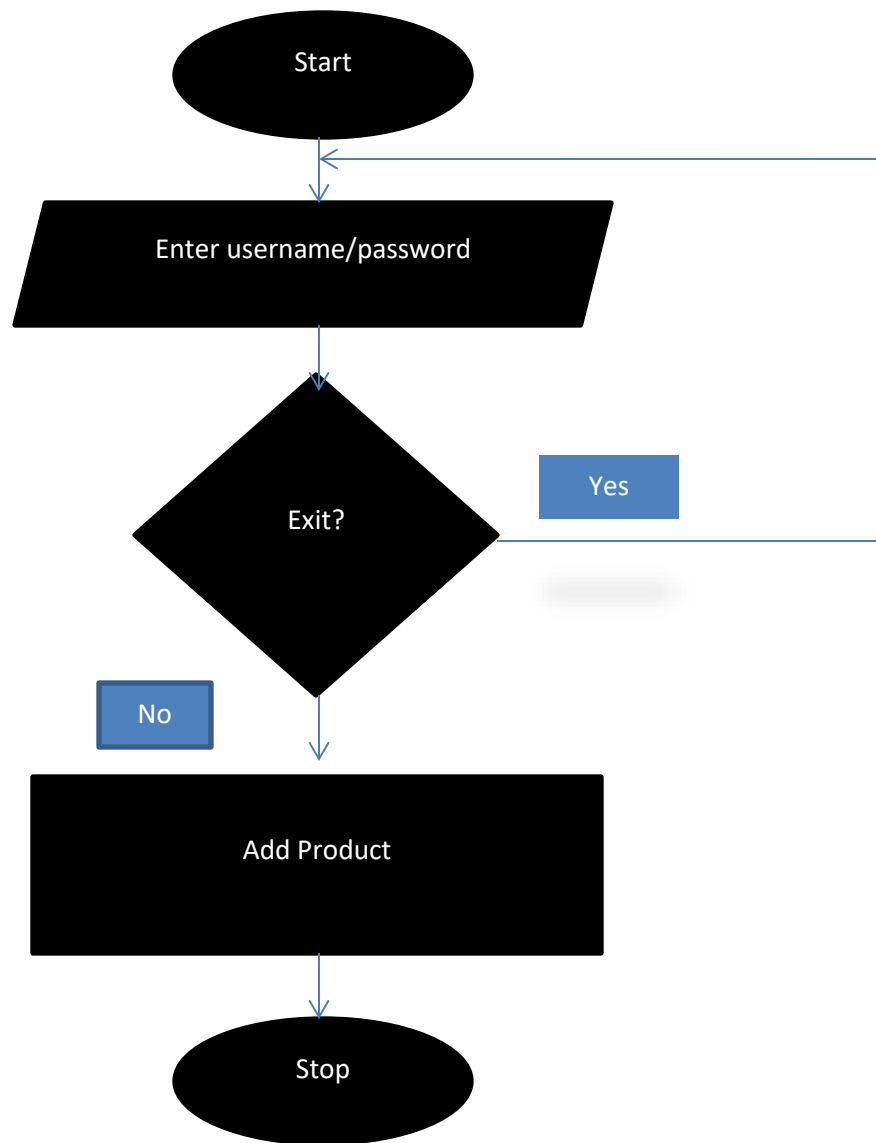
Fig 3.2   Flow for Adding Product

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CHAPTER FOUR

PROGRAMMING AND IMPLEMENTATION

4.0 Overview of System Implementation

System implementation is a structured approach to effectively integrate all component of the system in order to make it usable for the end users. System implementation uses the structure created during design and system analysis to construct system elements that meets the requirements developed in the early

life cycle phases.

4.1 System Development

This project was developed using Hyper Preprocessor programming language. It is a scripting language that can be embedded in Hypertext markup language (HTML) to create database driven website.

4.2 Choice of Programming Language

Hyper Preprocessor (PHP) and MySQL was used as the development language because of its flexibility, maintainability and very easy deployment. MySQL and PHP were used in the back end while HTML, CSS and Query were used in the front end.

The software was chosen for development for the following reasons;

➢ It is very easy to maintain

➢ The language is easy to learn and understand

- It is user friendly

- The nature of the problem to solve: Programming languages were developed to aid in solving different types of problems e.g. business problems would require small computation and large input and output data handling. Therefore any programming language chosen for business application should be capable of handling this case.

- Familiarity with the language: The programmer's familiarity with the programming language matters a lot in choosing the language for the task. If an unfamiliar language is chosen, it might amount to waste of man-hours and maybe frustration on the programmer.

Ease of maintenance: Maintenance is an important process in the life of a program. Without maintenance the program will die prematurely. There is need to elongate the life of the program. Ease of maintenance is a major criteria in the programming language.

4.3 System Requirements.

System requirements are those requirements that ensures optimal utilization of the system that is to be implemented. For effective and smooth running of the proposed system, the following software and hardware requirement must be met;

4.4 Hardware Requirements

The hardware requirement are:

i. A computer system with reasonable and sizable hard disk space.

ii. A printer

iii. An external or internal web camera.

4.5 Software Requirement

i. Microsoft windows operating system (Windows 2000, Windows XP, Windows 2008 or Windows 2010).

ii. A good web browser like: Mozilla Firefox, Google chrome, opera mini or internet explorer.

iii. A good Anti-virus program

4.6 System Testing

System testing is a very vital stage before deployment of the system. This is to ensure the production of software free of error. The proposed software also went through different system testing strategies like unit testing, alpha testing and beta testing

i. Unit testing: This testing is done during the development stage. Each module of the system is tested as it progresses through the development stages.

ii. Alpha Testing: This test is carried out by the developer of the system before it is deployed. It ensures all possible issues/bugs is eliminated before

releasing the product to everyday users or public. The focus of this testing is to simulate real users by carrying out their task.

iii. Beta Testing: Beta testing is performed by real users of the software application. Beta version of software is usually released to a limited number of end users to obtain feedback on the quality of the software.

4.7 System Conversation Plan

System conversion entails the process of changing from an existing system to a new system. Since a new system will be implemented where an existing one is being used, different system conversion approached will be evaluated before implementing the system. We have direct conversion, parallel conversion, phased conversion and pilot conversion. The parallel conversion plan is recommended for this project. The parallel conversion plan is the process of running both the existing system and the new system together. This plan has the advantage of analyzing the new system noting its strength and weakness. If the new system is generally acceptable, then the old system can be completely discarded.

4.8 Review/Maintenance of The System

As the new system goes into operation, it is necessary to review the operational ability of the system periodically and also maintain it for the following reasons.

i.   To deal with unforeseen problems arising during operation….

ii.   To confirm that the planned objective was met.

iii. To ensure that the system can cope with changing requirement based on factors like security and user interactivity.

4.7 General Operation Procedure

To ensure that an accurate up to date information is always maintained, necessary to adhere to the following:

i. Collect documents related to the system for analysis,

ii. Collate information about operations of the system It I For proper documentation use by System developers during maintenance.

iii. Ensure that all system dependent information is properly created.

iv. Document all activities for each day which a listing of some is obtained for verification always ensure that there is no error.

4.8 Users Training

There is need for training of the personnel who are to use this system in order for them to carry out the proper operation of the system. Professionals in the field of computing and also personnel with good computing skills should be employed. Persons assigned to the system to monitor data as Administrator Must be trained to make use of the system with administrative privilege. Also, There is need to employ professionals with background knowledge of keeping Records and statistical work.

4.9   Sample Admin Add Product
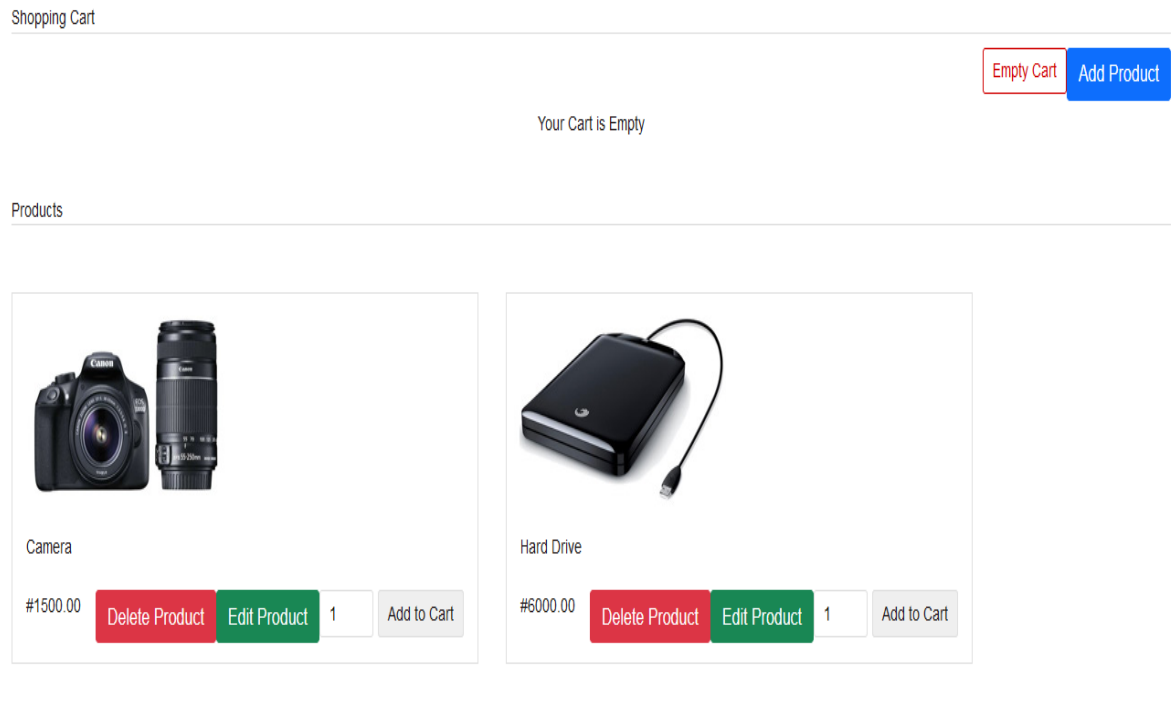
Fig. 4.1 Add Product

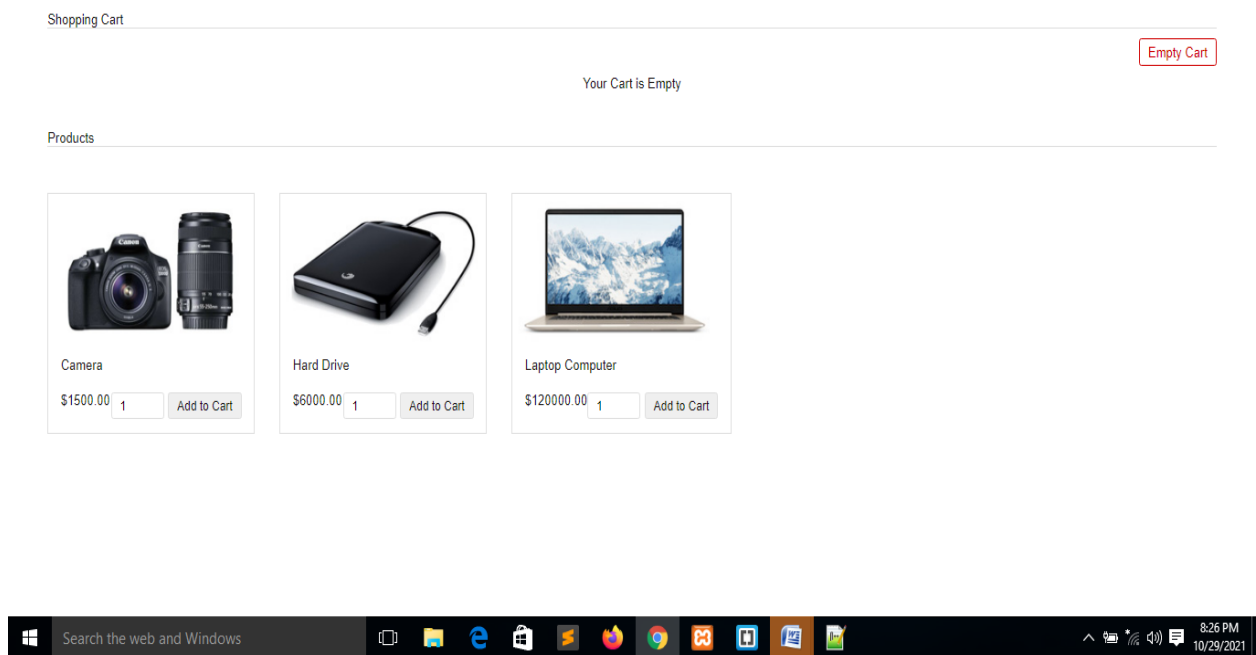This figure display how product are added from the admin. Product can be added and deleted at any time.

Fig. 4.2 User Page product display

This figure above display the added items inserted by the admin.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATION

5.0 Summary

Stores Online serves the entrepreneur marketplace with e-Services intended to make their clients in this business sector successful with their online business transaction. For example, an organization needs to extend a current business to the internet idea on the cloud because of its speed, reliability and scalability compare to the traditional set up for customer satisfaction, Stores Online's e-Services always available to help at all times. Client Service Representative to handle all client inquiries regarding technical and marketing questions related to e-Commerce.

It has been indicated that the adoption and development of e-commerce is an innovative way of goods systems and market access for small and big market holders.

This research work was able to give a proper description of an online web store as regarding to ecommerce in Nigeria Through research project; we were made to understand that the current system being used is faced with some problems and limitations. In order to correct the identified problems and limitations discovered in the course of analysis, the study. The following technology which are html5, bootstrap, php and Mysql were used as tools for developing the

platform. A detailed description of the system design requirements as well as its implementation requirements was provided.

5.1 Conclusion

This research had so far presented a platform for the practical design and implementation of e-commerce system. The proposed system developed will offer more advantages compare to the current system being used especially in the aspect of quick service delivery to customers. However, potential disadvantages may exist as well including the potential for flaws or weakness in any computerizes system. Despite this aforementioned disadvantage, the benefits of this system still out ways the disadvantage and should be adopted in Nigeria.

5.2 Recommendations

Electronic commerce is more than just buying and selling products online. Instead, it encompasses the entire online process of developing, marketing, selling, delivering, servicing, and paying for goods and services purchased by internetworked, global marketplaces of customers, with the support of a worldwide network of business partners. The determining factor for the improvement of competitiveness lies in offline production and supply chain capability in the long Run. With all this stated, it is important for the following to be done

➢ Government should encourage small holder farmers by providing the needed Environment for ecommerce in agriculture to thrive.

➢ More focus should be put to ensuring that customers awareness in increased on the benefits for buying goods online.

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