E-Commerce:Purchasing And Selling Online

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Abstract-

1. *This research paper gives a compressive review of the role of E-commerce and how it is attracting customers to Ecommerce sites.*
2. *E-commerce has given new definition to the business; product selling has completely changed.*
3. *Selling online can help your business reach new markets and increase your sales and revenues. If you are interested in selling to other businesses, you can use the Internet to find sales leads, announce calls for tender and offer products for sale either through your own website or through an e-marketplace site.*
4. *Customer buying pattern has got a completely new outlook, selling and distribution have completely taken a new swift. Ecommerce has become a vital and innovative invention of this decade. Ecommerce has impacted the business ecosystem in multiple ways.Searching for products and services online can save you time and money by allowing you to find the best prices without having to do all the legwork. You can use the Internet to find new suppliers, post buying requestsor search for products and services. Online trading networks can also be used to support efficient information exchange between buyers and sellers.*
5. *This research paper gives a detailed understanding of e-commerce trends in the current decade. Ecommerce has become part of our life;it is reaching the expectations of customers by offering unique value of services. This research paper focuses on, how ecommerce sites working on customer engagement. Further,*
6. *our research paper gives a better idea about quality brande-commerce websites*

I. INTRODUCTION

In the past few years, we can notice a rapid change in technology. Technological changes in every industry have contributed a significant amount of difference, which result in customer advancement towards the services. Consumer behaviour is changing rapidly, customers are empowered, connected and expect an unprecedented level of servic e and convenience. Tobridge this gap many enterprises have been making incredible efforts to reach customer's expectation and willing to make proper engagement with the great customer's satisfaction. More than half of the world's population that is 4.5 billion people have access to the internet, the era of the internet and technology has made the evolution in the E-commerce market.The term was coined and first employed by Dr. Robert Jacobson, Principal Consultant to the California State Assembly's Utilities & Commerce Committee, in the title and text of California's Electronic Commerce Act, carried by the late Committee Chairwoman Gwen Moore (D-L.A.) and enacted in 1984.Michael Aldrich was an English entrepreneur who invented online shopping in 1979. E-commerce is a process of selling and buying goods online. E-commerce is classified into few types such as; business to business, business to customer,customer to the business, and customer to customer. The growth of E-commerce made the endowment of many companies,now Amazon is the world's biggest e-commerce company followed by Just Dial, eBay, Shopify, etc. The impact of ecommerce is phenomenal, the number of consumers purchasing online has increased gradually with the increased use of the internet. Customers are too busy nowadays to go and purchase goods by going to the market.

So, e-commerce has made their life more convenient. Customer's today search on e-commerce about the products they wish to purchase. Companies have a powerful search engine that shows hundreds of products matching consumer needs.

II. METHODOLOGY

2.1. Customer engagement: Importance of Customer Engagement According to an Indian marketing survey, Customers are communicating and buying through digital channels. Like Amazon.com, flipkart.com, Myntra, etc. These channels have increased and given growth to the importance of customer engagement strategy. 1. Discovering the factors that encourage customers to involve. Identifying the risk that, customers will not have any kind of issues. 2. Understanding customer needs and expectations. 3. Reducing Price and increasing retention and identify the sell opportunities which helps to enhance brand loyalty and company reputation. 4. Acquiring new customers through Digital marketing, word-mouth of marketing, and social media marketing.Customer engagement in e-commerce platform in IndiaDespite the pandemic in 2020, e-commerce platforms had an exceptional increase in sales in India, with the help of customer

engagement with their loyal customer's branding. The five stages of customer engagement are to Discover, Shop, Buy, Own, and Advocate, this has helped in the increase of sales and marketing in the e-commerce websites, with the new product line ups. Digital marketing is the new key to the essential part of excessive customer engagement.
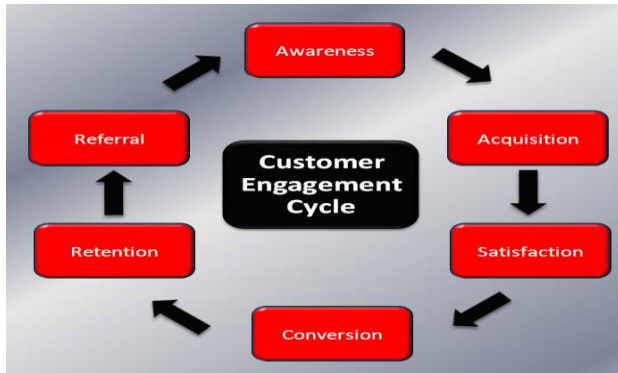

Fig:customer-engagement-cycle

III. GLOBAL RETAIL E-COMMERCE MARKET SIZE 2014-2023

This online widened significantly in 2020 as a result of the coronavirus pandemic. With brick-and-mortar stores shut to curb the spread of the virus, consumers flocked online to carry out their purchases. In fact, experts say the pandemic has accelerated the shift to online shopping by as many as five years.

As Harvard Business Review wrote: "Business leaders are scrambling to adjust to a world few imagined possible just a year ago. The myth of a borderless world has come crashing down. Traditional pillars of open markets—the United States and the UK—are wobbling, and China is positioning itself as **globalization's staunchest defender."**
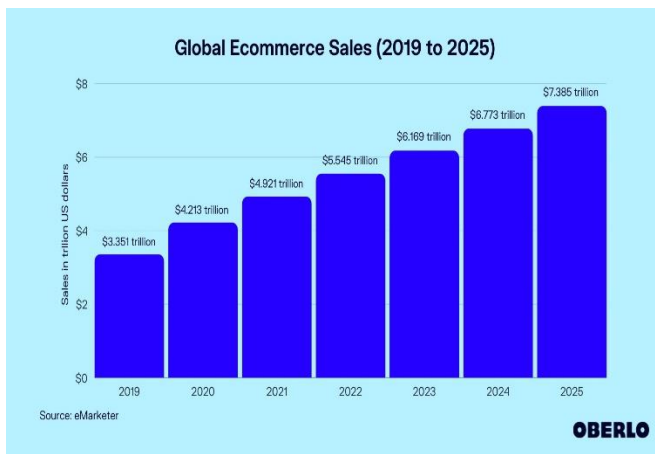

Fig: Global Ecommerce Explained: Stats and Trends to Watch in 2022

3.1How big is the global ecommerce market?

The global ecommerce market is expected to total $4.89 trillion in 2021. That figure is estimated to grow over the next few years, showing that borderless ecommerce is becoming a profitable option for online retailers.Two years ago, only 13.6% of sales were made from online purchases. Today, that number is expected to reach 19.5% in 2021, a 45.8% increase in ecommerce market share over two years. Growth is expected to continue, reaching 21.8% by 2024, which translates to an 8.2 percentage point increase in just five years. Two other countries round out the top five ecommerce markets: Japan is forecast at $144.08 billion in 2021, and South Korea is expected to bring in $120.56 billion.
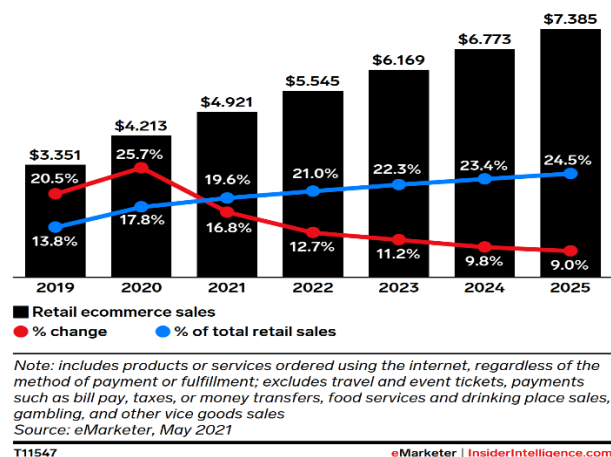
IV. DESCRIPTION OF SOFTWARE STRUCTURE

Model View Controller or MVC as it is popularly called, is a software design pattern for developing web applications. A Model View Controller pattern is made up of the following three parts:

- Model - The lowest level of the pattern which is responsible for maintaining data.
- View - This is responsible for displaying all or a portion of the data to the user.
- Controller - Software Code that controls the interactions between the Model and View. MVC is popular as it isolates the application logic from the user interface layer and supports separation of concerns. Here the Controller receives all requests for the application and then works with the Model to prepare any data needed by the View. The View then uses the data prepared by the Controller to generate a final presentable response. The MVC abstraction can be graphically represented as follows.

MVC Design patter is one of the most fundamental architecture for web applications like J2EE, .Net, Rails and Struts etc.J2EE and JSP technologies are the fundamentals for Spring framework.

This Spring framework consists of MVC pattern as follows.

    a.   User Interface component as views
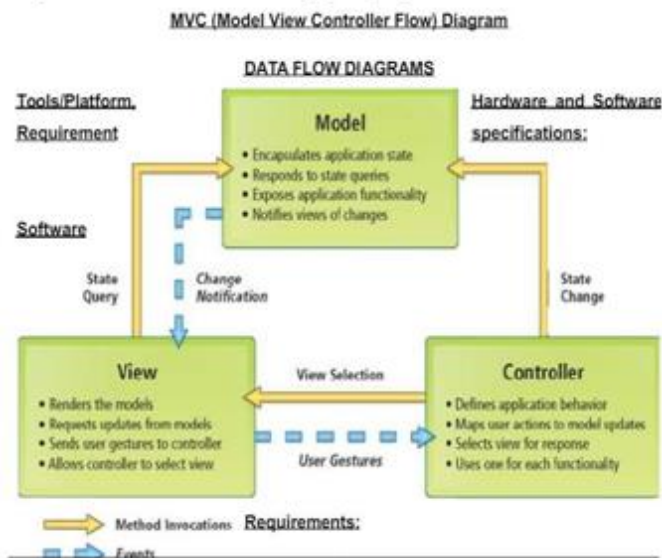   b.   Application logic as Model
    c.   Control functions as Controller

Figure displays a MVC structure.

V. E-COMMERCE FEATURES AND SERVICES

The following summarizes many of the basic and advanced features and services our e-commerce website.

5.1.Shopping Cart: Shopping carts vary considerably. Features may include progress indicators to help customers understand where they are in the transaction process, automatic calculation of tax and shipping, customizable design and layout.

5.2.ProductCatalogue: Check to see how many products the online catalogue is able to manage. Consider how easy it is to add products and to upload an existing product database.

5.3.Security Features:(e.g. Secure Socket Layer (SSL), password protection, access privileges for site administration, data centre security, risk tools that can help flag fraudulent orders, etc.)saved to the disk, along with a plot of error and loss over training.

6.User Interface Design

A few user interface designswere constructed to visualize the user interaction with the system as they browse for products, create a shopping cart and purchase anything. The user interface design will closely follow our Functional Decomposition Diagram.

Figures 1 - show the initial designs of the web pages.

Figure 2-Authentication of the user

It is a critical component of an online store, so let's take a look at the key features of an e-commerce website customer account page.

Figure: Visualization of sparse autoencoder features

The type username and password in form, hit "OK" button. Then data going to server side and check users database if that user is existed..

The above figures figures show screenshots of our real-time implementation and the results obtained. In each screenshot, the original image is shown with the result