FUTURE OF ARTIFICIAL INTELLIGENCE IN E - COMMERCE

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E-commerce is the activity of Purchasing or selling of products on online services or over the Internet. There are three main types of e-commerce: business-to-business (B2B), business-to-consumer (B2C), and consumer-to-consumer (C2C). E-commerce has helped businesses (especially small businesses) to be accessible to and establish a wider market presence by providing cheaper and efficient distribution channels for their products or services. Ecommerce which operates in different types of market segments and can be conducted over smart devices. It is considered to be one of the disruptive technology.E-commerce allows customers to choose a product (most of the imaginable product and service including financial services) from any supplier, anywhere in the world with much wider choices. Providing goods and services isn't as easy as it may seem. It requires a lot of research about the products and services you wish to sell,buy, about the market, audience, competition, as well as expected business costs. This is where artificial Intelligence comes in requirement and has made the things easy. AI plays vast role in providing better customer experiences and innovative solutions in the ECommerce industry. Product recommendations, personalized shopping experiences, virtual assistants, chatbots, and voice search are some of the most distinctive uses of AI in ECommerce. The role of AI in helping you find your desired products is huge. AI help ECommerce store owners understand their customer behaviour, Analysing purchasing habits, voice search for products, enhancing payment options etc. and enhance the customer experience in online stores. Apart from this the role of artificial intelligence and machine learning technology in automating repetitive tasks is big. AI collects data and predicts the possible outcomes in online businesses.The latest report

by Mckinsey & Company conveyed how AI is bringing 20% extra revenue to the ECommerce industry (https://www.ometrics.com/blog/growth-of-artificial-intelligence-in-ECommerce) and boon for ECommerce industries.

Introduction

ECommerce is the process of buying and selling tangible products and services online. E-commerce being described for the first time in the 1980s, e-commerce has become a global growing trend and is now one of the most popular online activities, it involves more than one partyrefers to companies and individuals along with the exchange of data or currency to process a transaction. people are now increasingly using e-commerce to make purchases electronic commerce, or e-commerce for short, means commerce that takes place in the online environment of the Internet, with the Internet being considered as a single platform that connects the seller and the buyer,it is part of the greater industry that is known as electronic business (e-business), which involves all of the processes required to run a company online.[1]

ECommerce has helped businesses (especially those with a narrow reach like small businesses) gain access to and establish a wider market presence by providing cheaper and more efficient distribution channels for their products or services. The advantages of e-commerce for online retailers lie mainly in a larger number of customers served, a larger number of orders and better provision of information.The customer does not have to physically visit the brick-and-mortar shop, which saves time. The consumer has the opportunity to choose from a wide range e commerce or customers range of products and also the possibility to compare products or prices. Providing goods and services isn't as easy as it may seem. It requires a lot of research about the products and services you wish to sell, the market, audience, competition, as well as expected business costs.

Types of Ecommerce

Depending on the goods, services, and organization of an ecommerce company, the business can opt to operate several different ways. Here are several of the popular business models.

Business to Consumer (B2C)

B2C ecommerce companies sell directly to the product end-user. Instead of distributing goods to an intermediary, a B2C company performs transactions with the consumer that will ultimately use the good. This type of business model may be used to sell products (i.e. your local sporting goods store's website) or services (i.e. a lawncare mobile app to reserve landscaping services). This is the most common business model and is likely the concept most people think about when they hear ecommerce.

Business to Business (B2C)

Similar to B2C, an ecommerce business can directly sell goods to a user. However, instead of being a consumer, that user may be another company. B2C transactions are often entail larger quantities, greater specifications, and longer lead times. The company placing the order may also have a need to set recurring goods if the purchase is for recurring manufacturing processes.

Business to Government (B2G)

Some entities specialize as government contractors providing goods or services to agencies or administrations. Similar to a B2B relationship, the business produces items of value and remits those items to an entity. B2G ecommerce companies must often meet government requests for proposal requirements, solicit bids for projects, and meet very specific product or service criteria. In addition, there may be joint government endeavours to solicit a single contract through a government-wide acquisition contract.

Consumer to Consumer (C2C)

Established companies are the only entities that can sell things. Ecommerce platforms such as digital marketplaces connect consumers with other

consumers who can list their own products and execute their own sales. These C2C platforms may be auction-style listings (i.e. eBay auctions) or may warrant further discussion regarding the item or service being provided (i.e. Craigslist postings). Enabled by technology, C2C ecommerce platforms empower consumers to both buy and sell without the need of companies.

Consumer to Business (C2B)

Modern platforms have allowed consumers to more easily engage with companies and offer their services, especially related to short-term contracts, gigs, or freelance opportunities. For example, consider listings on Upwork. A consumer may solicit bids or interact with companies that need particular jobs done. In this way, the ecommerce platform connects businesses with freelancers to enable consumers greater power to achieve pricing, scheduling, and employment demands.

Consumer to Government (C2G)

Less of a traditional ecommerce relationship, consumers can interact with administrations, agencies, or governments through C2G partnerships. These partnerships are often not in the exchange of service but rather the transaction of obligation. For example, uploading your Federal tax return to the IRS digital website is an ecommerce transaction regarding an exchange of information. Alternatively, you may pay your tuition to your university online or remit property tax assessments to your county assessor.

Example of Ecommerce

Amazon is a behemoth in the ecommerce space. In fact, it is the world's largest online retailer and continues to grow. As such, it is a huge disrupter in the retail industry, forcing some major retailers to rethink their strategies and shift their focus.

The company launched its business with an ecommerce-based model of online sales and product delivery. It was founded by Jeff Bezos in 1994 as an online

bookstore but has since expanded to include everything from clothing to housewares, power tools to food and drinks, and electronics.

Company sales increased by 38% in 2020 from the previous year, totalling $386.1 billion compared to $280.5 billion in 2019. Amazon's operating income also jumped to $22.9 billion for the 2020 fiscal year from $14.5 billion in 2019. Net income rose from $11.6 billion in 2019 to $21.3 billion by the end of 2020.

As the world adapted to the constraints of COVID-19, ecommerce capitalized on the opportunity to further distance itself from in-store shopping. In 2021, Amazon's net income rose to $33.4 billion, and it ended the year with over $42 billion of cash on hand.7 Amazon has stated as a result of the pandemic, the company recognized three years' worth of forecasted growth in about 15 months.

AI is the latest buzz around industries. After powering Netflix recommendations, Google's search algorithms, Alexa, and Siri, AI is all set to enter the eCommerce domain with global eCommerce sales expecting to touch $4.88 trillion by 2021, it is clear to see that the sector is growing at a decent pace. AI is creating strong relationships with customers.

Advantage for Retailers
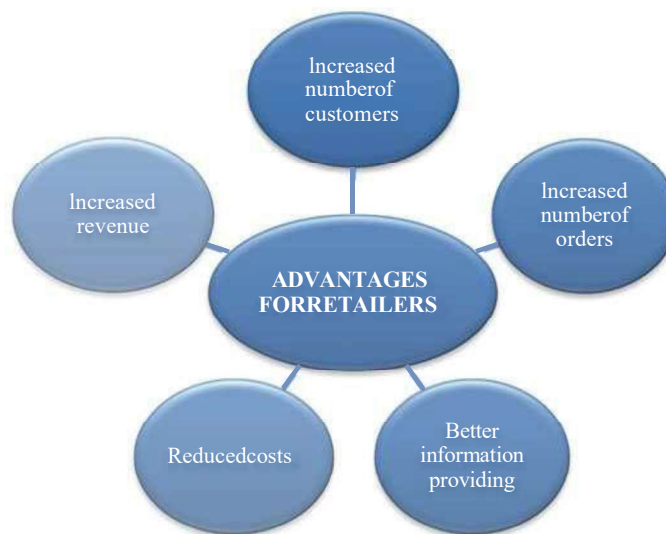
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a.   Larger number of customers served,

b.   A larger number of orders and

c.   Better provision of information

d.   Reduced Cost

e.   Increased Revenue

Advantage for Customer

Online shopping offers several benefits to customers.

a.   The customer does not have to physically visit the brick-and-mortar shop,

b.   The consumer has the opportunity to choose from a wide range of products and also the possibility to compare products or prices.

c.   Online stores also offer customers discounts that cannot be obtained in a brick-and-mortar store.

d.   The big advantage is 24/7 availability, so the online consumer can make a purchase anytime and anywhere.

e.   Product Comparison Can also be Done

Role of Artificial Intelligence in E-commerce

Today, e-commerce is one of the industries that make the most of artificial intelligence by building a huge customer base, trying to understand customer needs, doing real-time research, coming up with ultimate solutions, and many other activities

Top 5 ways Artificial intelligence can benefit your eCommerce business

1.   Voice commerce and virtual assistants

eCommerce virtual assistants (VAs) are chatbots that use language processing and machine learning technologies to understand customer queries and offer the needed support accordingly. This is not new to us anymore. We're all well versed with Google Assistant, Amazon's Alexa, and Apple's Siri. eCommerce businesses prioritize using virtual assistants because they're active 24/7 and can handle queries effortlessly. Importantly, this improves a business's scalability, too. Virtual assistants can perform several tasks ranging from product research to listing to handling inventory. For customers, Virtual assistants represent easy and quick access to information and assistance.

Voice technology is not new either. Businesses have been using it since the 1960s. Still, voice commerce has had remarkable growth. It's essentially a technology that permits users to buy or do searches with their voices. Voice commerce is preferred by many for its speed and convenience because users don't have to type anything to search.

2.   Smart search

Many customers use the search box to find products on an eCommerce website. It should go without saying that these customers are most likely to make a purchase compared to those who are only "window shopping." Finding the actual desired item is the biggest problem here. For many, even after using relevant keywords, they often don't find what they're looking for.

Smart search is also referred to as **"Searchandizing."** It's a combination of merchandising and search. It blends merchandising techniques with online search practices. Searchandizing involves advanced elements, like, for instance, faceted search, navigation, autocomplete, recommended product listings, recent searches, and many other features that are merged with established search techniques. eCommerce platforms use image annotation to offer personalized, user-friendly and useful search experiences through behavioural data.

3.   **Personalization**

Personalization in the eCommerce industry is remodelling artificial intelligence the shopping experience according to an individual customer's pain points, needs, preferences and tastes. For example, they can show recently viewed products, run an automated personalized email campaign, or create a personalized product list.

We can also translate it as the strategy of personalizing the online shopping experience by dynamically or actively showing content, whether it be campaigns, brands, or products, to customers. This depends on their click-through, browsing behaviour, purchase history, etc.

Personalization was a part of the eCommerce industry before the implementation of AI. However, now, computers can now crunch big bites of data that enable optimization and real-time analytics. eCommerce stores have hundreds of thousands of products and, correspondingly, many, many customers regularly.

Software or an algorithm can quickly analyse the data on the spot and fetch trends in customer behaviour. With personalized product recommendations, eCommerce stores can benefit from customers' inclination to impulse buy. You can also cross-sell or upsell products by recommending different products to the customers at the checkout depending on their preferred brands and categories.

4.   **Automation**

Online stores are now available on multiple channels with 24/7 availability. This often requires some form of automation. By automating customer support, merchants can save time, energy, and operating capital. AI can be of great help when it comes to automation for eCommerce business owners.

With automation, an eCommerce business can manage and execute all repetitive tasks and simplify the front and back-end workflow. With AI, eCommerce businesses can automate everything from featuring new products on multiple channels to synchronizing sales, identifying high-risk transactions, offering discounts to loyal customers, etc. Additionally, shifting the burden of answering routine queries to automated chatbots allows eCommerce business owners to focus on more complicated requests.

5.   **Remarketing to potential prospects**

Remarketing is more like a reminder of an eCommerce business brand and its items to the target audience. A retargeting strategy aims to reach users who are already your customers or those who have previously visited your website. These customers might have already bought from you in the past or they might have left their buying journey at some point before completing a purchase.

With the help of AI computer vision, an eCommerce business can identify the behavioural pattern of every customer on the basis of sales generated and the most viewed or purchased items. This data can be used later to attract them back to your eCommerce website. Push notifications are the most powerful retargeting strategy here. These notifications are brief and straightforward, so there's little risk of customers getting annoyed. An eCommerce business can also use personalized push notifications that provide one-on-one communication.

What's the future of eCommerce like with Artificial intelligence?
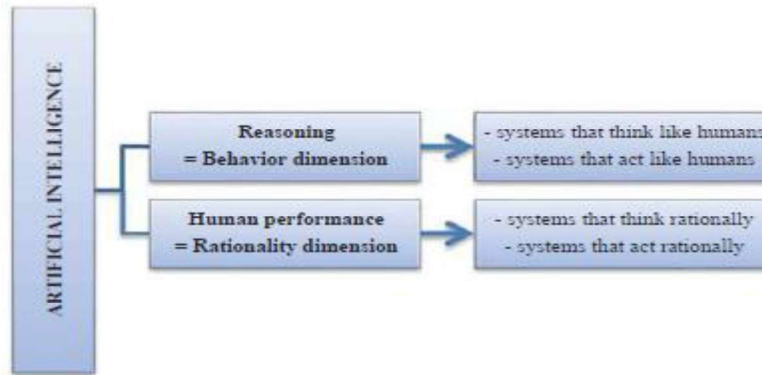
AI is constantly transforming the eCommerce industry. Today, it's impacting how an eCommerce store features and sells products to its customers. By offering a highly personalized shopping experience with the help of virtual buying assistants, AI is improving the online shopping experience for both customers and retailers.

The technology also offers advanced ways to identify customers' behaviour and analyse big data to help eCommerce stores engage, segment, and retarget their customers. Pulling off a highly personalized customer experience is key to the prosperity of an online business. AI applications can identify and analyse consumer data to forecast future purchasing patterns and make product recommendations depending on the browsing patterns of the consumers.

According to a rough calculation, a report by "Business insider" stated that nearly 85% of customer interactions would be managed without a human by 2020. With emails, phone calls, and chats being efficiently and quickly responded to by automated systems, these stats appear to have been realistic. By 2025, Tractica predicts that the profit generated from the direct and indirect application of AI software will increase up to $59.8 billion.

However, there is still work to be done. According to some recent surveys, up to 85 % of AI initiatives don't deliver on their promises at the end of the day. Clearly, there are still improvements to be made to AI algorithms, and this number should go down as those improvements become a part of modern AI solutions.

Key takeaways

In coming future, machine learning and AI will transform the eCommerce industry, but it's also affecting the present. AI plays vast role in adding better customer experiences and innovative solutions in the eCommerce industry. Recommending products, personalized shopping experiences, virtual assistants, chatbots, and voice search are some of the most distinctive uses of AI in eCommerce. The benefits don't end here. The advantages of gaining insights from customer data collection and then breaking it down can be further enhanced with AI to tailor online merchandising services to the interests and tastes of every customer.

With the help of AI and data collected from customers and businesses, today's eCommerce businesses make informed decisions by using that data more efficiently to forecast future results and adjust their marketing campaigns accordingly .well it can also be observed that global technological advancement is the requirement of world, hence we have moved in the age of Technology through this inventions which is also helpful for facing the competition of market in all commercial aspect

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