

**Impact of pandemic on e-commerce industry.**

**Submitted by**

**Anushree Darak, Woxsen University.**

**Under the supervision of**

**Dr. Samala Nagaraj**

## Introduction

**E-commerce**, also known as electronic commerce or online commerce, refers to buying and selling of goods and services on internet. It also includes the exchange of currency, funds and data on internet. There are four ways to conduct these commercial transactions: Business-to-Business, Business-to-Consumer, Consumer-to-Consumer and Consumer-to-Business.

From US\$ 38.5 billion in 2017, the Indian e-commerce industry is projected to expand to US\$ 200 billion by 2026. The industry's growth has been fueled by a rise in the internet and smartphone penetration.

**Traditional Commerce** (method) usually involves meeting of both parties in person to carry out the sale of products and services at predetermined rates. It is done in a store, restaurant or agency.

**The main difference between** E-commerce and traditional commerce is that one is done screen-to-face and the other is typically done face-to-face.

Traditional commerce is restricted to a particular area and limited time

whereas e-commerce can be done worldwide and has no time restrictions.

While purchasing online, consumer cannot physically inspect the goods before making the purchase and have to wait for the goods to get delivered. On the contrary through traditional commerce the consumer can physically feel the product and can use it instantly.

**The COVID-19 pandemic**, also known as the corona virus pandemic, is an ongoing global pandemic of corona virus disease 2019 (COVID-19) caused by severe acute respiratory syndrome. As a preventive measure against the pandemic, the government of India had ordered a nationwide lockdown, because of which all the physical stores were closed and only essential item stores were open for a limited time period. To help stop the virus from spreading, anybody who decided to go out had to obey certain rules, such as wearing masks and social distancing. During these times e-commerce industry saw a pike in its consumption patterns.

To understand this impact of the pandemic on the consumption of e-commerce industry ten types of goods and services that were frequently consumed using e-commerce have been studied for the research and they are follows:

1. **Groceries:** Groceries includes items like fruits, vegetables, meats, dairy products, snacks, oil, bread, etc. Some of the online grocery shopping apps and websites are big basket, grofers, amazon pantry. According to a new survey, online grocery shopping is expected to increase by more than two-fold as more people buy products online. Some new players are swiggy, zomato which were food delivery apps before the lockdown and have converted into grocery delivery apps.
2. **Household items:** Household items include microwave, refrigerator, dishwasher, bed, sofa, computer, television, carpets, cooking, eating utensils etc. Some of the competitors are amazon, flipkart etc.
3. **Fashion:** Fashion here includes clothes, accessories, footwear, bags etc. some of the top e-commerce websites for fashion are myntra, bewakoof, AJIO, amazon, flipkart etc. and there are many small business which sell different fashion items through social media.
4. **Self-care Products:** Self-care products include skin moisturizers, lotions, creams makeup, perfumes, shampoos, hair dyes etc. According to Statista, Indian Personal Care industry had an annual growth rate of 13.7%. Some of the e-commerce competitors are nykaa, kamaayurveda, amazon etc.
5. **Electronic Products:** electronic products or tech products or gadgets include laptops, mobile phones, computers, headphones etc. Amazon, flipkart, snapdeal, tata cliq etc are some of the major competitors.
6. **Sports and fitness equipments:** Sports and fitness equipments include dumbbells, gym balls, helmets, football, exercise bike, racquets etc. Decathlon, amazon, flipkart, khelmart etc are some of the e-commerce websites to buy these products.
7. **Entertainment:** Entertainment here includes movies, shows, music, books, web series etc. Some of the major sources of entertainment through e-commerce are Netflix, amazon prime, spotify, audible, kindle etc.
8. **Educational courses:** Educational courses here means courses which are conducted or done over the internet. These courses or specializations can be on any field such as business, English, finance, machine learning etc. Some of the websites which provide such certificate courses are coursera, udemy, edx etc.

**9. Trips and tourism:** Trips and tourism here are travel apps which are used to book flights, hotels, transport and which help in planning the itinerary for a vacation. Some of these apps are MakeMyTrip, Cleartrip, goibibo, yatra etc.

**10. Second hand sales:** Second hand sale can be of anything such as clothes, furniture, cars, books etc. some of the apps or websites that help in second hand sales are second hand mall, koove, olx, quikr etc.

### Review of Literature

1. Himgiri Chaudhary, **Analyzing the Paradigm Shift of Consumer Behavior Towards E-Commerce During Pandemic Lockdown** The objective of the study was to analyze the shift in consumer behavior towards online goods and future of ecommerce in FMCG industry. And to identify the satisfaction level of customers in buying FMCG goods online. For this study exploratory data was used and for raw data questionnaire and online survey was done. This survey looked at how customer behavior has changed in terms of purchasing FMCG essentials from offline businesses. The data collected through questionnaire was analyzed using pie charts. The findings show that there is a 17% an increase in the number of people who use Ecommerce and buying goods online. There are two main factors that are influencing the customers they are convenience and better discounts. The frequency of buying goods online has increased and 28% customers believe that ecommerce is going to replace offline kirana stores. The e-commerce industry, according to the respondents, played a critical role throughout the lockdown, and the majority of customers indicated they continued to buy crucial (FMCG) goods online even after the lockdown ended. Many people would buy essential (FMCG) goods online using the E-commerce platform. It is obvious that the E-commerce industry will grow in the future.
2. Anam Bhatti, Hamza Akram, Hafiz Muhammad Basit, Ahmed Usman Khan, Syeda Mahwish raza Naqvi, Muhammad Bilal, **E-commerce trends during COVID-19 Pandemic** This article determines the e-commerce trends in corona virus pandemic and its affect n consumer behavior. It examines growth of e commerce due to the pandemic. E-commerce has emerged as a viable alternative and is now regarded as the best option in this situation, with e-retailers offering things that consumers would normally purchase at a superstore. According to the study Consumers are avoiding brick and mortar

shopping and crowded settings in 52 percent of cases, and 36 percent of cases are avoiding brick and mortar shopping until they have the corona virus vaccine. Sale of ecommerce has increased because of the virus, social distancing, work from home etc. The top retail ecommerce website in pandemic is Amazon. By 2023, e-commerce retail sales are estimated to exceed \$6.5 trillion. Retailers in the e-commerce industry confront numerous issues, including extended delivery times, difficulty controlling movement, social distance, and lockout.

3. Tareq N. Hashem, **Examining the Influence of COVID 19 Pandemic in Changing Customers Orientation towards E-Shopping** The goal of this study was to look at how customer behavior shifted toward e-shopping during the COVID 19 pandemic. The following were the study's hypotheses: (a) Covid 19 influenced customer behavior by boosting the proclivity for e-shopping. (b) Individual demographics had no effect on attitudes toward customer behavior after the introduction of Covid 19. According to data, citizens' fears and dismay over the Corona pandemic led to changes in consumption patterns, as restrictions imposed on citizens in April 2020 and requiring citizens to move and shop within a limited geographical area prompted them to purchase their needs over the Internet using electronic payment methods such as credit cards, PayPal, and so on, resulting in an increase in the sales of many stores that offer such services, which led to an increase in the sales of many stores that offer such services. This indicated that the surroundings affect the behavior of the customers. The questionnaire analysis revealed that both of the study's assumptions were accepted, as well as that the Covid 19 epidemic had an impact on consumer behavior toward e-shopping adoption.
4. Aneesh Reddy, **Covid-19 impact: Consumers move towards digital** According to Aneesh Reddy, the Indian e-commerce business is predicted to rise to US\$ 200 billion by 2026, thanks to a trinity of smartphone penetration, cheaper 4G networks, and rising consumer income. However, in the pre-Covid 19 world, this was based on consumer and market research. However, there is now strong evidence that the ecommerce business will surpass the \$200 billion threshold considerably sooner. People are only going out to buy needed products from retail establishments, he said, but they are still hesitant to go out because they are afraid of becoming sick. Even once the outbreak is over, consumers are likely to prefer internet shopping, particularly for food and personal care. The Covid-19 pandemic will be a watershed moment for ecommerce and mobile commerce uptake. To summarise, we were all aware

that the world was going digital. The foundations of a new order were being laid. But, for all we know, the rate has accelerated dramatically. It is knocking down traditional barriers right now, rather than by 2030, as we had all anticipated. This New Order will necessitate a paradigm shift in brand strategy. Only the most nimble will survive. Only those who are "Truly Omnichannel" will succeed.

5. Komal Sharma, **A Surge in E-Commerce market in India after Covid-19 pandemic** The objective of the study was to examine the growth of E-Commerce due to Covid-19 and to know it has become a replacement source and be regarded as the best in this position or not. Secondary data was used for this research. The nature of business of is changed because of Covid-19. Despite the economic crisis, the E-Commerce industry grew after the lockdown. It is found that due to the pandemic the popularity of E-commerce has increased by 17% and is expected to rise further. Delhi-NCR, Maharashtra, and Karnataka were the top three states in terms of e-commerce volume. The research was split into two parts: pre-COVID-19 and post-COVID-19. Following the lockout, a shift in consumer behavior and a rush of online customers resulted from the limited availability and fear of infection.
6. Veronica Hottenroth, **The impact of COVID-19 on e-commerce by category** The influence of Covid 19 on e-commerce is broken down by category in this article. Thought the regions began sloe reopening in May there was still significant online shopping. At the start of the pandemic people were buying masks, toys, groceries more but currently the focused has changed to home and garden improvements. People have gotten used to online shopping and are shopping in categories were online shopping was not popular before the pandemic like people have gotten used to buy their produce digitally rather than in person. Because of this there has been a surge in shoppers leaving reviews for food, beverages etc. leading to a 176% growth year over year. Then the article shows the percentage growth by year over year for March, April, May and June and compares the trends of the months with other months. It shows the page views, order counts, review submissions and question submissions. The highest increase in page views was for May, Order counts was for April, reviews was for June and questions asked was for May. But there was a common trending downfall for all the months in the Luggage and bag category.
7. Shamsul Chowdhury, **How COVID-19 Has Changed the Future of E-Commerce as We Know it** Covid 19 has had a worldwide influence, affecting all markets and industries and leaving no one unaffected. Retail is the industry

that has been hit the worst. Retailers had to immediately shift after storefronts closed in order to thrive in the new economy. The percentage of sales in store is about 84% and online is about 16% for many retailers. When the pandemic hit businesses had to refocus their sale strategies to convert the 84% in store sales to online sales. Lululemon and Nike were the two most successful brands during this time period. With the world in lockdown, the demand for athletic clothing has skyrocketed. Armour and Uniqlo were two brands that struggled because their distribution relied solely on third-party distributors. There's no denying that the global epidemic has shifted the offline-to-online sales ratio in the retail environment, and that this trend will continue even after brick-and-mortar establishments reopen. Consumers will pick brands that can create an online community and provide a digital experience.

8. Susan Meyer, **Understanding the COVID-19 Effect on Online Shopping Behavior** Because of the covid 19 epidemic, the situation is fast changing. People are adjusting to the realities of our interconnected environment and the difficulty of briefly separating oneself from others. People are changing what they buy, when they buy it, and how they buy it, from bulk buying to internet shopping. When covid 19 was designated a pandemic, individuals began stockpiling supplies. As a result, both brick-and-mortar and online retailers were having trouble keeping up with demand. Panic buying can be thought of as a game of three basic psychological demands. Autonomy, relatedness, and competence are the three requirements. These are the same reasons why retail therapy is used to deal with all kinds of personal crises. As the severity of COVID-19 becomes obvious, some customers have expressed concerns about the safety of receiving their online orders. There is a very low danger of transmission from products or packaging that are shipped at room temperature for days or weeks. The article demonstrates how shopping habits change as a result of generational and gender disparities. According to a report, people are spending 10-30% more online on average. Health and safety products, shelf-stable goods, food and beverages, digital streaming, luxury goods, fashion and apparel are among the most affected product categories.
9. Amrutha Mary Lukose, **The Influence of Covid 19 Pandemic on the Ecommerce Industry- a Qualitative analysis** The corona virus pandemic has disrupted global patterns and trends profoundly. The e-Commerce developments in the Corona virus tragedy are calculated in this research, as well as how imminent advancements in e-Commerce can effect customer behaviour in the future, and it investigates the rise of e-commerce as a result of the pandemic. According to the World Trade Organization, now is the perfect time to save the global economy from ecommerce and to intervene with vigour and



vigour to demonstrate the value and use of e-Commerce in trade and online buying. The covid 19 epidemic has had an impact on the entire e-commerce industry. According to data 56% of shoppers dislike the traditional physical shopping because of the busy environment. And 36% fear brick and mortar shopping before getting the vaccine.

10. Olga Andrienko, **E-commerce and consumer trends during corona virus**

Because of the epidemic, the general population expects a significant shift in the way they live and consume the goods and services they desire. Businesses are aware that these developments will have an impact on their entire company management systems, from supply chain management to ecommerce acceptance and expansion. According to statistics, 52 percent of consumers are attempting to practice social alienation by shopping online. As a result, internet purchases and the nature of that demand are rapidly increasing. Consumers have begun to shop in categories that were not expected to see such a rapid increase in online sales. As a result of the long-awaited but rapid change to online buying, consumer behavior during the COVID-19 epidemic is primarily about user behavior. We expected the health category to have the greatest increase in search traffic, but health wasn't the only thing on everyone's mind; they were also considering ways to get out of the quarantine. As a result, the most volatile categories at the time were starting to embrace the new typical leisure and pastime categories. The impact of covid 19 on demand of the following consumer goods was as follows (a) Books and literature saw 16% increase (b) Health e-commerce 9% increase (c) Home décor 7 % (d) Retail 6% (e) Fashion 5%. The most popular product categories are home appliances, hobbies, and sports equipment. It is clearly evident that the coronavirus outbreak will benefit ecommerce businesses in the long run, assuming they can stay afloat in the face of a shaky economy and declining consumer spending power. The paper gives suggestions for people already selling online and not selling online.

11. **Majority of Indian consumers may shift to online shopping in the next nine months**

According to the survey, the outbreak of pandemic and lockdown would have a major impact on how Indian consumers purchase products. In the next 6-9 months, there will be a significant change in online shopping from 46 percent to about 64 percent when it comes to basic commodities. In addition, compared to 59 percent of consumers, about 46% of consumers would purchase from physical stores. And almost 74 percent of customers will shop online after the lockdown.



## **Research Methodology**

### **Purpose Statement**

The purpose of this research is to find out if consumer's perception towards e-commerce has changed during the pandemic. The study shows that how consumers prefer e-commerce websites to buy goods and avail services rather than the traditional method of going to physical store to buy goods and services. It also shows that the consumers have started using e-commerce websites more after the start of the pandemic. The research is also done to find out if the consumers will prefer e-commerce in the future or not.

### **Research Objectives**

1. To determine whether people prefer e-commerce websites or traditional methods.
2. To find out if consumers have started using e-commerce websites more frequently now than before pandemic and if they will continue to do so.

### **Research Design**

Exploratory data was used to carry out this research, to identify consumer behavior towards e-commerce after the start of the pandemic.

### **Data Collection Tools**

For collecting the data an online questionnaire has been used.

### **Sample Design**

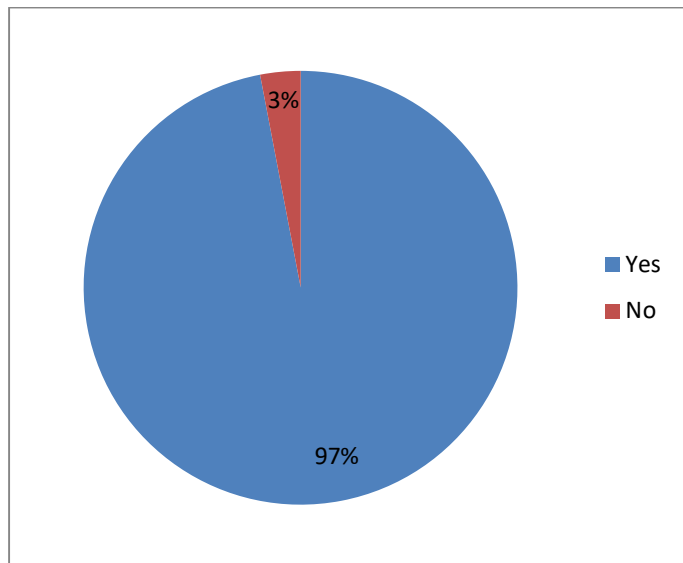
In order to prevent loss of key aspects of the questionnaire the sample size was decided to be 100.

## **Data Interpretation and Analysis**

This questionnaire was circulated to know the consumers perception towards e-commerce during the pandemic. The questionnaire has recorded responses of

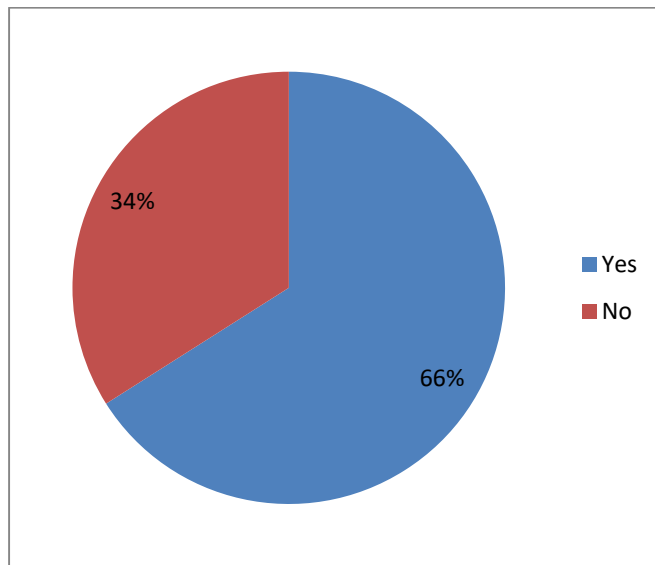
110 respondents. The questionnaire has 13 questions. The questions asked helped in knowing whether the consumer's frequency of buying online increased, whether they prefer e-commerce or traditional commerce and if they think e-commerce will replace traditional commerce.

Do you use e-commerce websites?



This question was asked to see how many people use e-commerce websites and 97% of the people use e-commerce websites and only about 3% people do not use and these people are in the age group of 50& above.

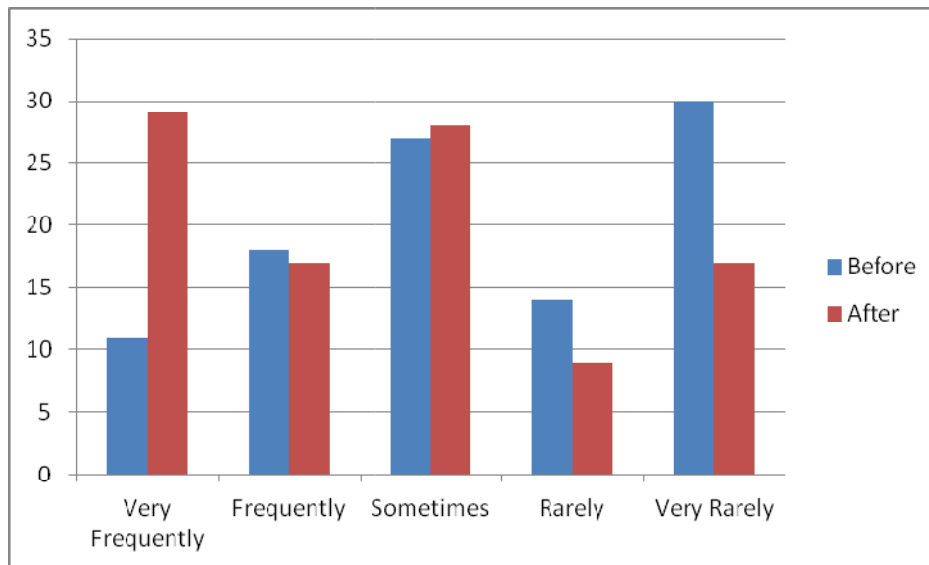
Have you used e-commerce websites before the pandemic?



This was asked to see if more people have started using e-commerce websites during the pandemic. As we can see 34% people were not using e-commerce before the pandemic and the number has now reduced to 3%. There is almost a 30% increase in the number of e-commerce users.

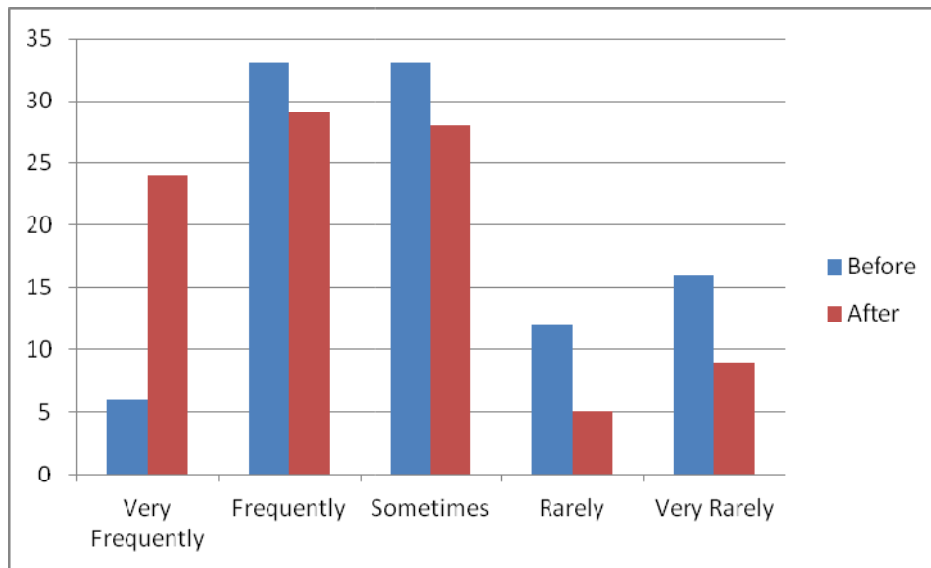
The next question asked was how frequently they used e-commerce for the following before and after the pandemic and they had to answer by choosing one of the following: Very frequently, frequently, sometimes, rarely and very rarely. This question tells us if their frequency of using these items online has increased or not.

## 1. Groceries



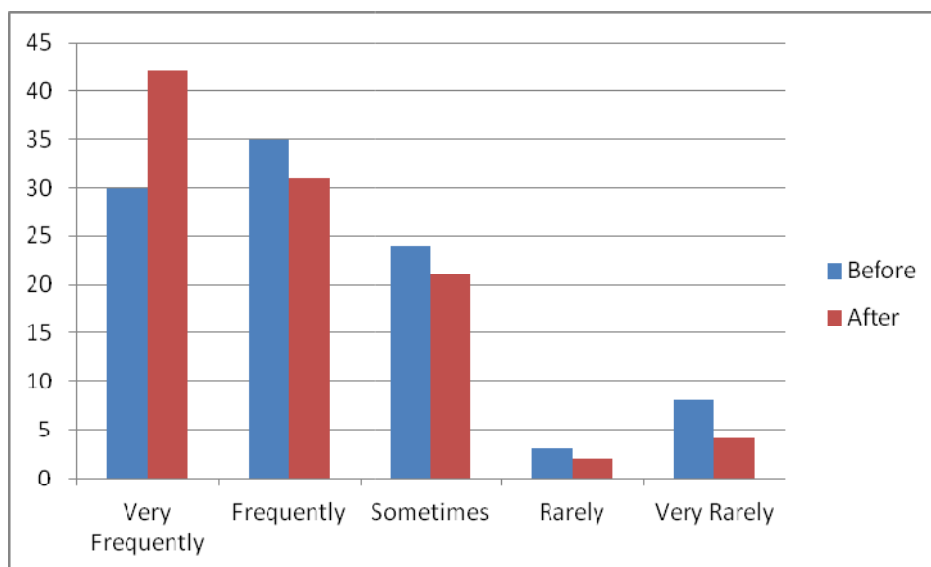
People often prefer buying their groceries by physically going to the store where they could touch and feel the items. But consumers were frequently buying groceries from e-commerce websites because of the restriction on movement and it was difficult to find the basic supplies. As we can see that before the pandemic many people very rarely or occasionally bought their groceries online. And after the pandemic the number of people buying their groceries online very frequently has increased drastically. They also preferred this mode of shopping because they felt this to be a safer option than going outside the house and risking contact with the virus.

## 2. Household items



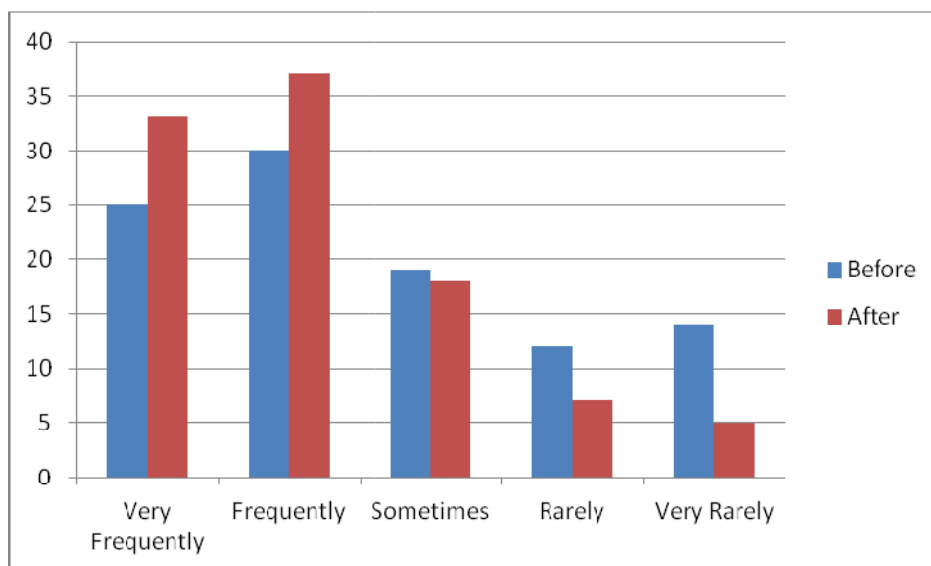
As seen in the graph many people bought their household items frequently or sometimes through e-commerce before the pandemic. During the lockdown when people were home at all times they needed new hobbies or something new to do to not feel bored. So when they needed some things for new hobbies, renovations they preferred to shop online. Shopping for household items online not only helped in ensuring safety but also showed better shopping alternatives and saved time and money. And because of this after the pandemic the frequency of buying for many consumers has increased to very frequently.

### 3. Fashion (Clothes, Accessories, footwear)



Clothes, accessories, footwear etc are such items for which people shopped through e-commerce frequently as it offered variety of choices and discounts. Though people bought these items frequently before the pandemic also but they are buying these more frequently now during the pandemic.

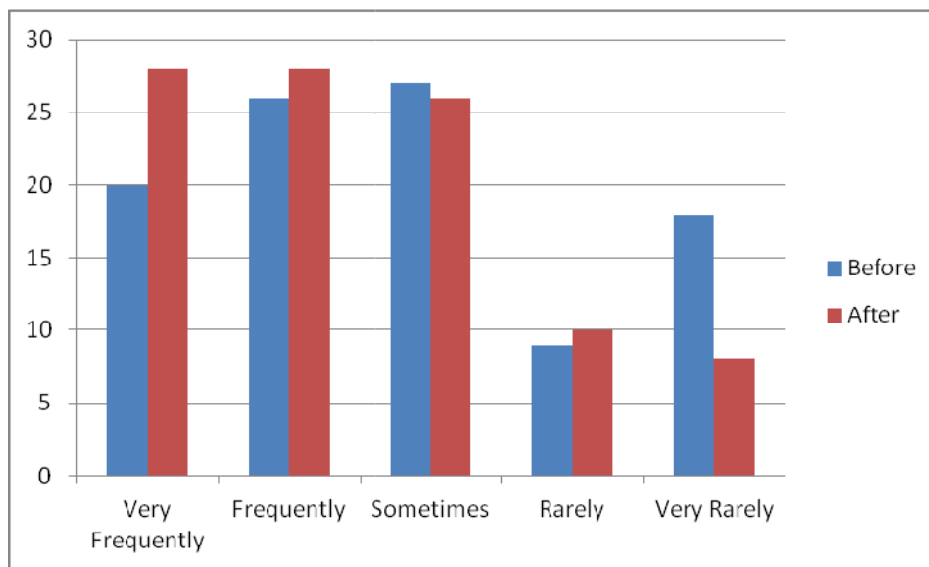
#### 4. Self care Products



Self care products became popular a few years ago when the self care trend started and now it's a part of everyone's routines. There is not much difference in the frequency of buying these products and fashion items as we can see in the charts. The frequency of buying self care products has not changed much from

before the pandemic and during the pandemic. The frequency of buying through e-commerce has increased a little because staying at home during the lockdown had provided people with an excellent opportunity to change up their skincare routine or try new products.

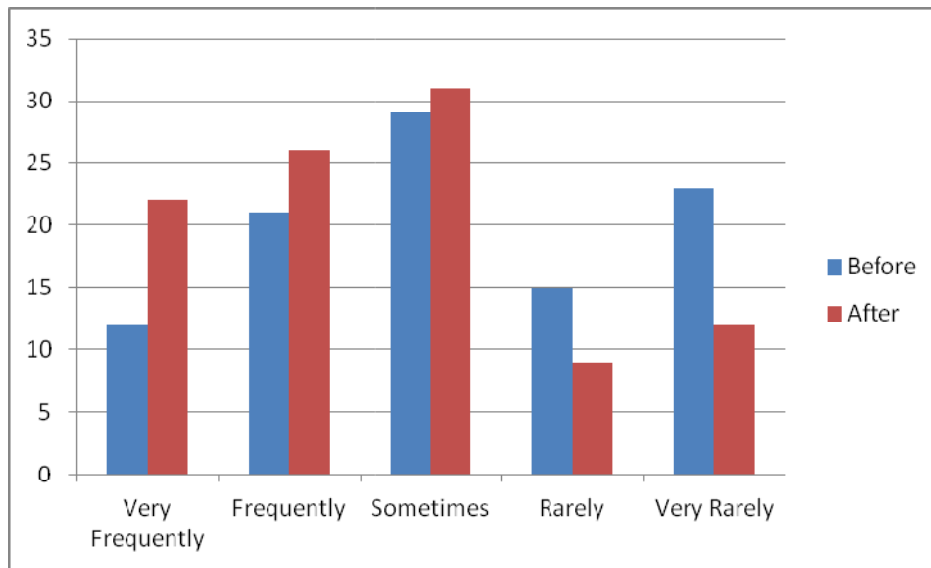
### 5. Electronic Products



People started buying tech products through e-commerce because of the discounts offered. Shopping online they can also easily see the difference between the products and the features of many other companies at the same place. The frequency of buying these items has increased during the pandemic as the demand for products like laptops, printers etc has gone up as people are working from home and studying from home

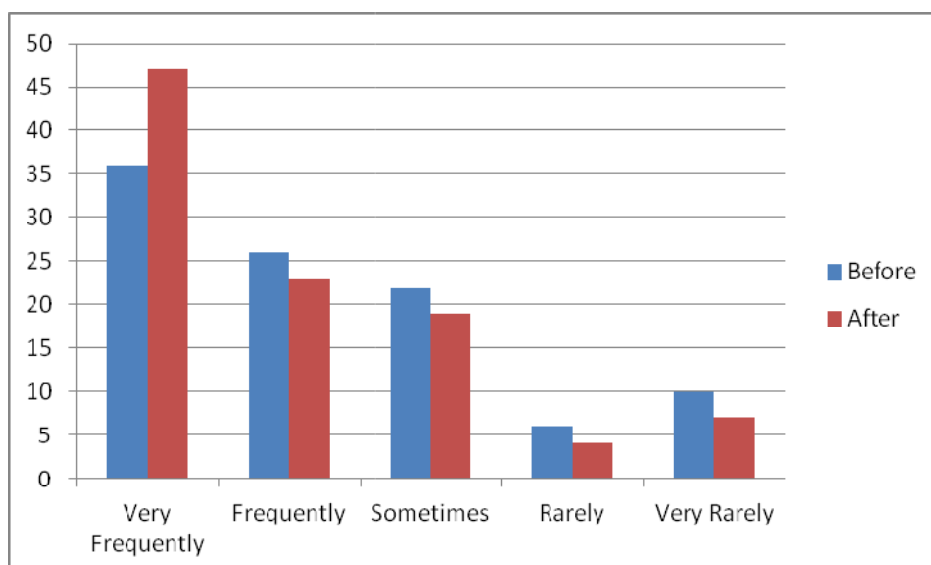
### 6. Sports and Fitness Equipment





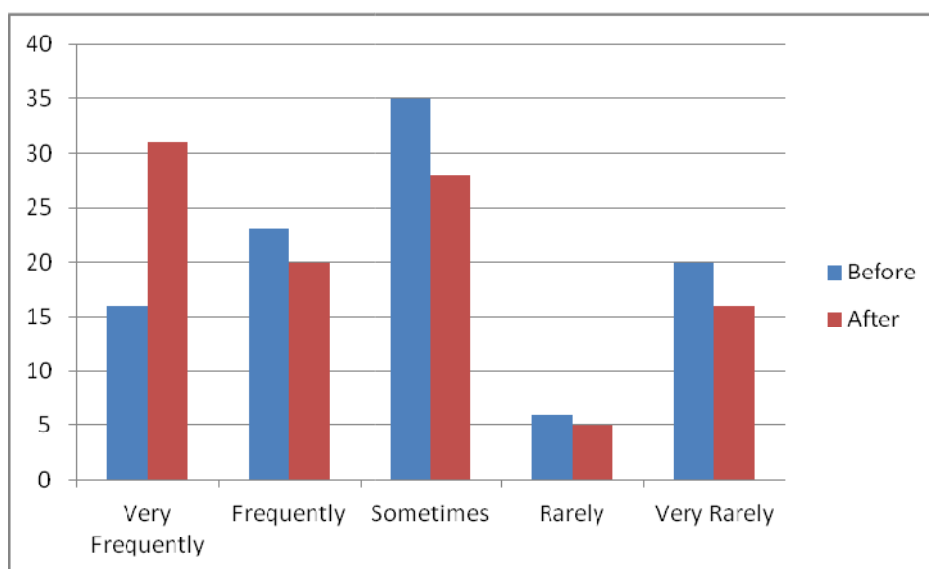
Many people have at least one physical activity in their daily routine to maintain their fitness which can be exercising or any sport. People used to buy these goods from e-commerce sometimes or very rarely before the pandemic. After the pandemic frequency of buying has become very frequently as before the lockdown was imposed the government had mandated for the gyms to be closed and this is the reason people started buying more fitness equipment online so that they can workout at home.

## 7. Entertainment



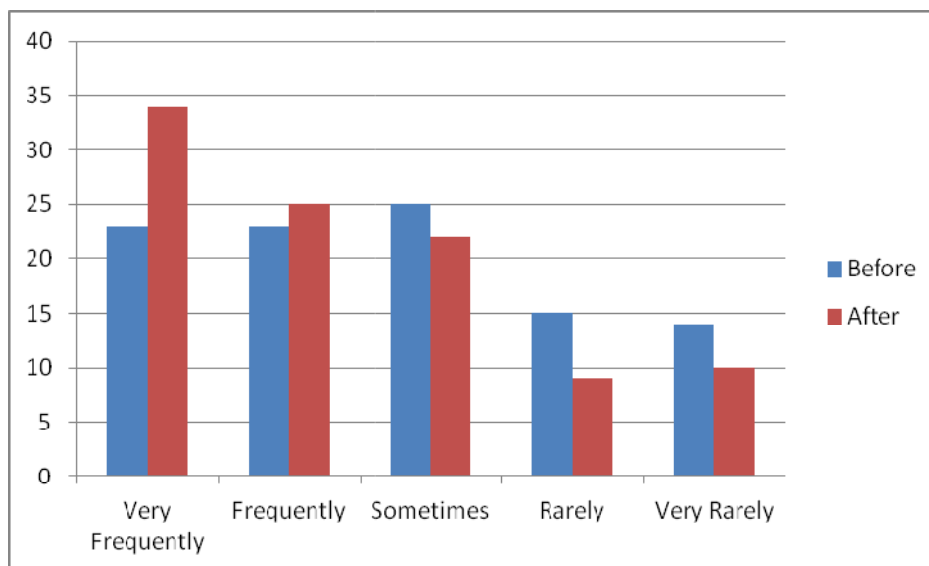
This is an era of on-demand entertainment. Entertainment on e-commerce platforms is one of the many things that everyone has at least used once because there is something available for everyone. Because of that the frequency of this is high before as well as during the pandemic. Many people use OTT platforms for their daily entertainment and people subscribe to as many OTT platforms as they can so they have a vast variety of options to choose from.

## 8. Educational Courses



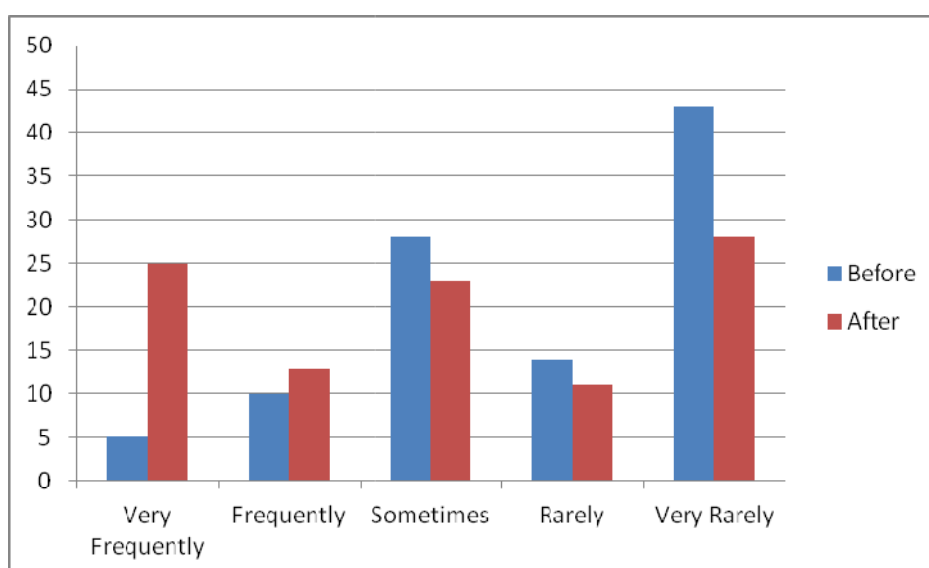
Educational courses online have become popular during the pandemic. People are starting to prefer online learning as they can do it whenever they want from the comfort of their home. As many people had more free time during lockdown and wanted to improve their knowledge and skill online courses was the best option for them. From the above chart we can see that many consumers are very frequently using e-commerce for doing educational courses.

## 9. Trips and Tourism



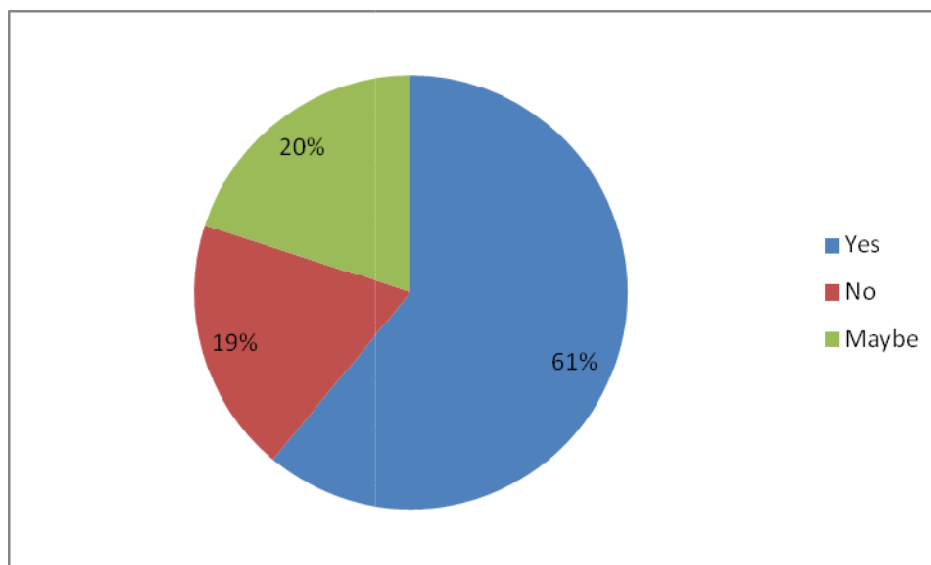
Trips and tourism websites or apps have become more popular in the last few years. After the lockdown was eased and people were allowed to fly again many people wanted to travel and take vacations and for all their bookings they preferred these travel apps and websites. They preferred these apps and websites as they had many offers and discounts which the consumers could avail. The frequency of using e-commerce for trips and tourism has seen an increase during the pandemic.

## 10. Second Hand Sales



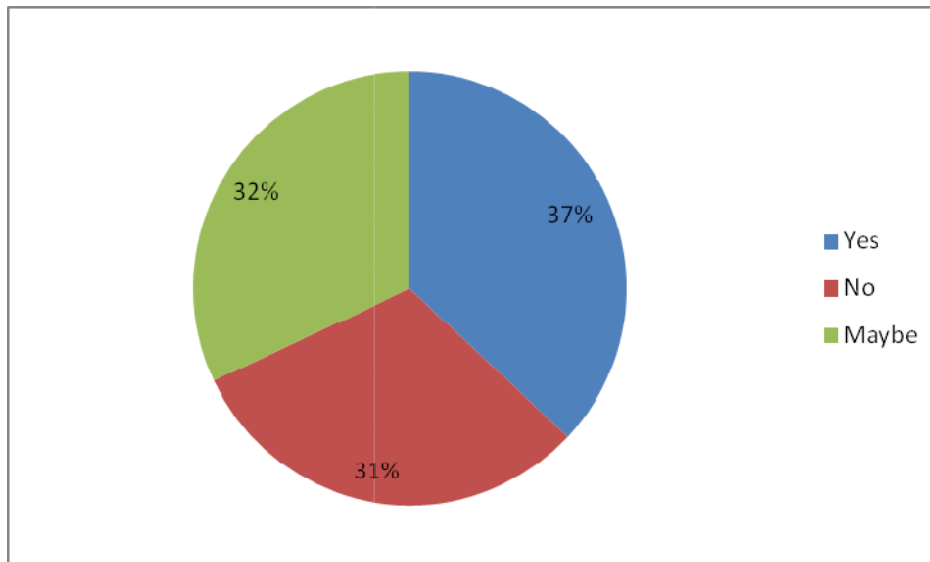
Many people lost their jobs because of the pandemic lockdown and were looking for different sources to earn income and second hand sales is a very good option to earn a little extra income. In the chart we can see that people very rarely used e-commerce for second hand sales before the pandemic and now during the pandemic they are using it very frequently because a second hand sale helps both the buyer and the seller, buyer gets the item for a lesser price and the seller can sell his used product and earn some income.

Has the pandemic increased your frequency of using e-commerce websites?



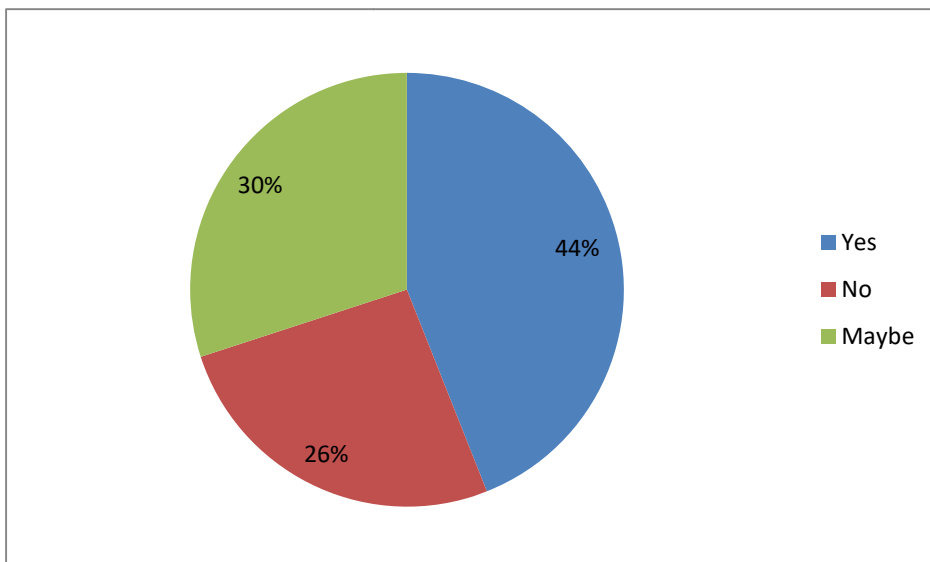
This question was asked to know whether the consumer's frequency of using e-commerce websites has increased during pandemic or is the same as before the pandemic. From the chart we can see that the frequency of 61% of people has increased during the pandemic, 20% think that maybe their frequency has increased and 19% think that there is no difference in their frequency of using during or before pandemic.

Do you prefer e-commerce websites to traditional way of consuming goods and services (going physically to buy)?



This question tells us what the consumers prefer, traditional commerce or e-commerce. There are 37% of people, who prefer e-commerce more than traditional commerce, 31% prefer traditional commerce over e-commerce and 32% are not sure whether they prefer e-commerce over traditional commerce.

Do you think e-commerce will replace your traditional methods?



This was asked to know what the consumers think about the future of e-commerce industry, whether it will replace traditional commerce in the future or

not. 44% of the consumers think that e-commerce will replace traditional commerce in the future, 30% are not sure whether it will replace or not and 26% think that it will not replace traditional commerce.

If yes, why?

This question is the continuation of the before question. This was asked so that the people whose choose yes can tell why they think e-commerce will replace traditional commerce. Some of the reasons are:

1. We can get exact price for the product and can know how good the product is through ratings and reviews of previous users of the product.
2. Due to the ease and convenience that the e-commerce websites provide, it makes the task of buying products easier and saves a lot of time.
3. Easier, more options, price competitiveness.
4. It is easy and comfortable. Also faster and time saving
5. E-commerce is developed to simplify the buying process. There is no need to leave the house, or more importantly, to wait in the queues to get hands on your desired product. All of the purchases are done through the websites, outside the physical store. These websites are trying to simplify the exchange/return policies as well which is attracting more customers.
6. It's just easy access and multiple options.
7. Because the people are getting busy with their work on day to day basis and this e-commerce is the next best option to manage the home and work life
8. Better feasibility and convenience of doing it right from your couch
9. The transactions online of these platforms have become easier and hassle free. And it is needless to mention that the Consumer feels way safer when it comes to e-commerce transactions in comparison with traditional offline methods.
10. The convenience of getting everything you want on our door step.
11. Going to physical stores is risky during the pandemic
12. It is easy and comfortable. Also faster and time saving
13. Variety of offers and discounts

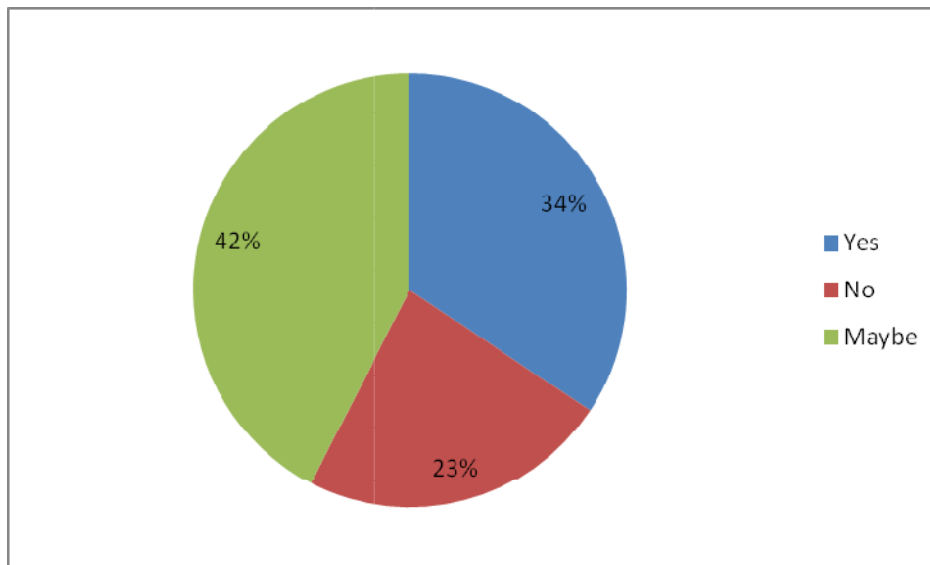
If No why

This was asked so that the people whose choose no can tell why they think e-commerce will not replace traditional commerce. Some of the reasons are:

1. Both the businesses have different approach, different views and sometimes different customers also.
2. Because it's irreplaceable
3. There are few items that needs to be touch and felt which online platforms doesn't offer. Hence, the e-commerce might take over traditional way of shopping although can never replace it entirely.
4. Checking out the material in person gives an opportunity to try and decided. Also it's fun going out and shopping
5. These days e-commerce websites are in one way boon but in another way they are harming us ...in my opinion they are much better option but they can't replace traditional method completely
6. Its always better to see the products before buying so you dont have to keep returning it if not wanted. Also reduce carbon footprint.
7. Depends on the product, personally I shop most of the tech stuff (mobile phones, headphones) online, but wouldn't get clothes from an e-commerce websites because of the vast variety and lack of reviews.
8. Until I can feel the product it's not easy to buy
9. Traditional and old customers want to see and buy
10. Authenticity of products if questionable and no feel of products is a hindrance
11. There will be less socializing of people. E-commerce is just connection between purchasers and buyers. So there is always place for markets.

Do you think you will prefer e-commerce websites to traditional methods in the future?





This question tells whether people will prefer e-commerce or traditional commerce in the future. 34% people say that they will prefer e-commerce over traditional commerce in the future, 42% are not sure what they will prefer and 23% will prefer traditional commerce.

### Conclusion & Findings

The objective of the research is to find whether people prefer e-commerce or traditional commerce and if consumers have started using e-commerce websites more frequently now during pandemic than before pandemic and if they will continue to do so. From the data analysis we can see that 37% consumers prefer e-commerce over traditional commerce and 31% prefer traditional commerce rather than e-commerce. But there are 32% of consumers who may prefer e-commerce but are not sure. From this we can conclude that there a slightly more number of consumers who prefer e-commerce than traditional commerce.

There are 61% of consumers whose frequency of using e-commerce during the pandemic has increased and only 19% whose frequency has not increased but there are 20% who think there frequency might or might not have increased during the pandemic.

The ten types of goods and services studied in the research also show that the frequency of buying these goods or using these services through e-commerce has increased during the pandemic. For some goods and services the frequency has increased drastically and for some it has increased slightly.

When asked whether they will prefer e-commerce over traditional commerce in the future 42% consumers were not sure what they will prefer but 34% consumers know that they will prefer e-commerce over traditional commerce and 24% will refer traditional commerce.

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