

**ONLINE BOOK SALES APPLICATION**

**BY**

**JIBIRI, JANEFRANCES EBERE**

**20134869768**

**A THESIS SUBMITTED TO THE POST GRADUATE SCHOOL OF  
STUDIES**

**IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE  
AWARD OF THE DEGREE OF MASTER OF SCIENCE (M.SC.) IN  
INFORMATION MANAGEMENT TECHNOLOGY**

**SEPTEMBER, 2018**

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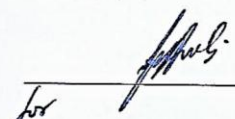
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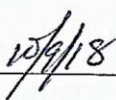
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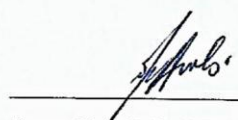
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## CERTIFICATION


This is to certify this work “**Online Book Sales Application**” was carried out by **Jibiri, Janefrances Ebere (20134869768)** in partial fulfillment for the award of the degree of Master of Science (M.Sc) in the Department of Information Management Technology, Federal University of Technology, Owerri, Imo State, Nigeria.

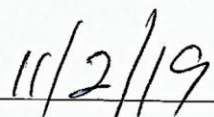
  
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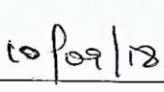
  
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## **DEDICATION**

The work is dedicated to Almighty God for His Wisdom, knowledge and intellectual reasoning and understanding, and also to my lovely and caring husband, Donatus Onyedikachi Njoku and to my lovely daughters Chukwunonso Felicity Njoku and Chinonyerem Perpetua Njoku.

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My sincere thanks to Prof. B.C. Asiegbu the Head of Department, Information Management Technology, the Dean of school of Management Technology Prof. C.C Ibe Federal University of Technology, Owerri and also to all my wonderful and dynamic lectures who have contributed immensely during this programme, my special thanks to Prof. Nworu, Dr. Ugwu, Engr. Nwakama, Dr. O.C. Nwokonkwo, Dr. J. Ahaiwe, and all academic and non-academic staff in the department whose advice and contributions have really helped me in the course of undertaking this programme.

I am also grateful to my dear Husband and friend Donatus Njoku, my parents Mr. & Mrs. Augustine Jibiri and to all brother and sisters; Prof. Nnamdi Jibiri, Benneth, Tochukwu, Augusta, Chilaka, Kelechi, Elizabeth, Perpetual, Elizabeth, Maureen and to my special friends.

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## **ABBREVIATIONS**

WWW-	World Wide Web
ERP-	Enterprise Resource Planning
HTTP	Hypertext Transfer Protocol
ICT-	Information and Communication Technology
TAM-	Technology Acceptance Model
B2B -	Business to Business
B2C -	Business to Consumer
C2B -	Consumer to Business
C2C -	Consumer to Consumer
B2G-	Business - to - Government
G2B -	Government - to - Business
FTC-	Federal Trade Commission
UCITA-	Uniform Computer Information Transactions Act
SDLC-	System Development Life Cycle
DFD-	Data Flow Diagram

## ABSTRACT

An online book store is an electronic medium in which books can be bought by customers at their own comfort. The online business transaction can be business to business, business to consumer, consumer to consumer or consumer to business. It also pertains to any form of business transaction in which the parties interact electronically rather than by physical exchanges or direct physical contact. The application provides the user with a catalog of different books available for purchase. The primary goal of this study buys and sells goods and services online. The problem of the study is that customers are not satisfied with the mode of payments, customers do not know the preferable web site to purchase book and they are not safe because of faceless sellers. This work aim at developing an application for Online Book Sales, which will solve the problems by getting the aggregate percentage of customers who preferred online stores and the best book site to buy books, to know the most preferred product purchase and also provide a satisfied mode of payment for customers. The research methodology used is explorative study which includes primary data and secondary data. The sample size chosen are 50 customers of Powell's Books, Ebay, Abe Books, Amazon, Book Scouter and Cash4Books. The survey is based on questionnaire method. A Comparative Analysis on customer's Preferences towards online book sales such as Powell's Books, Ebay, Abe Books, Amazon, Book Scouter, and Cash4Books. In order to develop an application for online book sale, using a backend database, a middle tier of Microsoft Internet Information Services (IIS), a web browser as the front end client, Cascading Style Sheet (CSS), Active Server Pages (ASP).NET, Visual Basic (VB).NET as the programming language, Structural Query Language (SQL) Server Database and WAMP (Windows/Apache/MySQL/PHP) as the local server. The development of this work results are most of the customers are satisfied with the mode of payment, easy return facilities are enjoyed by most of the customers, due to privacy policies provided, almost all the customers feel safe while shopping online, customers feel that products are delivered to them on time and customers most frequently purchase academy books than other categories of books. The benefit of this work if implemented will improve cost control, improve high rate of success, security and quick delivery.

**Keywords: Online Book Sales, Privacy policy, Cost Control, Mode of Payments and easy return facilities.**

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background Information

Due to the recent improvement in technology, the E-commerce is fast gaining ground as an accepted and used business paradigm in doing transaction. Online shopping may be viewed in a form of electronic commerce which allows consumers to directly buy goods and services from a seller over the internet using a web browser. The development of an E-commerce web based application stores many products which may include; books, CDs, computers, mobile phones, electronic items, and home appliances) can be bought from the convenience of customers through the Internet and to improve services of customers and vendors. It maintains the details of customer payments, product receipts, addition of new customer's product and also updating and deleting irrespective of the customer's choice.

Michael Aldrich in 1976 was the English entrepreneur who invented the first online shopping. Michael's shopping system can be connected to a modified Television Vision to a real-time transaction processing computer through a telephone line. In quest of expanding the online shopping system, Michael in March 1980 went ahead to launch Redifon's Office Revolution , which allowed consumers, customers, agents, distributors, suppliers and service companies to be connected on-line to the corporate systems and allow business transactions to be completed electronically in real-time. Furthermore, in 1980s Michael developed, manufactured, sold, installed, maintained, designed and supported many online shopping systems, using videotex technology which was invoke as at then.

In accordance with (Peterson et al 2008), their research found out that customers are not only attracted because online shopping is very convenient, but also because there

are broader selections, highly competitive prices, better information about the product and extremely simplified navigation for searching regarding the product is also provided. Moreover, most business owners often offer online shopping options at low prices and discounts because the overhead expenses in opening and running a physical store are higher. Further, with online shopping, their products have access to a worldwide market, which increases the number of customers from different ethnic groups, adds customer value, and overall sustainable in the marketing (King D., Lang J. & Turban E., 2011). The earlier developed secure retail transaction via the Web was either by Net Market or Internet Shopping Network which was founded in 1994. Amazon launched its online shopping site in October, 1995, eBay was introduced in September, 1995 and [Alibaba](#) in September, 1995 respectively.

## **1.2 Problem Statement**

There are certain problems, why customers do not go for online shopping and go to the market to shop things which are their mode of payment in which the customers are not satisfied with and not safe because of faceless sellers. Also customers do not know the best online book store to purchase a book. This study helps the customer to get an idea about the online book stores.

## **1.3 Objectives of the Study**

The Objective of this work is to develop an online book sales application.

The specific objectives are:

- i. To build different catalogue of books available in the store.
- ii. To develop an authentication mechanism for the books 'store.
- iii. To develop a high level model demonstrating relationship between different components.
- iv. To compare the most preferable online book store.

#### **1.4 Justification of the Study**

The application of this study will reduce time of delivery and cost of promotion of products and services, thus, it is possible to save time of both the vendor and the consumer. This study will compare different online books stores to evaluate and know the of aggregate percentage customers who prefer online book store and recognized the most preferable online book sites. The beneficiaries of this study are institutions, business environments, students and governments.

#### **1.5 Scope of the Study**

The scope of this work is limited to development of online book sales application where customers can purchase and sell different books over the internet without the need of going physically to the market in Nigeria. This provides customers with shopping cart to select an item to purchase.

Although this work was carefully prepared, there were some unavoidable limitations, which include:

- i. Inadequate resources as result of some sites been restricted from unauthorized access.
- ii. Limitation in accessing relevant information and cost associated with it.
- iii. Instability of network availability as a result of bad weather.
- iv. Constraint in time available for the study.

However, the constraints notwithstanding, this work was able to overcome them in order to produce a credible outcome / result.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Conceptual framework**

The conceptual framework of online bookstore is a shopping process where consumers directly buy goods or services from a seller in real-time, without an intermediary service, over the Internet. An attempt is made in this study to put forward results and findings based on critical review of available literature in form of earlier research studies relating to trends, growth, developments and future potentials of online book sales and evolving behavioral patterns of online shopping activities considering its diffusion and issues especially concerning to gender, security etc. with its implications on e-marketplaces, society and businesses in near future. Finally, this study discovered a significantly impact of Customer online buying behavior and Important managerial implications and recommendations are also presented.

##### **2.1.1 Evolution of Online Shopping**

The electronic data transmission technologies are being designed to enable the achievement of the goal online shopping. Again, the internet and the web are tools used in improving the existing business processes, and to identify new business opportunities. Over the thousands of years that people have conducted business with each other, they have adopted new tools and according to World History .com (2000), the meaning of the term “Online Shopping” has change over time due to consistence improvement in technology. In the early days, online shopping facilitates commercial transactions electronically, usually using technology like Electronic data Interchange (EDI) to send commercial document like purchased orders or invoices electronically (WorldHistroy.com, 2000). Now coming to the world “E-commerce” include activities that more precise in terms of “web commerce”, goods or services are

purchase over the World Wide Web (WWW) via secure servers, such as HTTPS, with e-shopping carts and with electronic pay services system, the credit card payment authorizations every transactions of goods and services (WorldHistory.com, 2000). Nowadays, when most people mention of e-commerce it means the exchange of information or doing business over computers or electronic networks using internet and the web as a medium of doing business. There are very few companies using EDI, due to cost of implementing it being higher than using the Internet or the web. In 1990 the internet was opened to commercial purpose, and the development of Web servers and Web browser software enable its possibilities.

### **2.1.2 Preview of online Book Sales System Application**

Online bookstore is a shopping process where consumers directly buy goods or services from a seller in real-time, without an intermediary service, over the Internet. If an intermediary service is present the process is called electronic commerce. An online shop, e-shop, e-store, internet shop, web shop, web store, online store, or virtual store evokes the physical analogy of buying products or services at a bricks-and-mortar retailer or in a shopping mall (Nazir T. Sajid R. & Javed L., 2012). The process is called Business-to-Consumer (B2C) online shopping. When a business buys from another business it is called Business-to-Business (B2B) online shopping. Both B2C and B2B online shopping are forms of e-commerce. Convenience includes the overall ease of finding a product, time spent on shopping, minimization of overall shopping effort (Schaupp & Belanger, 2005). Online shopping allows consumers to shop at the convenience of their own home, and to save traveling time to retail stores and spend their time on other important tasks and hobbies. Researchers identify convenience as a 'fundamental objective' related to online shopping (Schaupp C., 2005). This is relevant to 72% of online shoppers' claim that they would rather surf online than go to retail store to attain information about a product (Lokken et al.,

2003). According to a study, 72% of online shoppers chose convenience over privacy (Na L. & Zhang P., 2000). In addition to ease of finding products online and shopping time reduction, consumers can shop without time limitation with 24-hr access at their convenience because the World Wide Web never closes. (Lokken et al., 2003), mentions 24-hr access as a beneficial characteristic of online shopping, also consumers can exchange information online through chatting and discussion forums to help them make wise consumer decisions.

Online shopping benefits both the society individuals. The society can save human resources when consumers help themselves by browsing freely online instead of asking for assistance from vendors. In addition, consumers are freed from the pressure to buy from the vendors and can spend more time to make wise purchase decisions (Sajjad N., Arsalan T., Aziz S., Haroon R. & Irum J., 2012). But it is important that Web sites have good product descriptions because it is one of the significant conditions that satisfy consumers.

## **2.2 Theoretical framework**

The theoretical framework of this study involves all the researchers who conducted so many researches on online book stores. Some many suggestions were brought up such as some authors view e-commerce from the buying and selling over the Internet and argue that the former is a subset 'of the latter. One is the integration of the supply chain so that production and delivery become a seamless process. Electronic business can depend on the specific business process that might be carried out through the Internet. Commentators- hold the view that e-commerce has many advantages for developing Countries; the African continent has a number of major challenges to overcome before it can more fully exploit the benefits of e-commerce.

### **2.2.1 Overview of E-commerce**

The overview of E-commerce has probably begun with electronic data interchange Zwass (2006). However, Melao (2008) stated some suggestion that in the 1990s, primarily via the internet, that e-commerce has emerged as a core feature of many organizations. The term “e-commerce” has a very broad application and means different things to different people as at that that time.

Furthermore, in relation with e-commerce sources of many disagreements on the definition of e-commerce, a more comprehensive and concise definition of ecommerce is “the transformation of an organization’s processes to deliver additional customer value through the application of technologies, philosophies and computing paradigm of the new economy.” In a simple sense, According to (Brahm Y. & Canzer K., 2009), he defined e-commerce as “the organized effort of individuals to produce and sell for profit, products and services that satisfy society’s need through the facilities available on the internet”. Some authors view e-commerce from the buying and selling over the Internet and argue that the former is a subset 'of the latter. Others defend that, although related, they are distinct concepts (Laudon P and Traver S., 2008).

In the research conducted by (Rahmath et al 2011), states that the various areas where the banks are preparing to use e-business approach include familiar and relatively mature electronically based products in developing markets, such as telephone banking, mobile banking, credit cards, ATMs, and direct deposit. This means that most of the banks have recognized the need to change their business process to conform to changing business trends in order to keep up with competition.

According to (Windrum N. & Berenger C., 2002) focused on the integration of the internet and related ICTs into the business organization forming e-commerce. It has two faces. One is the integration of the supply chain so that production and delivery become a seamless process. Electronic business can be approached in many different ways, depending on the specific business process that might be carried out through the Internet. According to Subhajit (2003), companies can gain two fundamental types of benefits from e-commerce. In research conducted by (Subramaniam C. & Shaw S. 2002), evaluate online stores as Value Creation or Value Enhancement for one or more of a company's stakeholder groups; and Lower Cost of providing goods and services to the market place, some examples under Value Creation include Improvement in internal and external communication through effective e-marketing (Lawson S., Cooper A. & Burgess T. 2003). Increment of sales through an ecommerce website integrated with a back office systems and Improvement in supplier relations and productivity through collaborative workspaces.

However there are some drawbacks and the benefits to be derived tend to be overstated. Many managers and investors are facing strong pressure to answer the question of whether and how e-commerce investments create business value, because it is not clear to them how this value is created, and what the factors that shape are that value, also which of them most important (Alawneh A. & Huttlab E., 2009). While many commentators hold the view that e-commerce has many advantages for developing countries, the African continent has a number of major challenges to overcome before it can more fully exploit the benefits of e-commerce.

### **2.3 Empirical framework**

Experimental results indicate that shoppers perceive the importance of online bookstores. The comparison of the best site for online book sales system, some popular online book stores, the expectation of online shopping and the importance of

online shopping. Results and future research opportunities are discussed. This paper serves as a basis for improving online information search for shopping purposes.

### 2.3.1 Electronic Commerce or Electronic Business

Most businesses use the electronic business (e-business) when they are discussing electronic commerce (e-commerce) in a broader sense of transaction. However, the terms e-commerce and e-business are interchangeably in terms of meaning. According to Jean M. (2014), stated that “e-commerce involves using internet technologies for processes affecting clients and suppliers, in other words, process outside the business. Some process involved in E-Commerce are both external and internal processes,” which are business support system, human resource management of stocks. E-business therefore has a wider scope than e-commerce, we can also say that e-commerce is a new way of doing business that involves connectivity, transparency, sharing and integration. It requires the integration and alignment of business processes, technology and people with continuously evolving e-business strategy.

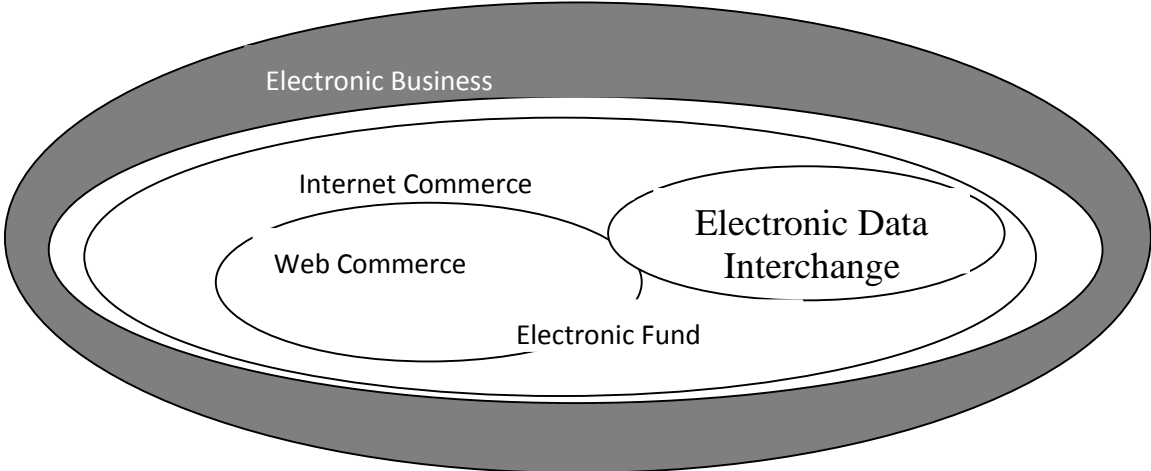


Figure 2.1: Terminology of Electronic Commerce (Huff A and Swith B., 2007)

Figure 2.1 illustrates the relationship among a number of terms. The largest portion of the terminology was labeled “Electronic Business”. E-business includes

everything that has to do with the application of information and communication technology (ICT) to the conduct of business between organizations or from company to consumers across the internet. The e-commerce oval is a smaller oval labeled “Electronic Commerce.” This highlights the fact there are numerous forms of business-related ICT-based interactions that can occur between businesses, or between a business and an end customer, which do not directly concern buying and selling. The forms of interaction that exist among commerce systems are in the electronic commerce oval, this includes advertising products or services, electronic shopping and direct after sales support (Huff et al 2007). However, from the research conducted by Huff, pointed that both the e-commerce and e-business have the same meaning, which is a business approach in which some or all of the sales and customer support processes are managed electronically, usually via the internet or the web.

### **2.3.2 Expectations of Online Book Retail Store**

The retail stores which use the online business are able to catch up with the current trend of globalization and at the same time lift the challenges of the virtual space of the internet and the trade barriers associated with inventing in new countries (Thomas E. & Joan K., 2011). The customer is able to get access to a wide range of books and does not have to visit the book store. Through Pay Pal, the buyer buys the book and it is sent to his place of residence without the need to travel. The advantage of having a brick and wall store is for those customers who prefer touch and feel experience of books they are reading.

### **2.3.3 Advantages and Disadvantages of Buying Books Online**

There are various advantages and disadvantages of buying books online. Online transactions through the e-Commerce technology have provided a new way for

consumers and businesses to conduct business and to communicate. The advantage of selling books online to the book seller is that he is not limited by geography location and time as compared to a physical store where the book seller has to open the store for a certain period of time so as to get in touch with his suppliers and the customers in order to effectively carry out business. With electronic business, the seller gets orders any time and supply the electronic material needed at any time. With electronic business of selling online books the seller can get an access to global market. This therefore widens the market share for the seller (Bhaba R.& Asarker M, 2007). Any customer who is connected to the internet is able to place an order for any academic or non academic material. Ecommerce enables the seller to specialize in a particular genre and sell the books to the international market through the internet. The users benefit despite the distance because they are not charged with added cost due to transportation to the far off location they are based in. Selling books through the online means is instantaneous. The customer does not have to wait for response. This therefore makes the business to be efficient and effective. The book seller has a high market space compared to the traditional form of conducting business. These traditional forms of stores are being outcompeted by those book shops which have adopted web enabled and supported business (Lester M., Forman P. & Loyd H., 2008). The book seller through this online business has a great opportunity of reducing the costs of production; it is scanned copies which are sold. This costs reduction is transferred to the end users (Heizer R. & Pearson P., 2007). They are able to buy cheaper and effective books. The online business of selling books allows a room for customer outsourcing and customer self services at their own convenient time. The customers are able to provide plenty of data which could not be possible in the traditional form of book selling business. The soft copy of books is less exposed to damages than the actual physical books. The disadvantage of selling books online is that the buyer is not able to share the books with those he or she wants unless he or she has provided them with password to personal account (Khosrow P. & Mehdi K.,

2008). With online books, it is difficult to trust that deliveries will be made. This means that even when the buyer is paying for a particular book, he or she is uncertain of whether the delivery will be made over the online business of purchasing books. Other aspects of payment, identity, security, confidentiality and privacy become at risk. A third party can have access to one's personal information. Another uncertain aspect is returning the unwanted book and being assured of refund. Therefore this kind of business is simply based and relied on trust. The legitimacy of the online books stores is also not guaranteed. Personal customer service is not possible with online transaction.

#### **2.3.4 Benefits of E-commerce**

##### **i. Improved Speed of Delivery**

Speed of delivery is the time taken for an organization to deliver its products or service to their business partners. It means that total time it will take to deliver the product will be less because of e-commerce technological adoption of e-commerce system (Pauline R. Paul P. & Yao T., 2002). As long as the server is on for 24 hours, the e-commerce system is capable of making business process faster. Besides that, certain things can be delivered online immediately after the customer has made the payment, such as software and song can be downloaded online and voucher can be self printed.

##### **ii. Improved Flow of Information**

The online system application ability in providing technology infrastructure which are compatible and authorized the means of both internal and external communication between employees, customers and trading partners.

Communication channel can transmit timely, accurate and correct information thus enabling strategic decisions to be made. Since e-commerce is running online, it not

only allows the sharing of data in controlled environment, but also to manage work flows efficiently.

### **iii. Improved Markets Reach**

E-commerce is not restricted by geographical location. Market reach is the ability of an organization to reach a larger number partners and consumers. Since e-commerce is using World Wide Web, it can reach larger market in world easily and not only those who is nearby.

### **iv. Reduced Cycle Time and Time to Market**

The time it takes from start to finish to produce one unit of product or the time it takes to provide a service from beginning through completion is known as cycle time. An operational benefit is perceived if after e-commerce adoption the organization realizes reduced cycle times. The time from the inception of an idea until the actual product is made available for sale in the market is the definition of time to market. In the work conducted by, she stated some relevant benefit that is being perceived by organization in increase the production and provide services to their customers faster than prior to e-commerce adoption. Some businesses spend most of their time on travelling for business purposes. The organization can reduce unnecessary travelling by search and order the raw material online, which will then reduce the production and cycle time.

### **v. Improved Customer Service**

In order to increase the rate of growth in sales and maintain their customers their organization should enhanced their quality. It is achieved if the level of satisfaction the customer experiences from conducting business with the organization is raised after e-commerce adoption. This in turn increases the customer's loyalty and

purchasing behavior. By having more information available and a well-designed database, business can add values to their customers by providing better services such as personalized advertising and offering goods based on their shopping history. **vi.**

### **Reduced Cost**

The costs experienced by organization in their daily business operation from paperwork paying bills and making products or delivery services are largely reduced due to the automation processes of e-commerce applications. These include operational costs, administrative costs and transaction costs. The benefits of cost reduction may be achieved when the total costs after e-commerce adoption is lower than the costs of operating the business before adopting e-commerce

### **2.3.5 Adoption of E-Commerce**

Since the introduction of online shopping in the market system individuals and organizations now decide on how to buy goods and services through the internet. Recently, e-commerce or commercial activity on the internet is a rapidly growing business medium in Malaysia (Thi L. & Lim H., 2011). However, most users don't know how it works and little has been published concerning the views of ecommerce users.

The traditional boundaries of the previous system will soon be replaced with a new technology as well as a means and media for purchasing goods for services (Pavlou P., 2003). The electronic payment system provides opportunities for global and national trading relationships. Doing transaction online may bring many benefits of both companies and consumers. Web browser and web site are very important to recognize that e-commerce activities range from entry-level activities to global connectivity's, web sites, and e-mail, to sophisticated activities such as online purchasing, online payment, customer services, and video conferencing (Tan J., Tyler

S., & Manica J, 2007). The e- adoption ladder has provides a picture of how businesses progress from relatively simple to more complex e-commerce activities. The adoption ladder is a useful tool to analyze where a business lies within the ecommerce adoption process. As an organization progresses up the ladder, it must undergo changes and become more sophisticated in its use of technology. As organization implements these new changes, the business is ultimately able to improve business efficiencies.

There are five steps that an organization may go through are shown in Figure 2.3

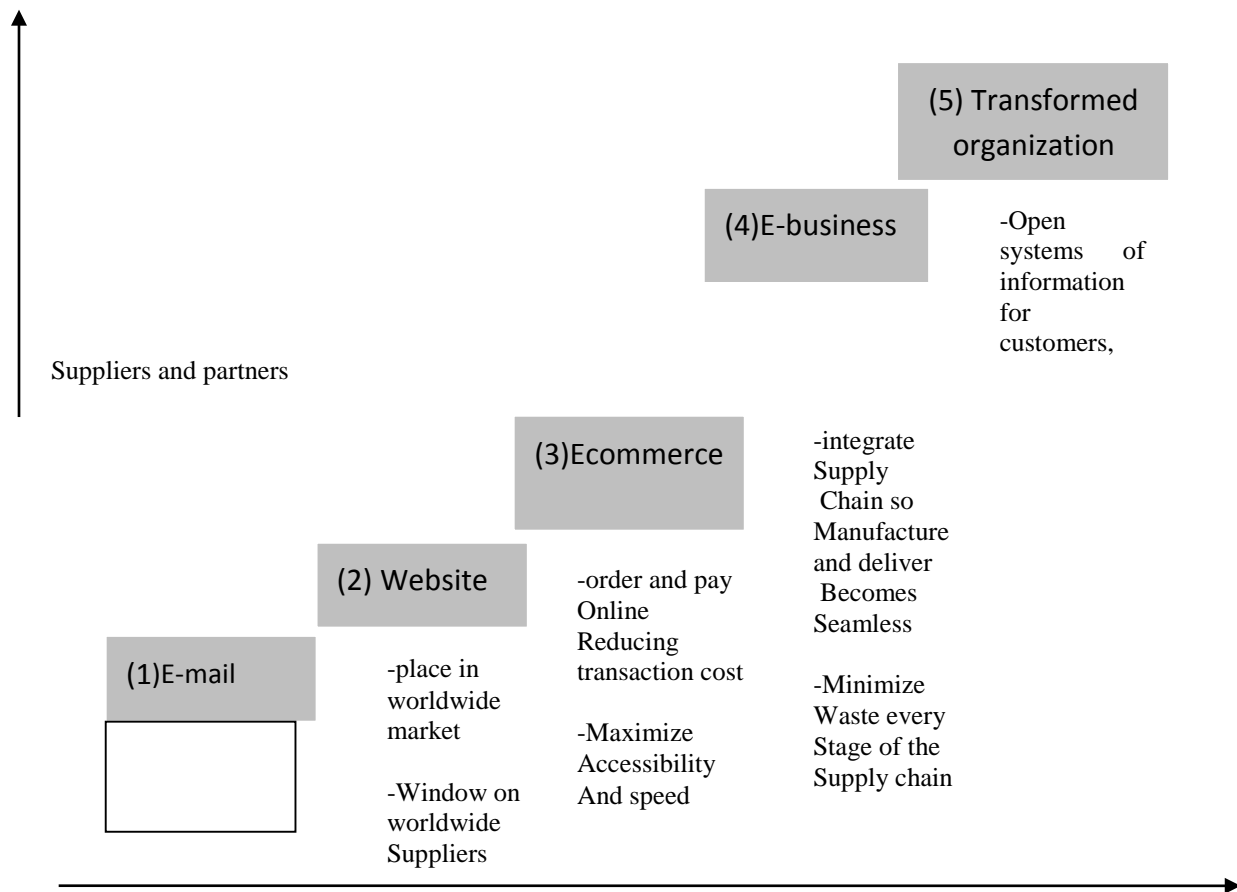


Figure 2.2: Model of e-adoption ladder (Tan J., Tyler S., & Manica J., 2007)

The five stages that organization may go through in the e- adoption ladder are:- i.

**Email**

This is defined as the use of e-mail to send messages, either to provide internal communication between staff, or to allow communication between businesses and their suppliers and customers. In e-commerce, the focus is on the external use of email. Some elements of Electronic Data Interchange (EDI) can also be regarded as messaging such as sending a request for a quotation.

## **ii. Website**

This is the establishment by a business of a website of an e-mail list to publish information online. It gives the business an opportunity to create a greater awareness of its products to its customers. The website can publish marketing information, prices and stock levels. In relations to supply-side activities, this is the use of other businesses' website to identify suppliers and to acquire information on products and services. Checking the availability of products and services can also be done online.

## **iii. E-commerce**

This is the web based relationship between a business and its customers, or a business that involves online activities which include issuing or receiving an e-payment invoice of it supplies. Modern electronic commerce typically uses the World Wide Web for at least one part of the transaction's life cycle although it may also use other technologies such as e-mail. Typical e-commerce transactions include the purchase of online books (such as Amazon) and music purchases (music download in the form of digital distribution such as iTunes Store), and to a less extent, customized/personalized online liquor store inventory services.

#### **iv. E-business**

Business relationship between customer and supplier are provided through the use of use of e-commerce interaction in order to obtain the progress in tracking or online support. Combination of supply chain links suppliers, manufacturing, and delivery, thus improving efficiencies and minimizing Waste.

#### **v. Transformed Organizations**

Within the internal process, the resultant outcome is the combination of all business activities. Many emphasis is laid on customer service orientated. Most of us do understand that transformation is simply a process of utilizing existing and emerging technologies to profoundly change your business. Everyone is aware that the future lies in it. But, when it comes to change management in automation, the threat of job loss lingers. Adopting automation technologies is often associated with the fear of job loss through the replacement of human workforce with a digital workforce.

#### **2.3.6 Factors Affecting E-Commerce Adoption**

The factors that affect e-commerce adoption are useful in determining the reason why organizations refuse to adopt e-commerce. Researchers have identified different factors that affect e-commerce adoption among organizations (Padmashree T., 2013). Below are the two main factors that are identified by different researchers are:

##### **i. Business Owner's Characteristics**

E-commerce adoption depends on the acceptance of e-commerce by the business owner. If the business owner understands the potential and perceive the technology to be useful, they will not be reluctant to adopt it. The researcher also found that owner's characteristics is related to Technology Acceptance Model (TAM), because

adoption of e-commerce into their organization depends on owner's acceptance of the technology.

Besides that, the level of computer literacy of the owner and lack of knowledge on e-commerce technology will also result the business owner being less likely to adopt e-commerce (Eric C., 2005). However, the level of assertiveness and rationality of the owner in decision making would be the owner likely to adopt e-commerce if it suited the organization.

## **ii. Organization's Characteristics**

Some factors that affect the adoption of e-commerce are related with the organization itself. The amount of technology currently in use in the organization indirectly related to the adoption of e-commerce, such as PCs with modems and email facilities can help and make it easier for the process of adoption. Adoption has also been found to be largely dependent on external pressure from the business' competitors as well as its supply chain (Thong C. & Yap N., 2011). Most business might adopt e-commerce because of their competitors using it so as not to less their competitive advantage. If an organization has largely amounts of data and transactions, then it is more likely to adopt technology which can help streamline operations.

### **2.3.7 Comparison of the best site for online book sales system**

Here are some of the online outlets where people have decided to get their books (Puja G., 2015)

- i. **Hive.co.uk**- Hive is an online network of 360 independent bookstores nationwide. It sells all the latest bestsellers, prize winners and ebooks, as well as DVDs, music and stationery. A per cent of the profits go back into your nearest independent bookshop every time you make a purchase, or you can select your “favourite” bookshop to benefit instead.
- ii. **Wordery.com**- Founded in 2012, Wordery is one of the fastest growing independent online booksellers. The company, which was created by British book wholesaler Betrams and former Book Depository IT Director Will Jones as an alternative to Amazon, says it currently has a range of over 9 million different titles and serves 5 million customers. It offers free worldwide delivery.
- iii. **Bookbutler.co.uk**- Bookbutler is a price comparison website which aims to compare over 55,000 titles being sold by online retailers (including Amazon and its subsidiary ABE Books). It's a comparator so it does not sell the books itself but it does give you a range of non-Amazon options and the chance to see whether the behemoth is actually the cheapest option after all.
- iv. **Blackwells**- Blackwells is primarily an academic and non-fiction bookseller but has also ventured out in recent years with bestsellers, children’s books and others. It even sells Fifty Shades of Grey and a Taylor Swift colouring book called “Colour Me Swiftly”.
- v. **TheWorks, Waterstones, Foyles and other high street brands**- Major high street brands have expanded and updated their online offers in recent years to compete with Amazon. Many have similar prices to it, though shipping often makes it more pricey, and include offers you don’t get in store. There are also click and collect options.

- vi. **IndiaBookStore**- Is the fastest way to compare book prices and buy books from online book sellers in India. They aggregate information like best deals, reviews and ratings from popular Indian online bookstores.
- vii. **BooksMela**- The preferred India store for Indian products where you'll find the latest and greatest books at prices you can afford. Both classic and contemporary books on India to readers worldwide. With thousands of finest products in categories ranging from Nonfiction, Medical Books, Textbooks, General Books and more, we've got whatever it is you're craving 24/7, all year long. Our product selection process is rigorous where our books are carefully researched and handpicked for inclusion in our catalogs. . And that is why Online Bookstore: Online Book Shopping India, Buy Indian Books at lowest price is now a preferred destination for discerning readers. We offer a quality of service that is rarely seen.
- viii. **Buycabooks** -This online book store specialized in providing all kind of CA books for students, professionals with best-selling authors across the country. They have extensive range of book collection in this including CA IPCC, CA Final, GST, CA Practice books. Also they provide flat 20% discount price for every books and free shipping in India & same day delivery in Chennai.
- ix. **BookScouter** - You simply enter the IBSN of the book, and then BookScouter searches over 40 different buyer sites to find the ones that will pay the highest amount for your book. They are especially well known for textbooks type of transactions.
- x. **Cash4Books** - Instead of creating a marketplace to make your used books available to potential buyers, they will buy them directly from you.
- xi. **SellBackBooks** - Another site that makes it extremely easy to sell your textbooks or any other kind of books for that matter.

- xii. **RentBooks** - Again, very similar to other sites where you simply enter the ISBN number, the name of the author or the book, get a price, print a shipping label, send the book in, get paid. There is a very nice feature I like about this one and that's their 30 days protect your quote guarantee.
- xiii. **Aduera** - It is one of the best online retailer website and provides much advanced features and best deals.

### 2.3.8 Popular Online Book Shopping Site

Here are some preferable online book stores by (Vidya s., Neelam B., Richa S., Pooja M. and Priya C., 2015)

- i. **Powell'sBooks-** Powell's books is not as great as amazon and Barnes Noble, but its collection of books on sale is equally impressive. Actually, it is the Amazon of the future, if the current growth is anything to go by. It is an independent bookstore that provides more than million books to the people of Portland, Books on Children's cooking, literature, mystery, poetry and Sci-Fi & Fantasy are available, not to mention textbooks and young adult books. New arrivals, best sellers, award winners and signed editions of all types of books are available here at a single click of a mouse. You also do not have to spend a fortune to acquire your favorite books on this site.
- ii. **SnapdealStore:** When we talk of online book stores, we cannot forget to mention the e-Commerce sites that offer books just as part of their businesses, and do so in a great way. Snapdeal is one of them, and just like Amazon and eBay, it has a wide collection of books of all types and subjects. The advantage with these sites is that they already have a wide network of buyers and sellers.

- iii. **EBay-** As all the opportunities possible for any willing seller and buyer of new and old books. Even for books whose category is not clear to you, typing its title on the inbuilt search engine will take you to where it is listed. Antiquarian and collectible books, textbooks & educational books, nonfiction books, fiction & literature books and children's & young adults' books are all available, and the list is actually longer. Actually, there are currently more than 1,998,352 listings of books on eBay, and the list changes by the minute. If you are looking for books on specific topics like those talking about the Atkins diet, the right place is eBay, where you will just type the topic you are looking for and you get the list of relevant books.
- iv. **Amazon -** World's largest e-Commerce marketplace for books. Amazon is the pioneer e-Commerce website which started selling books, e-books online when the e-Commerce was not even in the existence! Remember, "Alchemist" e-book by the world renowned inspirational writer Paulo Coelho? Its paper print version got popular only when he started offering it Free as an e-book on Amazon.com. It goes without saying that Amazon is the largest online retailer of all sorts of goods including books. It is no wonder therefore that it leads in the list of top 10 store websites for books. Indeed, Amazon offers all types of books, including textbooks New, used and collectible books by all authors of a wide spectrum of subjects are available at reasonable prices. This is also the store to check for the latest releases of book series. The massive online market place is one of the factors that make Amazon.com flourish in the book selling business.

### **2.3.9 Applications of E-Commerce Web Based Application**

Businesses are growing rapidly since embracement electronic commerce (or ecommerce) to modernize their business operations. E-commerce is very important

and provides goods and services across the internet, which will enable computer network, email and mobile devices application towards business function and marketing. Internet offers organization the opportunity to promote their products and services in the World Wide Web in order to build their brand, display a complete inventory of products, and even send out online press releases. Organization may promote their goods and services online directly to interested buyers to an authorized dealer or sell the product themselves. The benefits of purchasing a larger inventory of products to choose from distribution Publishers of books, software, music, movies and photos can distribute their products electronically, instead of having to manufacture, store and ship a physical product. Even for products that must be shipped, e-commerce offers supply chain management solutions, automated inventory management systems, and online tracking for shipped products (Martin G. & Klaus T., 2004). Financial Transactions that uses Automated Teller Machines (ATMs) are a basic example of an early e-commerce application, where customers can deposit, Withdraw or transfer their funds; other e-commerce applications that impact most businesses include electronic funds transfer and electronic credit card payment processing Service and Support. Companies may also provide product service and support online. At a basic level, companies can publish electronic editions of their product manuals on their company Website. They can also archive common support issues and solutions on their website, as well as provide a forum for their users to troubleshoot problems. Some companies even provide a free online chat application for customers to contact sales or support personnel.

### **2.3.10 Principal Categories of E-Commerce**

i. **B2B (Business to Business):** This business transaction happens between two companies.

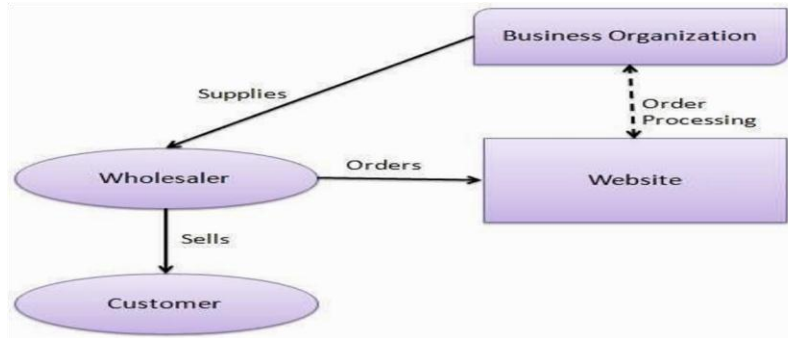


Figure 2.3: B2B Businesses to Business (Tina L. & Douglas S., 2010)

Figure 2.3 illustrates the Business to Business website business model sells its product to an intermediate buyer who then sells the product to the final customer. As an example, a wholesaler places an order from a company's website and after receiving the consignment, sells the end product to final customer who comes to buy the product at wholesaler's retail outlet.

ii. **B2C (Business to Consumer).**

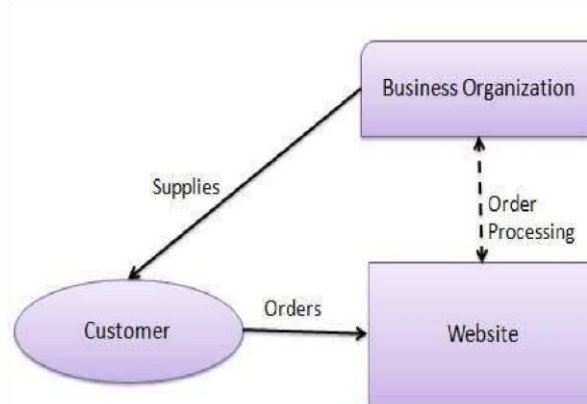


Figure 2.4: B2C Business to Consumer (Tina L. & Douglas S., 2010)

Figure 2.4 illustrates Business to Consumer Website connection B2C business model sells of product directly to customer. Most customers can view products shown as in Figure 2.4 on the website of business organization. The customer can choose a

product and order the same Makelainen S. (2006). Most website send notification message to their business organization through email and organization dispatch the product goods and services to their customer. iii. **C2B (Consumer to Business)**

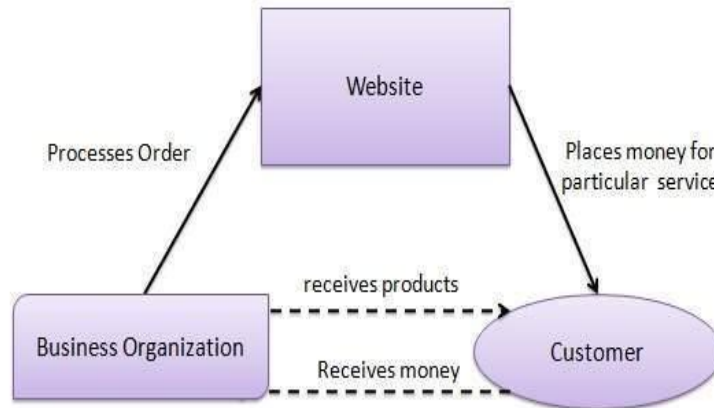


Figure 2.5: C2B Consumer to Business (Tina L. & Douglas S., 2010)  
 Figure 2.5 illustrates the model of Consumer to Business as consumer approaches website showing multiple business organizations for a given service reader. In buying and making payment for a given service to estimate the amount time on service. For example, comparison of interest rates of personal loan/ car loan provided by various businesses to consumer, B2C transactions deal with customers purchasing products and services from companies through the Internet. Online shopping has increased significantly in recent years. iv. **C2C (Consumer to Consumer)**

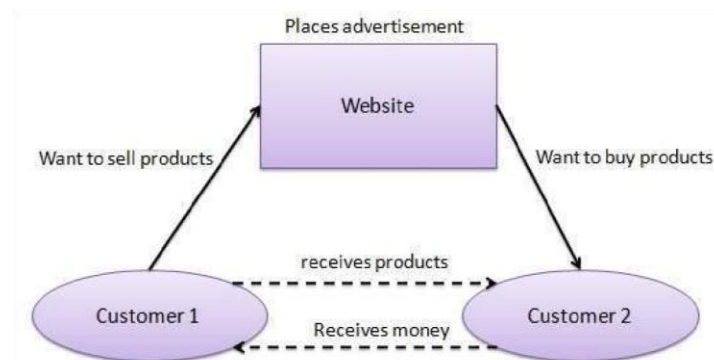


Figure 2.6: C2C Consumers to Consumer (Tina L. & Douglas S., 2010)

Figure 2.6 illustrates the model which helps consumer to sell their assets like residential property, cars, motorcycles etc. or rent a room by publishing their information on the website. Website may or may not charge the consumer for its services. Another consumer may opt to buy the product of the first customer by viewing the post/advertisement on the website (Makelainen S. 2006). Consumer to Consumer, C2C, ecommerce activity is more recent, and usually requires a business to play the middleman.

### **2.3.11 Electronic Signatures**

The Electronic Signatures Global and National Commerce Act (E- SIGN Act), which President Clinton signed into law in 2000, implements a national uniform standard for all electronic transactions that encourages the use of electronic signatures, electronic contracts and electronic records. The E-SIGN Act, which regulates any transactions in interstate and foreign commerce, does not alter existing law, and if state or federal law covers a transaction, including the Uniform Commercial Code, those statutes still control. The E-SIGN Act defines "electronic signature" (sometimes called a digital signature) as "an electronic sound, symbol or process attached to or logically associated with a contract or other record and executed or adopted by a person with the intent to sign the record." Because of this broad definition, telephone keypad agreements, such as "press 1 to agree" may be legally enforced as electronic contracts under the Act. A contract may not be denied legal effect only because a digital signature was used to form it (U.S. Federal ESIGN Act, 2000).

### 2.3.12 Measures to Ensure Security in E- Commerce System

E-Commerce Security is an essential part of any transaction that takes place over the internet. Customer will lose his/her faith in e-business if its security is compromised (Zhao J., Wangb S. & Huang, W. 2008). Following are the essential requirements for safe e-payments/transactions

- i. **Confidential:** Information should not be accessible to unauthorized person. It should not be intercepted during transmission.
- ii. **Integrity:** Information should not be altered during its transmission over the network.
- iii. **Availability:** Information should be available wherever and whenever requirement within time limit specified.
- iv. **Authenticity:** There should be a mechanism to authenticate user before giving him/her access to required information.
- v. **Non-Repudiability:** It is protection against denial of order or denial of payment. Once a sender sends a message, the sender should not be able to deny sending the message. Similarly the recipient of message should not be able to deny receipt.
- vi. **Encryption:** It is a very effective and practical way to safeguard the data being transmitted over the network. Senders of the information encrypt the data using a secret code and specified receiver only can decrypt the data using the same or different secret code.
- vii. **Auditability:** Data should be recorded in such a way that it can be audited for integrity requirements.

- viii. **Digital Signature:** Digital signature ensures the authenticity of the information. A digital signature is an e-signature authenticated through encryption and password.
- ix. **Security Certificates:** Security certificate is unique digital ID used to verify identity of an individual website or user.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.1 Methodology**

This work adopted the Structured System Analysis and Design Methodology (SSADM) as the methodology used. It is a system approach to the analysis and design of information system of online Book Sales ordering system. It is used by system developers to produce or alter information systems or software application at any stage. The researcher conducted an explorative survey on six (6) different online bookstore, which includes primary data and secondary data. The sample size chosen are 50 customers of Powell's Books, Ebay, Abe Books, Amazon, Book Scouter and Cash4Books. The survey is based on questionnaire method. By analyzing the finding and the demand of people of several categories the work have tried to remove those inconsistencies and security hazard in the new system. Based on my findings and report, the work will implement the following functionalities to ablate the drawbacks of existing system in figure 3.2

#### **3.2 The use of Waterfall model**

It divides the development process into several stages or processes. After the completion of one stage, it will logically move to another stage. Sometimes moving back to the previous stage is necessary due to failure that occurs in current stage. The methodology used in developing the online bookstore application is the waterfall model. Waterfall model is one of the system development life cycle (SDLC) models. Users proceed to next if and only if current phase is complete. Users are not allowed to go back to previous phases if there is any mistake so the model is named after waterfall model.

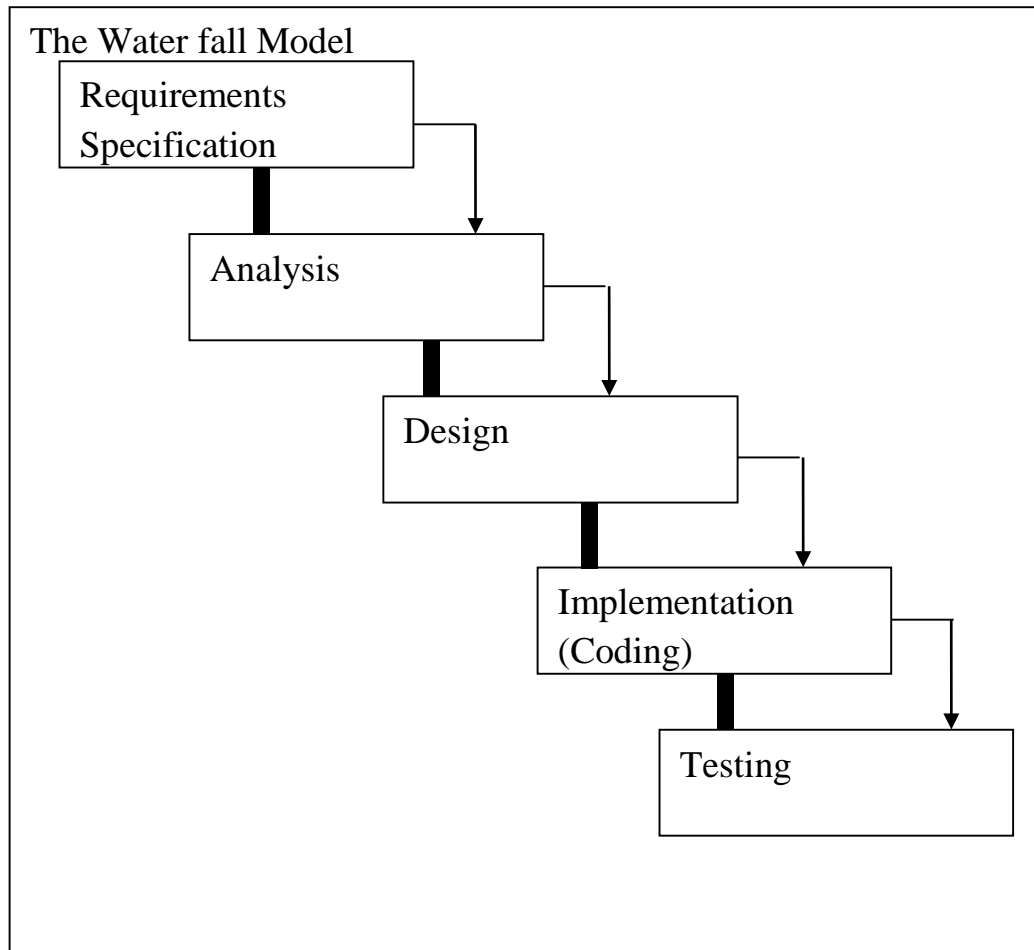


Fig 3.1: The waterfall Model for software development with feedback loops

The process to develop the online bookstore is as follows:

- i. **Requirement Analysis Stage:** All possible requirements of the system to be developed are stated in this phase. Requirements are a set of functions and constraints that the end user expects from the system. The requirements are gathered from the end user, and are analyzed for their validity and the possibility of incorporating them. Finally, a requirement specification document is created which serves the purpose of a guideline for the next phase of the model.

## Specifications

- i. The complete online shopping process should be developed
  - ii. Customers should be able to browse books on sale
  - iii. Anonymous and registered user can buy books.
  - iv. The website will allow visitors to create ,manage and log into their accounts
  - v. Members can sell books they uploaded. They can delete a books if there s no current buy Process going on that book.
  - vi. Members can Create and update their profiles.
  - vii. Comments on buyers and seller books after a sale process
  - viii. History of transactions of a member ix. Administrator has a simple order management system
  - x. Capability of handling financial transactions(Use another Provider API e.g. PayPal)
  - xi. Mailing capabilities after selling or buying process
  - xii. Search for books on the website
  - xiii. A visitor should rapidly find a book he or she is looking for.
  - xiv. Latest books are shown on the main page
  - xv. Handle errors in a proper way.
- ii. **System and Software Design:** Before starting the actual coding phase, it is important to understand the requirements of the end user and also have an idea of how the end product should look like. The requirement specifications from the first phase are studied here, and a system design is prepared. The design helps in specifying hardware and system requirements, and also helps in defining the overall system architecture. The system design specifications serve as an input for the next phase of the model.

- iii. **Implementation and Coding Unit:** On receiving system design documents, the work is divided in modules/units and actual coding starts. The system is first elaborated into small programs called units, which are integrated in the next phase. Each unit is developed and tested for its functionality; this is referred to as unit testing. Unit testing mainly verifies if the modules/units meet their specifications.
- iv. **System Testing:** The units are now integrated to form a complete system during the integration phase and tested to check if all modules/units coordinate with each other and the system as a whole behaves as per the specifications. After successfully testing the software, it is delivered to the user.

### 3.3 System Analysis

This system is all about enabling customers to shop to online. Customer can buy products online after login to the site and request for various books made available. The Administrator is responsible for adding product to database, and can only edit or delete the products from the database. After buying and making payment for the books, they are sent to customer's address that has been provided. The system will enable customer to write feedback for the product or services. The Admin can view daily sales and feedback given by customers, and can as well update the delivery report to the database for both admin and customer can view the delivery report.

Data about the existing ordering system is collected through several fact-finding techniques such as website visit and document review, at the beginning of this stage. The data collected facilitate information required during detailed analysis. A study on the current system is performed based on the collected data. As a result, user requirement of the proposed system are determined. At the end of this stage, requirement specification is produced as deliverable.

Table 3.1: Comparative Studies of the response of people about online bookstore on different stores which include: Amazon, Abe Books, Ebay, Powell’s Books, BookScouter and Cash4Books

Particulars	Amazon	Abe Books	Ebay	Powell’s Books,	BookScouter	Cash4Books
Most preferable shopping site	32%	66%	52%	4%	16%	10%
Best shopping site	28%	60%	26%	4%	2%	4%
Most frequently purchased product						
1.Academy Books	24%	34%	34%	14%	10%	10%
2. Children’s Book	10%	20%	14%	8%	6%	6%
3.Novels	8%	30%	16%	0%	0%	0%
4.Adventures	6%	8%	2%	29%	29%	2%
5.Accesareis and cosmetics	8%	6%	10%	29%	6%	2%
Mostly shopped during						
1.Regularly	8%	8%	8%	4%	4%	4%
2.offers and discounts	20%	44%	30%	10%	14%	10%
3.occasions	8%	4%	14%	14%	6%	4%
4.Rarely	4%	14%	10%	0%	0%	0%

Table 3.1: Comparative analysis of the best online bookstores

### 3.4 An Overview Online Bookstore Development

Development of an online bookstore used the technologies of both front and back end. In the Front-End development refers to the web users interact directly.

The front end technologies for the programs like:

- i. HTML
- ii. CSS
- iii. Ajax
- iv. Java script.

A back-end development serves indirectly in support of front-end services and it consists of three parts: Server, Application and Database.

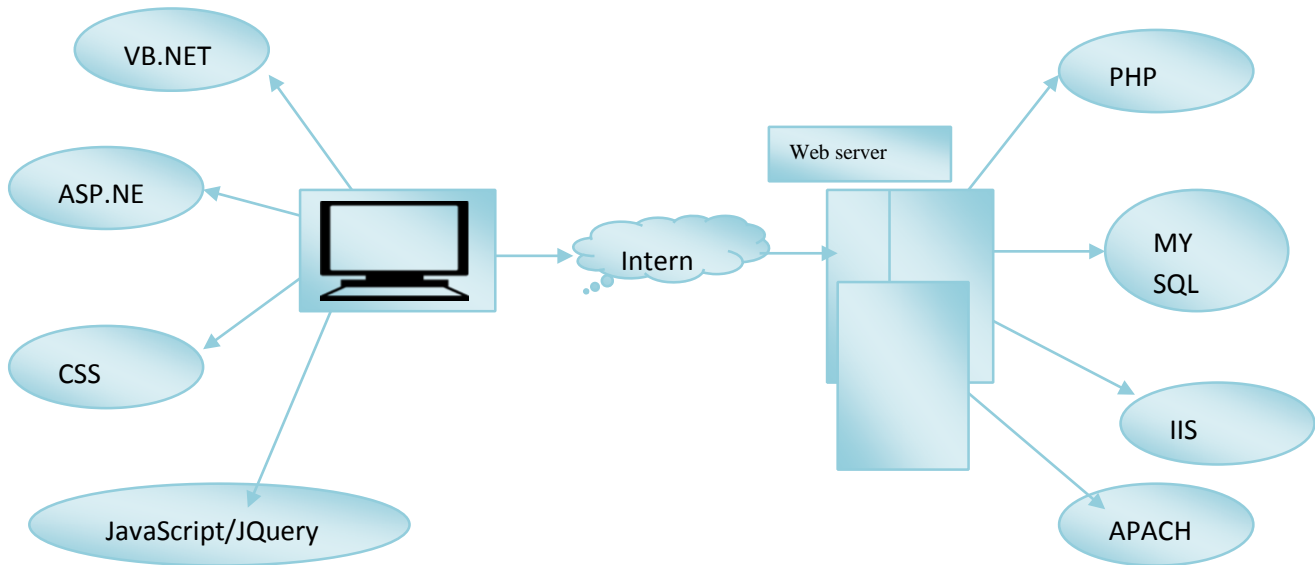


Figure 3.2: Diagram of online book website

- i. PHP
- ii. MYSQL

### 3.5 Problems of Existing System

The existing systems reviewed in this study are as follow:

**Case 1:** Sunshine Bookseller, (2011), a famous bookstore based in Ibadan, Nigeria. Nigeria Sunshine offers over 2 million books from the database which has been categorized into a variety of subjects to make it easier for you to browse and shop. The location of this bookstore is at Olusegun Akeju. It was established to make available books of various kinds under a single roof.

#### The weaknesses

The weaknesses of this system are:-

- i. Unable to display more options for checkout and delivery.
- ii. Unable to notify customers about their transaction.
- iii. Lack of trust due to poor security iv. Improper documentation of customers shipping details

**Case 2:** Bookville World (2016), a unique book store that caters for the needs of different types of clients, interests and age group based in Port Harcourt, Rivers State, Nigeria. The owner of this bookstore is Chukwuma Anyanwu. He is a professional with passion for utilization of strategy, innovation and technology as part of managing business processes

**The weaknesses**

The weaknesses of this system are:-

- i. Lack of trust due to poor security ii. Deficiency in generating track number
- iii. Improper documentation of customers shipping details

**Case 3:** Tarbiyah Books Plus, this Nigerian shop provides sales of books, journals, Children's and other Islamic Books, and educational materials based in Abuja. It is a leading supplier and one stop shop for Islamic books, carrying an inventory of over 40,000 products. This range from the Noble Quran, Hadith, Tafseer books, DVDs on contemporary Islamic issues, to supplications and children’s books and videos, teaching aids and toys. The owner of this bookstore is Bismillahir Rahamanir Raheem meaning in the Name of God, the Most Beneficent, and the Most Merciful.

**The weaknesses**

The weaknesses of this system are:

- i. Unable to register new user.

- ii. Lack of notifying customers about their transaction as result of bad network.
- iii. Lack of trust due to poor security

**Case 4:** Oasis Bookshop (1976), a store where Bibles and other life-changing books are available and affordable based in Jos, Plateau State, Nigeria. The shop was started in 1976 by Pat Winters and Gillian Gold and was located on Nene Quay until 1988. The present owner/managers, Richard and Maggie Welford, ran the shop from 1989 until 1993 when they moved to Plaistow in East London to manage a Christian bookshop there. Oasis was bought by Wisbech Baptist Church and managed by Syd Barton until his retirement in 2002, at which point Richard and Maggie were able to take over the shop again. In 2003 we were able to expand into 78 West Street.

### **The weaknesses**

The weaknesses of this system are:

- i. Problem in creating an account ii.
- Unable to locate the shopping cart iii.
- Unorganized interface
- iv. Lack of trust due to poor security.

### **Summary**

In summary, the common weaknesses of the four cases are such as Lack of trust due to poor security, Lack of notification to customers, Unable to register new user, improper documentation of customers shipping details. The few peculiar weaknesses observed in all the cases are such as deficiency in generating track number, inability to display more options for checkout and delivery.

### 3.6 High Level Model of the proposed system

This diagram shows a top-down functional decomposition of a system and exposes the system's structure. The objective of the high level model is to break down a system step by step, beginning with the main function of a system and continuing with the interim levels down to the level of elementary functions.

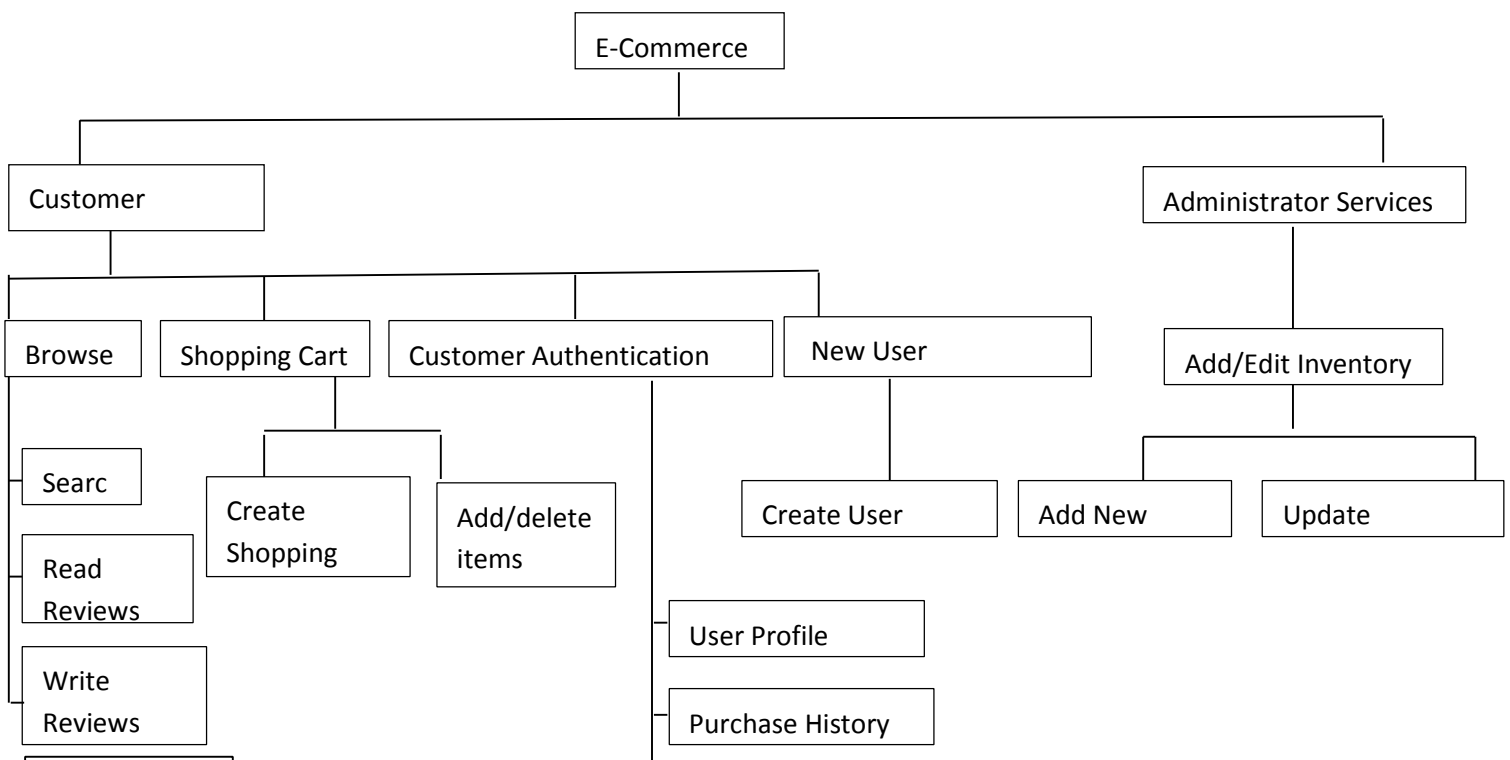


Figure 3.3: High Level Model of the Proposed System

### **3.7 Expectation of the Proposed System**

The purpose of the proposed system is to address all the problems plaguing to the present system. This system will do the analyzing and storing of information either automatically or interactively. This requires the input of necessary data and record of book sales ordering and delivery and then a generation of report.

The proposed system will also have some other features such as:

- i. Accuracy in handling of data
- ii. The volume of paper work will be greatly reduced.
- iii. Fast rate of operation as in making the ordered books available and delivered on time.
- iv. Flexibility (i.e. it can be accessed at any time)
- v. Easy way to back up or duplicating data in CD's in case of data loss
- vi. Better storage and faster retrieval system
- vii. Errors in the reports will be greatly minimized.

## **CHAPTER FOUR**

### **RESULTS AND DISCUSSION**

#### **4.1 Result**

##### **4.1.1 System Design**

The system design is developed to manage ordering activities in online book sales. It helps to record orders submitted by customers. The system covers the following functions in order to support the online business process for achieving the objectives:

1. To develop a catalog of different books available for purchase in the store.
2. To allow the customer to make order using shopping cart to select items from the catalog, view order and make changes before submitting their order and allow them make payment through prepayment card or credit card or debit card.
3. To provide the customers with the highest level of security ensuring that each transaction is delivered.
4. To capture the attention of customers and partners with online promotions and Advertising.

- To provide a tool that generates reports that can be used for decision making.

#### 4.2 Entity Relationship Diagram (ERD)

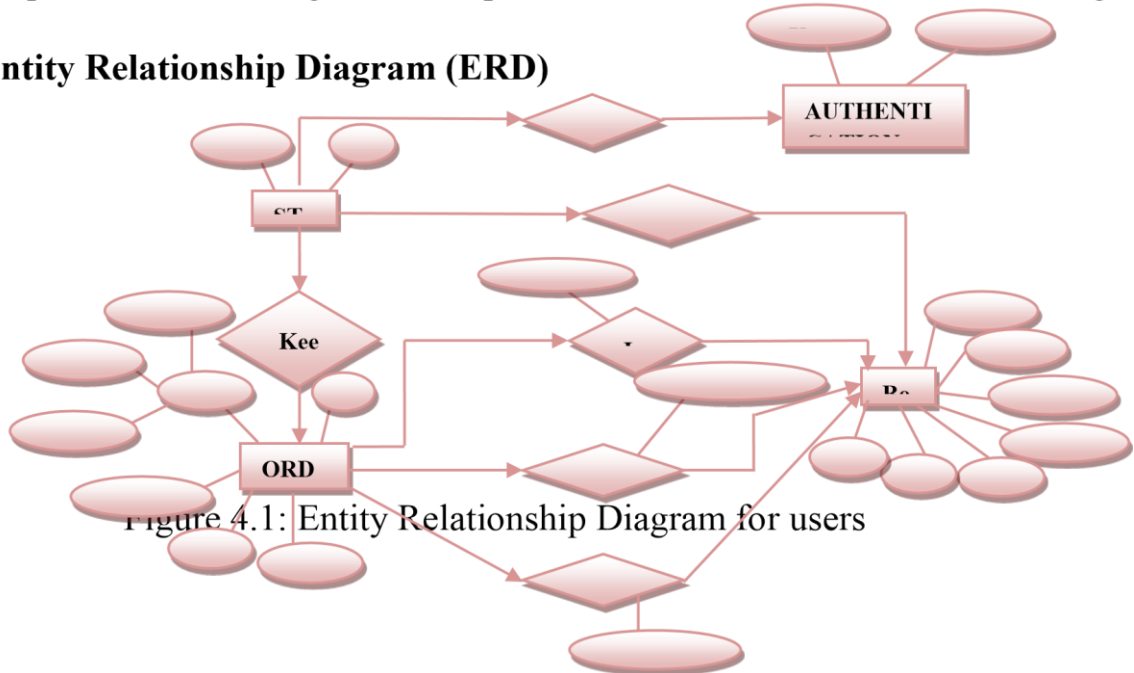


Figure 4.1: Entity Relationship Diagram for users

Figure 4.1 shows the design of a web based application for online book sales site, the relational database must be designed first. Conceptual design can be divided into two parts: The data model and the process model. The data model focuses on what data should be stored in the database while the process model deals with how the data is processed. To put this in the context of the relational database, the data model is used to design the relational tables. The high level process model is used to design the queries that will access and perform operations on those tables.

### 4.3 Developing the crucial functionalities

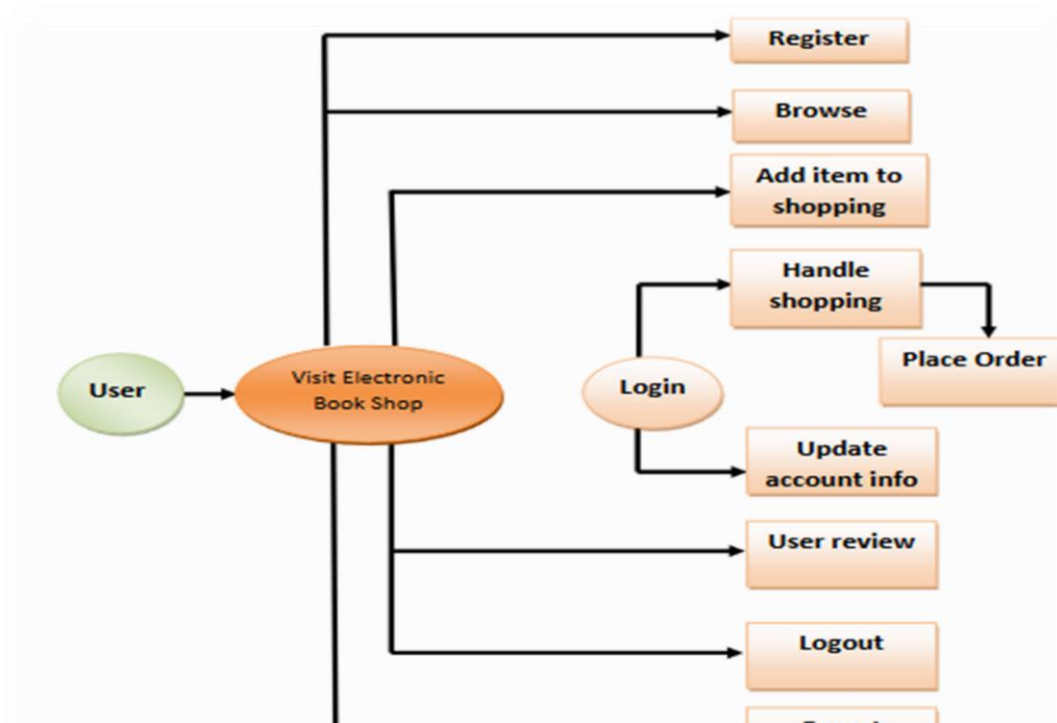


Figure 4.2: customer user case diagram

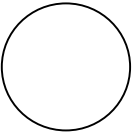



Figure 4.2 shows the customer user case diagram it is the development and the administration part of this work which will include add admin, edit admin, buy books and so on. The next phase will be to develop the panel for user so that this will enable them to choose category anytime from anywhere with detail information. These functionalities will be a major one because most of the user wants to know every detail of the books and order details.

### 4.4 Data Flow Diagram (DFD)

Data Flow Diagrams show the flow of data from external entities into the system, and from one process to another within the system. There are four symbols for drawing Data Flow Diagram which are:

- i. Process

- ii. Data Object
- iii. Data Store
- iv. External entity

	<p>Process</p> <p>Transform of incoming data flow(s) to outgoing flow(s).</p>
	<p>Data Flow</p> <p>Movement of data in the system.</p>
	<p>Data Store</p> <p>Data repositories for data that is not moving. It may be as simple as a buffer or a queue or as sophisticated as a relational database</p>
	<p>External Entity</p> <p>Sources of destinations outside the specified system boundary.</p>

#### 4.4.1 Data Flow Diagram for User registration



#### 4.4.2 Date Flow Diagram for user view

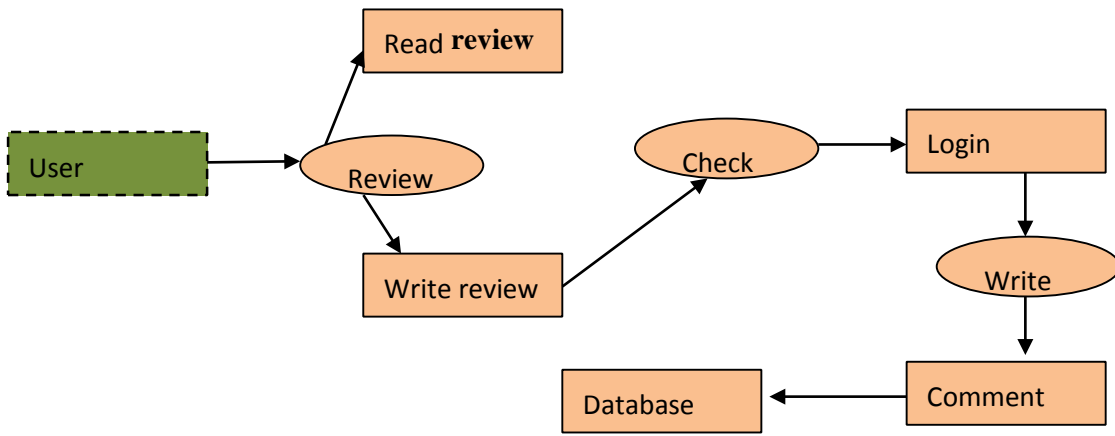
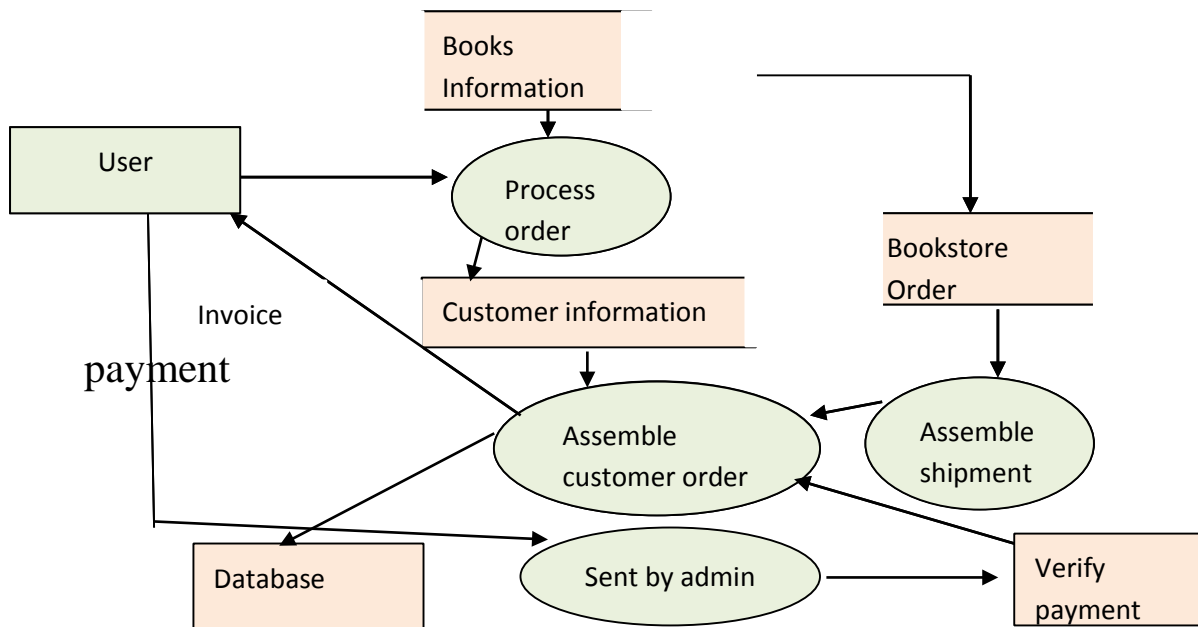


Figure 4.2: Data Flow Diagram for User registration

Figure 4.2 illustrate how the information will be collected by the data entry operator from the user including the user personal detail. As there are multiple forms to be filled these information will not be stored in the database one by one. First of all data will be saved into a temporary storage. After being ensured that all data regarding user's registration has been input to the system then the system will saved the data into the database. This will ensure that no process will be incomplete or partial during power failure.

Figure 4.3: Date Flow Diagram for user view

Figure 4.3 illustrate the information regarding by user review about the special books. All users can read book view but only registered users can write reviews. All the information is stored in this database.



#### 4.4.3 Data Flow Diagram for Electronic Book Shop order

Figure 4.4: Data Flow Diagram for Electronic Book Shop order

In figure 4.4 shows how users searches for the available books and then order the books. There are three options to complete order: shopping cart, update account info and then fulfill payment. Then the order details is shown to user invoice & stored in database

Figures 4.5 – 4.12: show the Data Flow Diagrams for the current system. Each process within the system is first shown as a Context Level DFD and later as a Detailed DFD. The Context Level DFD provides a conceptual view of the process and its surrounding input, output and data stores. The Detailed DFD provides a more detailed and comprehensive view of the interaction among the sub-processes within the system.

#### 4.4.4 Context Level Diagram



Figure 4.5: Context Data Flow Diagram

Figure 4.5 is a conceptual view of the user process how the user input data through a web browser to access the online book stores to buy and perform other activities from the bookstore.

#### 4.4.5 First Level user Data flow diagram

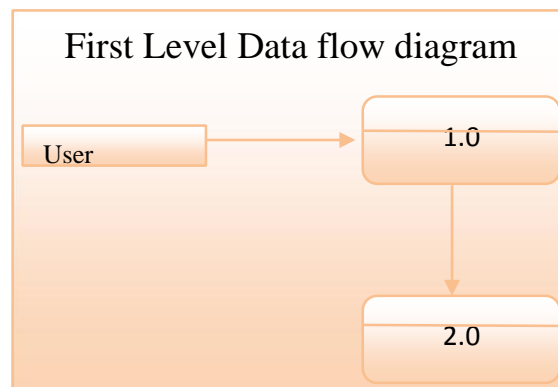


Figure 4.6: First Level user Data flow diagram

Figure 4.6 illustrate the first level user data flow diagram. It aims to show how the entire system works at a glance. There is only one process in the system and all the data flows either into or out of this process. It demonstrates the interactions between the process and external entities.

#### 4.4.6 Second level user data flow diagram

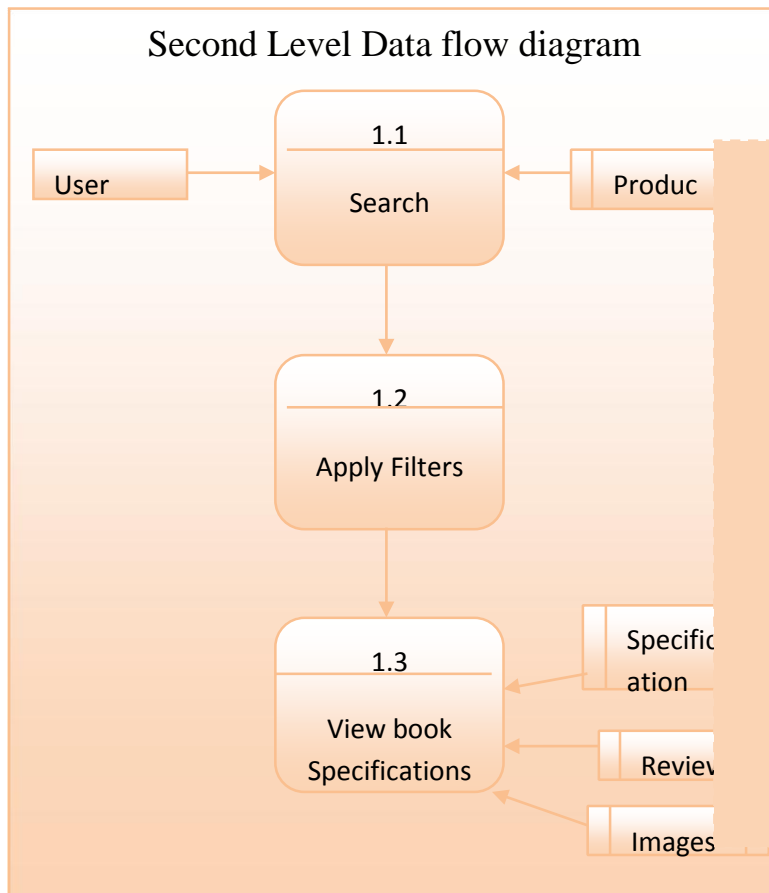


Figure 4.7: Second level user data flow diagram

Figure 4.7 shows how the customers searches for book, review, view book specifications, view book images and the filter for the important ones. The record or information of the customer is stored in the data store.

#### 4.4.7 Second Level user Data flow diagram

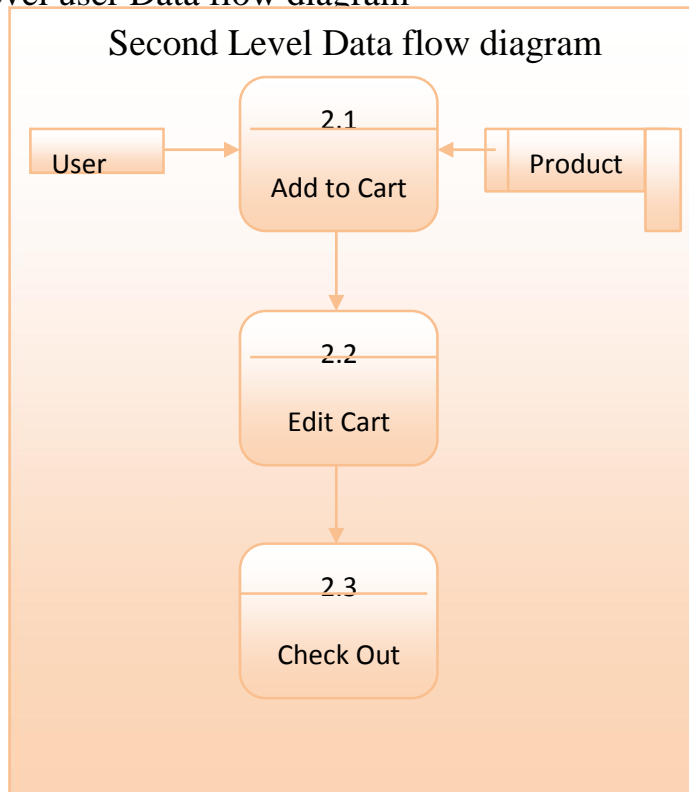


Figure 4.8: Second Level user Data flow diagram

This figure 4.8 shows the detailed process of data entry by customer into the online bookstore. It shows how the customer adds items into the shopping cart; the customer can edit or update the cart if there are alterations. Then the customer place order by checkout by card or pay on delivery.

#### 4.4.8 Customer Browse Context data flow diagram



Figure 4.9: Customer Browse Context data flow diagram

In figure 4.9 shows how a customer to could browse a book from the web, it contains a process (shape Ellipses) that represents the system to model, in this case, the Browse. It also shows the participants who interact with the system, called the external entities. In this diagram, Customer, Book Review, Books information and Books are the entities who will interact with the system. In between the process and the external entities, are data flow (connectors) that indicate the existence of information exchange between the entities, the system and the Data store.

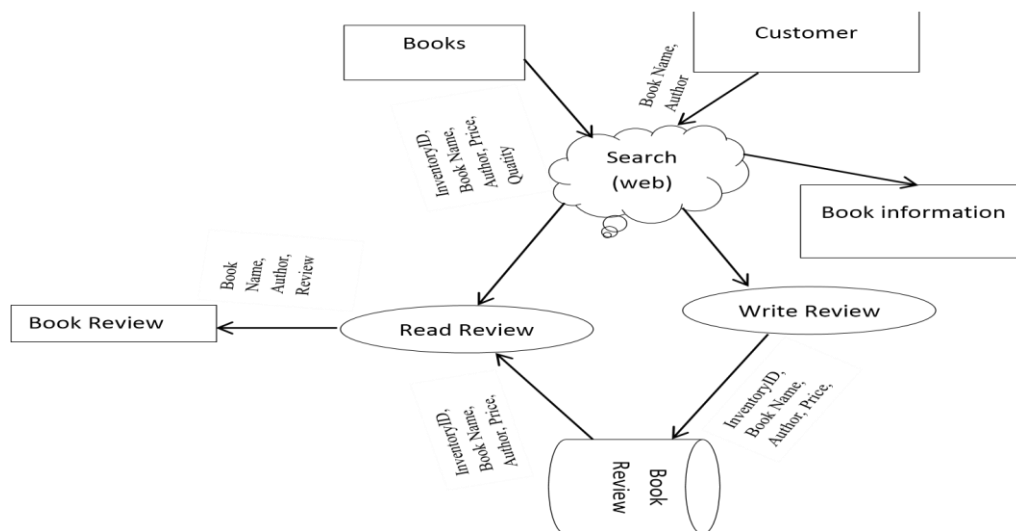


Figure 4.10: Customer - Browse Detailed DFD

Figure 4.10 shows a detailed Data Flow Diagram that is drawn for a customer to browse a book. It contains a process (shape Ellipses) that represents the system to model, in this case, the "search web". Every customer browses from the web to search for each book with its information. In this diagram, it has three external entities, three process and two data store, in between the process and the external entities, are data flow (connectors) that indicate the existence or flow of information exchange between the entities and the Data store.

#### 4.4.9 Customer Shopping Cart Detailed data flow diagram

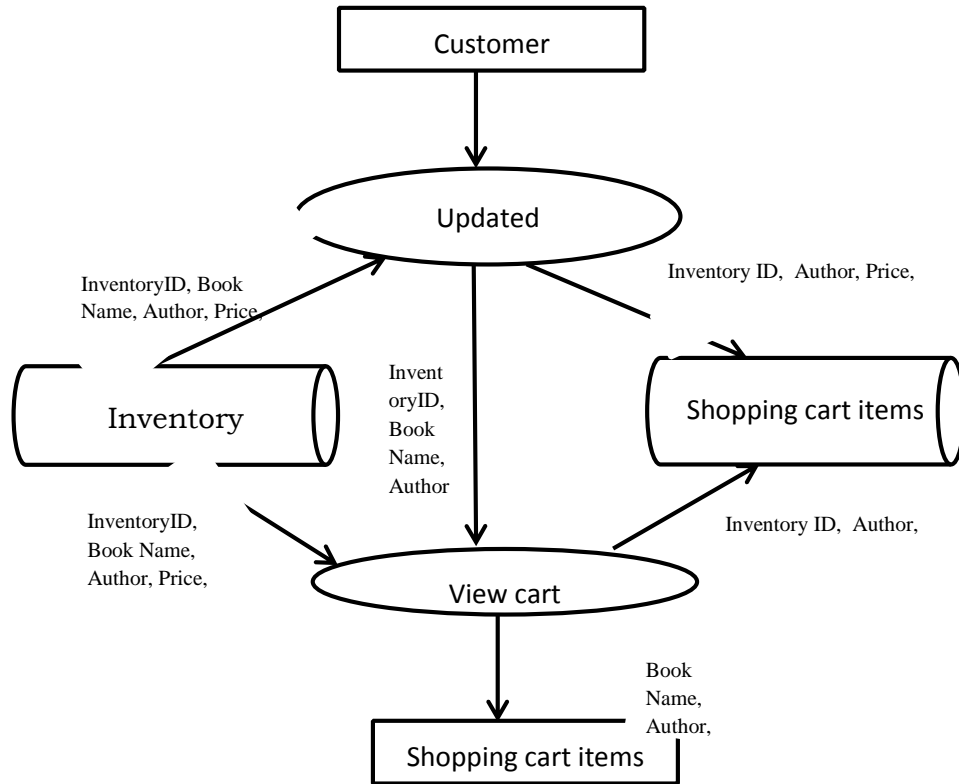


Figure 4.11: Customer – Shopping Cart Detailed Data Flow Diagram

Figure 4.11 illustrates a detailed Data Flow Diagram that is drawn for a customer shopping cart. It contains two processes (shape Ellipses) that represent the system to model. In this case, the Shopping Cart. It grants access to customer to view and modify or update the shopping cart items, if there is alteration. It also consists of two external entities and two data store the Inventory and shopping cart items.

#### 4.4.10 Authenticate User Purchase data flow diagram

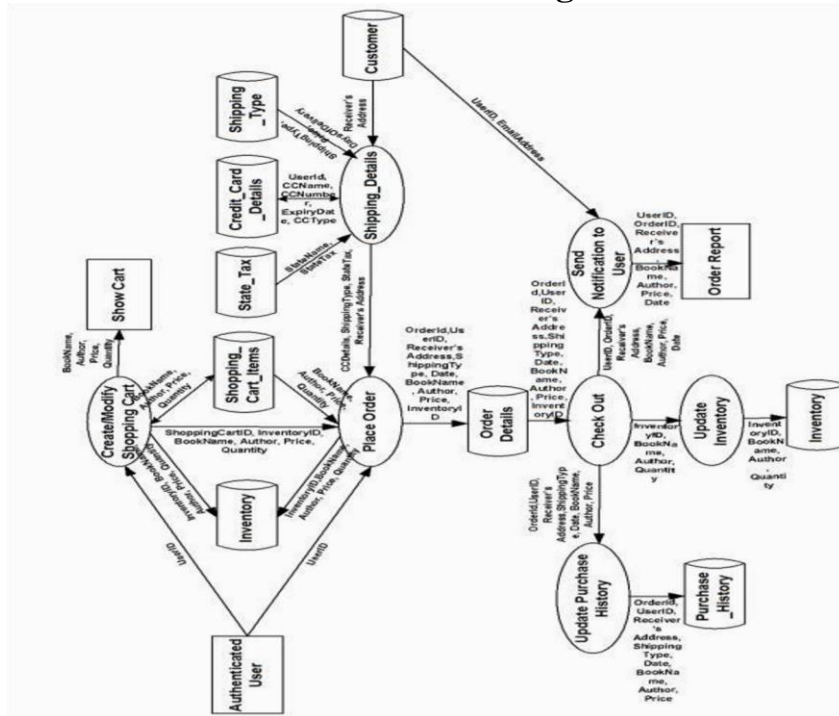


Figure 4.12: Customer - Authentication - Purchase Data Flow Diagram

In figure 4.12 illustrates the detailed data flow diagram for Customer Authentication purchase model. It shows authentication mechanism for identification of customers. New customers create an account with the site to have access, or an authorized customer login in with the correct username and password. When the user enters the system to purchase an item, a shopping cart is provided to select items from the catalog. The customer can modify the cart and saved. After the customers have done all these, the customer proceed to place order, provide shipping details, checking out either to pay on delivery or pay before delivery, the system sends a notification to a valid email with the generated track number. The order report or invoice will be printed out.

From the result obtained in Table 3.1 the comparative analysis is represented in the figure 4.13 in the customer view regarding to online books sales. As per the survey, 93% of the online shoppers are satisfied with the product and service offered to them.

And the rest 07% are not satisfied, As per the analysis done, 94% of the customers are satisfied with the mode of payment provided and 6% are not satisfied. As per the study, 75% shoppers agree that they enjoy this facility due to their own experience and the rest of 25% do not agree with this, because some sites do not provide single window solution. The data conveys that 45% of the people are satisfied with the after sales service provided to them and 55% are not satisfied with this facility. As per the data collected, 41% of the people are regular online customers, these are mainly working people who do not have time to go to shop and make purchase and also the younger generation are depended on online purchase as they seek variety of alternatives for the same product. 59% of the people are not regular online customers because the quality of the products cannot be known and some people are not flexible to shop online.

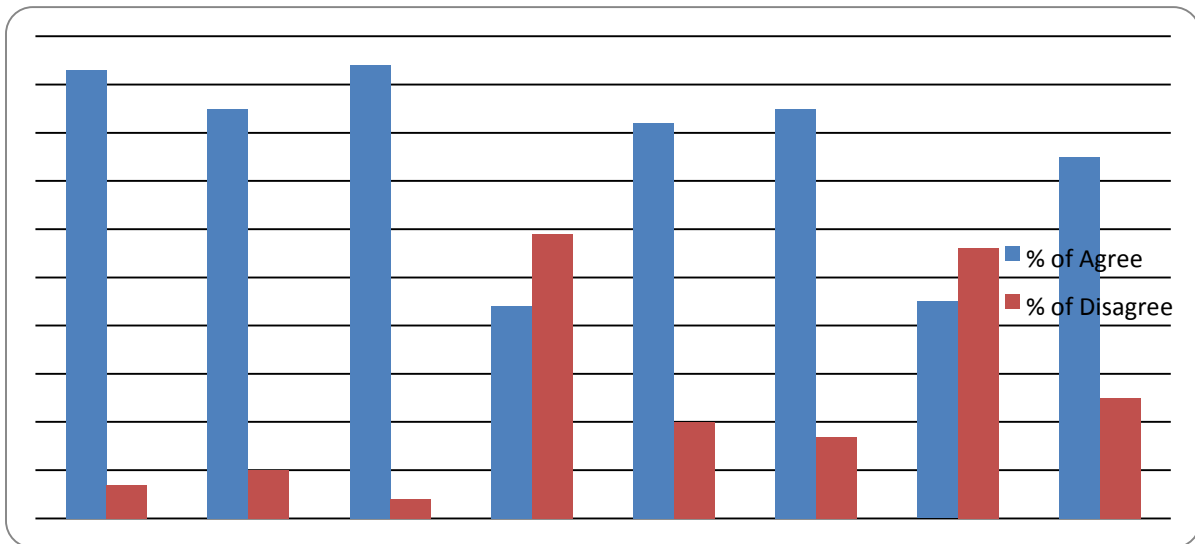


Figure 4.13: Customer views towards online book store.

Also, it was observed that 84% of the people feel safe and convenience to shop online due to the security provided to them, which reduces the risk of hacking and security norms. And 16% people do not feel safe to shop online, because some sites do not provide safe credit security. The research conveys that 82% of the people agree that

online price is less costly as it provides discounts and offers and also reduces the maintenance costs. But still due to the bargaining habit 18% of the people disagree.

### 4.5 Most preferable and best shopping site

Online shopping stores have increased rapidly within a few years. Tough competition exists between the companies to become the best online book site. Almost all online book stores provide commodity at discounted prices which make the acquaintance of the customer to buy more.

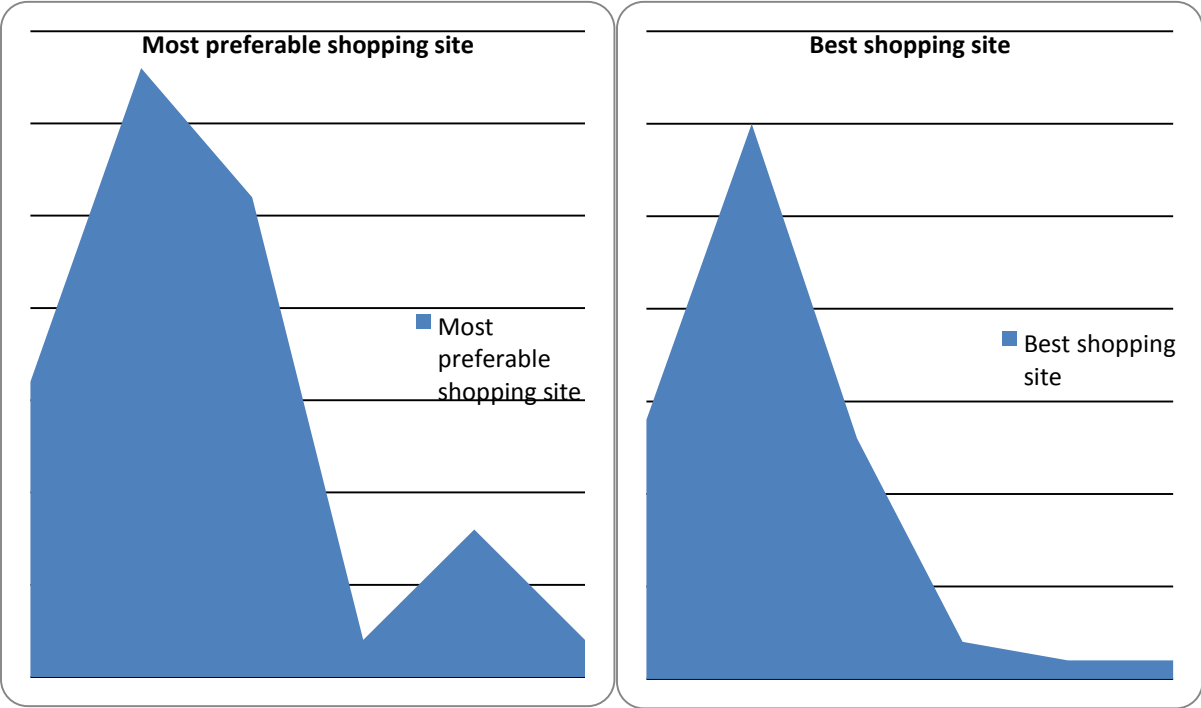


Figure 4.14: Comparative analysis between most preferable online books store and best online book stores.



Figure 4.16: Result of Abe Books of Responses on Online Book Sales. **ii. Amazon:** It is well-known for its Kindle, lightning fast shipping, and selling virtually anything online. It has made everything simpler by offering various products such as clothes, technology, beauty products, and home furniture. And even the cost comparison can be made easily. As per the research conducted, 32% of the people prefer to shop in this site and 28% of the people feel it as best shopping site because people buy with confidence trusting the Amazon brand and also you can upload multiple items at once using a special CSV file. But many people disagree with this site because there's no ability to add your own branding.

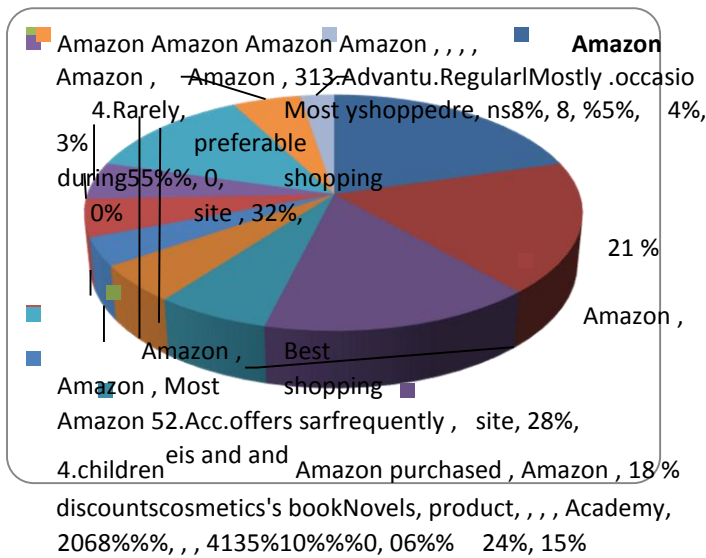


Figure 4.17: Result of Amazon of Responses on Online Book Sales.

**iii. Ebay:** It is India's largest e-commerce website with respect to the number of transactions in a single day.

Products such as watches, hard drives, laptops, and computers can be bought at a cheap price. It provides some heavy discounts on its items. It operates in only a few numbers of cities but the transaction rate is very high.

The data collected conveys that 52% of the people prefer to shop through Abe books and 26% of the people choose Powell's book as best shopping site due to these

reasons. But some do not feel the same as returns are more difficult online than in local stores.

**iv. Powell's books:** It is aiming to redefine the fashion mantra of Indians, it offers fashionable products such as T-shirts, jeans, watches, shoes, belts and other fashion accessories. It literally takes the term of compare and shop to newer definitions, where people can easily compare prices of different products with few clicks. As per the survey conducted, only few 4% people prefer to shop through this site and only 4% feel that it is best. This site is not preferred more because of the chances of cheating and also the chances of wrong goods delivered.

**v. Book Scouter:** This site is gaining popularity day by day because of its efficient work process and availability of number of branches in most parts of the country. As per the analysis done, 16% people prefer to shop in this site and only 2% feel it as best shopping site. Because it is not verified by any reliable sources, it is hearsay and consolidated opinions of people. And it does not have anything on similar lines, and is positioned as mainly an ecommerce store for apparel, footwear and accessories.

**vi. Cash4Books:** this site is also gaining popularity day by day, month by month because of its efficient work process and available numbers of branches in most of the country. As per the information collected, 10% of customers prefer this site and only 4% choose it as best site because it is more costlier and more over this site is not very much familiar to the customers as it is newly introduced.

Figure 4.6: Comparative Analysis study of most frequently purchased Books

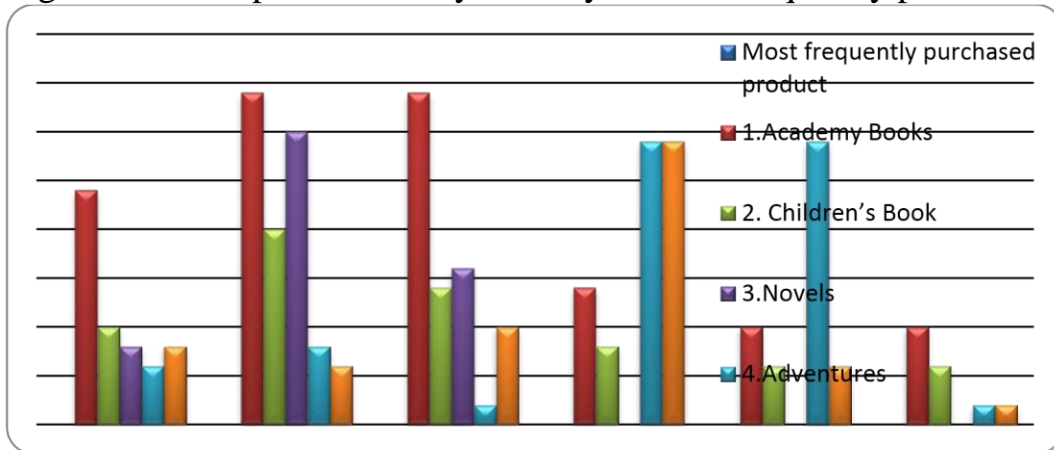


Figure 4.18: Comparative Analysis study of most frequently purchased Books

This days almost all of the products are purchased through online, here a customer can get every product whether it comes to a small soap to an electronic item. It shows that need for online retailing has increased to a large extent. And the customers are very much flexible in online purchasing of books. The survey says that most frequently purchased products through online are Academy books, Children's' books, Novels, Adventures and accessories and cosmetics.

i. Academy Books: As per the research conducted, 34% of the customers purchase academy books from Abe and Ebay because of their good quality. 24% of the customers purchase academy books from Amazon as its quality is not up to mark.

14% of the people purchase academy books from Powell's books as different varieties are not provided. And only 10% of the customers choose Bookscouter and cash4books to purchase academy books, due to low quality, lack in variety and fluctuations in prices. Overall 100% of the customers purchase academy books from online, as variety of products are available in different range.

ii. Children's Books: The study says that 20% of the customers prefer Abebooks to purchase children's book as children's book are always available. 14% -10% of the customers choose Ebay and Amazon to purchase children's books as their trend has not increased up to the mark. And only 8% - 6% of the people Prefer Powell's bookscouter and cash4books. Over all 64% of the people purchase children's books through online.

iii. Novels: As per the survey conducted, 30%-16% of the customer choose Abebooks and Ebay to purchase novels as safe and secure shipping facility is provided and even discounts are provided. And only 8% customers purchase novels from Amazon as it does not satisfy customers needs in this section. The study also reveals that Powell's and cash4book are not much developed to make sales in this section. Over all 54% customers purchase novels from different authors online.

iv. Adventures: As per the information collected, 29% of the customers purchase adventure books from Powell's and Bookscouter online and it may only include those products which are not easily available in shops and also the other reason may be that the online price is less than ordinary shopping price. And only 2%-8% of the customers prefer Abe, Amazon cash4books as the people are not convenient to purchase these products from online. Over all only 70% customer's adventure books through online.

v. Accessories and cosmetics: As per the research, 10%-8% people prefer snap deal and Amazon to purchase these products may be due to the fashionable trend provided by them. And only 6%-2% of the people choose other sites to purchase these products, as they do not provide branded items in this sector. Over all only 34%

people prefer online sites to purchase accessories and cosmetics. Because these products are easily available on the near-by shops and more over people do not have patience to wait for these products until they are delivered to them.

#### **4.6 Data Flow Diagram (DFD)**

Data Flow Diagrams show the flow of data from external entities into the system, and from one process to another within the system. There are four symbols for drawing data flow diagram.

1. Rectangles representing external entities, which are sources or destinations of data.
2. Ellipses representing processes, which take data as input, validate and process it and output it.
3. Arrows representing the data flows, which can either, be electronic data or physical items.
4. Open-ended rectangles or a Disk symbol representing data stores, including electronic stores such as databases files and physical stores such as filing cabinets or stacks of paper.

#### **4.7 Database Design**

The database design, specifies the various tables used in the database design for the proposed Automated Shopping Cart for the Books Sale

Table 4.1: Customer Table

S/N	NAME	TYPE	DESCRIPTION
1	UserID	Varchar	Primary key for Customer identification
2	Password	Varchar	Security for Customer
3	First_Name	Varchar	
4	Last_Name	Varchar	
5	Address	Varchar	
6	City	Varchar	
7	Zip	Integer	
8	State	Varchar	
9	Email Address	Varchar	
10	Phone_Number	Num	

In table 4.1 create customer details for new customers who wishes to make order, this will be recorded in the database for the customer in the Web application for the Admin to administer and process the request.

Table 4.2 contain table for list various academic Books Stored in the Shopping Cart for various area of studies, here the customer can view the details for a particular item and the equivalent price and Name of Author before making ordering choice including the quantity ordered and date of request..

Table 4.2 Books\_Table

S/N	NAME	TYPE	DESCRIPTION
1	Inventory_ID	Integer	Primary key for Inventory identification ISBN of a book
2	Book_Name	Varchar	
3	Author	Varchar	
4	No_Books	Integer	
5	Price	Double	
6	UserID	VarChar	Foreign key Customer
7	Date	Date/Time	
8	Quantity	Integer	

For the payment gateway, for payment of ordered books, Table 4.3 is the database that captured expected tax to be paid including with cost of books ordered. Table 4.3 State Tax

S/N	NAME	TYPE	DESCRIPTION
1	State Name	Varchar	Primary key for State identification
2	Sales Tax Rate	Integer	Sale tax for each state

Table 4.4: Order \_Details

S/N	NAME	TYPE	DESCRIPTION
1	OrderID	Integer	Primary for order Identification
2	UserID	Char	Primary key to Customer
3	Receiver' Name	Char	If order is to be sent other address rather than to Customer, we need that address
4	Address	Char	
5	City	Char	
6	Zip	Integer	
7	State	Char	Foreign key to state Tax
8	Types of shipping		Foreign key to shipping type
9	Date of purchase	Date	

For every completed order of item and confirmation of payment, table 4.5 contains the database for Shipping the ordered items which includes expected number of days to be delivered and total cost of items.

Table 4.5 Shipping \_Type Table

S/N	NAME	TYPE	DESCRIPTION
1	Type of shipping	Varchar	Primary key for Customer identification
2	Price	Double	
3	Approximate days	Integer	

Table 4.6 Credit\_Card\_Details

S/N	NAME	TYPE	DESCRIPTION
1	Credit Username	Varchar	Primary key for Customer identification
2	Credit Card Number	Integer	
3	Card Type	Varchar	Master card, Visa, Discover
4	ATM Number	Integer	Number present on the back of the card for extra security
5	Expiry Date	Date	
6	UserID	Varchar	Foreign key to Customer

Table 4.6 specifies the database for customer Credit Card details which include the following details Card Type that is Verve, Master Card, Visa Card, Card number and expected expiring date for payment.

Table 4.7 Book\_Review

S/N	NAME	TYPE	DESCRIPTION
1	Inventory ID	Varchar	ISBN of the book on which the review is written
2	Reviews	Varchar	Review on the book
3	Rating	Varchar	Rating given to the books
4	Review Date	Date	
5	User Name	Varchar	Name of the user providing the review

Most Books or items in the shopping may be obsolete, especially customer may intends to make reference before making order. Table 4.7 shows the ratings, review date of every book in the shopping cart.

Table 4.8 Purchase\_ History

S/N	NAME	TYPE	DESCRIPTION
1	UserID	Varchar	Primary key for Customer identification
2	InventoryID	Varchar	Book purchase by user
3	Date of Purchase	Date	
4	OrderID	Integer	Foreign key to Order_details
5	Quantity	Integer	
6	Price	Double	

The automated Shopping Cart also contains a platform where all requested item and completed item purchased and delivered or shipped are viewed for every customer to actually allow customer and Admin to view. The database design used to implement the back-end of the system is. Access to the system was made possible by a graphical interface.

#### 4.7 Choice of Programming Language

The programming language (technologies) that were put into consideration in the cause of designing this software are, the front-end, CSS, ASP.NET, VB.NET and SQL Server Database as the back end and the middle tier of Microsoft internet information services(IIS) and Wamp as the local Server . A lot of factors were also

considered which includes the online database access, data transmission via networks, online database retrieval, online data capture, and multi user network access database security.

The database system used to implement the back-end of this system is SQL Server. It is a robust database that can improve database integrity, database protection and accommodate large database.

The system is designed with several interaction cues on each web page that makes up the web application. These cues are well-defined such as to make several functionality that the application exposes to collect, process and output data. Access to these functionalities is made possible by the well designed user interface which embodies several technologies such as WAMP (Windows/Apache/MySQL/PHP) to process data. The application is built in a modular form where these functionalities are built into modules.

#### **4.7.1 Output Specification**

The system is designed in such a way that it efficiently provides output to the user promptly and in a well organized manner. The format for the several output are make available on the output web pages. Output can be relayed using the following page modules:

1. Product\_list.net: This display output information for the list of food delicacies which are currently available
2. Search\_result.net: This displays output information for the order report
3. Aboutus.net: This displays output information that talks about the ordering outfit

## 4.7.2 Input Specification

The system is designed to accept several input details efficiently through input forms and user clicks. The data captured through the user keystrokes and clicks are received by specific modules on the system and relayed to the back-end of the system for processing. Input is collected using the following page modules:

1. Index.net: This is used to capture preliminary user navigation information and preference information which gives the system a method of personalizing the page for the user on the next visit.
2. Admn\_login.net: This is used to capture information about the administrative personnel who controls content and display on the system.

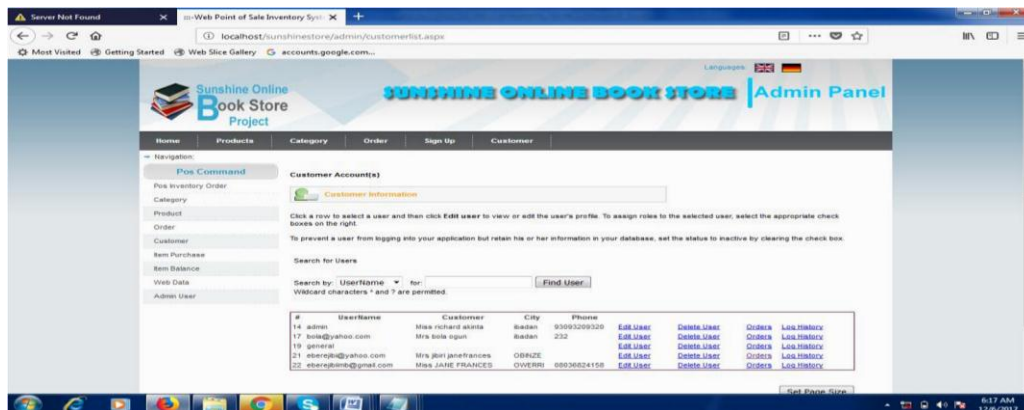


Figure 4.19: Input Specification for Database

## 4.7.3 System Requirements

Computer system is made up of units that are put together to work as one in order to achieve a common goal. The requirements for the implementation of the new system are: The Hardware and Software

#### **4.7.4 Software Requirement**

For the effective implementation of the new system, the following software has to be installed on the computer

Windows Xp, Windows 7 or Vista

- SQL Server Database
- VB. Net
- Fireworks
- Wamp Server
- CSS

#### **4.7.6 Hardware Requirements**

- 1GB RAM and above
- 40GB HD

### **4.8 Web Based Application Development**

The Web is built on the HyperText Transfer Protocol. HTTP is a client/server request/reply protocol that is stateless. That is, the protocol does not make any association between one transaction and another; e.g. since the time transaction, type or client involved in the last transaction, what data was exchanged between the client and the server. As far as HTTP is concerned, each transaction is a discrete event. But this is not what we want in a shopping cart application because we need to preserve the user's shopping selection as they proceed with their purchase, in addition it is useful to have the access to their past purchase history and personal preferences. Carrying information from one page to another can be achieved by several ways, such as Cookies, Session variables, Post variables, etc.

### **4.8.1 Database Connectivity**

In e-commerce applications it is very typical for the Web server to contact the database to get information as needed. The Local host is the WampServer.

### **4.8.2 The Shopping Cart Application**

The objective of this application is to provide the user an online website where they can buy books from the comfort of their home. A shopping cart is used for the purpose. The user can select the desired books, place them in the shopping cart and purchase them using a Credit Card. The user's order will be shipped according to the type of shipping selected at the time of placing the order.

Website consists of the following web pages:

1. My account.aspx
2. Product.aspx
3. My orders.aspx
4. Admin.aspx
5. ChangePassword.aspx
6. CheckOut.aspx
7. Aboutus.aspx
9. ForgotPassword.aspx
10. Login.aspx
11. LogOff.aspx
12. Home.aspx
13. Order.aspx
14. PurchaseHistory.aspx
15. Registration.aspx
16. Contactus.aspx
17. ShoppingCart.aspx
18. Track status.aspx

In figure 4.20 shows some screenshots taken from running the application. All the functionalities are explained accordingly. When the user types the web address in the browser, the main page of the application is displayed which has the list of the top ten popular books available in the store, as showed in Figure 4.20

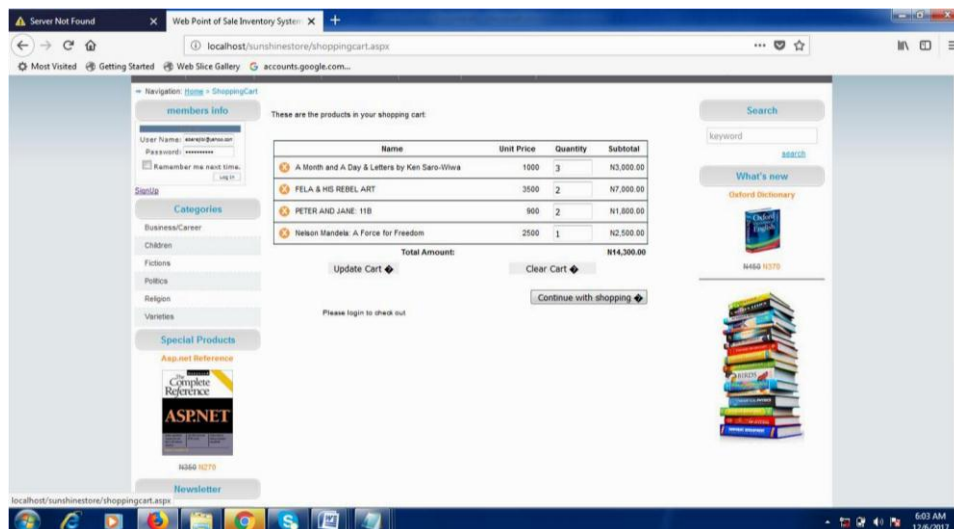


Figure 4.20: Preview of Shopping Books Cart

The above figure 4.20 clearly indicates the preview of ordered books from the shopping cart which comprises the name of ordered books, unit price and quantity of ordered.



Figure 4.21: Available books

The information about books is stored in “Books” table. The user can know the ISBN of the book, book title, author of the book, number of copies available at the store, price of the book. A link to add the book to the shopping cart and also a link to write a review for the book are also provided. The user does not have to login to add a book to the cart or to read/write a review.

### 4.8.3 Performance Indicators of the Developed System

1. Generation of track id for the customer as illustrated in fig 4.4
2. Improve high rate of processing
3. Notification of transaction
4. Cost effective
5. Multiple means of payments

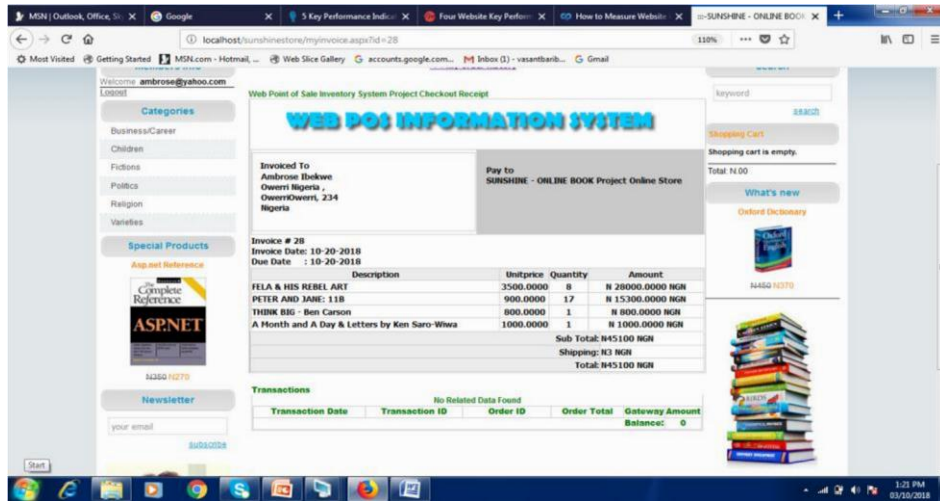


Figure 4.22: Illustrates the generation of track id **28** also known as the Invoice number.

## **CHAPTER FIVE**

### **CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Conclusion**

This work developed an online Book Sales system. In the process of the design, lists of various academic bookstores were sampled for information for the development of the design. The study was able to know the aggregate percentage of customers who prefer online shopping, customers most frequently purchase academy books than other varieties, customers are satisfied with the mode of payment and customer are satisfied that their products will be delivered on time. This work helps in understanding the creation of an interactive web page and the technologies used to implement online book store. The design of the work which includes Data Model and Process Model which illustrates how the database is built with different tables, how the data is accessed and processed from the database. The development of the work has given a precise knowledge about how VB.NET, ASP.NET, CSS and SQL Server Database are used to develop the web application

In conclusion, the work developed an automated online bookstore application which at allows users to search and purchase a book online based on category, author and subject without any hassle. This work will satisfy the demand of the user and the user can find all available books and details of the books to purchase without any time and energy waste. Some minor functional problem may occur during operation, but it will not have any minimum effect on kernel part of the system.

#### **5.2 Recommendations**

This work is recommended for everybody to make use of the online books store to explore and make choice of varieties of available books. Also it has provided a

satisfactory mode of payments and entrust security that every product will be delivered on time.

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## **Appendix A**

### **Program Source Code**

```
<%@ Page Language="vb" AutoEventWireup="false"  
MasterPageFile="~/Zen.master" CodeBehind="CheckOutSummary.aspx.vb"  
Inherits="webposis.CheckOutSummary"
```

```

    title="::-Web Point of Sale Inventory System | Shop -::" %>
<asp:Content ID="Content1" ContentPlaceHolderID="head" runat="server">
</asp:Content>

<asp:Content ID="Content2" ContentPlaceHolderID="ContentPlaceHolder1"
runat="server">

    <br />

    <h4>

        Review Your Order</h4>

    <table width="90%" border="0" cellpadding="0" cellspacing="0">

        <tr>

            <td align="left">

                <strong>Here is the summary of your order. </strong>

            </td>

        </tr>

    </table>

    <br />

    <table cellpadding="2" cellspacing="0" style="border-right: #cccccc 1px solid;
border-top: #cccccc 1px solid;

border-left: #cccccc 1px solid; border-bottom: #cccccc 1px solid" width="90%">

    <tr>

        <td>

            <asp:FormView ID="uxShippingForm" runat="server"
DataSourceID="ShippingDataSource"
Width="100%">

```

```

    <ItemTemplate>
        <table id="T_Detail" cellpadding="3" cellspacing="2"
width="100%">
            <asp:GridView runat="server" ID="GridView1" Width="100%"
CellPadding="4" OnPageIndexChanging="IndexChanged"
                BorderColor="#660033" BorderStyle="Solid" BorderWidth="1px"
AutoGenerateColumns="False" AllowPaging="True" PageSize="7"
ForeColor="#333333" GridLines="None">
                <RowStyle CssClass="gridRowStyle" BackColor="#FFFBD6"
ForeColor="#333333" />
                <AlternatingRowStyle CssClass="gridAlternatingRowStyle"
BackColor="White" />
                <PagerStyle CssClass="gridPagerStyle" BackColor="#FFCC66"
ForeColor="#333333" HorizontalAlign="Center" />
                <HeaderStyle CssClass="callOutStyle" Font-Bold="True"
BackColor="#990000" ForeColor="White" />
                <SelectedRowStyle CssClass="gridSelectedRowStyle"
BackColor="#FFCC66" Font-Bold="True" ForeColor="Navy" />
                <Columns>
                    <asp:TemplateField HeaderText="Active">
                        <HeaderStyle HorizontalAlign="Center" />
                        <ItemStyle HorizontalAlign="Center" />
                        <ItemTemplate>
                            <asp:CheckBox runat="server" ID="CheckBox1"
Checked='<%#DataBinder.Eval(Container.DataItem, "IsApproved")%' />
                        </ItemTemplate>
                    </asp:TemplateField>
                </Columns>
            </asp:GridView>
        </table>
    </ItemTemplate>

```

```

</asp:TemplateField>
<asp:TemplateField HeaderText="User name">
    <ItemTemplate>
        <asp:Label runat="server" ID="UserNameLink"
ForeColor='black' Text='<%#DataBinder.Eval(Container.DataItem, "UserName")%>'
/>
    </ItemTemplate>
</asp:TemplateField>

<tr>
    <td style="width: 100px; height: 17px;">
        <table cellpadding="2" cellspacing="0" style="border-right: #cccccc 1px
solid; border-top: #cccccc 1px solid;
border-left: #cccccc 1px solid; border-bottom: #cccccc 1px solid"
width="500"
bgcolor="#f9f9f9">
            <tr>
                <td style="width: 37px; text-align: left; padding-left: 5px;">
                    <asp:Image ID="Image1" runat="server"
ImageUrl="~/Resources/Design/VevoMyAccount.png" />
                </td>
                <td style="vertical-align: middle; text-align: left; fontweight:
bold; color: #FFA500;
width: 454px;"><%--
webposis.CineObject.Utility.GetCustomerName()--%>
                    Order History Information for Customer -

```

```

<%=Request.QueryString("username")%>
        </td>
    </tr>
</table>
<div style="height: 5px;">
</div>
<table cellpadding="2" cellspacing="0" style="border-right:
#cccccc 1px solid; border-top: #cccccc 1px solid;
border-left: #cccccc 1px solid; border-bottom: #cccccc 1px solid"
width="500"
bgcolor="#f9f9f9">
    <tr>
        <td align="left">
            <asp:GridView ID="uxGrid" runat="server"
AutoGenerateColumns="False" DataKeyNames="Orderid"
            Width="100%" OnRowDeleting="uxGrid_RowDeleting"
BackColor="White" BorderColor="#336666"
            BorderStyle="Solid" BorderWidth="1px" CellPadding="4"
GridLines="Horizontal"
            DataSourceID="CustomerOrdrDataSource"
AllowPaging="True">
                <Columns>
                    <asp:TemplateField SortExpression="Del">
                        <ItemTemplate>
                            <asp:ImageButton ID="uxDeleteImageButton"
runat="server" ImageUrl="~/Resources/Design/delete.gif"

```

```

        CommandName="Delete" />
    </ItemTemplate>
</asp:TemplateField>
<asp:TemplateField      HeaderText="Order      #"
SortExpression="orderid">
    <ItemStyle HorizontalAlign="Left" />
    <ItemTemplate>
        <asp:Label      ID="uxNameLabel"      runat="server"
Text='<%# Eval("orderid") %>'>
    </asp:Label>
    </ItemTemplate>
    <HeaderStyle HorizontalAlign="Center" />
</asp:TemplateField>
<asp:TemplateField      HeaderText="Date"
SortExpression="orderdate">
    <ItemTemplate>
        <asp:Label ID="uxLabel" runat="server" Text='<%#
format( ctype( Eval("orderdate"),date),"MMM dd, yyyy") %>'></asp:Label>
    </ItemTemplate>
    <HeaderStyle HorizontalAlign="Center" />
</asp:TemplateField>
<asp:TemplateField      HeaderText="Subtotal"
SortExpression="Subtotal">
    <ItemTemplate>
        <asp:Label ID="Label1" runat="server"

```

```

Text='<%# format(Eval("total"), "N##,##.00") %>'
/>

</ItemTemplate>
<HeaderStyle HorizontalAlign="Center" />

<ItemStyle HorizontalAlign="Right"></ItemStyle>
</asp:TemplateField>
<asp:TemplateField HeaderText="Status"
SortExpression="Status">
<ItemTemplate>
<asp:Label ID="status" runat="server"
Text='<%#Bind("status") %>' Width="50px"
ValidationGroup="ShippingCartValid" />
</ItemTemplate>
<HeaderStyle HorizontalAlign="Center" />
</asp:TemplateField>
<asp:HyperLinkField DataNavigateUrlFields="orderid"
DataNavigateUrlFormatString="orderslist.aspx?id={0}&m=details"
Text="view">
<ItemStyle HorizontalAlign="Center" />
</asp:HyperLinkField>
<asp:HyperLinkField DataNavigateUrlFields="orderid"
DataNavigateUrlFormatString="orderdetails.aspx?id={0}"

```

```

        Text="change status">
        <ItemStyle HorizontalAlign="Center" />
</asp:HyperLinkField>
    </Columns>
    <RowStyle CssClass="GridOrderRowStyle" />
    <SelectedRowStyle CssClass="GridSelectedRowStyle" />
    <PagerStyle CssClass="GridPagerStyle" />
    <HeaderStyle CssClass="GridHeadStyle" />
    <FooterStyle CssClass="GridHeadStyle" />
    <EditRowStyle CssClass="GridEditStyle" />
    <AlternatingRowStyle
    CssClass="GridAlternatingRowStyle" />
</asp:GridView>
    <asp:ObjectDataSource      ID="CustomerOrdrDataSource"
runat="server"
        OldValuesParameterFormatString="original_{0}"
        SelectMethod="SelectordersummaryClassMethod"
    TypeName="webposis.CineObject.CustomerOrderClassDAL"
    DataObjectTypeName="webposis.CineObject.OrderSummaryClass"
        DeleteMethod="DeleteordersummaryClassMethod">
    <SelectParameters>
        <asp:Parameter Name="username" Type="String" />
    </SelectParameters>

```

```

        </asp:ObjectDataSource>
    </td>

</tr>

        </ItemTemplate>
        <HeaderStyle HorizontalAlign="Center" />
</asp:TemplateField>

    <asp:TemplateField HeaderText="Unit Price"
SortExpression="Price">
        <ItemTemplate>
            <asp:Label ID="uxLabel0" runat="server"
Text='<%# Eval("unitPrice") %>'></asp:Label>
        </ItemTemplate>
        <HeaderStyle HorizontalAlign="Center" />
</asp:TemplateField>

    <asp:TemplateField HeaderText="Quantity"
SortExpression="Quantity">
        <ItemTemplate>
            <asp:Label ID="editQuantity0" runat="server"
Text='<%#Bind("Quantity") %>' Width="50px"
            ValidationGroup="ShippingCartValid" />

```

```

        </ItemTemplate>
        <HeaderStyle HorizontalAlign="Center" />
    </asp:TemplateField>
    <asp:TemplateField HeaderText="Subtotal"
SortExpression="Subtotal">
        <ItemStyle HorizontalAlign="Right" />
        <HeaderStyle HorizontalAlign="Center" />
        <ItemTemplate>
            <asp:Label ID="Label2" runat="server"
                Text='<%# format(Eval("Subtotal"),"N##,##.00" )
%>'></asp:Label>
        </ItemTemplate>
    </asp:TemplateField>
</Columns>
    <RowStyle CssClass="GridOrderRowStyle" />
    <SelectedRowStyle CssClass="GridSelectedRowStyle" />
<PagerStyle CssClass="GridPagerStyle" />
    <HeaderStyle CssClass="GridHeadStyle" />
    <FooterStyle CssClass="GridHeadStyle" />
    <EditRowStyle CssClass="GridEditStyle" />
    <AlternatingRowStyle
CssClass="GridAlternatingRowStyle" />
</asp:GridView>
    <asp:ObjectDataSource

```

```

ID="CustomerOrderDetailDataSource" runat="server"
        OldValuesParameterFormatString="original_{0}"
        SelectMethod="SelectOrderItemClassMethod"

TypeName="webposis.CineObject.CustomerOrderClassDAL"

DataObjectTypeName="webposis.CineObject.OrderSummaryClass"
        DeleteMethod="DeleteordersummaryClassMethod">
        <SelectParameters>
                <asp:QueryStringParameter          DefaultValue="-1"
Name="orderid"
                QueryStringField="id" Type="Int32" />
        </SelectParameters>
        </asp:ObjectDataSource>

--%>
        <%-- <uc1:OrderDetail ID="OrderDetail1" runat="server" />
        </td>
        </tr>
        <tr>
        <td align="right">
                <uc2:ordersummarytotal  ID="ordersummarytotal1"  runat="server"
cDatasourceID="CustomerOrderTotalDataSource" />

```

```

        <asp:ObjectDataSource ID="CustomerOrderTotalDataSource"
runat="server"

                OldValuesParameterFormatString="original_{0}"

SelectMethod="SelectOrderCustomerTotalInfoClassMethod"

TypeName="webposis.CineObject.CustomerOrderClassDAL"

DataObjectTypeName="webposis.CineObject.OrderSummaryClass"

                DeleteMethod="DeleteordersummaryClassMethod">
                <SelectParameters>
                        <asp:QueryStringParameter DefaultValue="-1"
Name="orderid"

                                QueryStringField="id" Type="Int32" />
                </SelectParameters>
                </asp:ObjectDataSource>

        </td>
</tr>

</table>

</td>
</tr>

</table>

</asp:Content> <% @ Page Language="vb" AutoEventWireup="false"
MasterPageFile="~/Zen.master" CodeBehind="productdetails.aspx.vb"

```

Inherits="webposis.productdetails2"

title="::-Web Point of Sale Inventory System | Shop -:::" %>

<% @ Register Src="Components/ProductDetails.ascx"

TagName="ProductDetails" TagPrefix="uc3" %>

<asp:Content ID="Content1" ContentPlaceHolderID="head" runat="server">

</asp:Content>

<asp:Content ID="Content2" ContentPlaceHolderID="ContentPlaceHolder1" runat="server">

<%--<br /><br />--%>

<%--<div class="BreadCrumb">--%>

<%-- <asp:SiteMapPath ID="uxProductSiteMapPath" runat="server">  
</asp:SiteMapPath>--%>

<%--</div> <br /> <br /> --%>

<%--OnDataBound="uxProductFormView\_DataBound"--%>

<%--OnDataBinding="uxProductFormView\_DataBinding" ProductID='<%#  
Eval( "ProductID" ) %>'--%>

<table Width="100%" >

<tr>

<td> <asp:FormView ID="uxProductFormView" runat="server"  
DataSourceID="uxProductDetailsSource"

Width="100%" >

<ItemTemplate>

```

        <uc3:ProductDetails ID="uxProductDetails" runat="server">
        </uc3:ProductDetails>

    </ItemTemplate>

</asp:FormView>

    <asp:ObjectDataSource ID="uxProductDetailsSource" runat="server"
    OldValuesParameterFormatString="original_{0}"

        SelectMethod="SelectProductLogicClassMethod"
    TypeName="webposis.CineObject.ProductLogicClassDAL"
    DataObjectType="webposis.CineObject+ProductLogicClass"
    DeleteMethod="DeleteProductLogicClassMethod"
    InsertMethod="InsertProductLogicClassMethod"
    UpdateMethod="UpdateProductLogicClassMethod">

        <SelectParameters>

            <asp:QueryStringParameter Name="pid" QueryStringField="pid"
            Type="Int32" DefaultValue="100" />

        </SelectParameters>

    </asp:ObjectDataSource></td>

</tr>

<tr>
<td class="themeButton">&nbsp;:::Commnet(s)</td></tr>

<tr>
<td><%-- DataSourceID="ProductCommentsDataSource"--%>

    <%-- <asp:Repeater ID="Repeater1" runat="server"
    DataSourceID="ProductCommentsDataSource"

        >

    <ItemTemplate>

```

```
<table width="100%">
    <%--<tr><td style="width:100px"> Your
Name:</td><td><asp:TextBox ID="nameTextBox" runat="server" Text='<%#
Bind("name") %>' /></td></tr>

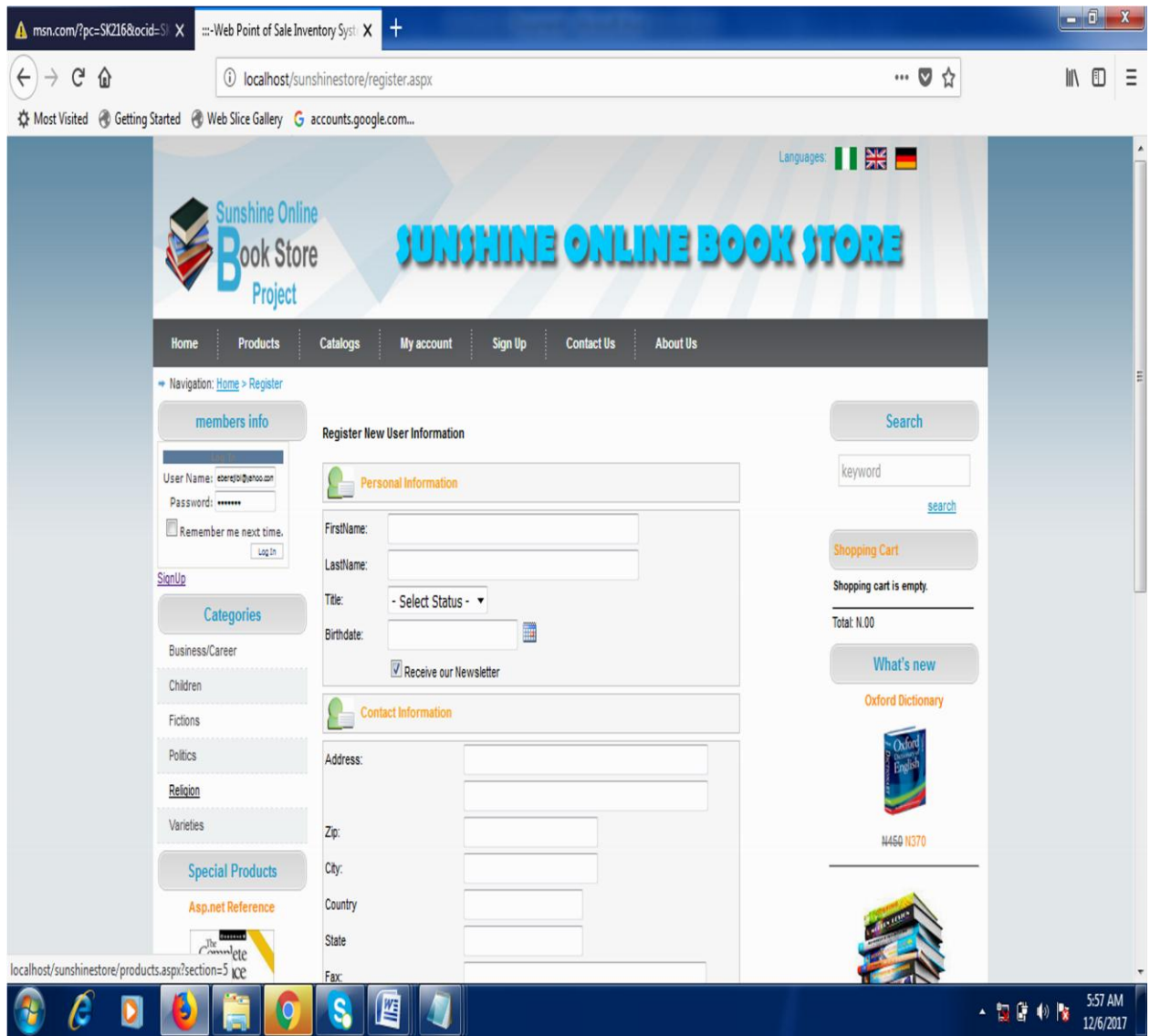
    <tr><td style="width:100px">Your Email:</td><td><asp:TextBox
ID="emailTextBox" runat="server" Text='<%# Bind("email") %>' /></td></tr>

    <tr><td colspan="2">
    <div class="CommentArea">
    <h4 class="CommentTitle">
        <%#Eval("postname")%> comment
```

**Appendix B**  
**Sample of Output**



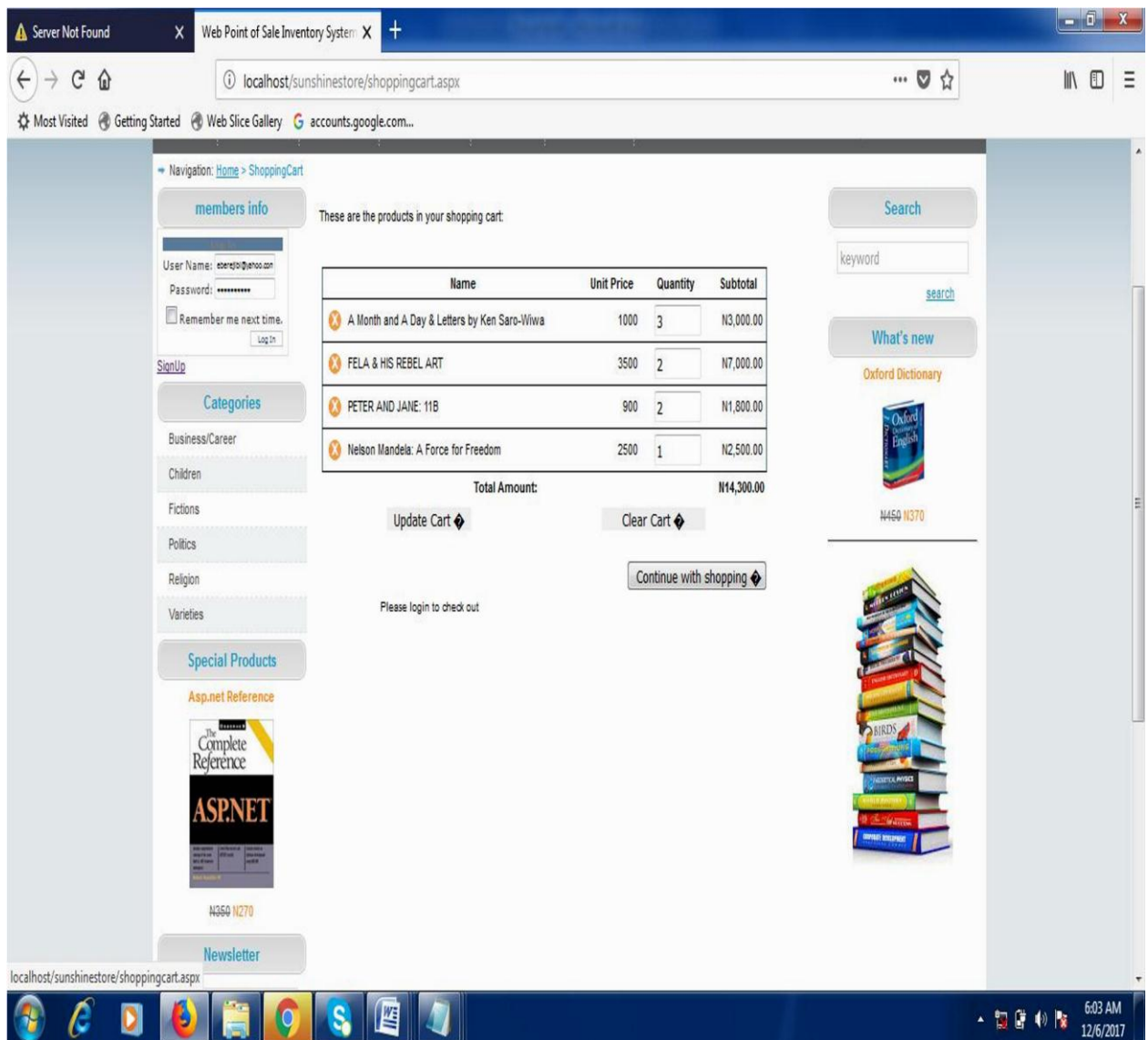
Appendix B1: Welcome Page



Appendix B2: Customer login



Appendix B3: Prices of Books in the Shopping Cart



Appendix B4: List of items in the Shopping Cart

