

E-Commerce Website with Data Analysis and Power Bi

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Abstract: *E-commerce is booming in today's economic world. E-commerce is the term for online shopping. Electronic commerce (E-commerce) refers to the exchange of products and services, the transmission of money or data through an electronic network, most often the Internet. Electronic commerce (E-commerce) is a paradigm change that affects both marketers and the consumer customers. E-commerce is instead more than just a new tool to expand an already successful business. practices. It is driving a total transformation of the established business model. This important Globally, the number of businesses changing their business models is skyrocketing, and India is not an exception. Moreover The ecology is significantly impacted by e-commerce. Even though the model is heavily utilized in the current corporate environment, the choice has not been fully investigated. The goal of the current study is to characterize the current state of e-commerce and examine its tendencies. The study also looks at the important factors that E-commerce business models need to succeed.*

Keywords: E-commerce

I. INTRODUCTION

E-commerce is the term for online shopping. It refers to conducting business on the internet and through electronic media. E-commerce is the practice of conducting business utilizing the internet and information technologies such as Electronic Data Interchange (EDI). Ecommerce is the practice of trading goods or services directly with customers through a vendor's website on the Internet. The portal accepts payments through credit card, debit card, or EFT (Electronic fund transfer) and uses a digital shopping cart or digital shopping basket system.

According to C. Nisha and G. Sangeeta (2012), a more comprehensive definition of e-commerce is the use of digital information processing and electronic communications in business transactions to create, transform, and redefine relationships for value creation between or among organizations as well as between those organizations and individuals. Business-to-business (B2B), business-to-consumer (B2C), business-to-government (B2G), consumer-to-consumer (C2C), and mobile commerce (mcommerce) are the four primary categories of electronic commerce.

II. REVIEW OF LITERATURE

The internet, which now serves billions of users worldwide, has transformed into a virtual world in the twenty-first century. Inventing new things while expanding utilizing technology to change established practices Business encouraged us to establish a prosperous online store. Businesses are now adjusting to this and have built their websites that allow consumers to browse products and services, then purchase the goods and services using various methods (e.g., credit card, debit card, electronic check, PayPal) via the website payment gateway, and finally the businesses deliver the orders to the consumers' doorsteps.

There are numerous successful e-commerce business models, however the following are the most prevalent:

Business-to-Business (B2B): B2B refers to business-to-business transactions in which goods are sold to a temporary buyer. The B2B e-commerce model focuses on interactions between companies. This group includes almost 80% of all online sales. B2B transactions include those that take place between a manufacturer and a wholesaler or a wholesaler and a retailer.

Business-to-Consumer: In this paradigm, transactions are made directly between businesses and customers online. In the business-to-consumer (B2C) paradigm, businesses or organizations transact with clients for the purpose of providing goods or services online.

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Consumer-to-consumer e-commerce is the one that is expanding the quickest. Businesses design and supply a platform for the product's promotion, and customers can purchase the product directly from the seller. Businesses create a setting where customers can transact directly with one another for the purposes of the C2C model.

Consumer-to-Business (C2B) Model: In a C2B model, consumers offer goods and services to businesses, which then buy the items. Businesses use the added value that consumers supply in the form of goods and services. Given that it is a single seller, multiple buyer system, this project is specifically designed for the B2C technique.

III. E-COMMERCE FACILITATORS

Internet: A massive internet penetration has added to growth of E-commerce. Internet and smart phones are becoming an integral part of every life. Internet is no more a source of information but has become an important tool for shopping, learning, communicating and even getting service from plumbers, carpenters, doctors etc. Supply chain is also becoming leaner and smarter as digital platforms are helping to better connect with the customers which significantly reduces the waste and supporting to green businesses. Over the past 15 years the ICT revolution has driven global development in an unprecedented way. With an immense progress in technology, internet and its services have led to creation of new markets (D'silva et al., 2010). The number of internet users was low in the 1980s, growing gradually but steadily until 1994 due to an increase in text-based users (e.g., those using email and file transfer functions). Then, with the advent of the World Wide Web and subsequent expansion of multimedia content, the number of net users exploded, growing much more quickly than any other medium in history (Strauss et al., 2007).

The number of internet users in India increased from 10 million to 100 million after more than ten years, from 100 million to 200 million after three years, and from 300 million to 400 million after just one year. Internet usage is undoubtedly commonplace in India today. By June of this year, this figure is projected to increase further to 462 million as more individuals, particularly those using mobile devices, go online. Over 300 million people used the Internet in total in December 2014, and by October of that year, that number had increased to 375 million.

Payment Gateways: A payment gateway is an internet service that authorizes credit card payments for brick-and-mortar stores, online merchants, brick-and-mortar stores, and e-businesses. The payment methods, which include credit card, debit card, online banking payments, and electronic funds transfer, are the heart of online commerce. Payment gateways are necessary for future, sustainable e-commerce as the globe shifts from using cash to digital currency.

Analytics: Analytics is the disciplined process of turning data into knowledge to aid in decision-making. Analytics aids organizations in compiling, organizing, analyzing, and reporting on every action taken by their clients. Businesses now need to concentrate on analytics to understand client behavior due to the enormous rise in data volume. The channel mix must be optimized and return on online investments must be measured by e-tailor in real time. The fundamental analytics tools offered by e-commerce businesses, such as basket size analysis, average order value, and conversion ratio, are useful, but for practical customer insights, we need deeper analytics solutions.

Social Media

Social media is being used by businesses to sell their products and services more and more. Social media are websites and computer programs that enable users of computers and mobile devices to communicate and share information online. Social media has been quite effective at spreading information about different offers to clients and building brands. Receiving feedback on a product or service is another benefit. It offers a platform for creating a brand, running adverts, growing a network of reliable users, and word-of-mouth marketing, among other things.

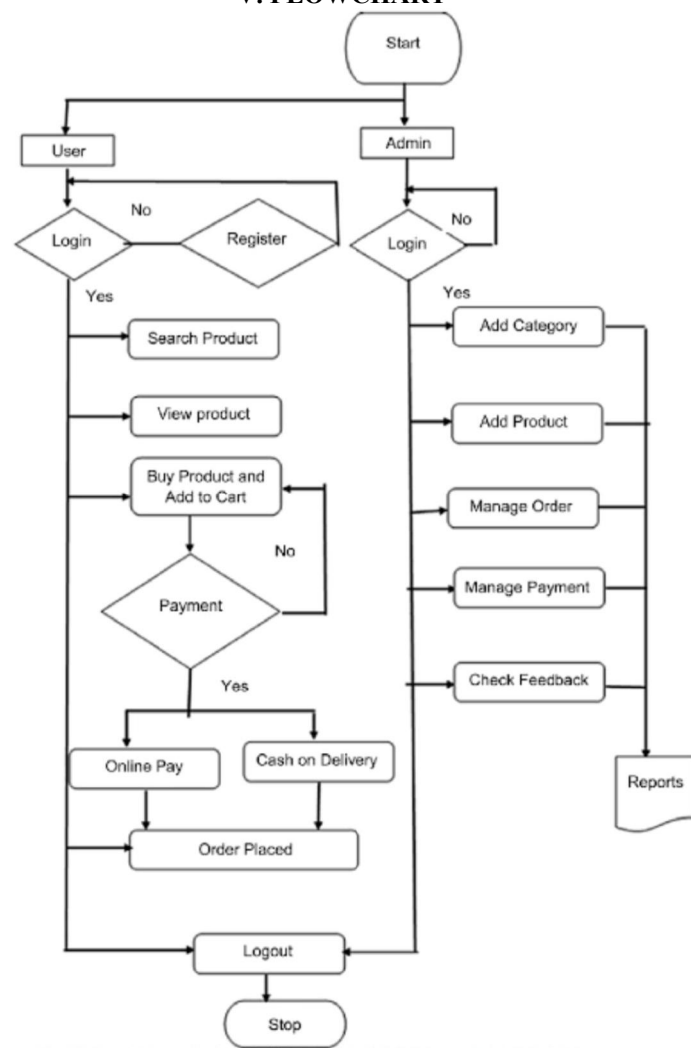
IV. PROPOSED METHODOLOGY

In India, the internet buying trend has reached about 70% of the population. Google trends and polls suggest that by 2025, it will have increased by 8%. Consequently, creating an e-commerce website is a lucrative business. During the pandemic, about 40% of the Indian populace has shifted to online commerce. We are attempting to find a solution to the issue of moving small-scale and retail offline enterprises online by using this as an opportunity. Our primary goal while developing a website is to incorporate some distinctive characteristics that will set it apart from the competition. Additionally, to make the UI & UX of the website simple, dynamic, and customer-facing For the delight of the customer, each product has many photographs taken from various perspectives. A new user can browse, search, sort,

and filter the products on this website without logging in, but they must register in order to add items to their wish list and shopping cart for later use or to place an order. When a user checks out, our database will automatically authenticate and verify his credentials and offer all the information needed to provide the additional services, such as a phone number, delivery location, shipping costs, mail ID, etc. The user is then forwarded to a secure payment service gateway, where the transaction is completed. After the transaction is completed, the user will receive both an email and a message with information about the purchase invoice, order summary, and any additional updates pertaining to the order, such as the order id, delivery service provider number, live order location, etc. To verify that the goods is on the right track and to estimate the time of delivery, we have provided customers with a live order tracking page that shows the product's current location. A registered user has rapid access to the items in his cart list, which can be seen in a distinct column, each time he logs onto the website. It allows the customer to save time. Additionally, we are attempting to create a chatbot for our 24/7 customers.

The administration of the complete website may seem like a challenging undertaking. In light of this, we chose Firebase as our data base because it offers a very user-friendly interface. The entire website is accessible to the administrator for upcoming changes. He gets access to all features, including products, quantity, price, pictures, deals, and promo codes offered to customers. He has the ability to create new categories, goods, modify product stock levels, add deals, alter promocode expiration dates, and more. He can use the information supplied by customers to make modifications in response to their requirements and comments so that he can better serve them with offers and discounts.

V. FLOWCHART



VI. CONCLUSION

If marketers want to succeed in this new business model, the research on e-commerce suggests a lot of factors that must be considered. The elements that need be prioritised and concentrated on in order for the e-commerce sector to succeed are Consistency in transaction processes, Web site design, MCommerce services, analysis, in-stock signals, and other aspects of transactions variety in products, location-based services, payment methods, appropriate content, and shipment option, legal requirement for online transactions to generate invoices, rapid service, and T&C should be realistic and clear, and the quality of the products should match what is depicted on the web.

Privacy is a crucial component of e-commerce that not only increases competitive advantage but clients' level of assurance. The studies also recommend 18 to 35 as the ideal customer age to regardless of gender, be promising and to be targeted for improved outcomes. Brands and marketers who want to reach their target customers may find social media to be a blessing. Luxury businesses have just discovered it, though, without spending a lot of money on traditional media. a challenge since purchasers are being drawn in by unlicensed merchants, and the majority of them give into the lure of Using websites like Facebook, Instagram, and others to obtain discounts of up to 50–70% WhatsApp and Twitter. Companies must pay for legal checks and actively manage such accounts.

VII. IMPLICATION FOR RESEARCHERS

Our work has a variety of chances for further research, both in terms of theory building and concept confirmation, due to its conceptual nature. In reality, more empirical study will be required to hone and further elaborate findings in the field of ecommerce.

The study opens the researchers' eyes, especially those who have a keen interest in e-commerce.

They will receive tips from this review article to help them better comprehend the important variables.

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