

E-COMMERCE IN MODERN WORLD: NEED OR CHOICE

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Abstract: We have stepped into a world that is transforming rapidly due to the advent of the digital revolution where every aspect of our life is changing miraculously and taking a form that our ancestors hadn't dreamt of. Countering both positive and negative impacts of this development on our businesses, this study primarily evokes a dilemma that whether the paradigm shifts in our methodologies in corporate or business world is need or choice of the present age. In this race to touch pioneering heights, every company is struggling to make the ends meet. The competitive world around us demands development and uniqueness, which foster success in the lap of the future. This study will deal with various parameters which require apt consideration before taking the business online. The profitability and productivity scenario after the digital transformation of business, the impact of this transformation, factors influencing the transformation, and sustainment on the global platform are discussed in detail in this project. This project has emphasized on the spiking rise in the companies reaching their customers through internet during the pandemic and the compelling force which drove them to take this giant leap. We will be analyzing the trends shaping the imminent and promising future in this regard.

Keywords: E-Commerce, growth, impact, business, online, COVID-19

INTRODUCTION

Information technology is playing a vital role in shaping the world around us in a utopian form which we hardly imagined. A single touch on our mobile screens can now pull wonders at our doorstep. Nowadays, majorly every transaction, conversation, strategy development, communication operates digitally. It is transforming the way organizations, communities, governments, consumers and producers interact with each other. This ongoing revolution can be culminated in a single and prevalent term 'E-commerce', which is merely carrying out interactions using information and communication technology (ICT). Beginning in 1995, E-commerce has rooted its influence in almost every sector and is major force of upliftment and growth in those sectors. Every sector like business, education, governance, medical or technical is flourishing because of constant investment in increasing and glorifying online presence. The global brands, which manage to reach billions of consumers, captivate their attention using strong build online platforms which now have the power to make or break the world. Social media has turned into the most potent tool to spread awareness in the world.

E-commerce is an up and coming field which has empowered many countries to expand their economic horizons beyond the boundaries. The advancements in technological equipments like smart phones, laptops, tablets etc., has facilitated in rapid access to the internet at greater affordability and availability. The emergence of online shopping, selling, tourism, and other business sites has been a testament to growth of e-commerce in this world. World is still struggling to foster a safe environment for digital exchange of money and goods, raising apprehensions about security of transactions, safety of credentials, quality of goods and services, and many more.

The enormous growth of social media has further improved the e-commerce platforms, reaching millions of customers in a day. The world around us is being united because of social media as it offers a common platform to global audience for sharing their ideas and views. In recent years, social media has aided in engaging conversations between businesses and consumers. This invites a greater need and nurtures an astounding potential in development of business online. It compels us to believe that taking business online is not only an effective strategy but also a riveting need. Further, we will explore the definitions of terms surrounding this method and dive into the world of online business owners and their minds.

What is E-Commerce?

E-Commerce or Electronic Commerce is buying or selling of goods and services on internet. The surge of multiple online platforms to buy and sell goods, along with their marketing, planning, supply management, operations and effective customer relation management, has given a boost in the establishment of this industry. Internet, being an ultimate source of information, has transformed the working of various sectors. E-Business is one of the most favorable outcomes of this digital growth which changed the way companies do business by sculpting the interaction of businesses with customers and suppliers, offering a global pedestal for marketing and logistics. Employing ICT based practices of mobile commerce, electronic fund transfer, digital marketing, inventory management systems, electronic data interchange and management, and automated data collection systems, E-Commerce facilitates online business.

Why E-Commerce?

The advent of technological development in paradigm of business has created a land of opportunities for budding entrepreneurs, small business owners, industrialists, national and multinational corporations. Offering equal and customized growth prospects to all, E-commerce has proven itself as effective and noteworthy strategy to increase profitability and productivity. Such promising advantages compel us to believe in the future online business holds for our economy. In addition to producers and owners, E-commerce offers undaunted advantages to consumers by offering them variety, quality and reasonable pricing which will be discussed later. Building a vocal ground to raise dissatisfaction, concerns, and queries related to products and services e-commerce ensures quality, transparency, authenticity, customer satisfaction and many more providing a user friendly interface.

LITERATURE REVIEW

Abdul Gaffar Khan (2016) in his study “Electronic Commerce: A study on benefits and challenges in an emerging economy” discussed the growth and potential encompassed by e-commerce in an emerging economy like Bangladesh. The economic, legal and infrastructural challenges faced in growing economy like Bangladesh has outlined the requirements and need of e-commerce in a country. Realizing the potential encumbered in e-commerce emerging economies are making full use of digitization in their capacity.

Dr. Rajeshwari M. Shettar (2016) states in her study “Emerging trends of E-commerce in India: An empirical study” that challenges to e-commerce in India, essential growth factors, and prosperity of e-commerce in India. The study brings out the plight of wholesalers as producers directly sell their goods to retailers and consumers. It further elaborated on the ways wholesalers can take advantage of e-commerce by linking their business with producers online.

Kumar N (2018) emphasized on the tremendous growth in e-commerce by 2021 due to rapid growth in technology around us like smart phones, digitization of data, better internet services, incoming of foreign businesses and investors, and many more. It appeals the government to take worthy steps for flourishing the industry.

UNCTAD in their report “COVID-19 and E-Commerce: A Global Review” presented the findings to showcase the unprecedented rise of e-commerce in times of adverse pandemic around the world. The report also includes the steps taken by the governments to foster a friendly environment for establishment of online businesses some with the perspective of short term recovery, while some envisioned it as a strategy for economic growth.

Mitra (2013) stressed on the significance of e-commerce in shaping country’s economy, portraying it as forthcoming future. In the study, suggestions were made for governments to make effective efforts for growth of e-commerce in legal framework to assist the growth of businesses in a safe and secured online environment both for consumers and producers.

Neha Wadhawan and RK Arya (2020), in their research, studied e-commerce in reference to competitive economy, where new brands are flourishing everyday to make their place in the market. They witnessed e-commerce and several factors affecting its growth and popularity like financial literacy, payment system, technical education, standard and nature of living, and infrastructure.

Nisha Chanana and Sangeeta Goele (2013) in their article titled “Future of E-Commerce in India” discussed the future prospects and growth segments of e-commerce in India. The study carves a picture of an emerging market in India and the challenges hindering its growth.

Sarbapriya Ray (2011) in her study “Emerging Trends of E-commerce in India: Some Crucial Issues Prospects and Challenges”, made an attempt to portray evolution of e-commerce in a chronological order by describing the category of e-commerce businesses, and tracing the roadmap to its growth. The study revealed the role of government in building a legal framework for expansion of domestic and international trade to facilitate e-commerce.

Ashutosh B. Mehta (2016) in his study “Impact of e-commerce on Society”, critically stressed on the impact of growing e-commerce on society in both positive and negative ways. The study has brought into light the very essence of growth of e-commerce, and the changes associated with it.

OBJECTIVES OF THE STUDY

The main objectives of the study are:

- To get acquainted with the concept of E-Commerce.
- To study the factors determining the growth of E-commerce.
- To study the impact of E-Commerce on various sectors.
- To know the benefits of E-Commerce growth and challenges in its growth.
- To analyze the impact of COVID-19 on E-Commerce.
- To perform survey analysis to gather viewpoint of consumers.

RESEARCH METHODOLOGY

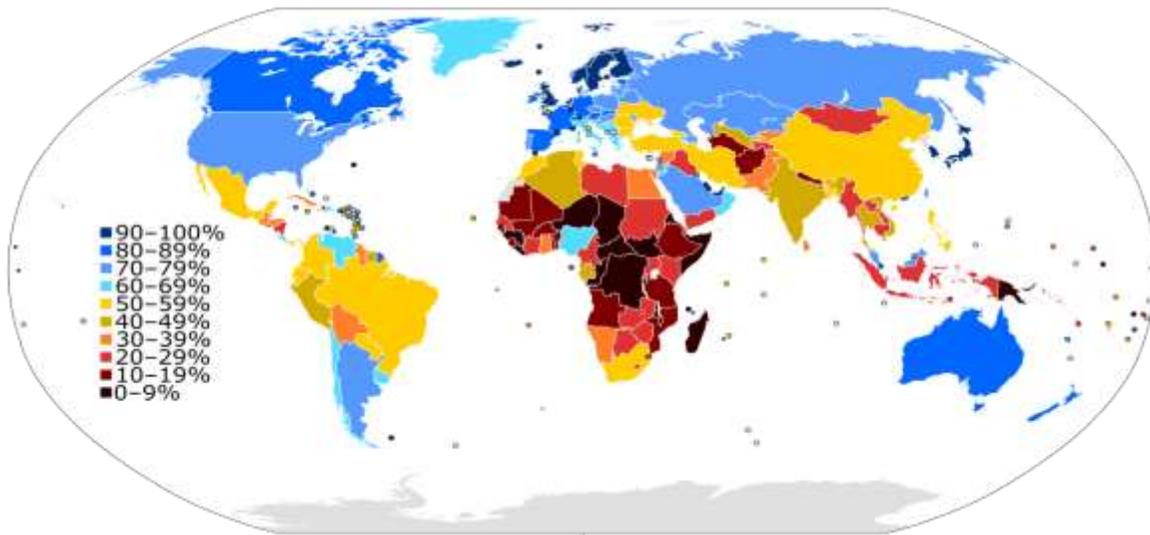
The paper has been drawn on basis of both primary and secondary data. The primary data has been gathered from a consumer survey conducted through Google forms to get insights into changing customer behavior. The secondary data has been collected from published books, journals, research papers, magazines, newspapers, internet and official statistical data. Focusing on the objectives of study, this research has been designed in descriptive way. An in-depth focus is laid on various aspects of this study for proper analysis and inference.

FACTORS INFLUENCING THE GROWTH OF E-COMMERCE

Several factors influence the growth of e-commerce in a country. These factors determine the interactions of consumers and producers in the digital world for smooth and efficient functioning of businesses. The following are some factors influencing the growth of e-commerce:

- **Development of Information and Communication Technology (ICT) infrastructure:** ICT is set of diverse set of technological advancements used to manage information. Development of ICT infrastructure can boost the growth of e-commerce in a country as it aids in improvement in logistics system and supply chain management, effective data and knowledge management, superior decision making, seamless online transaction, and virtual connectivity. E-commerce first emerged in developed countries where the progress of ICT provided a land of blooming opportunities for companies like Singapore, the United States of America, and European Union.

- **Access to Internet and Mobile phones:** The major factor determining the progress of e-commerce is access to internet in a country. A significant rise of mobile internet users has been witnessed in the last decade around the world which resulted in emergence of M-Commerce (Mobile Commerce). With tech giants like Amazon, Ebay, Myntra, Jabong, etc., entering in this world and bringing mobile applications, e-commerce has touched new heights.



Internet users in 2015 as a percentage of a country's population

Source: International Telecommunications Union

- **Urbanization:** With the advent of industrialization, larger populations are migrating to big cities for better education, business, health, and job opportunities. This has resulted in transformation of population demographics. People now are working relentlessly in this competitive world leaving less time for in store shopping. E-commerce emerges as savior by providing innumerable items ranging from groceries to electronics on mobile phones and laptops.

- **Education and Technical Literacy:** This is another factor which determines growth of e-commerce at both producer and consumer level. In this competitive world, education and technical expertise are pre-requisites to take your business online. Skills and a strong headed mindset are required to plan and strategize the workflow in order to establish a unique selling point (USP) in this stiff market. Moreover, education and technical skills are required by the consumers to understand the technological framework and get aware before making online transactions, surfing through sites, product quality assessment, and interaction with interface to avoid frauds and unlawful practices.

- **Social Media:** The rapid rise of social networking sites has resulted in formation of a united world, crossing the bounds of languages, boundaries, and cultures. Firms are using social media to promote their agendas and reach to a wide, unrestricted, and vivid audience, expanding their business goals. Social networking sites like Facebook, Twitter, Instagram, and many other are offering a platform to target customers and know their aspirations. Advertising and marketing are one of the greatest virtues of these sites.

- **Income Level of Citizens:** The higher economic progress and per capita income have a strong influence on growth of e-commerce. People in developed countries tend to shop more online than in developing nations. According to Information Economy Report 2015, countries with high GDP enjoy high B2C revenue. The report also indicates the settlements of major retail companies in developed nations of the US, Europe, Asia, and Latin America for 2012-13 are based in the US, the UK, Germany, China, Brazil, and France. On the contrary, poor economic development results in lack of resources, funds, education and infrastructure for spread of e-commerce.

- **Cyber Security:** It is another factor which often guarantees the participation in e-commerce. Due to no physical interaction between buyers and sellers during the transaction, perpetrators take advantage of the anonymity and gain access to your sensitive information resulting in cyber crimes, hacking, fraudulent transactions and threats. Identity threats, stolen credit card numbers, leakage of personal information, national security numbers, and other credentials which makes consumers apprehensive and fearful before involving in online transactions.

- **Stiff Competitive Market:** The present market is highly competitive where one can't afford lethargic response to the growing pace of development. Companies and governments nowadays use their resources and infrastructure to gain productivity and profitability. Every company strives to put its best foot forward to sustain in this competitive world and e-commerce helps them to reach target audience effectively.

IMPACT OF E-COMMERCE

1. Impact on markets and retailers

E-commerce markets are growing at an undaunted rate. The pandemic has indeed contributed to the growth of online businesses which made it easier for the customers and producers to buy and sell products. From 2.3 trillion USD in 2017, e-commerce sales worldwide amounted to 4.89 trillion USD in 2021. While traditional markets saw only 2% growth during the same time. Traditional markets and retail stores are struggling to make the ends meet as the online presence of businesses has captivated wider range of customers, offering them huge variety, affordable prices, contactless and seamless deliveries to the doorstep. The reduction of geographical barriers resulted in buying and selling of goods and services anytime and from anywhere. The marketplaces are shrinking and turning into globally recognized brands on the online platforms. This has provided a plethora of opportunities to generate revenues.

2. Impact on Supply Chain Management

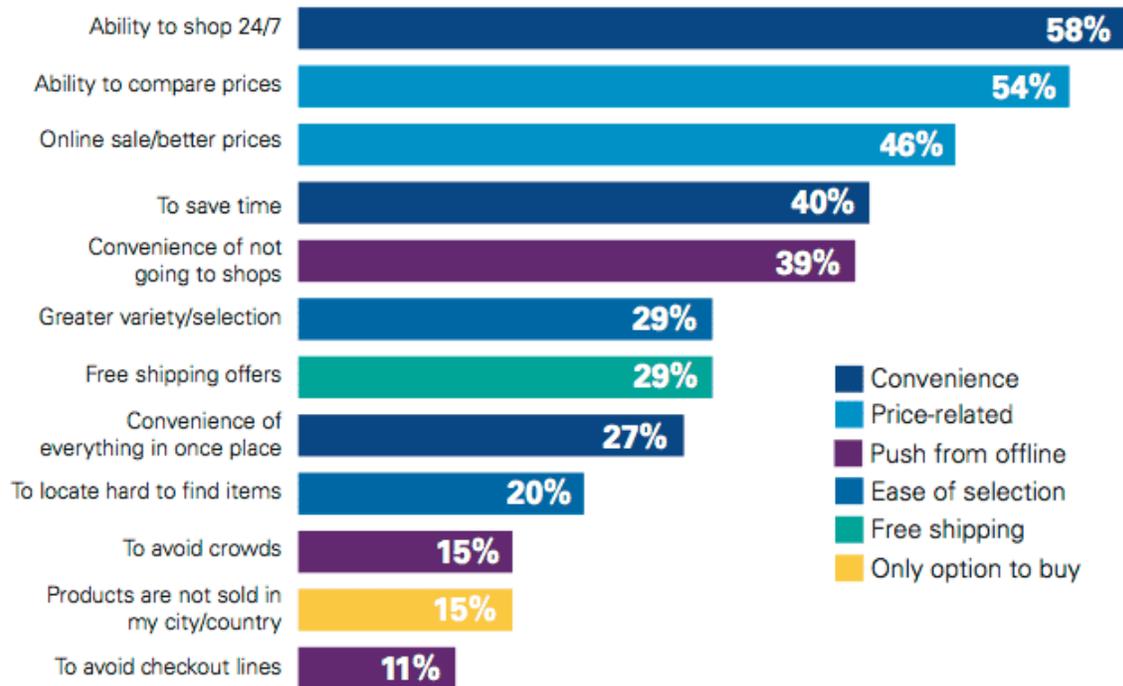
Companies had been striving from a long time to bridge the gap between benefits of supply chain technology and solutions to avail those benefits. E-commerce can be beneficial in bridging the gap as it can integrate all inter-company and intra-company functions like physical flow, financial flow and information flow, forming the supporting pillars of supply chain. The monitored physical flow improved inventory and product movement for the company. For better information flow, e-commerce optimized the capacity of information processing while for financial flow, e-commerce offers stable payments and settlements solutions. Reducing performance gaps, e-commerce helped in implementation of new capabilities like ERP systems to manage the operations with suppliers and customers. Breaking political and cross-country barriers, e-commerce fills the gaps in supply chain management technologies.

3. Impact on Employment

E-Commerce has contributed in creation of numerous opportunities in technical field like digital and software app maintenance and information related services. On the contrary, it resulted in job losses in the field of retail, postal and travel agencies. E-commerce will create job opportunities in the sector which require high technical skills for managing customer demands, product supplies and loads of information. At the same front, people with poor technical skills cannot enjoy the benefits of this technology.

4. Impact on customers

The greatest set of benefits of e-commerce is enjoyed by customers. It allows the customers to buy products anytime anywhere without moving out of their homes. Customers can now get variety of products at affordable prices and efficient deliveries at their convenience. Customers can now get power in shopping where they have access to detailed information which even in-store staff can't explain. They can compare prices to get the best deals by cutting through intermediaries. Customer can also read the reviews and track order history online. The success of e-commerce depends on the technical skills, living standard, and judgment skills of consumers. Although being interface and operation friendly, it fails to address the needs of customers who prefer physical interaction with the sellers. The graph below depicts the reasons which drive customers to online stores based on various parameters.



Reasons consumers shop online
Source: Global Online Consumer Report, KPMG International, 2017

5. Impact on Environment

E-commerce has a mixed impact on environment. Transportation emissions of carbon dioxide have been reduced from the end of customers but the delivery trucks and other vehicles still put a lot of harmful pollutant in air. Moreover, it results in excessive cardboard and plastic waste generation. A 2018 EPA study on containers and packaging revealed that 82,000 tons of containers and packaging generated in the US, only half was recycled, and 30,000 tons went to landfill. On the contrary, paper waste is reduced significantly in organizations due to digital transfer of information. Many companies, like Amazon, are making efforts to cut down on packaging. Amazon has achieved 19% reduction since 2016 and still making amends in packaging and shipping materials.

BENEFITS OF E-COMMERCE

The success of E-Commerce has several benefits attached to it. These benefits make it a vital option to invest and widen the scope of progress for business and economies. Offering ease and convenience, e-commerce provides several unexplored benefits discussed below:

- E-Commerce offers doorstep convenience and ease by avoiding the effort to head out the stores and shop. After a busy week, customers tend to turn to online stores for shopping.
- Breaking all the geographical bounds, e-commerce has created a global marketplace, where one can browse through the products available worldwide without worrying about duties, transportation fares, and exorbitant charges. E-Commerce has brought the world closer and together.
- Even small companies are being recognized and appreciated for their products on a global pedestal. The stiff competition in this race results in greater productivity and quality where only the fittest survive.
- This has been an aid to disabled and elderly people as they can get essential commodities by sitting at the comfort of their homes.
- A lot of time is saved in this online paradigm. Customers prefer to resort to such platforms where they can buy all the necessities without spending the time and effort to step out.
- A wide range of choices is offered to customers in online stores at greater and affordable prices as unlike physical stores, online stores don't have limited shelf space. They directly transfer the orders from customers to the manufacturers. The prices in these online stores are based on speed of delivery while traditional stores charge quite high because of the store traffic, rents, inventory costs etc.

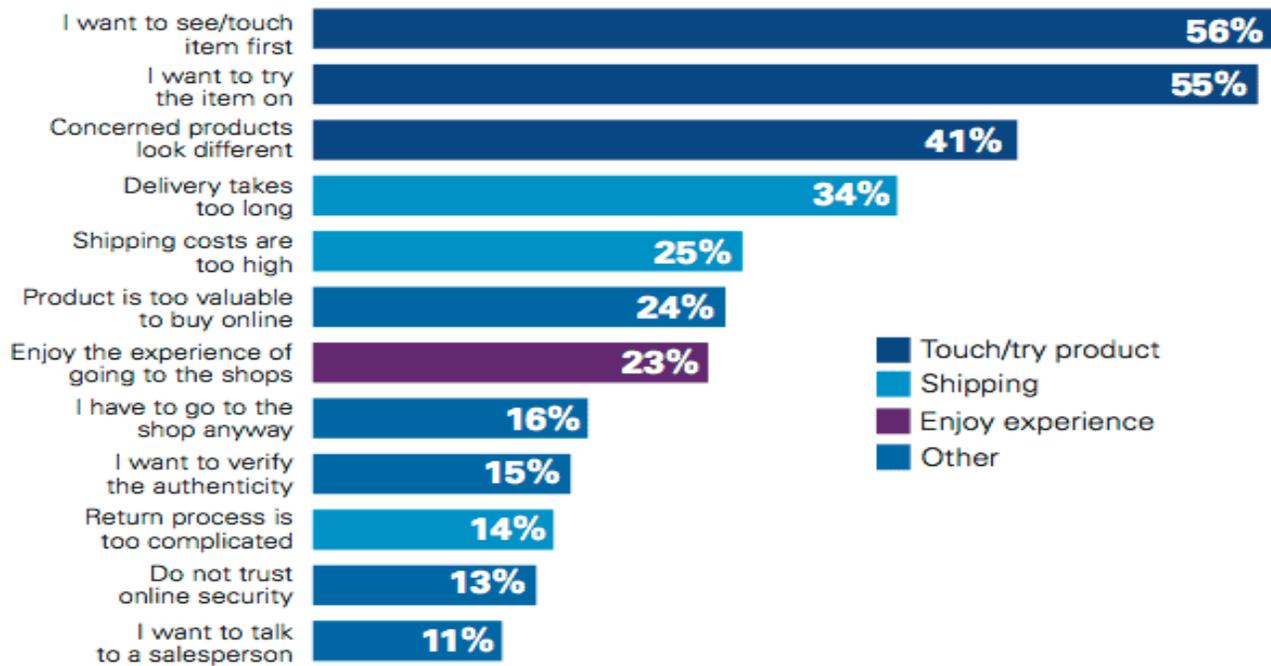
- It is a boon for startups as it is much cheaper to set and establish your brand name online rather than setting up a brick and mortar store.
- Online stores offer 24x7 functionality as one can order the products anytime and from anywhere.
- One can get access to detailed information about products and services in an online store than physical stores. Even due to multiple platforms available, you can compare the prices of product to get the best deal, and can get interesting offers and discounts.
- E-Commerce has created a number of jobs in technical and management fields for website, software, and app developers, marketing and business analysts, data engineers and managers, transportation and supply chain technicians and many more.
- A customer is the king in an online store where they can easily exchange or replace their products, return them, review the products and provide their feedback.
- E-Commerce is of great benefit for businesses as they get to advertise their products online not only on their sites but also on various social media platforms, websites, etc., allowing them to reach wider audience.

CHALLENGES IN E-COMMERCE

In this fascinating world of e-commerce, there are several drawbacks or challenges which we tend to ignore or address. They are hindering the development of e-commerce around the world. Some of the challenges in online e-commerce market are as follows:

- **Security issues and customer trust:** The biggest challenge in the acceptance of this idea is the security and safety breaches of data. This has posed a serious threat to privacy of customers due to several fraudulent activities like cyber crimes, cyber bullying, stealing of credentials like credit card number, CVV, national security numbers, hacking, and cracking. A lot of data is dealt in daily operations of e-commerce, and any breach can put the brand's image and functioning at stake. Several laws are formulated to check any unlawful practice but still people can't turn a blind eye while doing online transactions. A lot of unregistered and fake sites are present on the internet which steal customer's private information and use it unethically.
- **Lack of Awareness:** Often people lack the required technical skills to use online e-commerce sites. Even in many countries, English is not the primary language of conversation so people are unable to understand the instructions or procedures if sites don't support their native language. This makes them vulnerable to online scams and they are prone to lose their money. People become apprehensive and refrain from entering their credentials and using the facility.
- **Unequal access to internet:** Majority of the population lives in rural areas in many emerging countries where the infrastructure fails to support high speed internet connections at low costs. They often face the barriers like high costs of internet. Authorities are making efforts to provide affordable broadband connections to every individual but the exorbitant costs of setting up networks limit their scope.
- **Lack of public-private joint initiatives:** In many countries public and private corporations don't work jointly in order to achieve a common goal. Public and private joint initiatives can help a lot in the growth of e-commerce as it brings credibility inside people, necessary for flourishing e-commerce business.
- **No Physical Interaction:** The major drawback customers express about online shopping is inability to physically interact with the seller and clear doubts. They are deprived of the opportunity to judge the quality of product and material, and often complain that they didn't receive the expected product. Sometimes, the product images are misleading and customers end up getting dissatisfied with the shopping experience. Moreover, these e-commerce business owners sometimes fail to offer hassle free and smooth return, replacement or exchange process, causing troubles to customers.

The following graph demonstrates numerous reasons due to which customers are unhappy or disinterested in online shopping. These aspects are making the process of incorporation of e-commerce in our daily lives difficult.



Reasons why customers prefer to shop in stores
Source: Global Online Customer Report, KPMG International, 2017

- **Unemployment:** The rise of online stores and websites is one of the major reasons for an increase in unemployment in many countries. Many traditional retail stores, wholesalers, shop workers etc., are experiencing a setback due to increased usage of e-commerce websites. An increase in the shut-down of brick and mortar stores is witnessed as more people are turning towards online stores. This trend has experienced a tremendous spike in the horrifying pandemic as more and more stores are shutting down due to a decline in traffic and continuous losses. In order to recover the losses, many organizations are opting to operate online which in turn is resulting in layoffs of staff members with low or no technical expertise.

- **Poor infrastructure and facilities:** In many poor countries as well as emerging economies, the slow and inefficient postal services, rough terrain, undeveloped transportation and communication system, lack of financial literacy, poverty, and negligence of government are posing a huge obstacle in the progress of e-commerce.

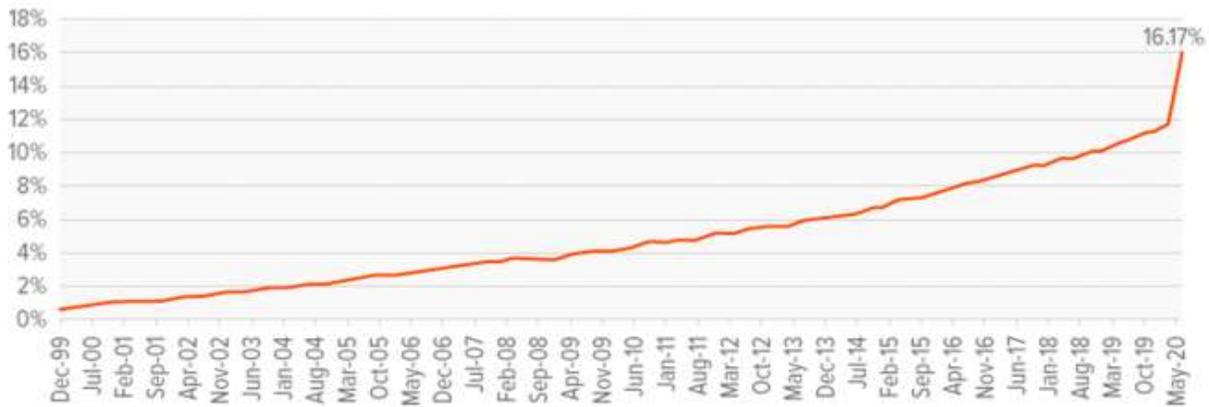
Despite various thought-provoking challenges, countries are making efforts in sculpting a land to attract various e-commerce companies to set up, and begin their operations. People are realizing the boost in the economy, and the convenience offered by online businesses. Overcoming the barriers that hinder the growth of e-commerce, governments around the world see it as an opportunity, and an urgent need to be addressed for better growth prospects.

GROWTH OF E-COMMERCE: Breaking the barriers of COVID-19

The COVID-19 pandemic had adversely affected the world by putting a halt in the operations in almost every sector, leaving everyone clueless and perplexed to figure a way out of these daunting conditions. Despite all the ravages, the e-commerce industry has witnessed a tremendous rise in its growth and establishment where more and more companies set up their businesses and operations on online platforms. According to a report by UNCTAD, the year of 2020 will be remembered as the revolutionary year due to unprecedented and unforeseen growth in e-commerce and digital sectors.

E-COMMERCE AS % OF TOTAL RETAIL SALES IN THE U.S.

Source: Global X ETFs, U.S. Department of Commerce



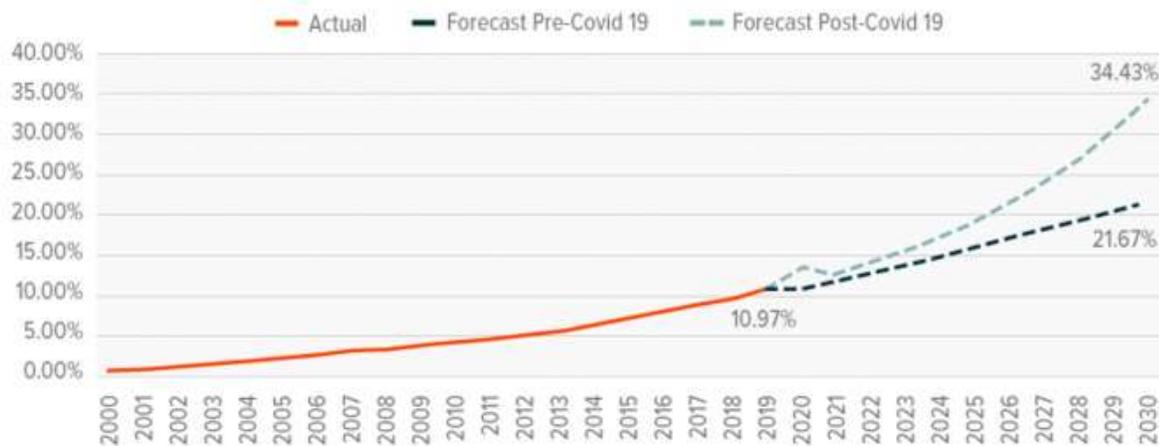
Source: Global X ETFs, U.S. Department of Commerce

The graph above clearly indicates the rise of e-commerce retail sales after the pandemic since December 2019. The steep slope deviating from the constant behavior shows that e-commerce has grown significantly and accounted for 16% of total retail sales in the US Q2 2020. Same trend is observed worldwide. The US witnessed a robust increase of 44.5% from Q2 2019. The enormous rise has come from the underestimated categories like groceries, pharmaceuticals, healthcare and autos. This is probably because online stores turned into the only option left for the customers. COVID-19 changed the paradigm of growth for e-commerce market by forcing traditional retail stores under losses. Businesses around the world viewed it as an opportunity to expand globally and worked for digitization of their businesses. This shows that people took advantage of the potential encumbered in e-commerce.

Prior to the pandemic the growth of e-commerce was traceable and predictable which was geared towards technical realms and delivery friendly categories like electronics and clothing. But COVID-19 shifted the momentum of growth by accelerating broader e-commerce adoption among consumers by incorporating the lagging categories like groceries and healthcare services. More than convenience, every sect of society was convinced that online shopping is safe and viable choice.

U.S. E-COMMERCE PENETRATION: PRE-COVID19 VS. POST-COVID19 ESTIMATES

Source: Global X ETFs, US Census Bureau, Adobe.

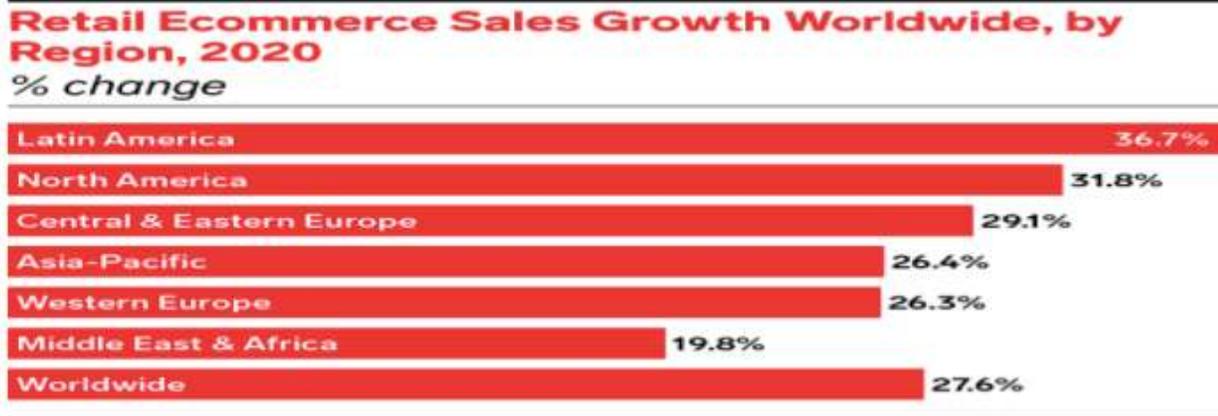


Note: Forecasted figures starting in 2020 based on Bass Model and annualized e-commerce sales figures from confirmed first half of 2020 (\$368.8 billion first half 2020 – Adobe).

Source: Global X ETFs, US Census Bureau, Adobe

The graph above demonstrates a comparative scenario between pre-covid and post-covid times and predicts the growth of e-commerce in both cases. If the pandemic hadn't hit the world, e-commerce would have traced a stagnant trend of rise which it followed in pre-covid times. But due to the pandemic, experts are predicted an

incredible rise in e-commerce success by 2030 ranging to 34.43% of total retail sales. This miraculous trend is attributed to COVID-19 crisis and we can expect more and more companies to participate in this online industry or ‘retail apocalypse’.



Source: eMarketer Global E-Commerce Report, Dec 2020

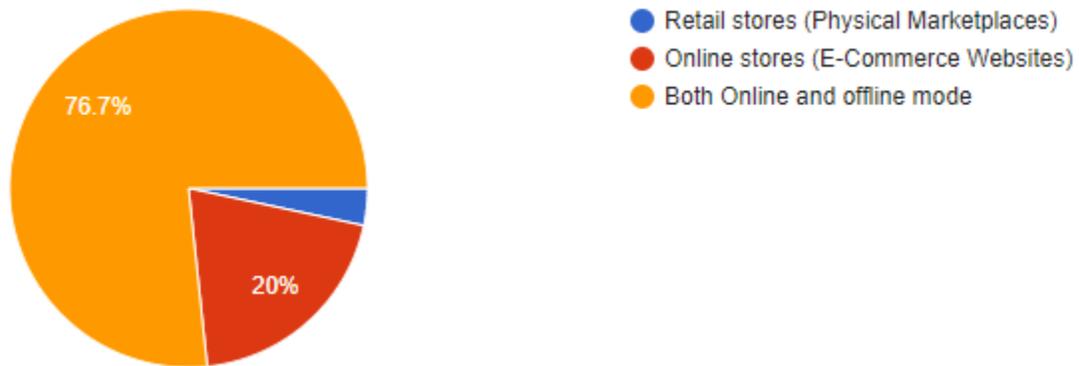
The graph above shows the growth of e-commerce around the world. It breaks the rise into different regions. Latin America led the list with 36.7% rise. Its marketplace Mercado Libre sold twice as many products in 2020 than in the previous year. Middle East and West Africa saw moderate rise but it is commendable based on the previous trends. African e-commerce platform Jumia reported 50% increase in transactions in first 6 months of 2020. China's retail increased from 19.4% in August 2019 to 24.6% in August 2020. Kazakhstan also witnessed a rise from 5% in 2019 to 9.4% 2020. COVID-19 has served as an accelerant in growth of e-commerce by leaving customers with no choice.

Such trends are indicates an optimistic progression towards success of e-commerce around the world. Every nation is using and investing its resources to harness the potential encumbered in online market. By and large, e-commerce adoption has turned into an important need for development and growth of economy. Even rapid technological advancements can trigger a new layer of growth by expanding the customer horizon even more. Social e-commerce driven by social media sites can be surpassed by new emerging technical trends like virtual reality and augmented reality. AR/VR can offer customers life like shopping experience by enabling them to try on the clothes virtually, see their room layouts while buying furniture, and enjoy virtual test drive in automobile showrooms. Drone deliveries to increase efficiency and speed can be equipped as a part of progress. Such illusions can become real in future and can be integrated in our shopping lifestyles. Science has never failed to surprise us and it will surely design miracles for future growth of e-commerce. In post-covid world we can expect all of us to be surrounded by advantages of convenience, safety, and ever-advancing technology.

SURVEY ANALYSIS

In the progression of this paper, a survey was conducted to testify the findings of this research with a consumer viewpoint as they are the intended beneficiaries of this rapid development in addition to growing business. This survey was performed on 30 candidates who answered 10 questions related to their online shopping experience which helped in formulation of collective consumer choices. The questions were set in a way to get an idea about the changing perspective of consumers from pre-covid times to post-covid times. The survey was conducted on people in age group of 15-30 years. Following are the questions and response distribution of the people who took the survey;

Q1. Which mode of shopping did your prefer prior to pandemic?



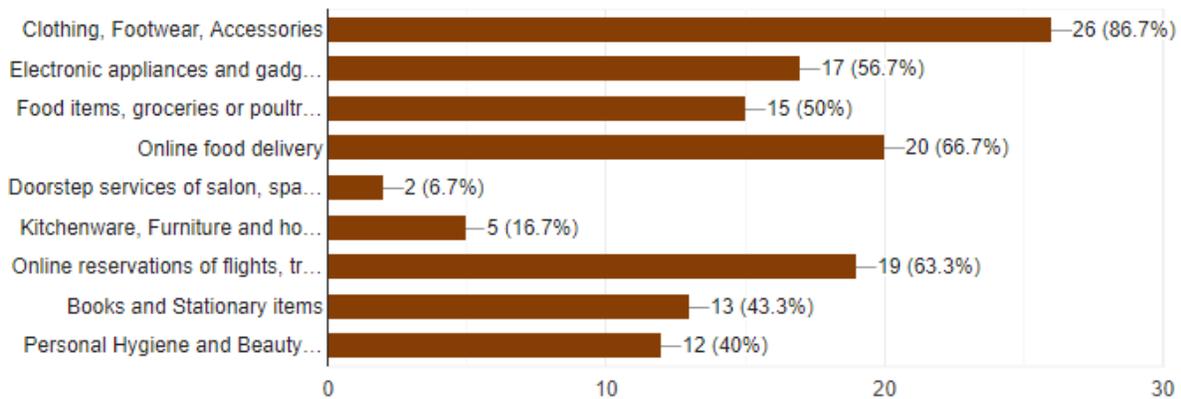
Response distribution

Option	Respondents	Percentage
Retail Stores (Physical Marketplaces)	23	76.7%
Online Stores (E-Commerce Websites)	6	20%
Both Online and Offline mode	1	1%

In this question, respondents were asked to indicate their shopping mode preferences prior to pandemic to dive into pre-pandemic lifestyle of consumers.

Inference: We can infer from the given data that majority of respondents were inclined towards both online and physical stores. On the other hand, 20% of respondents preferred only online stores. This indicates that online stores or e-commerce has significant contribution in pre-pandemic lifestyle, and it found its way into the lives of people, transforming their shopping experience.

Q2. Out of the following, what are the major products and services you prefer to buy online?



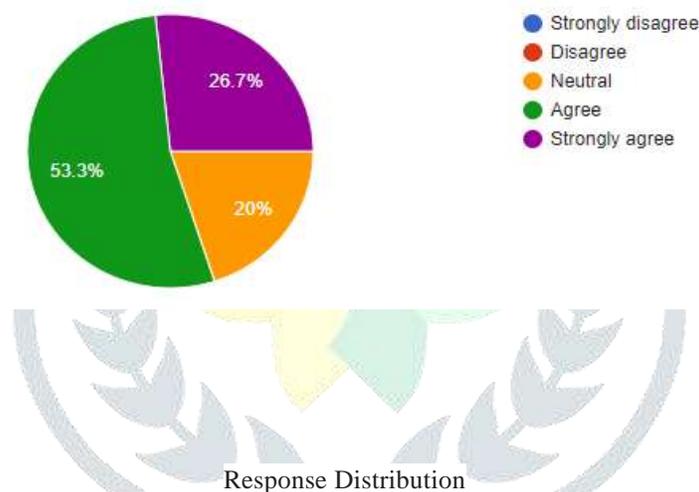
Response distribution

Option	Respondents	Percentage
Clothing, Footwear, Accessories	26	86.7%
Electronic appliances and gadgets	17	56.7%
Food items, groceries or poultry products	15	50%
Online food delivery	20	66.7%
Doorstep services of salon, spa, cleaning, etc.	2	6.7%
Kitchenware, Furniture and home décor	5	16.7%
Online reservations of flights, trains, buses, and cabs	19	63.3%
Books and Stationary items	13	43.3%
Personal Hygiene and Beauty care products	12	40%

In this question, respondents were offered an array of goods and services to choose from, and select the items they usually prefer to buy online.

Inference: The data indicates that consumers primarily preferred online stores for clothing, footwear, and accessories followed by food delivery services, and online reservation of transportation facilities. Electronic appliances and gadgets, and food, grocery, and poultry items have witnessed an astonishing rise in sales. Hence, consumers are adopting the online services into their daily lives, resulting in growth of e-commerce.

Q3. "Online Shopping (E-Commerce services) experience is hassle-free, convenient, easy, and satisfying." What is your take on this assertion?

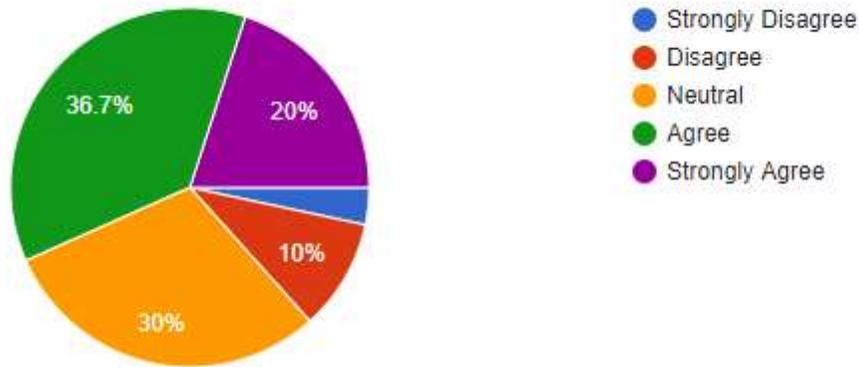


Option	Respondents	Percentage
Strongly Disagree	0	-
Disagree	0	-
Neutral	6	20%
Agree	8	53.3%
Strongly Agree	16	26.7%

This question aimed to get knowledge about the viewpoint of consumers in regard to online shopping. Raising an assertion highlighting the benefits of e-commerce, respondents were asked about their take on this claim.

Inference: We can conclude that majority of people agreed that e-commerce is convenient and easy alternative to physical marketplaces while nobody disagreed to this assertion.

Q4. "You were compelled to shop online after the advent of Covid-19 pandemic". What is your take on this assertion?



Response Distribution

Option	Respondents	Percentage
Strongly Disagree	1	3.3%
Disagree	3	10%
Neutral	9	30%
Agree	11	36.7%
Strongly Agree	6	20%

This question was posed to get insights about the restraints of consumers after pandemic. Consumers were prompted to express their opinion about whether the lockdown forced them to switch to e-commerce websites or not.

Inference: We can infer that more than half of the candidates supported the raised assertion, agreed that the restraints of lockdown compelled them to shop online. Even the basic grocery, poultry and food items were ordered online resulting in partial or complete shutdown of retail stores. About 13% of people disagreed to this, and highlighted that they continued shopping from physical marketplaces.

Q5. Which payment mode do you prefer mostly while shopping online?



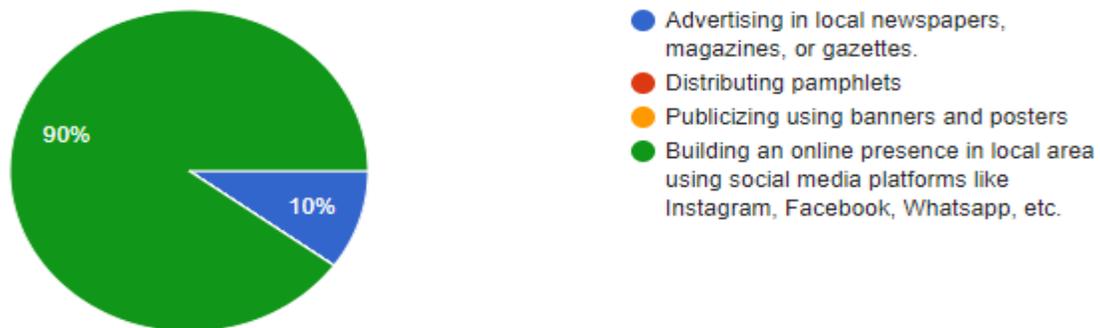
Response distribution

Option	Respondents	Percentage
Credit/ Debit Card	5	16.7%
Unified Payment Interface (UPI)	17	56.7%
Net Banking	1	3.3%
Pay on Delivery	7	23.3%
Easy Monthly Installments (EMI)	0	-

This question gathered information about the payment preferences of consumers in online stores which consequently indicated the apprehensions of people regarding online payments.

Inference: The above data clearly indicates the skyrocketing rise in preferences to online payment options compared to pay on delivery mode. This asserts the fact that the threats swaying the audience regarding cyber security have been reduced significantly, and they are turning to online payment options (UPI, Credit/Debit Card, Net Banking, etc.).

Q6. If you were to start a business, what would have been your first step to promote or spread the word?



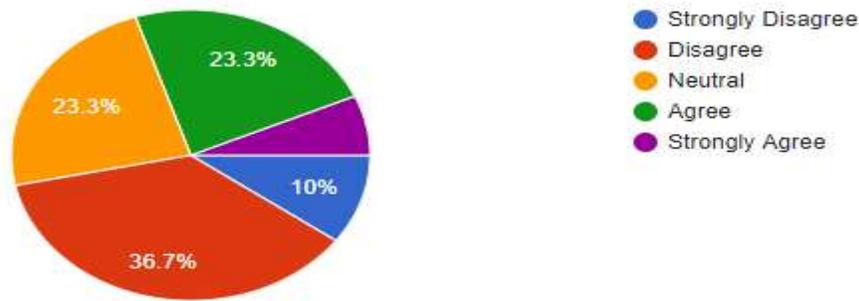
Response Distribution

Option	Respondents	Percentage
Advertising in local newspapers, magazines, or gazettes	3	10%
Distributing pamphlets	0	-
Publicizing using banners and posters	0	-
Building an online presence in local area using social media platforms like Instagram, Facebook, Whatsapp, etc	27	90%

This question was asked to confront the hidden entrepreneur in every respondent. Out of the given options, people were asked to choose their first step while promoting or establishing their business.

Inference: The data extracted demonstrates that people are aware that building an online presence is one of the major steps in establishing a business in today’s world. People are nowadays convinced that building an online stance on social media can result in significant growth of businesses. Few respondents stressed that print media promotion can be a alternative to social media marketing but is not as effective as the latter.

Q7. "The lack of physical interaction with products and sellers restrain you from buying products online." What is your take on this assertion?



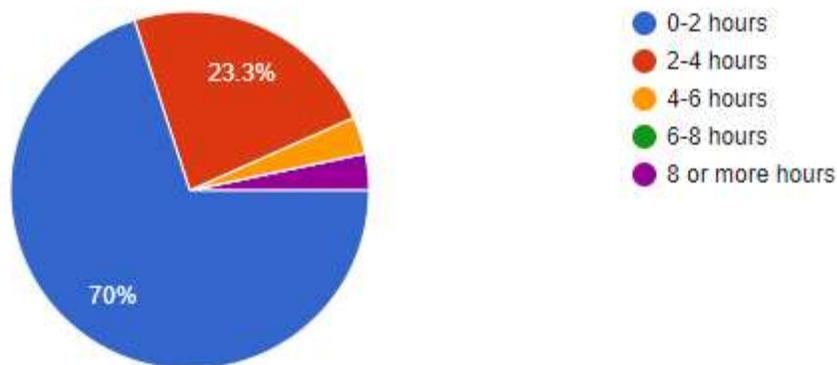
Response distribution

Option	Respondents	Percentage
Strongly Disagree	3	10%
Disagree	11	36.7%
Neutral	7	23.3%
Agree	7	23.3%
Strongly Agree	2	6.7%

This question was asked to respondents to get to know whether the lack of physical interaction with products and sellers restrains them from buying them online. This is one of the major limitations encountered in e-commerce experience.

Inference: We can infer that the lack of physical interaction with products doesn't decrease the e-commerce growth drastically as majority of respondents disagreed or remained neutral to the raised assertion. About 30% of the respondents still agreed that this limits their ability to choose the desired products. We got mixed reactions on this front.

Q8. On an average, how much time do you spend on e-commerce websites (amazon, flipkart, myntra, nykaa, etc.) in a week?



Response distribution

Option	Respondents	Percentage
0-2 hours	21	70%
2-4 hours	7	23.3%
4-6 hours	1	3.3%
6-8 hours	0	-
8+ hours	1	3.3%

This question was posed to get insight into online shopping time of consumers in a week. Consumers can now shop unperturbed online by just scrolling through mobile screens.

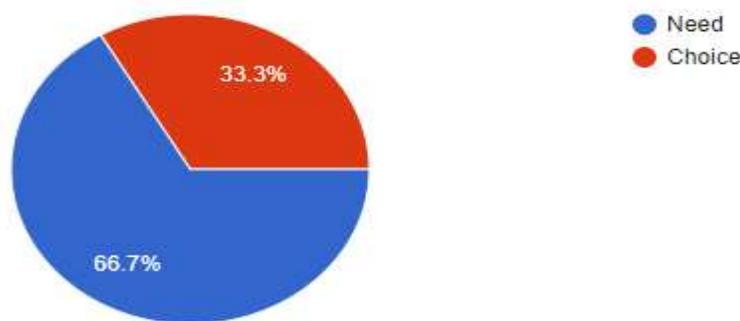
Inference: Majority of customers claim to spend 0-4 hours a week on online shopping. This indicates that e-commerce is steadily gaining popularity among consumers.

Q9. How would you describe your online shopping experience in one word?

The answers to this question clearly demarcated the satisfactory experience of consumers with online shopping. The major responses described e-commerce as convenient, good, safe, best, necessity, fantastic, wonderful, affordable etc., while very little proportion of responses described it as unsafe, bad, unreal etc.

Inference: We can infer that the majority of population living in this technologically advancing world finds e-commerce as a good alternative to physical stores, and is readily accepting its growing role in its daily lives. Hence, we can firmly say that consumers play a major role in development of e-commerce.

Q10. According to you, is e-commerce a need or a choice at this turn of the century?



Option	Respondents	Percentage
Need	20	66.7%
Choice	10	33.3%

This question was asked to testify whole theme of this research study with a consumer point of view. Consumers were asked whether they perceive e-commerce as a need or choice at this turn of the century.

Inference: Nearly two-thirds of consumers believe that e-commerce has turned into an essential need at this turn of the century, especially after the pandemic. For many it is only option to buy products and services while many practice it in coherence with physical shopping. This clearly stresses that e-commerce can't escape from our lives. It has come too far, and in coming years we can witness its growth as an essential need for every individual. This concludes this paper with a firm assertion that e-commerce has the potential to transform lives by transforming itself.

CONCLUSIONS

Breaking the barriers of boundaries, oceans, nations, caste, culture, race, gender, and ethnicity technology is transforming our daily lives at a rapid rate. E-Commerce has witnessed a great development in last two decades, and is heading to build a productive, profitable, advanced, convenient, modernized, and virtually united future for all businesses and corporate. Being an integral part of our lives, e-commerce has become a necessity rather than an option or choice. Easing its way into our lives, e-commerce has occupied an irreplaceable spot in this relentlessly running world. Especially the pausing and agonizing COVID-19 pandemic has acted as a catalyst in the growth of e-commerce around the globe. Building up on such strong foundations, online businesses and stores will soon omnipresent, and technology will aid in developing it for better experience both for buyers and sellers. E-Commerce is connecting two distant two distant parts of the world, separated by miles, in fraction of seconds for better exchanges of ideas, services, products, and resources.

Governments across the world are realizing the potential encompassed in e-commerce, and making efforts to carve a holistic environment for its development in hope of better economic results. We can conclude this study on a chauvinistic note that e-commerce can harness prosperity and success by overcoming the challenges in its way.

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