

An Empirical Study on Impact of E-Commerce on Retail Business Sales (Grocery, Electronics, Apparels, Drugs and Furnitures) Due to Covid-19 in India

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Abstract: India is one of the developing countries having a giant population with restricted resources. Indian perception is usually being traditional approach toward a buying behaviour which is the retail business for shopping as they were familiar with physical shopping patterns. However, due to advanced technology, people were attracted to the virtual world. This also demonstrated the e-commerce business, which steadily enhanced the ecommerce market in India. Additionally, the pandemic crisis, which is widely spread in India and the world, also paves the way for India's e-commerce business growth and opportunities rather than the retail business. Covid-19 has its worst effect on business worldwide as it changes or influences the nature of the business. The main objective of the study is to comprehensively analyse the impact of covid on the economy with the remarkable concentration of the e-commerce and retailer sector of the business. The paper tries to understand and explore the impact of enhancing e-commerce platforms, steadily capturing the retailer's business, and reducing the sales bar graph, ignited by the coronavirus pandemic condition were lockdown, social distancing pave the new opportunities for the e-commerce platform. However, bring challenges too to survive in the crisis. The consumer avoids going for physical shopping in the crowded area because of the pandemic outburst and its after-effects. This is also illustrated from the survey conducted to accomplish the motive of the paper through a sample of 143 responders. The outcome reveals the e-commerce objective, which strives for a better opportunity to pave the Indian economic growth.

Keywords: Covid-19, Pandemic, E-commerce, Consumers, Customer Behaviour.

1. Introduction

The covid is widely spreading acute respiratory syndrome coronavirus two from the family SARS-COV2, commenced from Wuhan city of China in the year 2019 and rapidly transmitted globally affecting billions of people and taking the lives of million people, thus World Health Organisation (WHO) named it covid-19. The impact of covid is vulnerable and dreadful across the globe. Millions of people lost their lives; jobs and were forced to live miserably with no access to food and health facilities. Due to the pandemic crisis, not only health but the economic condition of the world is also going through immense hardship. Because of lockdown, which is the only solution to reduce or eliminate the chain of spreading the covid virus, the economics of the world was stagnant or stopped, which had vulnerable impacts in every sector like primary, secondary and tertiary sectors.

2. E-commerce trends during COVID-19 Pandemic

E-commerce is one of the growing and leading business methods based on internet resources and striving the market tremendously in a few years. E-commerce if the online shopping approach is only utilized by using the internet and electronic gadget through which percentage enormous options for shopping, anywhere, everywhere, anytime and every time without any geographical boundaries. Covid-19 has its worst effect in e-commerce business worldwide as it changes or influences the nature of the business. According to the research, about 52% of the consumer avoid going for physical shopping in the crowded area because of the pandemic outburst and its after-effects. Covid-19 demonstrates a mixed impact on e-commerce as several products get prevalent and almost negligible, whereas certain products are vulnerable [1].

However, to enhance the overall sale of e-commerce products because of endemic spreading, people were unwilling to go out of their house for shopping either because of lockdown or because of crowds. The results demonstrate that Walmart grocery e-commerce enhanced by 74 % or more because of work from home lockdown, social distancing, and avoiding physical shopping. The utility of social networking sites also demonstrates our hike because lockdown people do not have anything to do anyway to home, so the time spending rate was just doubled or tripled in social media platforms. Applications like zoom, Google meet also enhance their market because of lockdown school and official meetings were conducted and held on these platforms. The use of e-commerce websites flourished in not only the developed countries but also the impact of covid-19 ability endeavouring the use of e-commerce shopping in developing countries also.

On the one hand, where certain products boost their growth cycle because of covid which are grocery items, medicinal items, packaged food items, among others, certain retailer sales of e-commerce drastically demonstrate the hardship because of the worse impact of Pandemic comprising transportation utility products like luggage bags, suitcase, briefcase,

dress materials and textile products, athletics and luxury items like the watch, glasses, cosmetics and so on.

3. Impact of COVID-19 on Consumers

The pandemic crisis has a vulnerable impact on every section of the society, from a small new-born baby to the old aged people from the daily wage to the business tycoon everyone, every section is adversely impacted because of coronavirus. According to the search, about 46% of the participants show that they reduce their spending due to pandemic conditions. It also reveals from the research that only the essential items were raised in their production, like grocery Household supply medicine and related other goods. At the same time, discretionary spending is estimated to reduce about 60% who plan to cut out their consumption of electronics for luxury items like vehicles [2].

1. Consumers avoid going to physical shopping, entertainment like theatre's, parks, and so on.
2. People reduce their spending on luxury items like electronic gadgets, vehicles, cosmetic products, and personal care services.
3. There is a decline in tourism and hospitality services along with hotel and resort stays.
4. Impetus growth is seen in home entertainment services like OTT platform.
5. Consumption of household utility like grocery, nutritional intended food material, and therapeutic goods increased.

4. Understanding the COVID-19 Effect on Online Shopping Behaviour

Online shopping behaviour also demonstrates tremendous changes because of the spreading Pandemic in the world. The results show the changing behaviour of E-Commerce online shopping consists of several factors like geographic location, demographic dividend, and living class. Online shopping demonstrates different patterns in different age groups, gender, amongst others.

Reduction in the spending of online shopping because of vulnerability and fear spread all over the world by the covid. This reduction is higher in the younger generation as compared to traditional people because younger generations are more actively involved in social media and e-commerce services [3]. Another survey revealed that women were more likely to be concerned and affected by the covid-19 than the man as the data show that about one-third of the male compare through 25% of the female adverse effect on the buying behaviour and spend money on products [4]. Grocery e-commerce is boosted and shows the culminating peak growth bar in this endemic session compared to other e-commerce shopping products and services.

The main objective of the study is to comprehensively analyse the impact of covid on the economy with the remarkable concentration of the e-commerce and retailer sector of the

business. The paper tries to understand and explore the impact of enhancing e-commerce platforms and steadily capturing the retailer's business, and reducing the sales bar graph, ignited by the coronavirus pandemic condition were lockdown, social distancing pave the new opportunities for the e-commerce platform. However, bring challenges too to survive in the crisis. This covid not only had an adverse impact on the health but on the economy of the countries. This brings a new way of thinking and behaviour transformation, and now people are avoiding crowded places, finding secure modes of shopping from essential goods and services, saving habits, and so on.

5. Literatures Review

[5]. The e-commerce companies were Competing during pandemic circumstances. The e-Retailers faced ups and downs during the COVID-19 outbreak and were vulnerable to deal with the adverse situation to cope up with the impact and sustain their business appropriately. The paper analyses various challenges faced by the retailer during the covid-19 pandemic crisis and effectively examines the consumer and retailer perspective. Due to the pandemic crisis, not only health but the economic condition of the world is also going through immense hardship. Because of lockdown, which is the only solution to reduce or eliminate the chain of spreading the covid virus, the economics of the world was stagnant or stopped. The paper also suggests some measures and provides certain examples of how retailers can effectively handle this unpredictable and unprecedented situation and sustain in the competitive world in this situation.

[6]Tran, L.T.T., 2021. Covid-19 pandemic, which was spread from one city in China in the year 2019, is enormously spread worldwide and has an adverse impact on health, education, nutrition, and the economy of the countries situated in every corner of the world. The motive of the research is to analyse the impact of the perceived effectiveness of e-commerce platforms (PEEP) on customers and their perceived economic benefit in predicting sustainable growth in the consumption pattern of e-commerce business. To fulfil the research objective based on Managing the effectiveness of e-commerce platforms in a pandemic condition, the paper goes through several prominent factors to enhance the understanding. For a comprehensive analysis and to examine the impact of covid-19 on business activities, the paper goes through the sample survey of 617 customers based on several questionnaires' empirical methodology. The outcome of the survey demonstrates that covid-19 has a mixed impact on The E-Commerce business as it creates hardship in the business activities. On the other hand, it paves better business methods for the specific arena like grocery medical health products and others. The paper also suggests measures that demonstrate the sustainable consumption relationship in the discussion.

[3]. Because of the spreading covid-19 pandemic crisis, several kinds of research were conducted in the field, demonstrating the impact of covid-19 in the economy of the world and the relationship between e-commerce platforms. The motive of the study is to understand the relationship between e-commerce and the retail business and how e-commerce affected the market company's ability and changed the customer's shopping behaviour. The research is to keenly analyse how e-commerce is lowering operational costs and raising customer satisfaction. For exploring the knowledge paper, a survey

collects data from multi-industrial companies to understand the company behaviour and the impact of e-commerce on the customers. The outcome revealed a direct correlation between customer service satisfaction and the e-commerce service providing, which improves the availability of information and enormous choice for shopping, enhances the level of servicing, and lowers the cost of services.

[1]. E-commerce trends during COVID-19 Pandemic E-commerce is one of the growing and leading business methods based on internet resources and striving the market tremendously in the last few years. Moreover, it has an immense potential embedded with opportunities for boosting the market and the company's economy, which eventually leads to the growth of the country. Because of the covid fear and impact, people were leaning toward online options as it is free from the crowd and did not have any lockdown condition, affordable and safe delivery of goods and services. The research examines the e-commerce enhancement during covid situations. However, coronavirus has an impact on the whole economy of the world, which consists of retailers for eCommerce shopping methodology also. Still, retailers are vulnerable while the specific section of e-commerce shows a growth bar graph during a pendency situation. The paper also provides a comprehensive understanding of the efficiency of cost and benefit, which is directly connected with the e-commerce crew and its potential in the future.

6. Research Questions

Q. What are the impacts of e-commerce on retail business sales (grocery, electronics, apparels, drugs and furniture's) due to covid-19?

7. Methodology

The qualitative method will select to analyse the relevant information based on an empirical finding by conducting a survey method. The survey consists of specific questionnaires. The research systematically evaluated employing primary and secondary resources to conduct smooth analysis and reached a particular conclusion.

This research will opt for the survey method to gather and analyse the relevant information related to the impact of e-commerce on retail business. This study will also use secondary data from scholarly literature, online resources for research purposes. In quantitative methods, the researcher focuses on enhancing the understanding mainly oriented and revolving around secondary sources like government official sites, journals, and business newspapers.

The primary methodology is adopted, which is a quantitative approach where a random sample is collected by survey method, and empirical calculation is done to obtain the appropriate outcome. For collecting data, a simple random approach is utilized. In this research, 143 samples are randomly collected, and the survey is conducted in online mode to obtain the perspective of the responders who voluntarily participated in the survey. In the survey, ten questionnaires were asked from the participant, and the outcome is generated based on their responses.

Q. What are the impacts of e-commerce on retail business sales (grocery, electronics, apparels, drugs and furniture's) due to covid-19?

Table 1. Impact of e-commerce on retail business sales.

E-Commerce On Retail Business	Grocery	Electronics	Apparels	Drugs	Furniture
Sales	37.3%	15.5%	11.3%	2.1%	4.9%
Sales Down in %	30%	11%	7%	0.5%	0.2%

8. Findings/Results

The results and findings are based on the information retrieved from the survey conducted online from 143 participants, consisting of 10 questionnaires containing the main research question too which provide the better perspective to explore the objective of the research and envisage from dynamic viewpoints to retrieve the information.

8.1. What is your age?

The demographic details from the survey like age and gender demonstrate the active class who are more attentive to utilizing the upgraded technology and act as the key element for boosting the market and business. Out of the total 143 responders, about 60.6% of the participants were from the age group of less than 22, followed by 30.3% of the people who are 22-25 years age bar, and it is because teenagers and the youth are more active in social networking and e-commerce shopping platforms.

8.2. Which retail business do you have?

This is the central question of the research as it is directly oriented with the motive like which retail business shows the extreme impact by the e-commerce sector over the retailer business as it explores the retailers who worked in distinct markets like grocery, electronics, and so on. The data revealed from the survey shows that the maximum number of people is about 37.3% having the knowledge related to the grocery followed by 15.5 % of the participants who are having an idea of electronics.



Figure 1. Retail business having idea on that business.

8.3. Did you get an impact in your sales due to the ecommerce after covid-19?

The question shows the impact of the covid 19 pandemics on e-commerce business because of measures taken to subdue or break the chain of covid like lockdown, social distancing, and so on. Out of the total 143 responders, 71.8% of the responder said that their business went through the adverse effect of Covid-19. However, 22.5% of the people were in a dilemma that they did not recognize that their business is affected or not. This shows that, yes, the business went through hardship and dealing with the adverse impact of the covid crisis on ecommerce, too additional to a stagnant physical business.

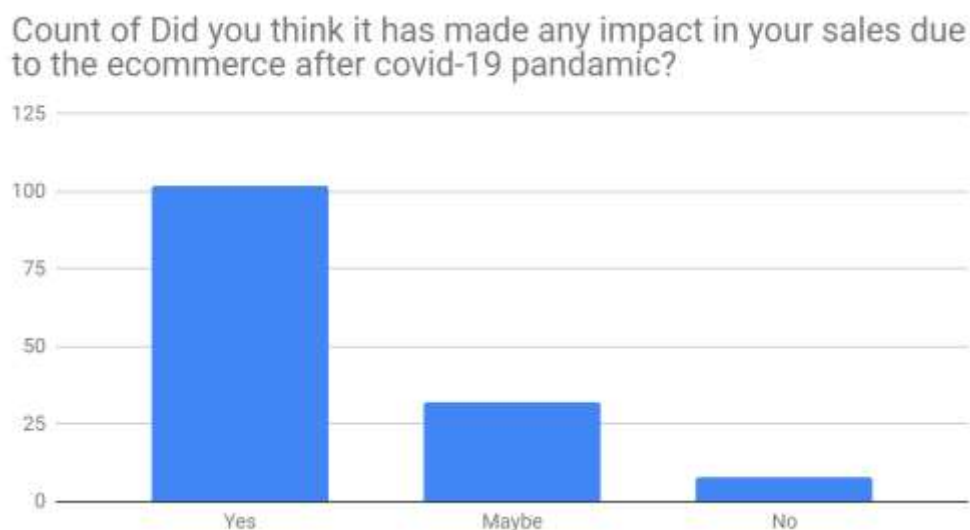


Figure 2. Impact on sales due to e-commerce after Covid-19.

8.4. How much sales go down due to ecommerce after covid-19?

The question which shows the impact of ecommerce on the retailer sale after covid is one of the most critical questions of the survey as the question is centred around the objective of the research. The survey reveals that about 37.3 % of the people were found that their sales were reduced up to 20-30% in a pandemic crisis scenario, followed by the 24.6% were found that they reduced their business graph about 30-55% which were facing adverse impact of covid in their business. This illustrates that the maximum number of the retailer's sector that impacted their business because of e-commerce had reduced their sale around 20-30% not only by the online business but by the covid crisis. However, some retailers had adverse impacts on e-commerce as they became vulnerable to the twin effects of covid and e-commerce.

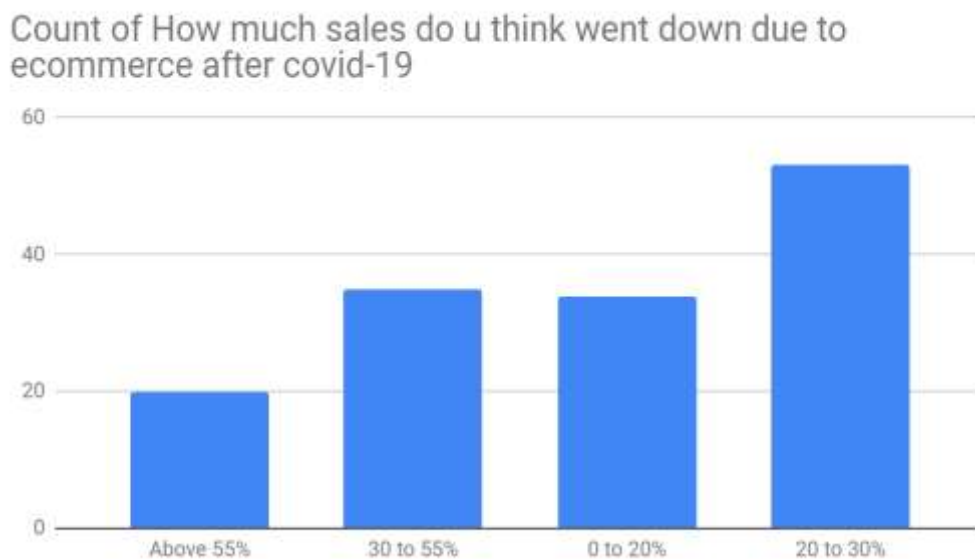


Figure 3. Sales went down due to e-commerce after covid-19.

8.5. Do you think e-commerce has much potential for the future?

E-commerce is one of the growing and leading business methods based on internet resources and striving the market tremendously in the last few years and has an immense potential embedded with opportunities for boosting the market and the company's economy, which eventually leads to growth of the country. E-commerce is the online shopping approach that is only utilized using the internet and electronic gadgets through which percentage enormous options for shopping. The survey revealed that the e-commerce platform and business methodology demonstrate outstanding potential in the future. About 71.1% of the responder believe that virtual business has tremendous opportunities in the near future.

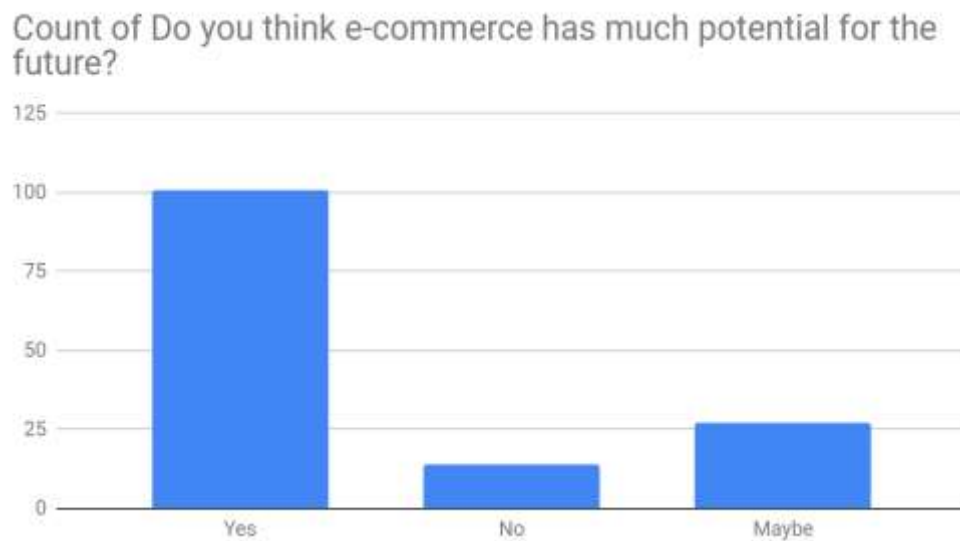


Figure 4. E-commerce potential in future.

8.6. Do you think the covid-19 pandemic affected retail business?

As covid-19 had an adverse impact in every section of the society. It also demonstrates from the survey that it influenced the customers buying behaviour and changed the nature of the retail business as 67.6% of the respondent agreed that covid impact on the retailer business. With the enhanced use of technology, people are attracted to new methods of shopping. Because of the covid fear and impact, people were leaning toward online options as it is free from the crowd and did not have any lockdown condition, affordable and safe delivery of goods and services.

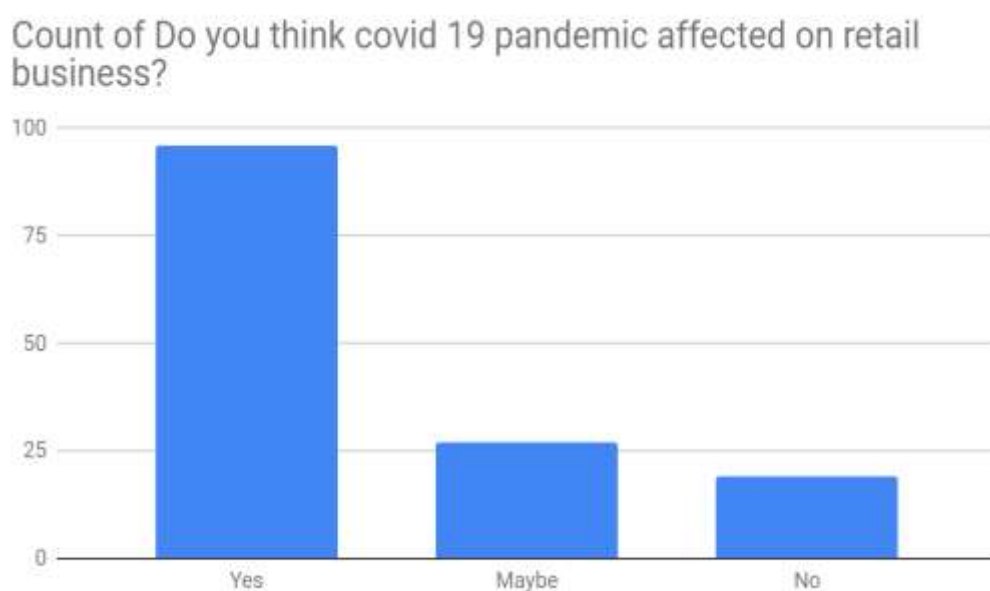


Figure 5. Covid-19 pandemic affected on retail business.

8.7. Is e-commerce more advantageous than retail business?

E-commerce is one of the growing and leading business methods based on internet resources and striving the market tremendously in the last few years and has an immense potential embedded with opportunities for boosting the market and the company's economy, which eventually leads to growth of the country. In this virtual world where everything is fast-moving, instant the shopping approach is also transformed by utilizing the edge technology. The survey also confirms that about 75.4% of the participants agreed that e-commerce has tremendous advantages and opportunities compared with the retailer business. Because of the covid fear and impact, people were leaning toward online options as it is free from the crowd and did not have any lockdown condition, affordable and safe delivery of goods and services.

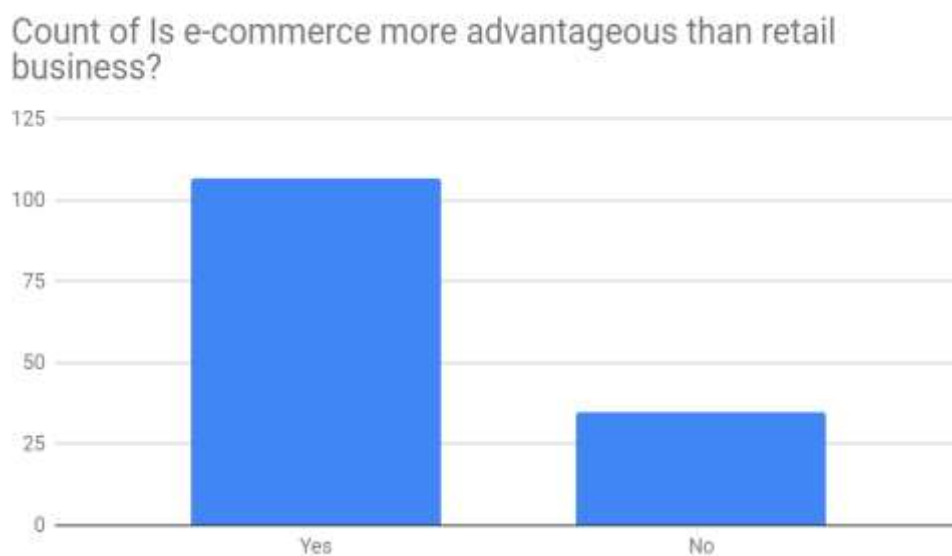


Figure 6. E-commerce advantageous then retail business.

9. Conclusion

The impact of covid is vulnerable and dreadful across the globe. Millions of people lost their lives; jobs and were forced to live miserably with no access to food and health facilities. Due to the pandemic crisis, not only health but the economic condition of the world is also going through immense hardship. Covid-19 has its worst effect in e-commerce business worldwide as it changes or influences the nature of the business. Because of the covid fear and impact, people were leaning toward online options as it is free from the crowd and did not have any lockdown condition, affordable and safe delivery of goods and services. The study analyses the impact of covid on the economy with the remarkable concentration of the e-commerce and retailer sector of the business.

The consumer avoids going for physical shopping in the crowded area because of the pandemic outburst and its after-effects. The research demonstrated that out of the total 143 responders, 71.8% of the responder said that their business went through the adverse effect of Covid-19. However, 22.5% of the people were in a dilemma that they did not recognize that their business is affected or not. The paper tries to understand and explore

the impact of enhancing e-commerce platforms and steadily capturing the retailer's business, and reducing the sales bar graph, ignited by the coronavirus pandemic condition where lockdown, social distancing pave the new opportunities for the e-commerce platform. However, bring challenges too to survive in the crisis. This covid not only had an adverse impact on the health but on the economy of the countries. This brings a new way of thinking and behaviour transformation, and now people are avoiding crowded places, finding secure modes of shopping from essential goods and services, saving habits, and so on.

Covid-19 demonstrates a mixed impact on e-commerce as several products get prevalent and almost negligible, whereas certain products are vulnerable. The data revealed from the survey shows that the maximum number of people is about 37.3% having the knowledge related to the grocery followed by 15.5 % of the participants who are having an idea of electronics. In this pandemic crisis, the sale which shows the peak in ecommerce business is the grocery and related food-nutritional products, medicinal and health care products.

Online shopping behaviour also demonstrates tremendous changes because of the spreading Pandemic in the world. The results show the changing behaviour of E-Commerce online shopping consists of several factors like geographic location, demographic dividend, and living standard, and social status. Online shopping demonstrates different patterns in different age groups, gender, amongst others. Reduction in the spending of online shopping because of vulnerability and fear spread worldwide by the covid. This reduction is higher in the younger generation than traditional people because younger generations are more actively involved in social media and e-commerce services. It also demonstrates from the survey that it influenced the customers buying behaviour and changed the nature of the retail business as 67.6% of the respondent agreed that covid impact on the retailer business.

It also reveals from the research that only the essential items were raised in their production, like grocery Housefull supply medicine and related other goods. Simultaneously, discretionary spending is estimated to reduce with the valley shape in the bar graph. The consumer behaviour is also influenced by the covid such as they avoid going to physical shopping, entertainment like theatre's, parks, and so on. People reduce their spending on luxury items like electronic gadgets, vehicles, cosmetic products, and personal care services. Consumption of household utility like grocery, nutritional intended food material, and therapeutic goods increased.

In conclusion, the research reveals that ecommerce has had a tremendous impact on the retailer business steadily since the adaptability and accessibility of the internet are enhanced. However, the gulf increased because of covid 19 people's perspective toward social distancing. Moreover, the lockdown had an immense impact on shopping habits and massive transformation by shifting the mass from physical retailers toward e-commerce platforms. However, it is not that easy for the e-commerce platforms to survive effectively in the pandemic condition and satisfy the necessity of the customers to fulfil the government norms while following the pandemic protocols. Thus, it is a challenging situation for both the retailers and the e-commerce platform, although e-commerce has some benefit over the retailers and having more opportunities.

10. Annexure

10.1. What is your age?

- A. Up to 25years
- B. 26 to 50years
- C. 51 to 75years
- D. 75+

10.2. What is your gender?

- A. Male
- B. Female
- C. Transgender

10.3. Which retail business do you have?

- A. Grocery
- B. Electronics
- C. Apparels
- D. Drugs
- E. Furniture

10.4. Did you get an impact in your sales due to the ecommerce after covid-19?

- A. Yes
- B. No

10.5. How much sales go down due to ecommerce after covid-19?

- A. 0-25%
- B. 26-50%
- C. 51-75%
- D. 76-100%

10.6. Do you think e-commerce has much potential for the future?

- A. Yes
- B. No
- C. Maybe

10.7. Do you also want to open an e-commerce store to maintain your sales?

- A. Yes
- B. No
- C. Maybe

10.8. Do you buy things from e-commerce platforms?

- A. Yes
- B. No

10.9. Do you see changes in customer's behaviour after covid-19?

- A. Yes
- B. No

10.10. Is e-commerce more advantageous than retail business?

- A. Yes
- B. No

11.Reference

- [1] A. Bhatti, H. Akram, and A. U. Khan, "E-commerce trends during COVID-19 Pandemic THE IMPACT OF SOCIAL MEDIA MOBILE ADVERTISING ON CONSUMER PERCEPTION AND CONSUMER MOTIVATION BY CONSIDERING MEDIATING ROLE AS BRAND IMAGE AND BRAND EQUITY View project," Accessed: Aug. 15, 2021. [Online]. Available: <https://www.researchgate.net/publication/342736799>.
- [2] -Rae Yule Kim, "The Impact of COVID-19 on Consumers: Preparing for Digital Sales," doi: 10.1109/EMR.2020.2990115.
- [3] S. Kumar and P. Petersen, "Impact of e-commerce in lowering operational costs and raising customer satisfaction," *J. Manuf. Technol. Manag.*, vol. 17, no. 3, pp. 283–302, Apr. 2006, doi: 10.1108/17410380610648263.
- [4] "Understanding the COVID-19 Effect on Ecommerce." <https://www.bigcommerce.com/blog/covid-19-ecommerce/> (accessed Aug. 15, 2021).
- [5] E. Pantano, G. Pizzi, D. Scarpi, and C. Dennis, "Competing during a pandemic? Retailers' ups and downs during the COVID-19 outbreak," *J. Bus. Res.*, vol. 116, pp. 209–213, Aug. 2020, doi: 10.1016/J.JBUSRES.2020.05.036.
- [6] L. T. T. Tran, "Managing the effectiveness of e-commerce platforms in a pandemic," *J. Retail. Consum. Serv.*, vol. 58, Jan. 2021, doi: 10.1016/J.JRETCONSER.2020.102287.