

## **An Indepth Study On Envisaging The Technological Implications In The E-Retailing Business And Benefit To The End Users From Pre To Post COVID19 Lockdown Era.**

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### **ABSTRACT:**

Retail industry in India has emerged as one of the most competitive and fast growing market. The modern concept introduced in shopping is online retailing or e-retailing. Generally E-retail business is referred to as business to consumer (B2C). The introduction of e-commerce could be seen as the biggest revolution in retail industry and this trend is growing with new emerging technologies. E-retailing helps consumers to save money and choose from a wider range of products, especially where goods are not available locally. It is Easy to find reviews on any e-retailing websites. The internet transition sparked a move from multi-channel to Omni-channel shopping. The options to please customers' needs always kept changing. The technology played a crucial role in the whole process. Changes seen in technology in last one decade is majorly because of the rise of online marketplaces and other changes are the digital marketing, digital wallet and more.

Recent trailing trends includes connecting with social media, Internet of Things (IoT) is having a large impact on e-retailing businesses. More the number of smart devices, the improvement in automation can be seen as more data will be gathered and consumer experience will be improved. With the penetration of predictive analysis, this industry will see a tremendous growth in its revenue, easy tracking of product demand and increase in shopper intelligence. The interactive user interface with more intuitive websites, making it possible for e-retailers to customize consumer experience with new and accurate data with the help of frameworks and data sharing. Now people are preferring to shop thing online which would rather have a lesser risk than stepping out because of covid-19 lockdown. Existing companies are facing various problems and challenges in their deliveries and supply chain because of lockdown. This shift have given rise and opportunities to many companies. E-retailers are looking of new changes they can incorporate in their business with the help of new upcoming IT technologies for benefiting themselves and the customers.

**KEYWORDS:** E-retailing, E-retailing process flow, Trends in e-retailing, Automation in e-retailing.

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### **I. INTRODUCTION:**

Due to the entrance of many major companies, retail industry in India has emerged as one of the most competitive and fast growing market. It has given employment to around 8% of the population. It is been expected that India would be the fastest in terms of growth in e-commerce market and there would be rapid increase in number of internet users (Mahajan, 2017). Online retailing is growing really faster in India. It has almost seen a tremendous growth of around 50% -60% over the years. E-retailing gives 10% of the total e-commerce activities happening in India (Jayakrishnan, 2015). Online shopping allows customers to buy goods from sellers using internet connection. Alternate names given to online shopping are: e-web-store, e-shop, e-store, Internetshop, web-shop, web-store, online store, online storefront and virtual store (Saini & Bodla, 2017).

The modern concept introduced in shopping is online retailing or e-retailing. This revolution of IT has gained incredible speed sharing information and has changed the direction by providing new ways for accessing knowledge. These changes has given all together a new direction of opportunities to enhance the way of doing

business(Arora, 2013). It has become the most popular way of transmission and retrieving information in very shorter span whereas conventional method requires more time (Warkentin, 2000). When firms saw that there was potential in online shopping the lean forward to explore the new domain and provided storefronts to the consumer so that they can make purchases without even leaving their comfort zones or while staying at homes (Niranjanamurthy , Kavyashree , DR. DharmendraChahar , & Jagannath , 2013). The introduction of e-commerce could be seen as the biggest revolution in retail industry and this trend is growing with new emerging technologies in the coming future. A retail corporation will promote its goods and offer them directly to customers via the Internet and the consumer will not have to make trips to the mall or retail outlets or not even wait in long queues to purchase the product they need (Nilashi, Mehrbakhsh, Mohammad, Reza, & Bin, 2011).

Generally E-retail business is referred to as business to consumer (B2C). E-retailing can be classified into two types i.e. category focused players and multi category focused (Jayakrishnan, 2015). Where category focused players are the ones who provides particular type of merchandise with deep assortment example: Shein, Myntra (Apparels and Lifestyle products), Pepper fry (Furniture), Grofers (Grocery segment), Chicoo, First cry (baby products) etc. Multi category players are the ones with wide variety of merchandise but with limited assortment example: - Flipkart, Amazon etc. Further e-retailing can be classified as the type of service it provides. It have specialized service providers such as: Ferns n Petals, Floraindia for flowers, cakes etc. Service retailers also includes Lenskart which is specialized in eye tests along with eye lens, glasses etc.

Though e-retail business is referred to as B2B but in fewer case C2C (customer to customer) can also be seen, for example E-bay, OLX which are shopping place for customer by auctioning the product offered (Jayakrishnan, 2015).

Talking about advantages of e-retailing from customer's point of view, E-retailing helps consumers to save money and choose from a wider range of products, especially where goods are not available locally(Nilashi, Mehrbakhsh, Mohammad, Reza, & Bin, 2011). Because of market openness, consumers can conveniently evaluate the services provided by growing e-commerce sites. Thus consumer finds it easy to compare with other portals available (Mittal & Malik, 2019).It is Easy to find reviews on any e-retailing websites.Good and bad reviews are on every site, and you can see not only if the product is liked, but also the reasons behind it( Franco & Regi, 2016).Coupons and offers: For any online company that you like, it's difficult to resist more and more coupons and discounts, which are completely perfect for consumers. The customers can find products up to 80 per cent off with big sites that operate as department store ( Franco & Regi, 2016). Internet purchasing often helps buyers to stop consuming unwanted products that they do not use and they end up buying in brick and mortar shops (Nilashi, Mehrbakhsh, Mohammad, Reza, & Bin, 2011).

## **II. LITERATURE REVIEW:**

According to (Anukrati, 2013)it is been found that the major customers who decide what to purchase are between the age of 21-30.The rise in online shopping popularity is attributed due to certain common factors such as easy access, quality of time and availability of a broad variety of goods and simple payment system(Tandon, Kiran, & Shah, 2016). Consumers cannot wait lengthy times for goods or services to be provided. Hence as customer e-retail demands are rising, e-retailers are likely to start extending their Website functions(Lightner, 2004). E-tailers also needs powerful, timely, and reliable delivery networks.

According to(Gaffar, 2016)the growth in IT sector has favored and helped in growth of e-retailing which in turn have changed many things in the lives of the customers. Also there are lot of benefits with customer satisfaction(Bhowmik , 2012).Digital audience poor feedback dramatically affect brand reputation, market image, consumer satisfaction, revenue and share price.The internet transition sparked a move from multi-channel to Omni-channel shopping.That created a significant shift from the physical toonline retailing division(Piotrowicz & Cuthbertson, 2016). Omni channel retailing is embraced by companies as it gives shoppers a seamless buying experience through different platforms and apps covered by a range of last-mile distribution choices(Bell, Gallia, & Moreno, 2014).

Studies have looked at the features of e-retail stores that affect customers across various phases of online shopping.Before buying any product the customer seek for knowledge about the product and try to find the alternatives that may fulfill their needs(Ahn, 2005).Because now consumers can get more information about the prices online and compare online stores in only a few taps, where the price of a good is rather than low, they are more inclined to purchase digitally as it prevents customers from needing to venture out and find affordable choices. According to (Clement J. , 2019) calculations, India will rank first in the projected period in terms of development of B2C e-commerce, with an annual compound growth rate of 17.8%.(Park & Kim, 2003) suggested that transactions in e-commerce take place mainly via vendor websites where information content, user-interface content and expectations of security influence the loyalty of consumers to the platform, which in effect influences the actual buying behaviour of the customers.Internet of things tops with 70 per cent of companies eager to embrace the Internet of Things to expand customer interactions. This shows that to remain competitive and profitable, the retail and e-retailing industries need to be on top of this trend(Dave, 2017).

**Research objectives:**

1. To study intervention of IT and recent trends in E-retailing in India.
2. To identify new business opportunity and challenges for E-retailers during Covid-19 pandemic and lockdown.
3. To study the process of e-retailing (from order generation to delivery).

**III. RESEARCH METHODOLOGY:**

The scope of the study is restricted to e-retail market. The research design is exploratory in nature. Exploratory research is performed for an issue that has not been explored more explicitly, and is meant to establish goals, build practical criteria and enhance the final design of the project(Kothari, 2004).It tends to be Qualitative approach in nature. Qualitative approach depends on unstructured data and non-numerical methods of data processing(Creswell, 2014).

A focused group interview of around 8-10 experts of various e-retailing companies was been taken and they were asked disguised and unstructured set of questions. The study is majorly based on secondary data retrieved from journal articles, books, interviews, websites and news. This is a more practiced based study.

**Discussions and Findings:**

Changes in Last one decade:

The options to please customers' needs always kept changing. The only thing that hasn't changed is consumer satisfaction, from street side local retailing to e-retailing via the World Wide Web. The technology played a crucial role in the whole process. Some of the changes seen in e-retailing over the last one decade would include:

- The rise of online marketplaces: In comparison to 2010 India saw an explosion of online marketplaces today because after 2010 when GDP showed healthy growth, India entered the e-commerce market and disposable revenue was on the rise. Many e-retailers have gone on to become leaders internationally. One-third of buyers have been recorded to launch their online journey from successful online marketplaces such as Amazon, eBay, and Flipkart (Quick eSelling, 2020). Perks of online marketplace is that consumers can find a range of product offers that fit their search by accessing an online marketplace. They can compare rates, labels, read consumer feedback, and sometimes purchase goods at below market cost.
- The shift from desktops to mobile: People no longer have to wait to use their desktop computer, until they are home. Mobile commerce has made way for greater consumer engagement. Push notifications give mobile shopping apps an advantage in re-engaging their customers and promoting sales. In 2013, cell phone penetration accounted for about 16 % of worldwide internet traffic. That figure risen dramatically, reaching 52 % in 2018(Berry, 2020).
- Digital wallets: One of the biggest factors restricting the ecommerce industry's potential growth was trust. Back in 2010, consumers preferred to visit retail stores rather than make online purchases due to a lack of confidence in ecommerce platforms. Back then, the internet was still conceived as a luxury, and was marred by security concerns, particularly online payments. The effect of digitization, has taken innovative payment services forward. Digital wallets are commonly embraced today and used in numerous online stores (Quick eSelling, 2020).
- Growth of digital marketing and advertising: All had been even smoother in 2010. There were just a few smartphones available, so all you had to do was open up a couple of websites to make a choice. But it went from a location where you could reach your friends and family in just a decade, to a mainstream channel where we could mark ourselves and our companies (DevriX, 2020). In addition, digital marketing has enabled brands to target and effectively advertise their products or services on those social channels using branded entertainment. This has effectively improved the ecommerce industry and let customers have variety of choices to purchase(Quick eSelling, 2020).
- Rise of social commerce: The social media was less complicated than it was ten years ago. Sponsored posts were not so common, and the term 'social media influencer' had not yet been coined. The big influence of social networking sites like Instagram in the ecommerce industry can be seen. Every large social media platform nowadays has an ecommerce section or marketplace. Looking back, the realization that Instagram was launched back in 2010, is crazy. Ten years later it became the home of brands and influencers (Quick eSelling, 2020). Facebook has gone on to become a digital force, with over 1 billion users a month. The industry giant, becomes the first social network to reach 1 billion verified members and now stands at about 2.5 billion active monthly users(Clement J. , 2020). It currently offers three of the world's top ten most-downloaded application. Twitter's microblogging platform introduced its app in 2010, and the posts had been limited to 140 characters from the start. Over the years, the functionality of Twitter has grown to the extent of allowing for the inclusion of

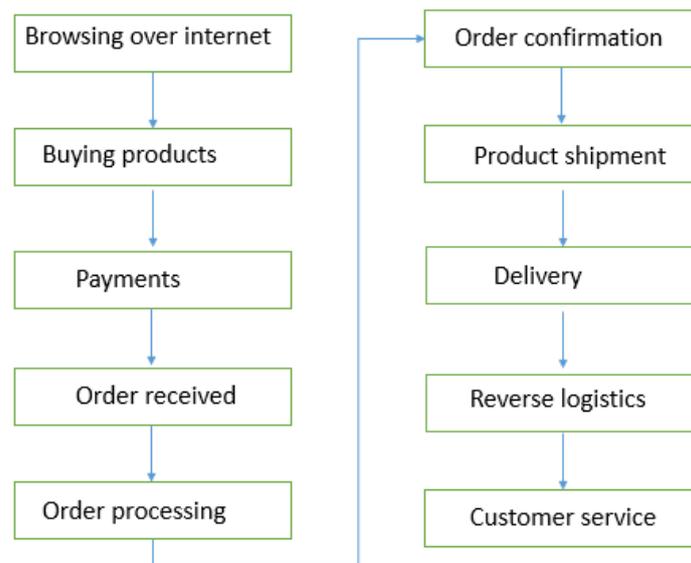
images, GIFs and photographs inside tweets without effort. The favorites (stars) have been converted into likes (hearts), and the character limit has now risen to 280.

*Recent trailing trends in e-retailing:*

1. Connecting through social media: Social media had made a great remark on customers in terms of selecting the product in accordance to their interest. It can be used a medium to create awareness about the product and also providing information(Menaka & Seethal, 2018).
2. Artificial Intelligence (AI) powered personalization: AI based e-retailing site use advanced tools to search and discover the interest of every individual. It can help in dynamic targeting, which would help the retailer to find the right pitch, at the right time and to the right customer(Netscribes, 2018).AI 's role has become stronger as retailers invest in improving areas such as customer service, where AI can be useful in understanding customer reactions to the product or service purchased ( Mohsin, 2020).
3. Quick Service: The process of order generation to payment and finally to delivery of product is done so quickly so as to convince customers to buy before they even change their mind(Menaka & Seethal, 2018). By 2022 e-commerce is expected to be a USD 150 billion industry with more than 1 million employees (Dash, 2019).
4. Virtual sales force: The firms are really trying to create an impact in customers mind by using popups, chat modules and boosting their sales(Menaka & Seethal, 2018).
5. New Payment Softwares: The emergence of new payment software which makes it easy to do payments and the money got debited from the account in just fewer clicks and is also secured, example: Google Pay, Paytm, UPI etc.(Menaka & Seethal, 2018).Ecommerce platforms embrace Crypto currencies today. Whereas manufacturers of smart phones are getting digital wallets and banks developed (eg-Airtel). That allows payment processes quick and simpler for websites (Shahid, 2020).
6. Cognitive computing: Analytics and predictive modeling to help retailers tailor their consumer experience and increase product performance, projections and visibility (Dave, 2017).
7. Interactive User Interface: The user interface is medium to connect customer to product, the easier and interactive the interface, better will be the result as customer may get entrapped and buy the products (Menaka & Seethal, 2018).
8. Demand-driven forecasting: Retailers do predict the products a customers would require from the existing shopping list and pre deliver the products to the nearest fulfillment center even before the order is placed (Netscribes, 2018).
9. Internet of things (IoT): Providing people with a digital voice and improving customer experience, enhancing the visibility of the supply chain and expanding revenue opportunities (Dave, 2017). With the introduction of IoT devices such as smart mirrors that enable consumers to remotely try on clothes and the Amazon dash button that lets users reorder their favorite items (Tadrzak, 2020).
10. Predictive Analytics: It is possible to monitor customer buying behavior to assess purchasing preferences, page visits, and duration of interaction with a commodity, service, or website page (Hargave, 2019). It is a complex combination of artificial intelligence, big data and machine learning which tells the public perspective by the cognitive analysis of purchase pattern. The new trend, which is labeled as programmatic advertising, uses datasets to determine the target public. Such advertisements are shown dependent on use to the viewer selected. They are then retargeted to generate higher ROI after a period of time (Shahid, 2020).
  - Google Admob smartly shows video advertising in between the smartphone games. When a stage stops, a video ad with an offer is shown.
  - With each run the Facebook pixel learns and becomes smarter. It enables the advertisers to select their audience. The relevant ads can be used to target them.
11. Automation:Automating helps in packaging and shipping orders, tracking inventories, checking in-store inventory levels and helping customers find available products(Dave, 2017).Marketing automation is now trend-setting with 49 % of the companies that use marketing automation. Marketing automation also ensures that email marketing is programmed and social networking updates are planned (Shahid, 2020).
12. Products and services will step apart from the offerings of the rivals and bring value to the lives of customers and Updated regularly to meet changing consumer demands.

*E-retailing process flow:*

The heart of any e-retailing business lies in the order management process and it contributes the maximum in achieving customer's satisfaction. The process comprises of several steps:



**Diagram-1**

Each process is further has a complete sub process and at each step intervention of technologies can be seen.

A. Sub process: Browsing

As for technology, the latest buzz is IoT or the Internet of Things. IoT-enabled tools share data over the internet, enabling retail and e-commerce businesses to carry out their operations effectively. Customer Relationship Management (CRM) is a software that generates suggestions and sends emails to the targeted customers. Business automation plays important role, it generates automated messages and pop-ups to the previous buyers about the expiry date of the plan they have subscribed. Things being searched on social media are usually seen to pop on the e-retailing websites, which is due the data sharing happening by the help of compliance standards. The standards includes sharing of secured data only which would not do any harm to customer's private information. Only the keywords which have been searched are shared. Similarly Google also shares information with websites. "Google trends" provides details about products that are popular in a certain area. There could be two ways to do browsing for products. The first one is website and the second is mobile app, it is easier to browse and find for products over mobile apps and even easy for retailers to send pop ups which could lead to shopping of the product.

B. Sub process: Buying Product

Once the customer is done with browsing and finalizes the product to be bought the business automation helps in navigation similar products. If a product resides in the cart, the retailers predicts from customer's buying pattern by the help of cognitive analysis and pre deliver the products to the nearest fulfillment center even before the order is placed. The e-retailing websites are made in such a friendly and interactive way so as to please the customer to spend time exploring the things. Hence the easier and interactive the interface, the customer may entrapped to buy the products. The elements of easier interface includes ability to apply filters to find the product, prediction of arrival of the product, delivery at a certain area. Omni channel retailing also plays a vital role here. Customers are even provided with the option to check the reviews of the product and the actual image of how it looks like which been shared by the customers those who have already used the product. A positive review and the rating been given by the existing customer helps in the buying decision before making the actual purchase of the product. Once the viewer navigates on the page and have read the review, website with the help of automation starts showing the related product and the supporting products which are been bought together with the same product by the customers. After the product has been added to cart and the consumer wishes to remove, portal provides the option of removing of the product before going to the final page of placing the order. The final of order placing has various options for customer to choose which includes gift wrapping, sending of the product without price tag, combing of various products together in a single pack and sending a message card with the order.

C. Payment gateways

After the completion of selection of product and preceding to payment the e-retailing websites are generally redirected to different platform. The emergence of new payment software which makes it easy to do payments. Every transaction happened on website is recorded. All the e-retailing website owns a grievance policy which

tell about their rules and regulation in accordance to success or failure of the payment whereas very payment portals also have their standard of accreditation which tell about their rules and regulation in accordance to success or failure of the payment. For terms and condition of security of the credit/debit card Payment Card Industry Data Security Standard (PCIDSS) comes into play. Websites tends to buy third party gateways for the payment transactions. The Third Party Processor (TPP) collects the details at the point of sale during the authorization phase in the retail purchase and transmits the information for authorization to the credit card question, sends answer to the retailer and stores the payment and monitoring information electronically. Many times retailers may charge extra cost for every transactions made by the cash on delivery option. And at the time of order return the money is not given back in cash, it is either been added as credit voucher in the portal which the consumer may use in future or it is been credited in the debit card details as mentioned by the consumer during the time of payment.

D. Sub process: Receiving of Orders:

Ecommerce system extracts the orders which would include the information of the customer, the ID of the product orders, description of product and payment details. The order data is again checked for correlation as per the business rules e.g. full address, contact details. The order details with the customer details are than updated in the business software. The order received notification is then sent to the customer. If the software finds any abnormality in the order, the customer is then contacted to resolve the issue. If the issue cannot be resolved, the order gets cancelled. Else the order is passed for processing to warehouses. The complete process of receiving order is performed by automation. The orders are pulled on time or on scheduled basis e.g. every 20 minutes. Business software is automatically updated when an order is placed and the customer also gets the notification by automation. Whereas manually processing details of the purchase order will distract from the intended objectives of the companies.

E. Sub process: Order Processing:

After the order is successfully placed on the software, it is further passed to the warehouses for processing. After the warehouse gets the notification of the order, a pick list is been checked which would contain information like stock availability, item location in warehouse. The automation process by using business software reduces time in cross referencing as it dynamically creates and prints the list. If the products is available in the warehouse, the order gets picked and packed and moved for the shipping process. Now that the customer becomes the family, his contact information is saved with the retailer for future use. Now retailer may send the consumer promotional messages, e-vouches and details about the new items added to the portal to increase the sales and make him a loyal customer. And for a market place model (where e-retailing website act as medium between seller and buyer) the order invoices are directly issued by sellers. The seller himself is liable for the recovery of taxes on the goods and services it provides. Marketplace charges for a fee / commission from vendors of products listed / sold on the marketplace and imposes a sales tax on such things(Help.storehippo.com, n.d.).

F. Sub process: order confirmation:

Once the retailer checks with the vendor or the warehouse and the order availability is confirmed. An automatic message is been delivered to the consumer which confirms the order is successfully placed with retailer and he would process the further delivery of the product. Now the consumer have two options post the confirmation, to cancel the order (where consumer can just simply cancel whatsoever is been placed) and to change the order (this option allows the consumer to change the item placed by simply adding the desired product or may be deleting the existing product from the entire order).If purchase of any product is cancelled then money would be transferred back to the same mode of payment or the website's wallet. E-retailers also provide with the option of changing the delivery address before the shipment of product is done. The time given to make the changes in order and delivery depends from portal to portal to portal and retailer to retailer.

G. Sub process: shipment of products:

Once an order is processed in the warehouse, it is now ready to be shipped with a courier for fulfillment. The rules of business will determine which shipping route the employee will choose. Now by the help of business software the Box details are collected, such as weight, duration, location, and costs by automation. The information about the products is added into courier system provider such ad weight, size and destination by integration of business system with courier service provider. An automated process enable you to print the shipping labels automatically. The customer receives an automated 'dispatched' notification and automatically synchronizes the tracking details with the business software by the help of CRM business automation tools. Order sent to courier for execution. Sometimes while checking the product retailer confirms the availability but while delivery it may be seen that the product is out of stock or may be some defect are found in the product because of while the product may not get delivered. Hence the consumer is notified with a message of product being out of stock and the money would be transferred back to the same mode of payment or the website's wallet.

H. Sub process: Delivery of products:

Consumers cannot wait lengthy times for goods or services to be provided. Retailers do predict the products a customer would require from the existing shopping list and pre-deliver the products to the nearest fulfillment center even before the order is placed. Transparency in e-retailing practices is also critical so as to maintain customer's trust and stay loyal to a brand. At first the retailer by business automation and predictive analysis knows the address of delivery and the place where the product is lying to detect how much it would take to deliver the product and ensures the customer a guaranteed delivery by that time. Further the e-retailing website gains the trust by allowing the customer to track their products and knowing the exact location where it has reached. The order delivery status can be always checked right from the order confirmation to know where it is lying and how much time would it take to be delivered to the required location. Further the consumer is provided with the convenience of selecting for the delivery slot in which he wants the product to be delivered. Nowadays to avoid theft and wrong deliveries, the website by the help of automation tools share one-time passwords with customer, which has to be shared with the delivery partner of the retailer. The delivery guys also carry a software which has information about the customer address and once the correct One-Time Password (OTP) is entered at the required place the e-retailer confirms that it has been delivered to the right person and a digital signature of the person who has collected the parcel is recorded which is directly updated in the system. Once the product is delivered, an automatic message has been delivered to make sure the customer has got the order also with a link which leads to rate and give review about the product, which is used for further references by other customers while purchasing the same product.

I. Sub process: Reverse Logistics

For an e-commerce company, there are numerous goods which are delivered through different online retailers every day. Reverse logistics means returning and refusing to use product delivered by e-retailer. It is the process of transportation of product from customer to seller. The reason behind returning could be because of damage, deconstructed or not a satisfactory product. Every retailer has terms and conditions for returning the product. Even the time for returning may depend from retailer to retailer where some retailers provide with return in 7 to 10 days while it may extend to 30 days return with other retailers. For finding the issue with the return the complete detail and data of the product is required. The complete process of forward and reverse logistics is being watched to find out the issue and where the conflict arises. After knowing, the reverse logistics deals with processing, reuse, re-distribution, recycle, and disposal operations. Now reversal of the product depends on retailer policies where some retailers provide with exchange of the same or different product and some give money back in the retailer's e-wallet so to shop from the same portal again in future or in the same wallet of mode of payment. Once the product is collected back, retailer looks for the reason and if it is possible to solve the problem with the product and make it available for selling again.

J. Sub process: Customer service and support

This process covers customer care and consumer satisfaction assistance. This process plays an interestingly significant role in the benefit consumer demand, quality and expense of all elements of a product. It can include elements such as physical installation of a product, repair and maintenance, customer training, exchange of product, returns all depending on the business specifications. Thus post-sale operation will impact year-round consumer loyalty and business productivity.

K. Vendor management-A Case of Amazon:

Management of vendors is the multi-stage process of initiating and developing relationships with goods and services providers that a purchasing company needs for day-to-day operations and fulfilling its mission. For Amazon Vendor Systems and Experiences Team plays an important role in shaping the shopping experience by providing on-board, managing and communicating with vendors. Strategic Vendor Services (SVS) is an option for large vendors. The Vendor Success Program (VSP) is intended for small to medium-sized vendors. Vendor Central comes into play once vendors have defined their strategy. Vendor Central helps vendors to easily monitor, refine their merchandise range and marketing campaigns with Amazon Marketing Services (AMS). Once the Amazon strategy is implemented, vendors need to monitor and review their business on a regular basis to ensure that targets and targets are met. Identifying developments, areas of improvement and new development prospects are crucial to ensuring that the plan is effective. Amazon enables vendors to track their performance through reports in the Vendor Central (McLeod, n.d.). To be a seller on Amazon the person needs to register and make an account as a seller. The documents required to be a seller are very minimal. The person needs to have a PAN card, a bank account with supporting KYC documents (id proof, address proof) also if seller is listing for taxable goods, he needs to provide with GST number. After registration, the process of listing happens with the help of seller central. Listing includes product photography, cataloguing as well. Now customers can see and buy the products. When an order has been made for one of the items, Amazon can alert the vendor via e-mail as well as through the Vendor central dashboard. If the seller chooses "Fulfillment by Amazon" Amazon will take care of storage, pick-up, packing and shipping as well as customer queries. If not then the vendor account comes under "EasyShip" where the delivery service from Amazon would just pick and drop the product straight to the

customer. Sales payment (minus Amazon Seller fees) is deposited securely on the seller's bank account every 14 days, including Pay on Delivery orders (Services.amazon.in, n.d.).

Effect of Lockdown due to covid-19 one-retailing:

- As Amazon deactivated sales the number of new sellers joining Amazon also declined to negligible in India post the lockdown announcement in March, 2020. The number of active sellers who are listed for sales reported on March 25 was 1.99 lakhs which drastically fallen to just 1538 sellers the next day (Soni, 2020).
- Companies such as Flipkart, Amazon, Bigbasket and Grofers have seen an increase in orders of around 20-30% as customers avoid visiting crowded places (Abrar, 2020).
- Shipping times have also risen as more customers shift to online shopping to purchase daily needs. (Tadrzak, 2020). Usually Amazon's speedy delivery in one-day and two-day delivery options also showed several-day delays. Amazon said, after adding an item to the shopping basket the order would arrive within four days (Palmer, 2020).
- On the day India announced the first case of COVID-19, over 50 % of the masks mentioned for sale on Snapdeal were sold (Abrar, 2020).
- As demand for certain things has increased, e-retailers are facing the problem of Out-of stock. Amazon claims that their household supplies are out of stock, and deliveries are delayed due to high demand because of lockdown (Palmer, 2020).
- The covid-19 spread has modified purchasing behavior of the consumers in India. Today, more and more people choose to purchase items online because they do not want to venture out and expose themselves to danger. Conversion rates of purchasing products online also increased to nearly 8.8 percent, mainly due to staying at home (Shahid, 2020).
- Increasing demand threatens to pose challenges to the e-retailers. The company has been working to prevent supply chain disruptions. Hence supply chains are being forced beyond their limits as innovative strategies are being built. (Tadrzak, 2020). The organization are also taking special care at fulfillment centers, raising the frequency and intensity of cleaning and maintenance at all of its facilities, and forcing workers to disinfect their workstations and vehicles at the start and end of each shift (Palmer, 2020).

New business opportunities arising because of covid-19 & lockdown for e-retailers:

Ecommerce is only getting bigger and better as the year continues. Now people are preferring to shop things online which would rather have a lesser risk than stepping out. This shift has given rise and opportunities to many companies and startups to come online and take chance of earning profit. Hence many new businesses because of covid-19 and lockdown can be seen venturing into online market:

- As the Ministry of Ayurveda, Yoga & Naturopathy, Unani, Siddha, Sowa Rigpa and Homoeopathy (Ayush) has given out an advisory of ayurvedic treatments which could possibly boost the immunity, the demand for products like honey, chyawanprash and herbal teas have increased (Venugopalan, 2020). New ayurvedic health brands also claims (like Auric) to have a surge in their sales. Also now the e-commerce website, OrderMe, developed for dedicated supply Patanjali's own ayurvedic products and connect consumers to neighborhood stores that sell Indian products (Timesnownews.com, 2020).
- JioMart is an online-to - offline (O2O) market portal where consumers may put an online order, then purchase the items offline (the closest nearby retail stores). (Moneycontrol, 2020)
- As there is a growing demand for safety equipment for healthcare professionals and the general public. Hence the start-up "Sure Safety" of an e-commerce website selling equipment such as Industrial Personal Security Equipment (PPE) from head to foot, healthcare PPE equipment, face masks, booties, face shield, gloves, and protective eye wears (P, 2020). Amazon India has expanded its PPE offers and started a dedicated PPE and face mask store over e-commerce platform. It features face masks from over 35 Indian sellers including W for Women ethnic wear brand and Louis Phillippe menswear brand (FashionNetwork.com, 2020).
- To stop crowding at Wine Shops many State Governments have launched a web portal for home delivery of Alcohol. Chhattisgarh government had launch a special portal for delivery of liquor. The consumers may even access to alcohol buying from their smart device by downloading the app from Google Play store. Customers would need to register their mobile phone, Aadhaar card and address before ordering online, which will be checked with an OTP (BusinessToday, 2020). Also Kerala government came up with a token generator portal BevQ. BevQ is the framework for the queue management for liquor sales. The BevQ app can assist consumers by using their GPS coordinates to guide them to the nearest outlets (Taluja, 2020).
- Food delivery could soon become a reality in India via flying drones. The Director General of Civil Aviation (DGCA) has given a thumbs up to major food startups such as Zomato, Swiggy and Dunzo to start testing drones for deliveries beyond the visual line of sight (BVLOS) (Ray, 2020).
- After having all the requisite approvals from the Jharkhand government, Swiggy began distributing alcohol in Ranchi. Alcohol will be made available from authorized retailers who will be listed on the platform once their license and other required documents have been validated by the firm (The Indian Express, 2020).

- Earlier people had to choose between BigBaskets or Grofers, but now food supply apps such as Swiggy, Zomato and even Dominos have started supplying groceries. Swiggy has partnered with HUL, P&G, Godrej, Dabur, Marico, Cipla, Vishal Mega Mart, Adani Wilmers to supply groceries from their shops. Zomato has launched the services of the Zomato Market to deliver the necessary grocery items at your house. It has collaborated with Vishal Mega Mart to produce in just under an hour (Chakarvarti, 2020)
- Amazon, Zomato and other retailers have come up with contactless delivery. Contactless delivery means the preparation, packaging and delivery of an e-commerce or food package according to the strictest health and safety standards and procedures designed to minimize or eliminate contact between the delivery partner and the end consumer. New orders are only valid on essential items through prepaid payment methods. The change lets delivery associates remain healthy and consumers do away from direct touch (retail4growth, 2020).
- Further Swiggy came up with an initiative –“Genie”. Genie opens the portal for taking and dropping things from anywhere in the town. It enables the procurement and delivery of essential items on request at the customer's doorstep.

Challenges faced by e-retailers during covid-19 lockdown:

- Internet customer security is among the issues presented by the COVID-19 pandemic. Fraudulent and deceptive practices have been reported, with some online salespeople offering fake or unsafe hand sanitizers; surgical face masks or disinfectants looking for cash in and profit from the demand surge (Wto.org, 2020).
- E-commerce companies find it difficult to procure passes separately for each state for their logistics and delivery personnel (NDTV Gadgets 360, 2020). Inventory and supply chain problems are recorded by e-commerce and other businesses, in particular goods manufactured overseas (Hill, 2020).
- The demand for foodstuffs increases three to five times over the normal days. The surge in online orders is exerting pressure on companies to fulfill the demand due to labor shortages and supply restrictions, they run at 60-70 per cent capacity. In some cases, this pressure gets too much for businesses and is threatening to stop their e-commerce operations (Tadrzak, 2020). Online grocers like Bigbasket and Grofers may be working really hard to deliver the essential goods, but are facing a big lack in delivery slots (Peermohamed, 2020).
- Online sales in containment zones nationwide were not operational because of limits on transportation and delivery of products levied by local authorities.
- The increasing number of small packages directly ordered by consumers has posed challenges in terms of protecting the health of workers involved in the handling and inspection of goods (Wto.org, 2020).

Post covid-19 recommendation:

- By using internet of things and the involvement of robotics for delivery of products. The new Home Delivery Service seeks to build a retail platform that is "touchless" and driven by robots (ETRetail.com, 2020). Droids are a new form of unmanned ground delivery vehicle, typically with 6 small wheels, that travels on sidewalks. These robots are especially useful when traveling the final delivery mile to the customer's doorway. In Australia, Domino's Pizza created a robot to shorten delivery times and prevent traffic. Companies in U.S. are eager to use droids as they can allow supplies easier and speed up the final delivery of the product. (Delivery Robots: The Future of E-commerce, 2019).
- Digital platform for Indian designers to showcase the new collection on e-retailing platform can be done. Amazon is introducing a digital marketplace in collaboration with Vogue and the Council of Fashion Designers of America, where consumers can buy quality items from independent designers (ROI Revolution, 2020).
- Deliveries can be done through drones. According to (Apparatus.io, 2019) Drone delivery is expected to become widely available through major retail e-commerce websites. Recently it has been seen a doorstep delivery of products done by a U.S. startup company, Flirty. Drones can carry up to five pounds at the moment, and travel up to 15 miles. They cruise at an average speed of 400 feet and fly at around 60 miles per hour. Major U.S. and European companies are now developing airports specifically built for drones (also named "droneports").
- Some e-commerce portals of brands like “Sephora” have already begun experimenting with augmented reality (AR), thus helping them stand out from the competition. It has helped them to make better online shopping and offer more customized experiences to the customers. Websites use AR not only to enhance their customer experience, but also to provide shoppers with the ability to test and explore products as they would during a personal shopping experience (Mohsin, 2020). Hence *augmented reality can be used* by retailers so as to create an experience for which customers need not to step out from their homes.
- After spread of covid-19, where people hesitate to step out for shopping but there are still some products which need physical interaction that is where visual commerce comes into play. *Visual commerce is the next generation of Digital advertising* that goes a step forward in promoting the brand by integrating certain forms of images, such as consumer-generated technology, immersive content and user interaction (Mohsin,

2020). Eg-Website of Modcloth applies visual trading strategies to user-generated images, with a whole page featuring user-generated outfit pictures. Interactive product visualization technology seeks to provide online customers with the realistic environment and to minimize their uncertainty before they purchase.

- Although cash on delivery is our country's favorite mode of commerce – it can also be a source of virus transmission among individuals. So to avoid the act of seeking change at the door and exchanging notes the contactless payments should be preferred. It would be a permanent shift in behavior towards digital purchases, as maximum of the transaction now are done digitally.

#### IV. CONCLUSION

The modern concept introduced in shopping is online retailing or e-retailing. Generally E-retail business is referred to as business to consumer (B2C). The growth in IT sector has favored and helped in growth of e-retailing which in turn have changed many things in our daily life. Various new and emerging technologies are now being used by e-retailers to fetch the right type of customers and provide them with better experience so as to retain them for future.

The various changes in technology which could be seen in e-retailing from past 10 years includes the rise of online marketplaces and the shift from desktops to mobile. With introduction of digital wallet, e-commerce have changed the buying behavior of consumers. The recent trailing trends in e-retailing includes Internet of thing, artificial intelligence, augmented reality, interactive user interface, predictive analysis, demand driven forecasting, cognitive computing and many more.

As the covid-19 pandemic has spread out across the nation and the imposing of lockdown where people are not allowed to step out and shop for their essential needs, they are now finding ways and shifting to online platforms to buy products. Hence e-commerce is only getting bigger as the year continues and is facing various challenges to procure the raw materials and products, changes in supply chain and the issue of not being able to deliver in containment zone. Biggest challenge that has been faced by e-retailers is the lesser staff and in delivery of products.

The shift of preferring to shop things online which would rather have a lesser risk than stepping out. This shift has given rise and opportunities to many companies to take chance of earning profit. Various pre-existing retailers and new startups are seen to have ventured on online platform and making the use of new technologies such as Omni channel, shop online pick offline (JIO-mart), delivery through drones etc. to attract and ease the customer's.

The recommendation for e-retailers would be the introduction of robotics for delivery, use of complete digital medium for payments, visual commerce and collaboration with various business to provide them with a platform to showcase their work. As the situation around the nation is completely unpredictable, and people don't want to go out and put themselves in danger hence the online retailing is the only hope for almost every person to get their essentials delivered to them which in turn can be a great opportunity for them to make a place in the market.

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