# An Online Shopping Cart System for Katako Market in Nigeria

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***Abstract***

*The main objective of this work is to develop and implement an online shopping system that will allow customers to buy product. online. The work tends to incorporate some potentials of internet into the electronic payment system by developing a web based application which will handle both the transaction procedure and printing of payment receipt by customers. It is aimed at replacing the traditional manual system of transaction considering technology advancement. The implementation of the system is done using Apache as web server with extended support for PHP and MYSQL.*

***Keyword:*** *Online shopping cart, E-commerce, and Katako*

## 1. Introduction

The advent of technology has change the way business is conducted today and some difficult task have become simpler with the involvement of the internet. The internet is a network of computers across the globe and the purpose of the internet is resource sharing as well as communication. However, the greatest advantage of the internet is that it does not have physical or geographical restriction. It can be accessed from any part of the globe [2].

In the early 1990s the business and consumer world encountered a new way of trading on the internet called Electronic commerce (e-commerce).Over the years shopping are being done manually but with the introduction of virtually online shopping, it has enhanced shopping of items. In view of many organizations and people laboring in the area of e-commerce it has become very certain that e-commerce is here to stay. Hence organizations and customers are trying to get maximum benefit from it.

E-commerce (electronic commerce or EC) is the buying and selling of goods and services on the Internet. In practice, E-commerce and e-business are often used interchangeably. E-commerce (or electronic commerce) is any business transaction whose price or essential terms are negotiated over an online system such as Internet, Extranet, Electronic Data Interchange network, or electronic mail system. The process of taking money via credit card transactions, PayPal and other forms of payment - in exchange for a service or product sold via the internet, is E-Commerce. Online electronic payment systems are widely used in e-commerce which includes whole sale payments, wire transfer, recurring bill payments and so on [2]. An electronic payment portal is an easy way to make transaction possible. It is fast, easy, save and reliable for service provider and their customer. It also allow customer to compare price of goods as many as they want.

### 2.1 Current State of Electronic Transaction in Nigeria

Electronic payment is a relatively new phenomenon in Nigeria. Most transactions in the country are done with cash. This is because cash remains the preferred medium for payment in the country.

Poor awareness of e-payment solutions, poor banking culture, lack of trust and soon have been fingered as responsible for the high volume of cash transactions in the country.

Cheques for many years have been the only option to cash money in the economy. However cheques have not been acceptable to merchant because of corruption and mistrust that it creates. Incidence of bounce cheques is very high making merchants cautious in accepting cheques. This was also because of lack of an electronic means of verifying valid cheques. Part of the problems was also due to the poor interconnection of banks and lack of an electronic cheques clearing system [5].

Nevertheless, today banks now have their branches interconnected together. The Central Bank of Nigeria (CBN) has also introduced inter-bank electronic cheques clearing system which has greatly reduced the time it takes to redeem cheques. Despite these positive developments the fate of paper cheques in the economy seems to have been sealed. For any payment system to be able to replace cash (or at least compete with it) it must win the trust of merchants in the economy. For this to happen there must be a way for merchants to verify the validity of the purchase. The payment solution must also be easily convertible to cash, since most merchants in Nigeria are in business on subsistence basis. There must be a way to use the money they made for the day to buy what they need for the day or for the following day[1].

This is where e-payment or e-transactions solutions come in. This payment solutions target most of the concerns of merchants and more. However, despite its advantages e-payment solutions have not gained much ground [4].

There is no doubt that the internet has added a great deal to the quality of human life in the contemporary world. It has knitted the world together as a global village. However, the emergence of electronic commerce has also brought with it a number of legal and socio-economic problems, especially in the developing nations such as Nigeria.

Making payment of goods and services bought through the internet poses unique problems because of the fact that the parties may be thousands of kilometers apart. The problems associated with internet payment are in relation to the inability of the internet to guarantee the safety of such payments and the possibility of duplicating payment, since a computer could potentially become a forger of digital banknotes [6].

**2.2 The Internet Payment System**

The commercial development of the internet has led to the creation of various payment systems specifically designed for Internet commerce. These payment systems include cyber cash, electronic cash, online credit cards and micro payments. Over the last two years there have been a number of initiatives on the Online Payment Front. Ever since the dawn of e-commerce, Credit Cards have ruled the roost, primarily because they were already in wide circulation and used extensively by the brick and mortar business. However, while credit cards are great for day to day purchases in the physical world, they also come across one big problem in the virtual world.

In spite of the considerable growth in the use of Internet for various financial transactions, Nigeria's entry into E-Commerce was late, with the most significant development occurring in late 2004, when Visa International acquired a 13% stake in Value-card in Nigeria.

However, electronic funds transfer over private and corporate financial networks is considered to be more secure than payments made over open networks like the Internet. Generally, electronic payment system portal must exhibit the following characteristics.

a. Availability and reliability: This implies the ability to make and receive payments within an appropriate period of time. In the event of network or system failure, no customer would agree to take responsibility for lots of money.
b. Integrity: Once a payment system guarantees integrity, it means that its data are kept intact irrespective of accidental error or malicious intent.
c. Accountability: this is the ability of a payment system to ensure that the partners involved in a communication activity are the actual sender and recipient, so that in case of any breach in communication, the partners can be held responsible.
d. Security: It describes the means whereby knowledge of transaction contents is restricted from unauthorized disclosure.

**3. Materials and Methods**

An online shopping cart system will be designed and implemented using MySQL as the database, Apache will be web server to provide basic functionality of the web services.PHP will be used as scripting language to program the server side that manipulates the knowledge in the database [3].

**4. Archtectural Design**

The factors considered in designing the online music portal system are Interoperability and accessibility with minimum requirements on the user's side. Due to large flow of information delivery over the Internet, the system is implemented as a standard Internet application. The client side requires no more than standard Internet browser installed on the local computer, while the main application functionality is assured by the server side. Figure1. Illustrate Online shopping cart system Architecture.

This includes, user interface made up of access services points (shown as client system below) at the remote site, a high speed, highly reliable and scalable regional network and content management gateway with database server. This architecture allow users to access the system via the Internet using hypertext transfer protocol and the user request is transformed into a structured query language using a PHP common content management gateway, which in turn passes it to the appropriate backend system. The common content management gateway provides a single point entry to the system [7].

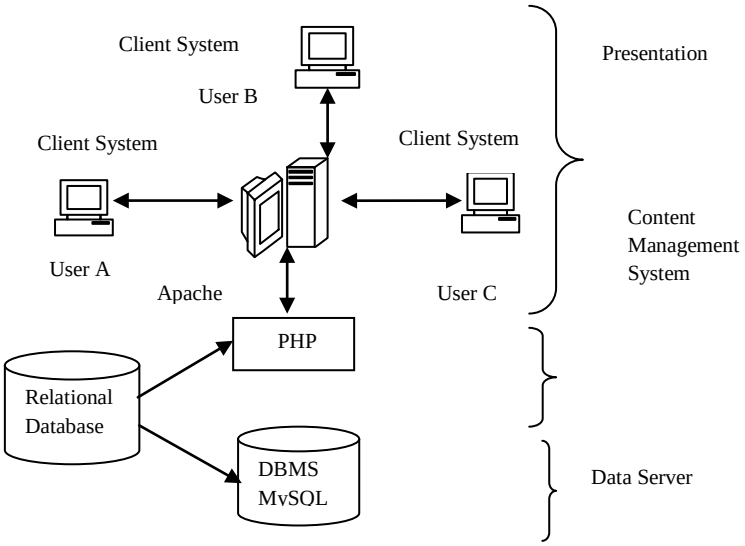


***Figure1.*** *Online shopping system architecture*

## 5. Implementation and Result

Implementation involves method and process used in the system design and the delivery of the new system into production. It simply means the conversion of a new system design into operation which entails creating compatible files, installation of software and hardware, running program and training the user/stake holders on how to use the system designed.

### Authentication and authorization

Administrator's authentication is necessary for security reasons and to deny unauthorized users from using the application. Hence the login form requires a username and password in order to fully access the product.

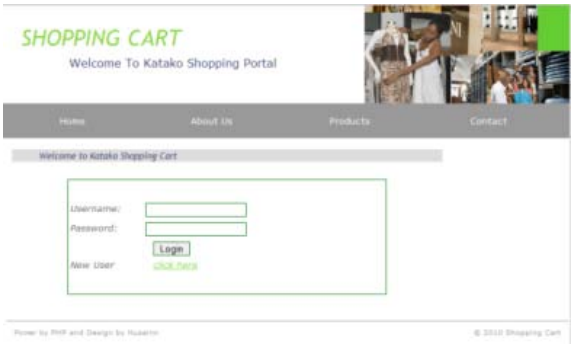


***Figure 2.*** *Login page*


***Figure 3.*** *Home page*

This page provides customer with information about some goods and how they can register with the site. It has four links. i.e. (Home, About Us, Product and Contact)

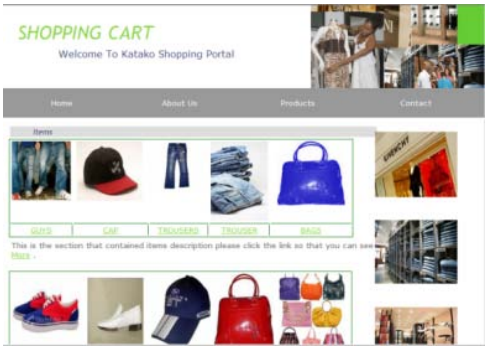


***Figure 4.*** *The Product page*

This is the page that a customer can view products. It is the section that contains items description and once a particular item is clicked, it will prompt login page.

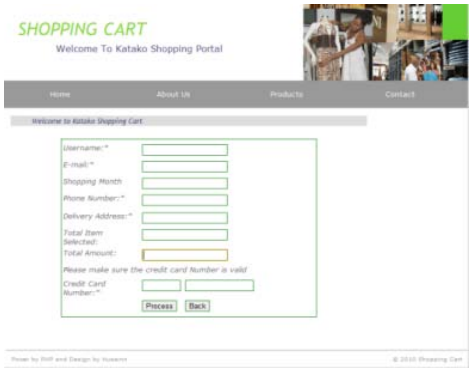


***Figure 5.*** *Payment page*

This is a page where payments are made by customer after selecting items. All fields must be filled appropriately including the delivery address and credit card number. However, to make

payment successfully the company must be register with Inters witch that will enable customer to print his/her receipt.

## 6. Summary and conclusion

The Online shopping cart is one step towards increasing productivity and quality of service in Shopping. The research work describes the design and implementation of an online shopping system environment that could be used to buy product and make payment online. In this research, we design and implemented a web-based shopping cart that is loosely coupled.

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