E-Commerce Website “City Kart”
Neeraj N Chopade¹, Akash A Bangade², Vikas M Patil³, Rohit V Patil⁴,
Sayali S Kulkarni⁵, Prof. T. V. Deokar⁶
Students, Department of Computer Science & Engineering¹,²,³,⁴,⁵
Assistant Professor, Department of Computer Science & Engineering⁶
Sanjeevan Engineering and Technology Institute, Panhala, Maharashtra, India

Abstract: Organizations began using Electronic Data Interchange (EDI) to move commercial papers back
and forth in the 1960s, and E-Commerce was born. Online shopping enterprises arose in the 1990s, and they
are now a huge phenomenon. On August 11, 1994, a Sting CD was sold by US retailer Net Market as the
first-ever online purchase. It has gotten so simple and convenient that anyone can purchase for anything from
the comfort of their own home with just a few clicks. With the introduction of smartphones, you may now
shop from anywhere and at any time using a wireless device connected to the Internet. You may now look for
practically any product or service online without having to leave your house. Depending on the function they
serve, different eCommerce websites are named or referred to in different ways. E-commerce is simply a sort
of business. It operates in a manner that is very similar to that of the actual retail industry. The only difference
between it and a traditional store is that the entire transaction takes place online.

Keywords: Ecommerce Website, E-com website, Shopping

I. INTRODUCTION
A website that lets you buy and sell physical commodities, digital products, and services via the internet. For ages, trade
has existed, whether through barter exchange or the buying and selling of products and services. There is no such thing
as self-sufficiency. This emphasises the importance of good and service demand and supply.
For ages, transactions have taken place all throughout the world, both locally and beyond borders. Consider the electronic
version of the same principle. Keep in mind, however, that as the entire world has gone online, data privacy rules have
gotten increasingly strict. And, before you start an ecommerce business, you should be informed of all the legal laws that
apply to your website.
Depending on the function they serve, different eCommerce websites are named or referred to in different ways.

- **Business-to-Business** (B2B): Electronic transactions between companies for goods and services. A company,
  for example, offers SAS products to other companies.
- **Business-to-Consumer** (B2C): Electronic transactions between businesses and consumers of goods and
  services. Consider the following scenario: You purchase a new t-shirt from an internet retailer.
- **Consumer-to-Consumer** (C2C): Consumers transact products and services electronically, usually through a
  third party. Consider the following scenario: You sell your old smartphone to another consumer on eBay or
  Olx.
- **Consumer-to-Business** (C2B): Individuals give items or services to businesses through electronic transactions
  of commodities and services. For example, a social media influencer may charge a fee in exchange for visibility
  to their online audience.

This website will focus mainly on small scale businesses. As the ratio of small scale business in India is 93%, and these
are suffering because of some famous websites. These small scale business try hard to compete with the market situation.
And not all get success in it.
So, our website will provide them a platform on which they will be able to sell their products and bring their business on
a newer heights. As well as it will also help in making addition income to the shopkeepers who are already in the business.

II. PROBLEM STATEMENT
There are numerous websites on the internet that provide a variety of products and services for consumers to search for
and purchase online, such as shoes, garments, sunglasses, and other items. Furthermore, the internet offers a variety of
services, including bill payment, transportation ticket buying, and more. We are looking at the problem addressed in this study, which is the consumer's perspective on internet buying. However, there are various factors that prevent consumers from engaging in online buying. For example, some consumers are hesitant to participate in online purchases for a genuine reason: they are concerned that the quality of the products sold online will not last, and they lack confidence.

The problem in the market is faced by the local shop owners because e-commerce industries are taking their customer base. Because of this issue, their sales are going down and they are worried about it, this was first problem. And second the problem is faced by customers those who want to buy products, from e-commerce websites but in many cases, we found that they want single-day delivery and instant product Replacement or return, like physical shopping. But as we found all the sites charge more for a single day or two days for a three-day delivery. So many customers don't want to pay more for delivery. So coming to this problems faced by the both side, shop owners and customers, we have came up with a unused system its called "City Kart".

III. LITERATURE SURVEY

M. Hakan Akyuz, Ibrahim Muter, Gunes Erdogan.
A third-party logistic provider handles the transportation between the retailers and the client, using a concave pricing strategy based on the distance between the origin and the destination, as well as the weight of the commodities. The solution of the formulation for each order has an impact on following orders, and the problem must be answered in real time.

Joni Salinem, Chandrashekhar k, Ahmed M Kamel.
Customers are increasingly relying on product reviews for information. Fake reviews, on the other hand, obstruct the value of online reviews by painting an untruthful picture of product quality. As a result, bogus review detection is required. Unfortunately, automatic detection has only had little success in this difficult task thus far. The purpose of this study is to look at the creation and detection of fraudulent reviews.

Guangliang XI
Shopping at a local supermarket serves as a trigger for social contacts amongst neighbours. Same-day-delivery (SDD) internet buying may modify this social process through multiple methods as it replaces local retail shopping. However, just a few empirical investigations have looked into the alterations in these relationships. This research uses a structural equations model to investigate the links between SDD online shopping, local store shopping. And three forms of social contacts among neighbours, using data from a household survey in Nanjing. SDD internet purchasing is connected with a negative relationship with greeting/chatting with neighbours, but a favourable relationship with social gathering.

George Q Huang, Yuang hu
Due to the unique aspects of online-to-offline ecommerce, this editorial examines research prospects in operations management. This special issue's contributions are summarised in this article. We highlight difficulties for future exploration through these research endeavours and accomplishments.

Ali Ghobadi Tapeh, Maseud Rahgozar
Various generations have shaped the evolution of Business-to-Consumer (B2C) eCommerce. Comparative shopping systems that connect to multiple vendor databases and collect the information requested by the customer are the last versions of B2C eCommerce. In the user's browser, the comparative result is displayed in a tabular format. Although this scenario is preferable than many manual site comparisons, the user will still encounter inconsistencies in user interfaces when moving from the comparison site to the real shopping site. As a result, the user must learn the logic of each site's user interface. In this research, we offer a question-answering system for retail (B2C) in eCommerce that is built on natural language processing techniques. This system receives a question written in natural language.
Karine HAJI
Today's modern trading requires the use of e-commerce. The global e-commerce volume is predicted to reach 29 trillion USD in 2017, and will continue to rise as the Internet and information and communication technologies spread (ICTs). E-commerce is seen by several countries, including Brazil, Russia, India, China, and South Africa (BRICS), as a means of facilitating rapid, inclusive, and sustainable economic growth, as well as increasing living standards and relieving poverty. This article looks at areas where the BRICS countries may work together to develop e-commerce in rural and remote places to combat poverty. It examines the present condition of e-commerce development in each of the BRICS countries' rural and remote locations.

Joao Pedro Dias a,∗, Hugo Sereno Ferreirab
E-commerce website owners rely heavily on analysing and summarising the behaviour of costumers, making efforts to influence user actions and optimize success metrics. Machine learning and data mining techniques have been applied in this field, greatly influencing the Internet marketing activities. When faced with a new e-commerce website, the data scientist starts a process of collecting real-time and historical data about it, analysing and transforming this data in order to get a grasp into the website and its users.

Nur Azimah bt Mohd, Zarul Fitri Zaaba
Websites for electronic trade (E-commerce) have exploded in popularity in recent years. However, only 29% of users turn their internet search into a purchase due to security and usability difficulties. The purpose of this research is to provide an overview of the strengths and shortcomings of existing evaluation frameworks for e-commerce website usability and security. The assessment models that have been used in E-commerce from 2000 to 2018 were examined in this study. The study looked at 11 models and outlined the usability and security features that each model was judged on.

Jose Maria Visconti-Caparros, Juan Ramon Campos-Blazquez.
The profound changes in financial services are shaped and explained by technological disruption and social revolution. Traditional banks are being forced to explore this technology as part of new collaborative value creation networks, such as digital business ecosystems, due to an unprecedented technical combination of mobile apps, big data, blockchain, AI, cloud computing, and digital platforms (DBEs). Traditional payment methods such as cash and credit or debit cards are being phased out in favour of new creative mobile quick payment formats among end users (P2P).

Nazmun Nessa Moon, Iftakhar Moh. Talha, Imrus Salehin
The popularity of online shopping, often known as internet shopping, is growing all the time. The online market is expanding rapidly as a result of advances in modern technology. Nowadays, people prefer to shop online because it saves them time, energy, and money. Online shopping has become popular as a result of the internet's blessing, and it now impacts ordinary residents as well. As a result, in order to understand the rising expansion of the online market, it is vital to investigate online buying behaviour and customer satisfaction. Customer happiness is influenced by factors such as safety, trust, and product quality.

IV. DISADVANTAGES OF E-COMMERCE WEBSITE.

- The customers cannot try the outfit or know the personal touch of the product until they buy it.
- If there is a case of website crashes then customer won’t be able to shop.
- Ecommerce as a business is highly competitive as the world is growing online.
- The customers can become impatient if the delivery is delayed.
- The delivery of product can be delayed due to many reasons.

V. PROPOSED SYSTEM

The reason to choose this project is that, as we know there is a huge amount of small scale business in our country. Even around us in our city we see many small scale business struggling to move in the race pattern of rapidly developing and
growing market network. Because of this the small scale business are having a great setback and unable to stay in form for a long time. And hence, Our website will be a platform for such small scale business to make their heads up and bring their business online in successful manner expectations for the test set and the real qualities. The proposed framework contacts various areas of exploration including information pre-handling, arbitrary timberland, etc.

VI. METHODOLOGIES

Nowadays, we rely on the internet constantly and like being online. The online business is currently capturing our attention. Everyone is engrossed in their laptops, phones, or iPhones. So, why don’t you try your hand at running an online business?

Online has played a significant part in the sale and purchase of services and products. E-Commerce is a secure platform for establishing a brand and expanding your business globally. E-Commerce has also aided millions or billions of people in generating revenue from their businesses. In a nutshell, E-Commerce is an online business that sells any service or commodity internationally based on current market conditions. You may sell your stuff 24 hours a day, seven days a week with our E-Commerce website. It is a positive and advantageous choice to build or start a firm in this new generation moment.

6.1 Attracting and Retaining Customers

Gaining high search engine presence is essential for attracting new customers. This is why our e-commerce projects make it simple for Google, as well as the other major search engines, to index them.

In terms of client retention, our Content Management System incorporates several online marketing and customer service features, such as forums, e-magazines, and surveys, among others, and also recognises returning customers to make the payment process easier and so aid customer retention.

6.2 Searching in an Easier Way

Our strategy is customer-centric and geared toward intuitive online browsing, which, when paired with a configurable search, allows new and returning consumers to quickly and simply find the items and services they require. We also incorporate product ideas to promote other products and enhance sales and orders, hence increasing e-commerce profitability.

6.3 Security and Reliability

Our e-commerce module is a reliable, secure, and user-friendly system that can handle high amounts of website traffic. Payments are processed in a safe and secure manner, and orders may be tracked online. Our e-commerce development is user-friendly and can be connected into any administration system, including those used by the logistics businesses with whom you work, lowering expenses and increasing revenues.

6.4 Shopping Experience

1. Easy Search System: Setting different properties on products, such as colour, size, and so on, makes searching and discovering a product easier.

2. Customer Onboarding: Create step-by-step instructions to guide consumers through the checkout process without any hassles.

3. Easy Checkout Process: Make the checkout process as simple as possible to prevent losing customers.

6.5 Social Proof

We humans have a hard time believing that anyone is easy. As a result, we’ll have to start over. We need to develop trust, but how do we do that? Other consumers who have left a review can fill in for the lack of trust. Some successful websites have used testimonials from well-known Partners or Customers to establish their sites’ reliability, which is a smart strategy. Customers that are happy do the finest advertising.
VII. ECOMMERCE ARCHITECTURE

It’s not about having amazing content delivery, checkout functionality, or top-notch SEO strategies to run a successful ecommerce firm. These features are crucial, but none of them can lead to scalability and growth unless your online store has a solid basis, which comes from the correct ecommerce website architecture.

The finest online stores are those that provide a memorable consumer experience, but while one-click checkout or personalization tools can help, the most crucial thing is that your e-commerce website is up and running. We'll look at the most prevalent types of commerce structures, their benefits, and how to optimise your website and attract more visitors in this blog post.

Fig: System Architecture

7.1 Ecommerce Architecture Types

There are various different types of e-commerce architectures to select from, but we'll go over three of the more common ones, how they work, and what benefits they may provide to your company.

A. Two-tier

Two components of your e-commerce business that operate on opposite sides of the architecture are referred to as a two-tier architecture. The first is client-side, where the user interface runs, and the second is server-side, where database data is stored.

Furthermore, on each side of the architecture, two web apps run: the business logic and the customer-side application. The business application logic can run on either side of the architecture, while the client processes run on the other, making the entire programme more efficient for the end-user.

The customer-side programme, which runs on the client's PC, collects data from the customer and sends it to the database server, ensuring that the two tiers interact consistently.

B. Three-tier

Although the two-tier architecture's simplicity may suit some organisations, others may want greater capability. This is why a three-tier e-commerce design has the same components as a two-tier architecture but adds a third tier: the business side.
Each of the three levels — the display layer, the business layer, and the data layer — functions as a separate module on a different server, despite the fact that they work together to construct the overall architecture.

The three-tier design is better suitable for gathering data and refining decision-making processes than the two-tier architecture. Let's take it a step further and look at how each one works.

C. SaaS
An out-of-the-box e-commerce solution may be a better option for smaller and/or newer eCommerce firms. Software as a Service (SaaS) is a type of architecture that hosts software and data in the cloud and makes it available through a variety of web browsers.

Because the provider is in charge of maintenance, hosting, and site performance, SaaS allows you to get your site up and operating quickly with a full product catalogue and backend capabilities. Furthermore, because changes are made in real-time, a SaaS design allows retailers to swiftly upgrade their website to the most recent version. As a result, merchants are spared the trouble of having to change their existing settings every time the platform is updated.

If you want to learn more about the many types of e-commerce architectures, Here's a link to an Amazon webinar that walks you through seven steps for choosing the right architecture for your company.

7.2 Layer of Presentation
The presentation layer is exactly what it sounds like: it's the component that the client sees. It is the architecture's user interface and communication layer, where the customer interacts with the website on the frontend while the backend collects data and processes requests.

The presentation layer is frequently written in HTML, CSS, or JavaScript, but desktop applications can be built in a variety of languages, depending on the e-commerce platform.

7.3 Layer of Commerce
The application's business layer, also known as the application or service layer, lies at its heart. It gathers and processes data using business logic, which is a collection of business rules, and it can also add, delete, or alter data in the data layer.

The business layer, for example, would be in charge of recording consumer preferences as they browse the website, look at products, and make transactions. As a result, the next time the customer logs onto the website, the business layer will have already saved the user's selected shipping and payment methods, saving them from having to re-enter them.

7.4 Layer of Data
The data tier, often known as the database layer, is the final layer in which data is stored and requests are processed. A relational database management system, such as LINQ or SQL, might be used to store this data. Ecommerce architecture has a number of benefits.

A robust e-commerce architecture offers a number of other benefits in addition to merely forming the framework of your website.

To increase revenue, the user experience must be improved.
Your e-commerce business's ultimate goal is to attract more customers and increase sales, and one of the most effective methods to do so is to create a smooth customer experience.
According to a Linnworks survey, convenience is a major factor for 76 percent of customers when choosing a retailer, and nine out of ten customers will choose an online business that provides a flawless shopping experience.
Customers want to be able to quickly and effortlessly browse your online business, from exploring the homepage to adding products to their shopping basket. And having a good e-commerce infrastructure in place is a surefire method to ensure a pleasant purchasing experience.

**Improved search engine indexing and ranking.**

Site architecture is one of the most important ranking variables for search engine optimization since it helps search engines find and index all of your content. You risk leaving some pages unindexed if you don't have a clear structure, especially if your e-commerce site is huge and complex. This is why having a sitemap, which gives search engines a visual depiction of your website's pages and their order, is so important.

**Ecommerce Architecture Essentials**

According to a Medium article, every e-commerce architecture should contain two mandatory and one highly recommended (but use case-specific) diagram. We'll go through each one and its purpose in more detail below.

### 7.5. Enterprise Architecture

An enterprise architecture diagram shows how all of the systems that make up your e-commerce architecture are connected. The diagram, on the other hand, should not depict the relationship between systems, nor should it have several links between the same systems; rather, the diagram should show a single line connecting each system, which indicates a data exchange. Furthermore, the business architecture diagram incorporates third parties as well as the core functionalities of each system, which aid in explaining the role of each entity in your design. An example template is provided below to help you understand how the diagram works.

**Fig. Diagram of the enterprise architecture.**
7.6 Diagrams of Data Flow Architecture

The business architecture diagram merely shows a single line connecting entities to demonstrate which ones are connected, however the data flow diagram goes into further detail by specifying the connections. The diagram might show who is a data receiver versus a data provider, what data format is used, and whether or not there is a middleware between system components, for example.

Most essential, this diagram should show which feature is sending which data and which feature is sending which data. Medium presents the example of using an API manager to communicate newsletter subscriber data to a CRM system. In this scenario, you'd need to show this connection in your diagram and explain why "newsletter subscription" will have the effect it does using annotations like the ones in the figure below.

Fig. 7.4.3 Enterprise middleware usage.

7.7 How Enterprise Middleware is used

Finally, the enterprise middleware usage architecture diagram aids in the clarification of the many types of systems in your architecture and their relationships, ensuring that the end product's design matches the software quality attributes. As demonstrated in the image below, clouds, third-party entities, VPNs, and public and private networks are all outlined.
VIII. MODULES

- **User**: The user will sign up on the website and create an account. User will now be able to shop and surf on the website.
- **Seller**: The seller will sign up on the website and create an account and will get access to add products. Seller will be able to add products and modify them.
- **Home page**: The user can now shop, choose, and add their favorite items in the cart.
- **Item List**: The item list will include the items saved by the user or the items the user is about to purchase.
- **Purchase Interface**: It will contain the list of items the user is about to purchase. And it will show the information of price or grand total price of products listed by the user.
- **Checkout/Cart**: During checkout, payment information will be available to print. And authorized purchase will be verified by the user.
- **Payment Options**: The user can choose the mode of payment here, i.e., either COD, Credit, Debit, etc. Further order will be placed and Invoice will be available for the user.

IX. PROJECT RESULTS

9.1 Home Page

9.2 Admin Panel

In admin panel, admin can add products and brands, and he can manage categories and customers. He can also get all the order details.
X. CONCLUSION

E-commerce has certainly risen to prominence in our society. Those who utilise it as an excuse to fully overhaul their business procedures are likely to reap the most benefits. Furthermore, E-Commerce is a beneficial technology that allows customers to connect with businesses and enterprises all over the world. In the course of our operation e-commerce presents a huge opportunity.

REFERENCES


[3]. Guangliang XI, "How does same-day-delivery online shopping reshape social interactions among neighbors in Nanjing?" Published in Science Direct July 2021.


[6]. Karine HAJI. “E-commerce development in rural and remote areas of BRICS countries.” Published in ELSEVIER on April 2021.


