



STUDY ON IMPACT OF COVID 19 ON E-COMMERCE

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ABSTRACT:

The COVID-19 outbreak in late 2019 has instigated significant changes across various sectors, particularly in e-commerce. This study aims to thoroughly investigate how the pandemic has affected the e-commerce industry. Through an analysis of alterations in consumer behavior, disruptions in supply chains, technological advancements, and evolving competitive dynamics, this research seeks to provide insightful observations regarding the pandemic's impact on e-commerce. By exploring these core areas, the study aims to offer a detailed understanding of how the e-commerce landscape has transformed in response to the challenges and opportunities brought about by the global health crisis. Ultimately, this study contributes to a deeper comprehension of the enduring consequences of the COVID-19 pandemic on e-commerce, offering valuable insights for businesses, policymakers, and researchers navigating the digital commerce realm in a post-pandemic era.

Keywords: COVID-19, Pandemic, E-commerce, Impact, Consumer behavior, Supply chains, Technological innovation, Competitive dynamics, Digital transformation, Online shopping, Market trends.

Introduction :

The emergence of the COVID-19 pandemic in late 2019 has brought about unprecedented changes in the realm of commerce, particularly revolutionizing the e-commerce sector in ways previously unforeseen. With governments worldwide implementing lockdowns, travel restrictions, and stringent health measures, consumers were compelled to adapt to a new reality, significantly impacting their shopping habits. This project is dedicated to examining the multifaceted effects of the COVID-19 pandemic on e-commerce, offering insights into how the digital economy has rapidly adjusted and thrived amidst extraordinary circumstances.

The pandemic prompted a remarkable shift in consumer behavior, driven by concerns over contagion and the convenience of online shopping. This led to a surge in e-commerce activity across various product categories, reshaping the traditional shopping landscape. Moreover, the rise of telemedicine, online education, and remote work tools underscored the broader impact of digitalization on services.

Furthermore, the pandemic exposed vulnerabilities in global supply chains, disrupting manufacturing, transportation, and last-mile delivery. This strain necessitated swift adaptations and the exploration of more resilient, localized supply chain solutions. To address these challenges, businesses increasingly embraced automation, artificial intelligence, and data analytics to enhance supply chain efficiency and responsiveness.

In parallel, the e-commerce industry witnessed significant technological innovation, with companies investing in digital infrastructure and user experience enhancements. Advanced technologies such as augmented reality shopping and AI-driven recommendation engines were leveraged to enrich the online shopping experience. Additionally, contactless payment systems and last-mile delivery technologies gained prominence, emphasizing convenience and safety.

The evolving landscape of e-commerce also saw intensified competition, as traditional retailers pivoted towards online channels and new players entered the market. Direct-to-consumer brands, in particular, capitalized on the digital space to forge direct connections with consumers, further heightening competition.

This project aims to delve deeply into these transformative shifts brought about by the COVID-19 pandemic in the e-commerce industry. By examining changes in consumer behavior, supply chain dynamics, technological innovations, and competitive dynamics, we seek to provide a comprehensive understanding of the lasting impact of this unprecedented period.

In summary, the COVID-19 pandemic has not only reshaped e-commerce but has also accelerated existing trends within the sector. It demonstrates the adaptability and resilience of the e-commerce industry, offering valuable insights into future opportunities and challenges. Through rigorous analysis, this project aims to offer guidance for businesses, policymakers, and researchers navigating the evolving digital commerce landscape in a post-pandemic world.

Problem statement :

The explanation of the various consumer decision-making processes will assist a potential customer in making an informed decision, but there are some difficulties that must be taken into account. The issues and their answers are highlighted in the discussion that follows:

- **Imbalanced information:** Gathering information is a fundamental precondition for making a choice, but the quantity of information that should be gathered must be determined. When there is significantly more information than is necessary, it might cause confusion and mislead the buyer. On the other hand, if the consumer chooses to purchase the product based solely on one source of information, this may not be the best course of action and may result in negative outcomes.
- **Inaccurate problem identification:** Although every consumer decision may involve a variety of problems, the essential challenge is identifying the central problem. Speaking up with those who are experiencing or have experienced these issues can be very beneficial. Finding the main problem can also be aided by conducting research. The law will prevent the consumer from making a poor choice.
- **Overconfidence in the outcome:** There are times when a consumer will follow the consumer decision making process, yet the result will still fall short of what they had hoped for. Therefore, it's crucial for a consumer to make the right decision that will enable them to meet their needs. Overconfidence in the result can have negative consequences. Making the right choice is crucial for every customer and organization, but especially for the managers and leaders. Before making a final choice, one should follow the procedure and be aware of potential difficulties.

Research Gaps :

1. **Long-term Effects:** Much of the existing literature focuses on COVID-19's immediate effects. Long-term implications on e-commerce should be studied further, particularly whether changes in consumer behaviour and corporate strategies are sustainable.
2. **Global vs Regional Variances:** Regional differences in the impact of COVID- 19 on e-commerce must be investigated. Different nations and areas responded differently to the pandemic, and these differences are likely to have an impact on the e-commerce as well.
3. **Customer Trust and Privacy:** The rise of internet buying raises concerns regarding customer trust and privacy. Future studies should examine how adoption of e-commerce is impacted by worries about data security and trust.
4. **Policy and Regulation:** Governments have implemented a number of legislation and regulations concerning e-commerce as a result of COVID-19. The efficacy of these strategies and their long-term effects should be examined in research.

Literature Review :

1. The concept of "consumer behavior," which encompasses the influence of emotions, attitudes, and preferences on purchasing decisions, emerged in the early 1950s within the realm of marketing. Kardes et al. (2011) defined consumer behavior as encompassing all activities related to the purchase, usage, and disposal of goods and services, as well as the emotional, mental, and behavioral responses associated with these processes. It includes personal thoughts and feelings experienced by individuals during the purchasing process, along with various external factors such as consumer reviews, advertisements, price comparisons, and product packaging. Understanding consumer behavior is crucial for marketers, as consumers are both the starting and ending point of marketing efforts. Analyzing and comprehending consumer purchasing and consumption behavior pose significant challenges, necessitating the development of intention-based theories and comprehensive explanations of factors influencing consumer decisions. The term "electronic commerce" (e-commerce) refers to the act of buying and selling products and services through digital communication channels. Initially focused on transactions between corporations, e-commerce rapidly gained popularity in the 1990s with the widespread accessibility of the internet. This led to the emergence of major digital commerce services like Amazon and eBay. During the "golden age" of online shopping, businesses began utilizing websites to establish their presence and conduct transactions online. As the market for e-commerce continues to grow, companies must conduct studies on online consumer behavior to adapt to the digital age and forecast future trends.

Furthermore, consumer expectations regarding product availability, delivery transparency, affordable shipping, and smooth transactions are critical factors for the success of businesses. While extensive research has been conducted on consumer behavior in offline shopping, e-commerce can have distinct influences on consumers. The COVID-19 pandemic has significantly impacted consumer behavior, prompting research efforts to identify characteristics influencing consumer behavior during this period. Although some countries have implemented policies to gradually restore economic activities, there is a lack of research examining changes in consumer behavior during the pandemic. Therefore, more research is needed to fill this gap and contribute to a deeper understanding of consumer behavior.

2. Based on studies conducted up to September 2021, this literature review provides a comprehensive overview of the impact of COVID-19 on e-commerce. The e-commerce market is dynamic, and it's essential to consider that more recent studies may offer fresh perspectives on this evolving sector.

- E-commerce Adoption and Growth:

During the COVID-19 pandemic, numerous studies indicated a significant increase in e-commerce adoption. Lockdowns, social distancing measures, and consumer safety concerns accelerated the transition from traditional retail to online shopping. E-commerce platforms experienced a surge in new customers as first-time online buyers experimented with the convenience and safety of e-commerce.

- Supply Chain Disruptions:

The pandemic disrupted international supply chains, affecting product availability on e-commerce platforms. Many e-commerce businesses faced challenges in sourcing products, leading researchers to explore strategies such as diversifying suppliers and improving inventory management to mitigate supply chain risks.

- Changes in Consumer Behavior:

COVID-19 influenced consumer preferences and behavior, with more people turning to online shopping for necessities and groceries. E-commerce companies expanded their product categories to meet increased demand. Additionally, consumer expectations shifted towards contactless delivery options and shorter delivery times, according to research findings.

- Digital Transformation:

The pandemic accelerated the digital transformation of small and medium-sized businesses (SMEs), forcing many traditional merchants to establish an online presence. Studies emphasized the importance of user-friendly e-commerce platforms and digital marketing strategies in facilitating this transition.

- Innovation and Technology:

Technological advancements played a crucial role in the e-commerce industry's response to the pandemic. Technologies such as artificial intelligence (AI), chatbots, and virtual shopping environments improved the online shopping experience, enhancing efficiency, personalization, and customer engagement.

- Consumer Privacy and Trust:

As e-commerce transactions increased, concerns about consumer privacy and security grew. Researchers explored strategies for building and maintaining consumer trust in the online shopping environment, including the implementation of robust data protection laws and cybersecurity measures.

- Sustainability and Eco-friendly E-commerce:

Some studies examined the environmental impact of increased e-commerce activity during the pandemic. The rise in online shopping contributed to higher carbon emissions due to increased shipping. Researchers proposed solutions such as improving last-mile delivery and using eco-friendly packaging to make e-commerce more sustainable.

- E-commerce Regulations and Policies:

Governments and regulatory agencies introduced new policies and regulations in response to the growth of e-commerce. Researchers studied the effects of these policies on consumers and e-commerce businesses, including taxation, data privacy legislation, and antitrust issues related to dominant e-commerce platforms.

- Post-pandemic Outlook:

Several studies attempted to forecast the post-pandemic e-commerce landscape. While the initial growth in e-commerce was significant, questions remained about the sustainability of these trends in the long term. Researchers addressed potential challenges and opportunities for e-commerce businesses as society transitioned to a new normal.

3. (Susmitha, 2020) - This study begins by discussing the shift in shopping trends from traditional to online shopping and outlines its core objectives, which include understanding e-commerce trends, identifying variables influencing e-commerce usage, and assessing the impact of COVID-19. The study provides an overview of the phases of lockdown during the pandemic's first year and discusses the significance of e-commerce, including various types such as B2B, B2C, B2G, C2C, and M-commerce (Mobile Commerce). It highlights the remarkable growth of e-commerce, particularly noting a 25% increase in March 2020, and examines its transformative effect on the consumer market in recent years. The study also discusses the advantages of e-commerce, emphasizing:

- Lower Prices: E-commerce businesses can offer lower prices due to reduced operational costs, which can be passed on to consumers in the form of discounts. Price comparison websites provide transparency in pricing, allowing consumers to find the best deals.
- Accessibility and Convenience: E-commerce offers 24/7 accessibility, allowing consumers to browse and purchase products at their convenience, particularly beneficial for those in remote areas.
- Wider Choice: E-commerce expands the range of products available to consumers, breaking geographical limitations and enabling them to source products from around the world. However, some consumers may feel overwhelmed by the abundance of choices.

In summary, e-commerce offers cost savings, convenience, and a broader range of choices to consumers, making it a popular and transformative shopping platform.

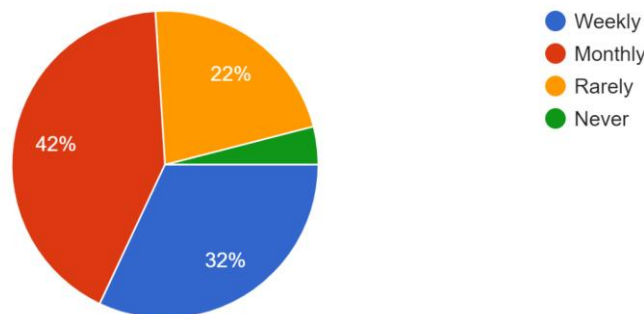
4. (Ghandour & Woodford, 2021) - This research paper examines the impact of COVID-19 on the e-commerce industry in the UAE. It finds a significant positive relationship between the pandemic and e-commerce, with more retailers and consumers shifting to online channels. The paper highlights the advantages of e-commerce, including low operational costs, a wide range of quality products, and 24/7 shopping convenience. However, certain sectors such as healthcare, automobiles, and education face challenges in adopting e-commerce. The paper suggests that while e-commerce may not fully compensate for economic losses, it can contribute to stabilizing the UAE's economy. The UAE, heavily reliant on tourism, witnessed a significant economic shift due to the pandemic. The paper emphasizes the importance of digitizing supply chain networks and operations to make buying and selling profitable. It also notes the growing number of internet users and mobile users in the UAE, indicating a rising demand for e-commerce services. Overall, the e-commerce landscape in the UAE presents both opportunities and challenges amidst shifting economic dynamics and increased mobile usage.

Research methodology :

- Our research primarily relied on secondary sources of data collection. This involved gathering information from various sources such as government publications, websites, books, journals, articles, internal records, and previously published research papers.
- Additionally, we utilized primary data obtained by other researchers, treating it as secondary data for our analysis and interpretation.
- Furthermore, we conducted a survey consisting of 15 questions regarding consumer behavior towards e-commerce. From this survey, we obtained 50 responses for analysis.

How frequently do you shop online?

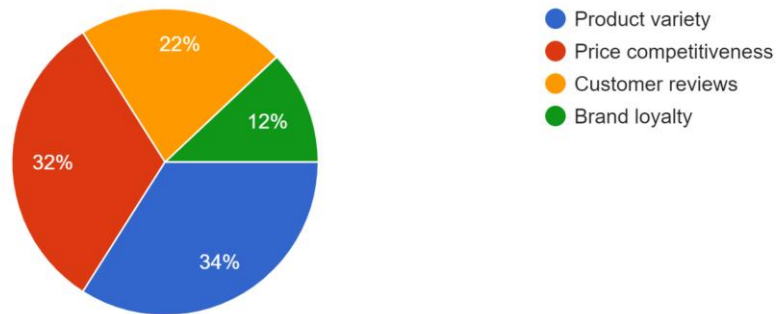
50 responses



Observation : Most of the respondents shop monthly that is about 42% and there are a bunch of 32% who shop weekly maybe from quick commerce to buy fmcg products. 22% of them shop rarely and 4% of the people never shop online and use traditional ways.

What factors influence your choice of e-commerce platforms?

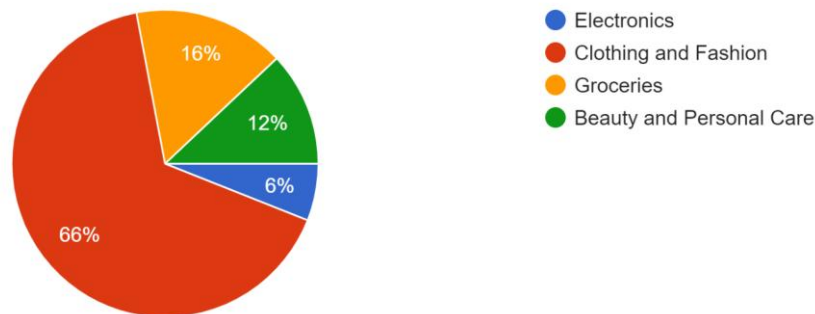
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Observation : There is almost a tie between product variety and price competitiveness factors which influence the customers to shop online which is about 34% and 32% respectively. And 22% of them shop after looking at the customers reviews and lastly 12% of the people are loyal and repeated customers.

What product categories do you primarily shop for online?

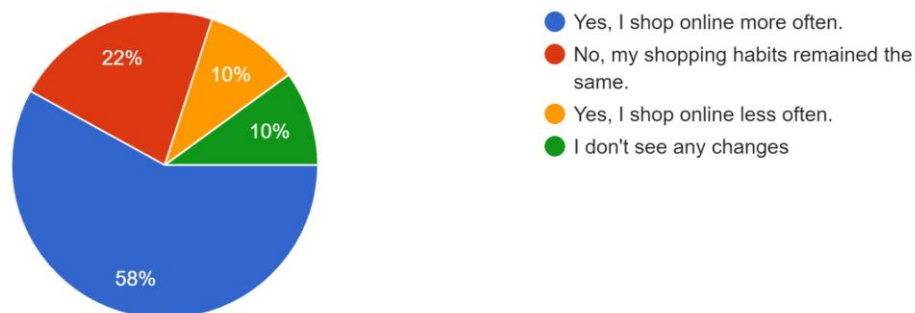
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Observation : Majority of the customers shop Clothes online followed by groceries with 16% and they its beauty and personal care products with 12% and lastly electronics with 6% which lie in an expensive price bracket, so people hesitate to buy electronics online unless they completely trust the platform.

Have you noticed any changes in your online shopping behavior due to COVID-19?

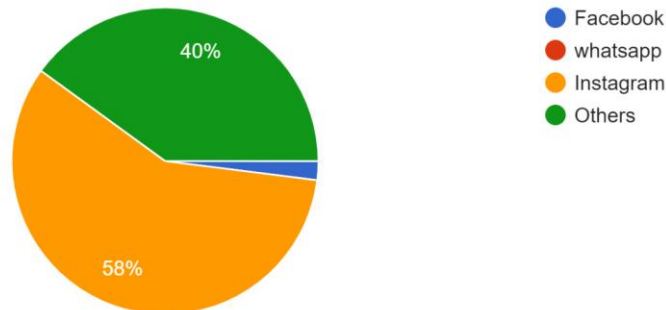
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Observations: The covid 19 shows an increase in the shopping behaviors of customers with 58% people shopping more oftenly while 22% people have their shopping patterns to be the same. The 10% shows a decline in online shopping. And the remaining 10% shows that there is no changes neither an increase or decrease.

Which social media platforms influence your purchase decisions the most?

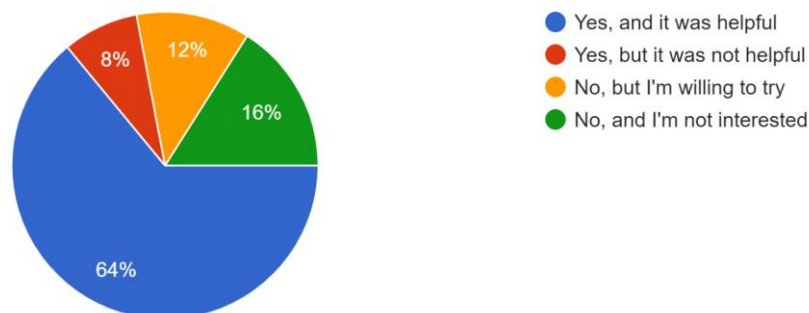
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Observations: As per the pie chart, it is clearly visible that Instagram plays the maximum influence in purchase decisions of users that is 58%. Only 2% of the decisions are influenced by Facebook. And the remaining 40% is influenced by other apps.

Have you ever used live chat or customer support features on e-commerce websites?

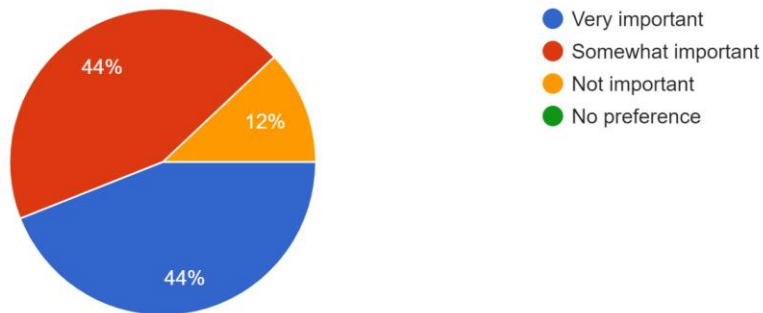
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Observations: 64% shows that people have used customer support features on ecommerce platforms and found it to be helpful. While 8% have used the live chat features, they did not find it to be helpful. The remaining 12% of people may try the feature someday or the other. And the remaining 16% are not interested in using the feature.

How important is eco-friendliness and sustainability in the products you buy online?

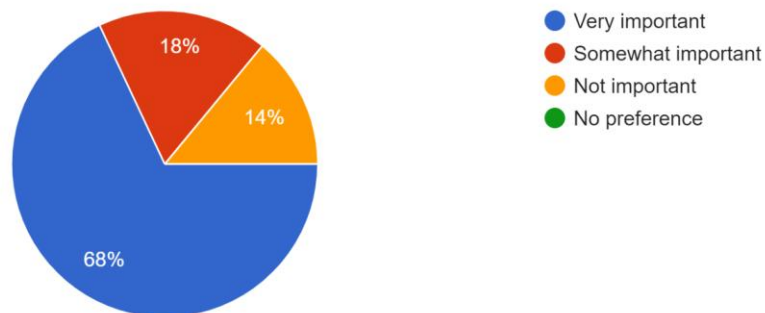
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Observations: People mostly give consequentiality to eco-cordiality and sustainability in the products they buy online, as we can visually examine that 44% of people consider it very consequential, and the remaining 44% and 12% consider it scarcely paramount and not consequential.

How important is free shipping and other sales promotions in your online shopping decisions?

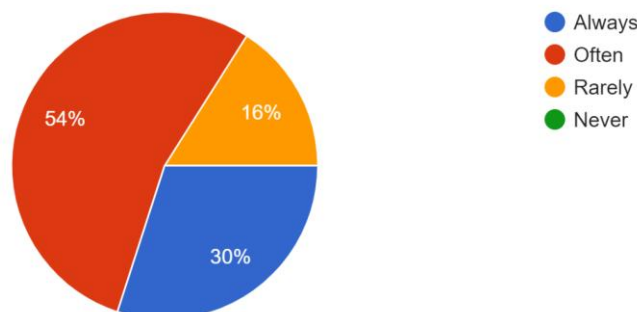
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Observations: About 68% of the people consider free shipping as very important and the rest 18% consider it as somewhat important and the remaining 12% of the people don't consider it as an important factor.

Do you trust online reviews and ratings when making purchase decisions?

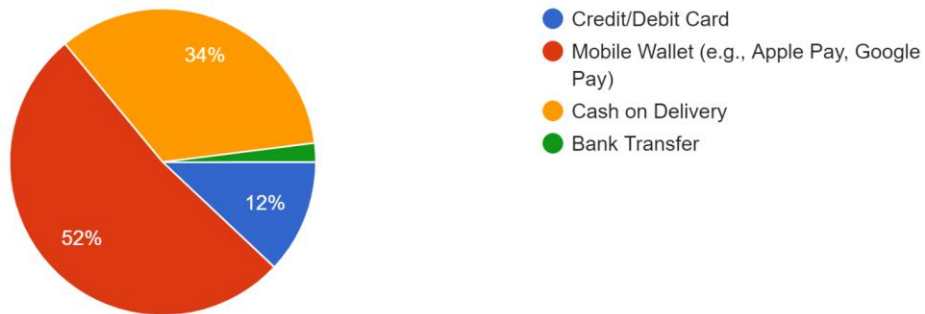
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Observations: Online ratings and reviews are often considered as an important source of information when making purchase decision in this collected data we can see that about 30% always trusts reviews, 54% of the people often trusts and only about 16% of the people rarely trusts reviews and therefore we can see that majority of the people trusts online ratings and reviews before making a purchase decision

Which payment methods do you prefer when shopping online?

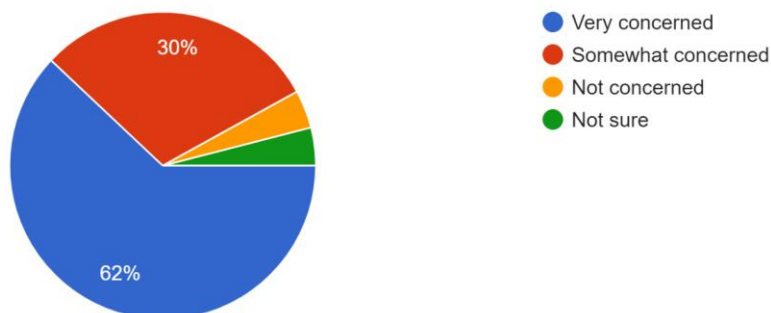
50 responses



Observation: 52% of the people prefer to do payment through mobile apps such as google pay, upi and etc. around 34% of people prefer cash on delivery. 12% of people prefer payment through card payment and the remaining two prefer doing payment through different method.

How concerned are you about the security of your personal information when shopping online?

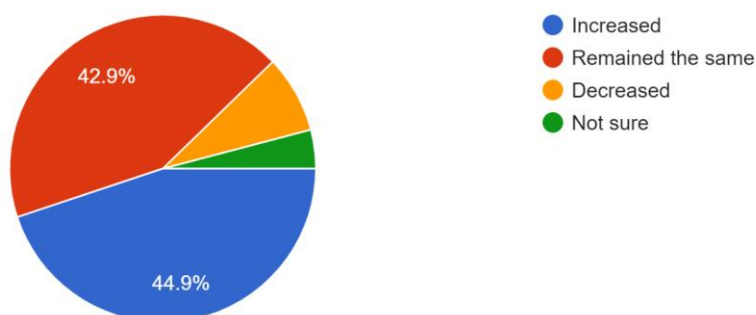
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Observation: Striking 62% of the people are concerned over security of their personal information while doing online shopping and over 30% are somewhat concerned about it while the remaining percentage of people are either not sure or not concerned at all about their securities.

How has your trust in online transactions and delivery services changed since the pandemic?

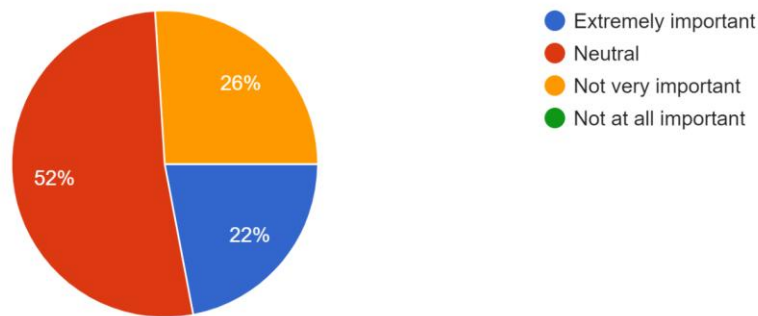
49 responses



Observation: Around 44.9% of people have increased their trust in online transactions and delivery service since the pandemic, 42.9% of people still remained the same about their stance and remaining are not sure about it.

How important is contactless delivery to you?

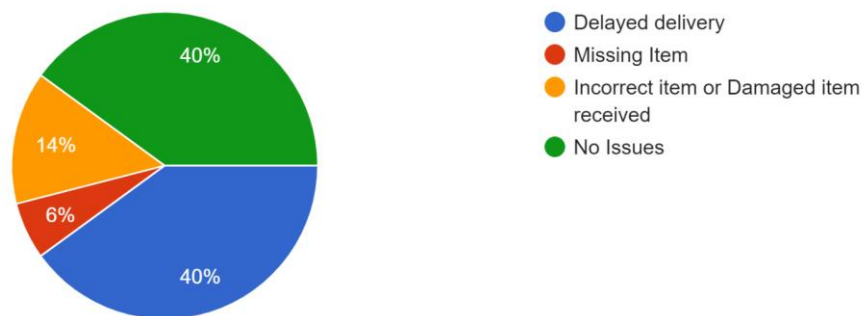
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Observation: A majority of 52% of the people have a neutral opinion about the importance of contactless delivery in their life. 22% of the people find it extremely important for them whereas 26% of the people don't find it important to them.

Did you encounter any issues with the delivery of your order lately?

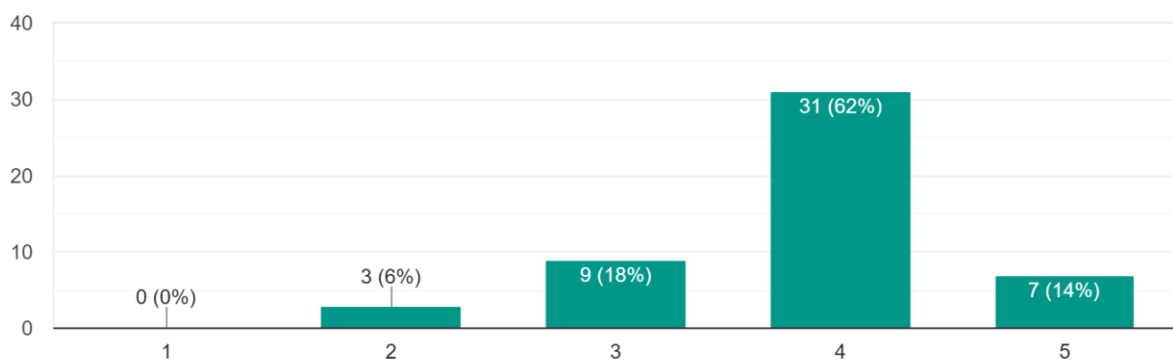
50 responses



Observation: 40% of the people have no issues with their order deliveries and 40% people received delayed delivery. A small 14% of people received incorrect or damaged goods whereas 6% of the people did not receive their item in the delivery.

Rate your overall E - commerce shopping experience

50 responses



Observation: On a scale of 1-5, 62% of the respondents voted on 4, 14% voted on 5, 18% voted on 3, 6% voted on 2 and none of the respondents voted for 1.

Analysis :

Through the studies that we conducted in the above pages, we were able to research on the following aspects.

1. Shift of preference towards online shopping over offline shopping.
2. Importance of safety and security with regards to payments when shopping online.
3. Factors that influence a customer's decision to buy online.
4. What is the importance of feedback and reviews in choosing a company to buy from online?
5. What are the drawbacks of E-commerce?

Suggestions :

According to this study on the impact of Covid 19 on e-commerce,

1. E-commerce platforms and apps should offer various shipping choices, such as faster delivery for urgent orders and free shipping thresholds to encourage larger purchases. Also, they should streamline the returns process to reassure customers and enhance their shopping satisfaction.
2. They should also encourage customers to share feedback about their shopping experience and utilize this input to consistently enhance your services. They should address any raised issues or concerns to uphold their trust and loyalty.
3. As more people use smartphones for online shopping, make sure that their website is optimized for mobile devices. A design that adjusts to different screen sizes will enhance accessibility and ease of use, resulting in an improved shopping experience overall.
4. Lastly, they should also implement unique promotions, discounts, or exclusive deals to stimulate online shopping and increase sales.

Conclusion :

Following extensive research on the e-commerce landscape post-pandemic, it's clear that the digital marketplace has undergone significant changes. The pandemic accelerated the adoption of e-commerce, diversifying product offerings and emphasizing omnichannel strategies. Businesses invested in logistics and utilized data analytics for decision-making. Despite pandemic restrictions easing, e-commerce sustained growth, signaling a shift in consumer preferences. In summary, the pandemic drove rapid evolution in e-commerce, highlighting its central role in the future of retail.

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