Gikosh.com

Software Documentation

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INTRODUCTION TO SOFTWARE ENGINEERING

DECLARATION

ACKNOWLEDGMENTS

DEDICATION

ABSTRACT

Electronic Commerce, also known as e commerce is a type of industry where buying and selling of a product is conducted over electronic systems such as the internet.

The purpose of this application is to bring knowledge to students about ecommerce and how an interactive ecommerce application can be designed from scratch using javascript for both the client and server side . The server side includes a database , creating session models for joining diffferent user-interface pages, calculating the shipping cost and sales tax , etc. it is responsible for taking information from the database and making it available on the UI by mapping the category or item ID to the respective IDs stored in the database . The client side is responsible for showing the entire user interface, containing the react javascript framework

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1:Chapter one Background Introduction

1.1 Introduction

E-commerce has seen developed in the recent period in the area of trade in Iraq

and there is a significant change in the electronic shops. In addition, captured the

new e-commerce in the field of businesspersons and this through the market

orientation of commercial sites in Iraq for continued attraction in the domain of web

browsing sites. Supporting many web broker access first to find information about

technology, news, tutorials and other, so the content of web sites is the backbone of

the existence of this site and its usefulness. Web content provides visitors to the site

and visitor traffic to the site to be one of the two cases, the movement of a petition

and the movement of narrow in terms of content [1]. Broad movement, see the visits

represent and pursue varied content on the pages of the site where the content in this

layer petition targeting of an example of Arab arenas contain content Mono political

and economic and religious and scientific and thus the movement of the visit [2].

The global Statistics e-commerce will grow by $ 1.5 trillion in 2017 and growth

rates between 20 and 30 per cent in emerging regions such as Latin America, Africa,

the Middle East and North Africa [3]. The number of Internet users in the Middle

East is 90 million users, e-commerce sales estimated in the Middle East and NorthAfrica by about 17 billion dollars in 2016, up from $ 9 billion since 2013 [4]. In

addition, the value of electronic commerce via smart phones in the Middle east and

north Africa could reach $ 4.9 billion by 2017 [5]. Half of the consumers in the

Middle East almost 47% have paid card, and between 70% to 80% of online

purchases of physical goods in the Middle East are made through payment by those

cards upon receipt, while there are only 30% payment [6]. The Middle East, the

Arab market and Iraq collectively represent only 2.5% of the globe

1.2 Statement of the problem

**System Requirements**

Allow customers to view products from their home

•Allow customers to make purchases and receive products from their home •Customers are able to make payments from credit card

•Product descriptions must be easily maintained and updated by store employees

•Fast distribution of product descriptions so that customers have accurate portrayal of what Doe’s Electronics has to offer

•Inexpensive distribution of product descriptions

•Fast customer ordering system that is as simple as possible

**Information** **Requirements**

•Information needed to created order form

•Product selections

•Customer information

•Billing information (credit card)

•Shipping information (if different from customer) Interfaces Customer accesses the e-Commerce shopping system via Internet. So the Website of Doe’s Electronics, which hosts the e-Commerce shopping system, must be able to be accessed via Internet. The e-Commerce shopping system needs an interface to the Credit Verification Company’s system. If Doe’s Electronics Company uses extra systems to manage its finance or accounting, the e-Commerce shopping system may need interfaces to these systems too.

1.3 Objectives of the study

Ecommerce hosts a platform that lets businesses sell their products or services throughout the world through an electronic medium. Earlier, ecommerce was referred to as Electronic Commerce. As the definition of ecommerce implies, it includes all sorts of businesses that use the internet for data exchange and/ or money exchange. It is successfully running in many sources such as supply chain management, electronic data interchange, mobile commerce, internet marketing, data collection, online transaction, and electronic exchange of funds. The ecommerce platform you choose for creating your online store should be cost-effective and help your business grow as well as evolve with time as required. Ecommerce is a part of our day to day life. Today, technology aids in literally purchasing anything, online!

## **What are the objectives of ecommerce?**

Ecommerce business drives profitable growth with reduction is cost-to-customer, developing customer-reach, and providing a unique customer experience. It has become more than essential for B2B as well as other businesses to make the right use of ecommerce. Now, ecommerce is evolving or better say evolved into digital commerce that implies to the entire business journey from buying to delivery with an online experience.  Below are the few objectives of ecommerce:

### 1.     Reduce management costs

Businesses aim at reducing the costs incurred for the betterment of their revenue. Automating the ecommerce business can help in reducing the management cost significantly. Moreover, the right use of digital marketing can help in reducing the cost spent on driving customers to such an extent that businesses can bring customers for free of cost.

### 2.     Developing business relations

With ecommerce as the primary use, business development can be easily achieved. The direct communication between a company and the customer, the business relationship can be boosted.  Eventually, the ecommerce market shall be expanded.

### 3.     Providing a unique customer experience

Uncountable ecommerce businesses are functioning out there in the market. When a customer searches for a certain product (for instance, shampoo), they will probably click on the first three links that are shown on the Google Search Engine Results Page. All the rest links are either avoided, never seen, or are visited by a few. This itself shows the competition in the ecommerce market. One of the best ways to stand out from the crowd is by providing a unique customer experience. This includes giving a personalized experience to each customer or visitor of your online store, website, or mobile app. Some other pointers to consider are round the clock customer service, immediate responses to the queries rose, engaging with the customers, and so on.

### 4.     Increasing the number of loyal customers

Customers are the core of all business strategies. Therefore, ensuring the great customer experience is of prime importance for the growth of the business. You need to meet your customers where they spend their time. More than 60% of consumers look for purchasing goods and services online. If you meet your customers where they are already active, the chances of them, interacting with your business increases two folds. You can increase the number of loyal customers by giving the best experience to your already existing customers as well as bring in newer customers.

### 5.     Boosting the efficiency of services

With the continually evolving technology, you need to enhance the efficiency of your services. By choosing an online ecommerce platform to create an online store, you can efficiently reduce the cost of managing and selling online. You have various opportunities to boost the efficiency of your service that eventually enhances the revenue earned. By reducing the delivery time, you can witness happy customers getting back to your business two times faster. Another way is to provide your customers with automated services such as status update, invoice creating, chat support, etc. When you update your efficiency of delivering products or services to your customers, you are creating a strong online presence that helps you sell more.

### 6.     Developing relevant target

Developing relevant traffic for an ecommerce business is a common objective. Whether an ecommerce website or an online store, building traffic is one of the most important objectives. However, you should know that not all traffic is useful for your business. If you are successfully creating traffic for your ecommerce site or store, but most of the people in the traffic do not require the products or services you provide, the traffic is not causing any good to your business. For instance, your marketing strategies were attractive enough for teenagers; your business would not be receiving any boost in sales. Therefore, along with boosting your traffic, you need to analyze your traffic. Here comes the need for collecting customer data. Collecting customer data include demographics such as age, location, and gender, customer interests, browsing history, browser history, and so on. By saving these data, you can aim in targeting the relevant market.

### 7.     Making responsive ecommerce website

With the increasing use of smartphones for shopping online, it has become more than mandatory for ecommerce businesses to go mobile. Apart from creating a native mobile app, like the one offered from Builderfly, you need to [create a responsive ecommerce website](https://www.builderfly.com/store/ecommerce-builder). It is one of the major objectives of all leading ecommerce businesses. By responsive, it means to create a website that can be viewed from any devices of varying screen size, equally. Studies say that Google may next rank a website based on its mobile website. It means that any website that has a responsive design would be ranked on top of the website that does not have one. Making your ecommerce website responsive can help you optimize it. A mobile-friendly website earns more traffic than the rest.

### 8.     Increasing sales

The objective of increasing sales will always remain continuous and constant for an ecommerce business. In order to thrive in the ecommerce industry, you need to boost your sales, constantly. All other objectives are zeroed down to make this objective happen. However, you also need to look into your past store analytics and figure out the marketing tactics that have worked well for you to increase sales. Although these objectives could help you in gaining sales, nothing can beat the tried and tested marketing tactics for your business. For instance, the products that are sold the most, ideally the best seller can be used for remarketing and grab more attention. Any marketing strategy you used earlier including the email targeting and traffic boosting tactics must be revisited and worked upon to increase sales. Based on the above-mentioned objectives and the marketing tactics that actually worked for you, you need to design your marketing plan. Only you can decide what is perfect for your business and what is not. Every business is unique, and so is yours!

1.4 Justification of the study

The history of ecommerce longs back to the time when the telephone was invented. Electronic Data Interchange or EDI is believed to be the start of ecommerce. Huge companies have been investing in EDI development since the 60s. However, it did not get considerable acceptance until the 80s. The last few years have reasonably changed the definition of ecommerce. Originally, ecommerce was used for commercial transactions using the electronic medium that includes technologies such as EDI and Electronic Funds Transfer (EFT). These methods were used for commercial transactions, while later, the use of credit cards, ATMs (Automated Teller Machines), phone banking, railway, and airlines joined with the process.

In 1979, Michael Aldrich invented online shopping which eventually became the essential component of ecommerce. During the 90s, ecommerce was introduced to data collection and Enterprise Resource Planning (ERP) system. Also, the World Wide Web (WWW) was invented during this time; introducing the world to an everyday communication system. Although the Internet was popular, security protocols were introduced 5 years later. From the 2000s, ecommerce was started being used as a medium to sell and purchase goods and services.

1.5 Scope and limitations of the study

eCommerce has become one of the most popular mediums of transactions in the recent years. While it does offer quite a lot of benefits to both buyers and sellers, it is not totally free from disadvantages. By having an idea of these limitations, we can address them and come up with a solution.

**Here are the top disadvantages and limitations of eCommerce businesses:**

**1. Security:**

One of the main limitations of eCommerce is security. In most cases, people are hesitant to provide their personal and financial details in spite of advanced data encryption security systems in place. Moreover, there are some websites that do not have the capability and features installed to authenticate transactions. As such, there are instances of [fraudulent activities](https://www.shiprocket.in/blog/ecommerce-online-scamming-fraudsters-countries/). The fear of providing financial information like credit card details hinders the [growth of eCommerce](https://360.shiprocket.in/blog/ecommerce-growth-india-market-research-stats/).