



Online Shopping Behavior of Consumers During Covid-19 Situation

Manvi Dewan (Research Scholar) Dr. OC

Rana (Assistant Professor)

Abstract

The purpose of the study is to find out the online shopping behavior of consumers during pandemic. Primary data have been used to conduct the study. Online shopping plays a vital role in customers life. It is becoming vital because of convenience, variety of products, discount, and safety. Customer behavior is changing towards fashion items and electronic goods as consumers are using these online platforms because there is advancement in technology and internet services are being used in their daily routine. There is change in the customer behavior as some people have lost their jobs or there s reduction in salary and this ultimately is affecting consumer buying behavior and leading to change in customer behavior. Pandemic have changed the living style such as shopping behavior and working behavior

Introduction

Online shopping is becoming a trend to purchase products and services. It is becoming trendy because of convenience, save time, purchase by a single click, safety from covid-19.online shopping platforms provide variety of brands to their customer which are not even available in their country. These platforms provide latest style to their consumers with all types of products and services range availability. There are advantage and disadvantage of online shopping. The online shopping do have disadvantage such as tangibility(we can't touch the products physically), small shopkeeper have to shut their shops because of not having variety of products, discounts as online platform provide and due to pandemic situation. As pr Singhal (2017), it is not compulsory that consumer behavior changes permanently unless online shopping platforms provide them great deals otherwise consumers return to physical shopping.

Due to covid-19 pandemic there is change in behavior towards shopping as their patience level changes, customers try to make their lifestyle stress free and well organized. Everyone having their own needs and wants so there is a difference in behavior of consumer according to their own preferences and situations. As pr Valaskova et al., (2015), consumer behavior is an essential and ongoing search mechanism for decision-making, the procurement, use, evaluation and disposal of goods and services.

Literature Review

Ali(2020) in his the study observed that due to Covid -19 there is a change in the behavior of consumers towards online shopping and moreover in the economy too. The study revealed that there is increase in sale in online platforms rather than reduction in relation to pandemic condition.

Aruna and William(2015) in their study revealed that due to development in technology consumers are moving towards online shopping rather to physical shopping. Online shopping is becoming easier and famous. Hence it is easier there are several factors such as price, delivery time, quality are taken into consideration while online shopping. So these online shopping platforms should keep their eyes towards these factors so that they can retain their customers. Moreover, researchers concluded that online shopping platforms are expanded promptly .

Bansal(2020) in his study states that the online platforms hope that people behavior towards online shopping shifts because of massive fear of infection. He revealed that consumers will be more prone towards online shopping platforms as consumers are more interested in buying hygiene products.

Harmanjot et al.,(2018) In their study revealed that online shopping platforms have made consumer life easy and innovated. The behavior of consumer in regard to online shopping is different from offline shopping. Moreover study concluded that factors such as quality of product, cash on delivery and advertisement play a significant role in attracting customers for online shopping.

Hashem(2020) in his study has worked on five factors of consumer behavior such as frequency, necessity, method of payment, price, availability of product and service and states that all these factors have a significant impact with covid-19 pandemic.

K G and M R(2020) in their study found that there is not a significant impact of online shopping with covid-19 pandemic because availability of chinese products is decreasing and due covid-19 pandemic import and export of products and services has declined and many online markets are using chinese products.

Kothari and . Maindargi (2016) in their study researchers observed that occupation and product choice has no relation with each other, customers are worried about transaction, fear of quality of product and returning policy. They also found that consumers are using online platform because of following aspects such as ease to buy, save time, variety of products and discounts. Though online consumers are increasing in number but then also consumer prefer physical outlets for daily products.

Mathur and Sharma(2014) in their study researchers observed that offline shopping is time consuming, and online consumers are increasing every year because of advancement in technology. Usage of internet has hiked and availability of mobiles at lower rates. Moreover, study concluded that discount coupons are only given to attract there customer to shop online. Consumers like to purchase their products and services through the mode of cash on delivery.

Nagra and Gopal(2013) in their study researcher objective was to find out that the impact of demographic factors on consumer online shopping. The study revealed that online shopping is notably affected by demographic factors such as age, gender, marital status, family size and income.

Ota et al.,(2020) in their study observed that during the pandemic consumer behavior towards online shopping has been changed. They are more focusing on the safety rather than discount, consumers can compromise with the delivery time of the product but can't compromise with the safety and hygiene. Moreover, the study revealed that, before the pandemic consumers used to buy fashion items and electronic goods mostly online but due to pandemic there is fall in buying these items. Now consumers are prone towards groceries and safety products.

Otaru and Enegesele(2021) in their study revealed that before the pandemic consumers used to purchase few items but during pandemic period consumers are highly prone towards online shopping. The study states that factors such as security, privacy, ease, service satisfaction, and loyalty are motivating consumers towards online shopping and found that there was a significant effect of pandemic on online shopping.

Pham et al.,(2020) in their study observed that in online shopping, the understanding of Covid-19 does not alter the impression of efficiency usability, during pandemic, online shoppers realized the effectiveness of electronic shopping through experience of the Covid- 19 epidemic. Moreover the study states that marketing strategy has no effect on the consumer online shopping.

Reddy(2020) in his study revealed that due to pandemic the behavior of consumers have been changed. Due to covid-19 people are not feeling secure to go out for shopping. So, they prefer to purchase their products online. Moreover, the study states that the online platforms will grow US \$ 200 billion by the year 2026. The study also revealed that 9 out of 10 consumers changed their mindset towards their shopping, about more than 50% of consumers buy their products online during the covid-19.

Sharma(2020) in his study revealed that due to outbreak of covid-19 pandemic there is a change in behavior of consumers towards online shopping. Due to pandemic there is adverse effect on marketing channel and soon it will be same as before but the losses can't be ignore. Moreover, the study concluded that 46% of the consumers agrees that these online platforms are essential for purchasing and to share information.

Suri(2021) in the article revealed that due to covid-19 pandemic there is change in the customer behavior because of people have lost their jobs or reduction in salary and this ultimately affecting consumer buying behavior and lead to change in customer behavior. Pandemic have changed the living style such as shopping behavior, working behavior, social aspects.

Objective

- To find out factors influencing consumers for online shopping during COVID-19.
- To find out factors affecting consumer buying behavior during COVID-19.

Research Methodology

The study has been conducted on primary data. The data has been collected by formulating a questionnaire. Social media was the medium to collect the data. Sample size of the study was 80.

Statistical Analysis

Percentage method and F test has been used to analyze the data, and further represented in charts and graph.

Results and Discussion

Table 1: Gender analysis of the respondents

Gender	Frequency	Percentage
Male	38	47.5
Female	42	52.5
Total	80	100

Source: Primary Data

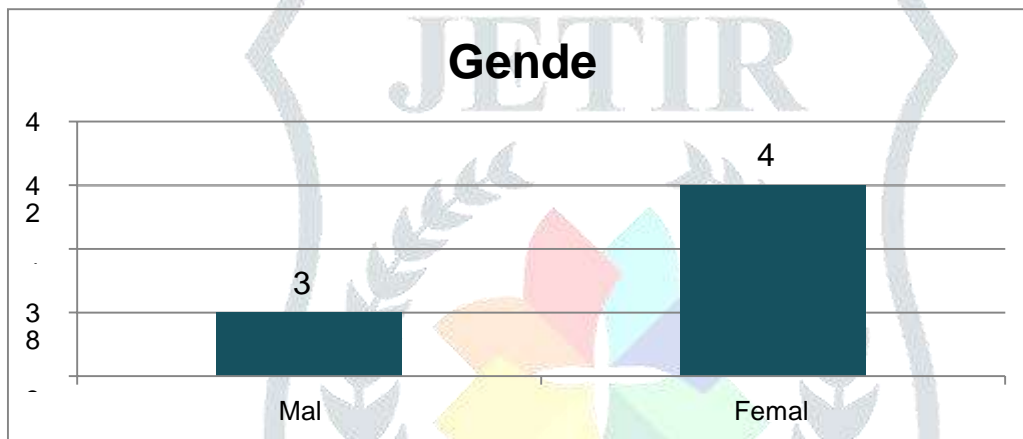


Figure 1: Gender analysis of the respondents

From the above table, it is observed that the majority of respondents are female 52.5% and males are 47.5%.

Table 2: Age analysis of the respondents

Age	Frequency	Percentage
Between 21-30	24	30
Between 31-40	32	40
Between 41-50	13	16.25
Above 50	11	13.75
Total	80	100

Source: Primary Data

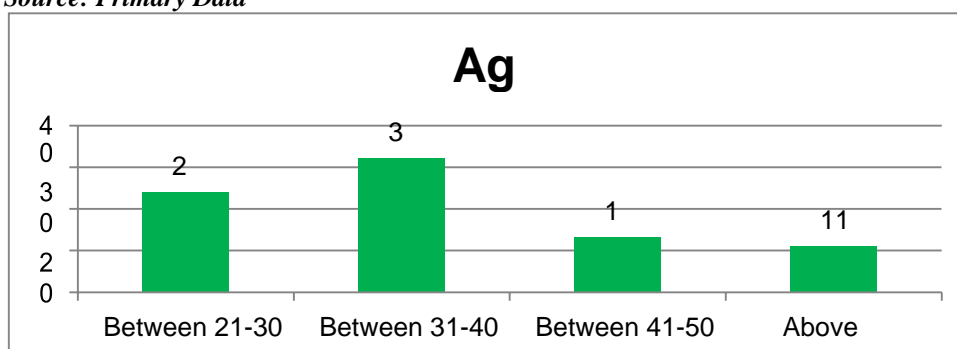


Figure 2: Age analysis of the respondents

From the above table, it is observed that 30% respondents are between 21-30 years old, 40% respondents are between 31-40, 16% respondents are between 41-50 years old and 13% respondents are above 50 years.

Table 3: Marital Status analysis of the respondents

Marital Status	Frequency	Percentage
Married	44	55
Unmarried	36	45
Total	80	100

Source: Primary Data

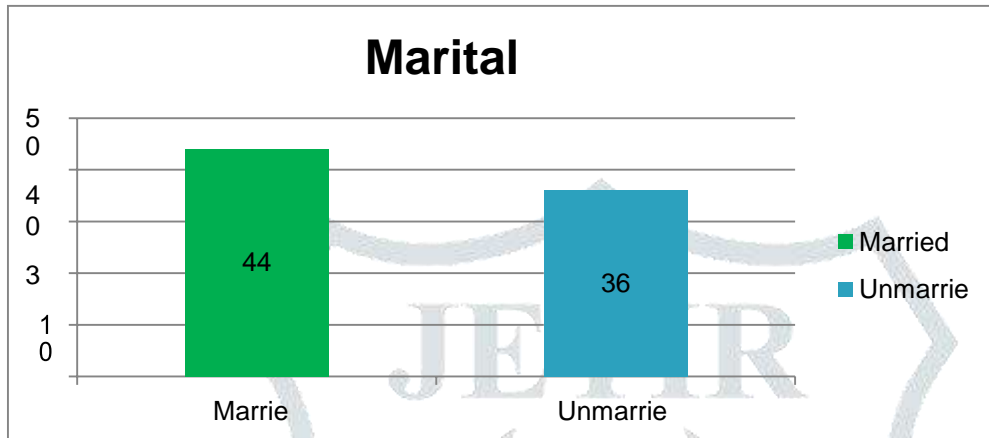


Figure 3: Marital Status analysis of the respondents

From the above table, it is observed that 55% respondents are married and 45% respondents are unmarried.

Table 4: Family analysis of the respondents

Family	Frequency	Percentage
Nuclear Family	46	57.5
Joint Family	34	42.5
Total	80	100

Source: Primary Data

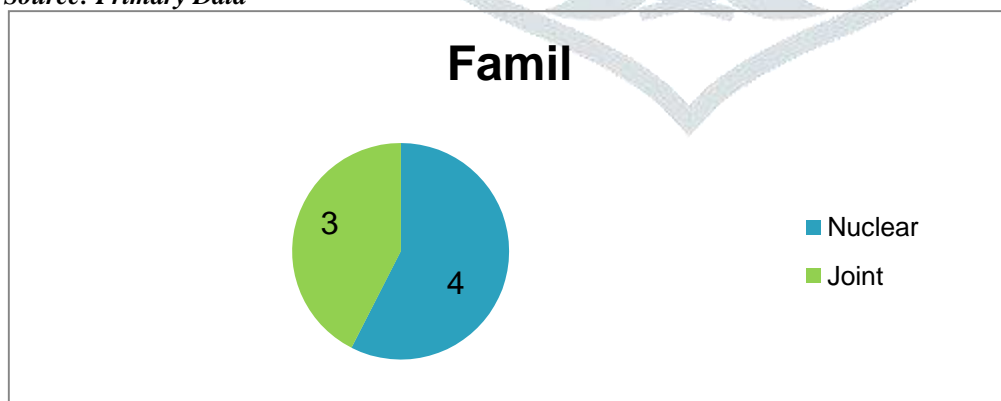


Figure 4: Family analysis of the respondents

From the above table, it is observed that 57% respondents belongs to nuclear family and 42% respondents belongs to joint family.

F- test**Table 5: Association between Gender and Age**

Sample 1	Sample 2
Gender	Age
38	24
42	32
	13
	11

$$H_0 = \sigma_1^2 = \sigma_2^2 \quad p_1 = p_2$$

Sample 1

X_1	$X_1 - X_1^-$	$(X_1 - X_1^-)^2$
38	-2	4
42	2	4
$\Sigma X_1 = 80$		$\Sigma (X_1 - X_1^-)^2 = 8$

$$X_1^- = 80/2 = 40$$

Sample 2

X_2	$X_2 - X_2^-$	$(X_2 - X_2^-)^2$
24	4	16
32	12	144
13	-7	49
11	-9	81
$\Sigma X_2 = 80$		$\Sigma (X_2 - X_2^-)^2 = 290$

$$X_2^- = 80/4 = 20$$

$$s_1^2 = \frac{\Sigma (X_1 - X_1^-)^2}{n_1 - 1}$$

$$= \frac{8}{2-1} = 8$$

$$s_2^2 = \frac{\Sigma (X_2 - X_2^-)^2}{n_2 - 1}$$

$$= \frac{290}{4-1} = 96.7$$

$$F = \frac{s_2^2}{s_1^2}$$

$$= \frac{96.7}{8} = 12.08$$

Degree of freedom for sample 1 = $(n-1) = (2-1) = 1$ Degree of

freedom for sample 2 = $(n-1) = (4-1) = 3$ $v_1 = 1, v_2 = 3$

the table value of F at 5% significance level is 215.7.

Since the calculated F value is less than the table value, the null hypothesis is accepted and we conclude that both population have same variance.

Table 6: Association between Marital Status and Family

Sample1	Sample2
Marital Status	Family
44	46
36	34

$$H_0 = \sigma_1^2 = \sigma_2^2 \quad p_1 = p_2$$

Sample 1

X_1	$X_1 - X_1^-$	$(X_1 - X_1^-)^2$
-------	---------------	-------------------

44	4	16
36	-4	16
$\Sigma X_1 = 80$		$\Sigma (X_1 - X_1^-)^2 = 32$

$X_1^- = 80/2 = 40$

Sample 2

X_2	$X_2 - X_2^-$	$(X_2 - X_2^-)^2$
46	6	36
34	-6	36
$\Sigma X_2 = 80$		$\Sigma (X_2 - X_2^-)^2 = 72$

$X_2^- = 80/2 = 40$

$S^2 = \frac{\Sigma (X - X_1^-)^2}{n-1}$

$= \frac{32}{2-1} = 32$

$S^2 = \frac{\Sigma (X - X_2^-)^2}{n-1}$

$= \frac{72}{2-1} = 72$

$F = \frac{S^2}{S_1^2}$

$= \frac{72}{32} = 2.25$

Degree of freedom for sample 1 = $(n-1) = (2-1) = 1$ Degree of

freedom for sample 2 = $(n-1) = (2-1) = 1$ $v_1 = 1, v_2 = 1$

the table value of F at 5% significance level is 161.4.

Since the calculated F value is less than the table value, the null hypothesis is accepted and we conclude that both population have same variance.

Table 7: Frequency table for takes less time to purchase the products

Takes less time to purchase the products	Frequency	Percentage
Strongly Disagree	3	3.75
Disagree	5	6.25
Neutral	7	8.75
Agree	34	42.5
Strongly Agree	31	38.75
Total	80	100

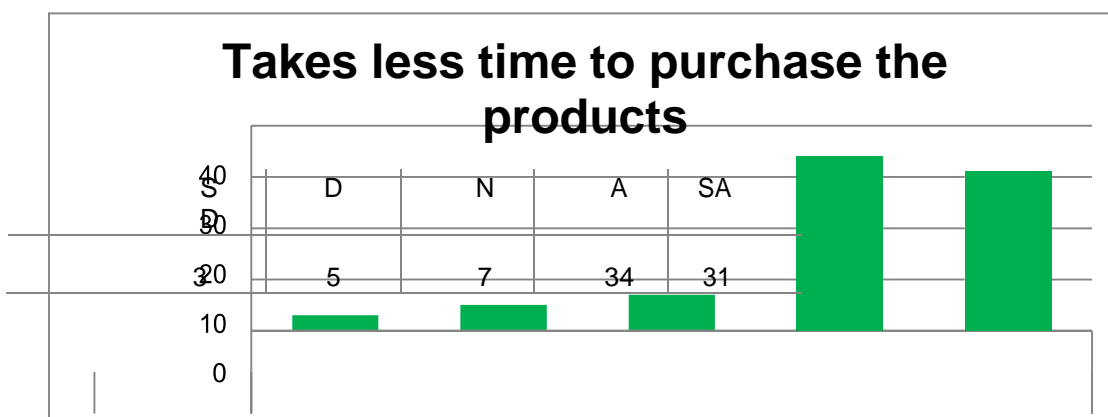
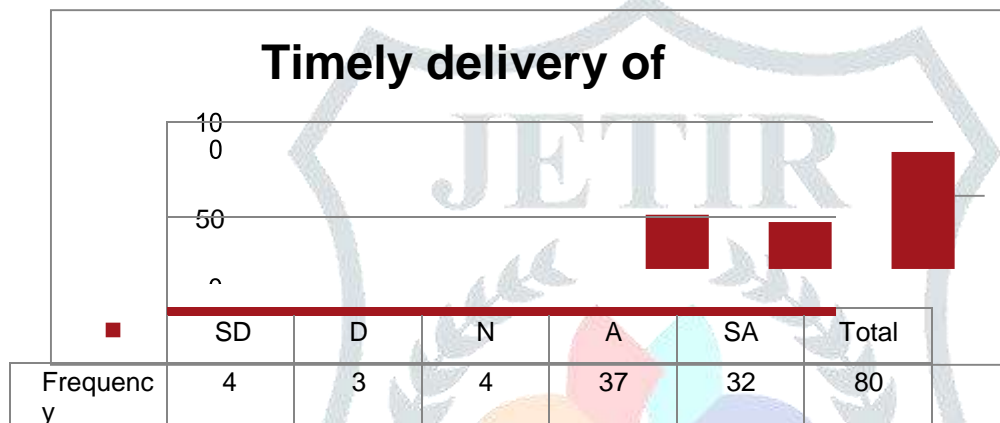


Figure 8: Takes less time to purchase the products

From the above table it is observed that 42% respondents are agree that online platforms takes less time purchase the products, 38 % are strongly agree, 8% respondents are neutral to above statement , 6 % and 3 % are disagree and strongly disagree to it.

Table 9: Frequency table for timely delivery of products

Timely delivery of products	Frequency	Percentage
Strongly Disagree	4	5
Disagree	3	3.75
Neutral	4	5
Agree	37	46.25
Strongly Agree	32	40
Total	80	100

**Figure 9: Timely delivery of products**

From the above table it is observed that 46% respondents are agree that online platforms provide timely delivery of products, 40% are strongly agree, 5% respondents are neutral to above statement , 5% and 3% are strongly disagree and disagree to it.

Table 10: Frequency table for easy to choose and comparison with other products

Easy to choose and comparison with other products	Frequency	Percentage
Strongly Disagree	8	10
Disagree	12	15
Neutral	6	7.5
Agree	26	32.5
Strongly Agree	28	35
Total	80	100



Figure10: Easy to choose and comparison with other products

From the above table it is observed that 35% respondents are strongly agree that online platforms provide easy to choose and comparison with other products, 32 % are agree, 15% respondents are disagree to above statement , 10% and 7% are strongly disagree and neutral to it.

Table 11: Frequency table for feel safe and secure during online shopping

Feel safe and secure during online shopping	Frequency	Percentage
Strongly Disagree	4	5
Disagree	6	7.5
Neutral	6	7.5
Agree	30	37.5
Strongly Agree	34	42.5
Total	80	100

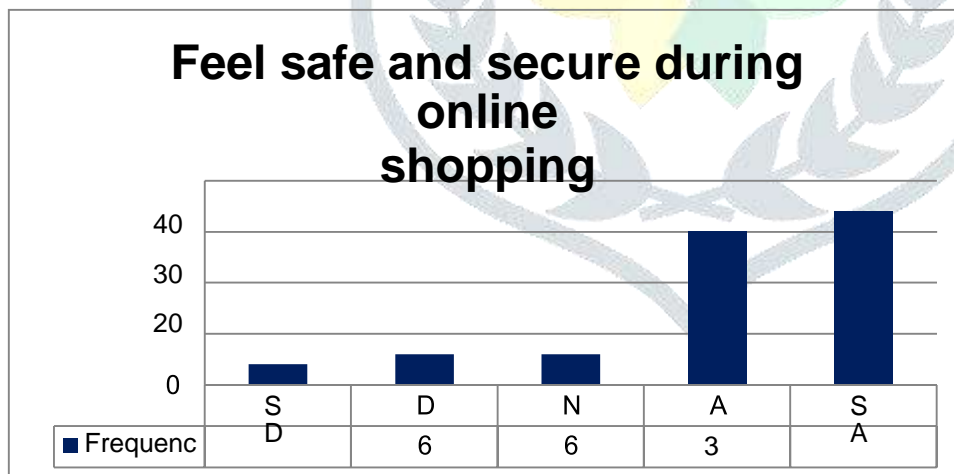
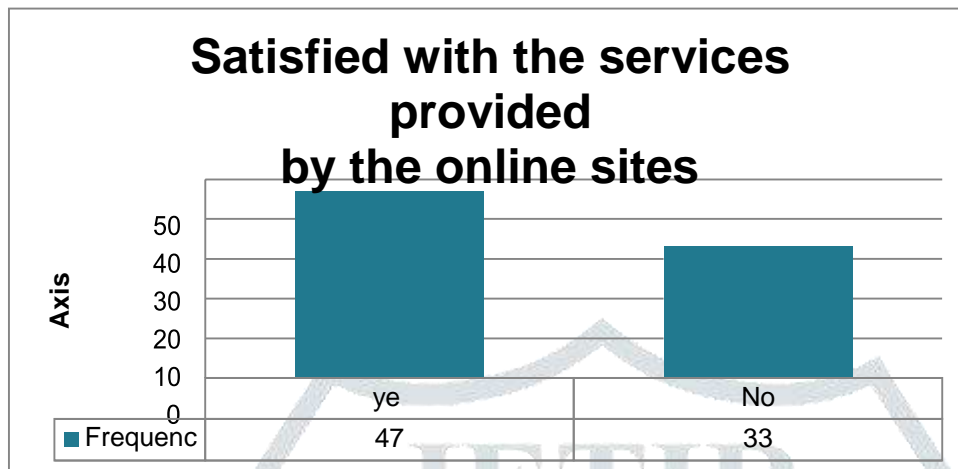


Figure 11: Feel safe and secure during online shopping

From the above table it is observed that 42% respondents are strongly agree that online platforms provide safe and secure shopping, 37 % are agree, 7% respondents are disagree to above statement , 7% and 5% are neutral and strongly disagree to it.

Table 12: Frequency table for Satisfied with the services provided by the online sites

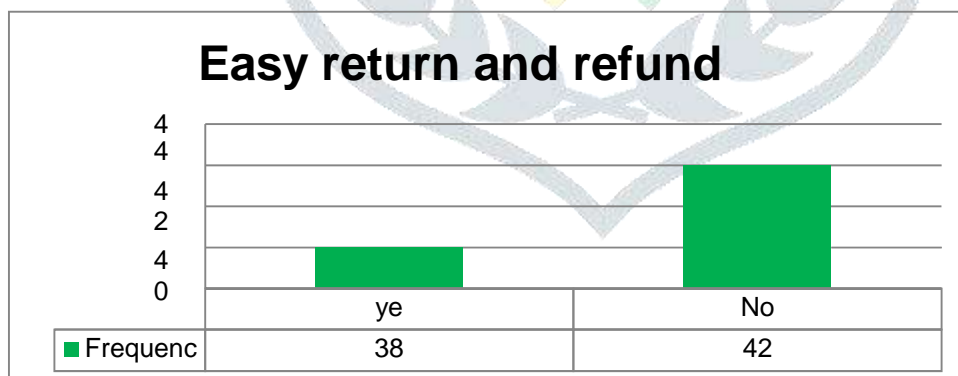
Satisfied with the services provided by the online sites	Frequency	Percentage
Yes	47	58.75
No	33	41.25
Total	80	100

**Figure 12: Satisfied with the services provided by the online sites**

From the above table it is observed that 58% respondents are satisfied with the services provided by the online sites and 41% respondents are not satisfied with the services.

Table 13: Frequency table for easy refund and return policy

Easy refund and return policy	Frequency	Percentage
Yes	38	47.5
No	42	52.5
Total	80	100

**Figure 13: Easy return and refund policy**

From the above table it is observed that 52% respondents are not satisfied with the policies provided by the online sites and 47 % respondents are satisfied with the policies.

Table 14: Frequency table for most purchasable products

Most purchasable products	Frequency	Percentage
Essential	30	37.5
Fashion	4	5
Grocery	26	32.5
Electronic Appliances	16	20
Beauty products	4	5
Total	80	100

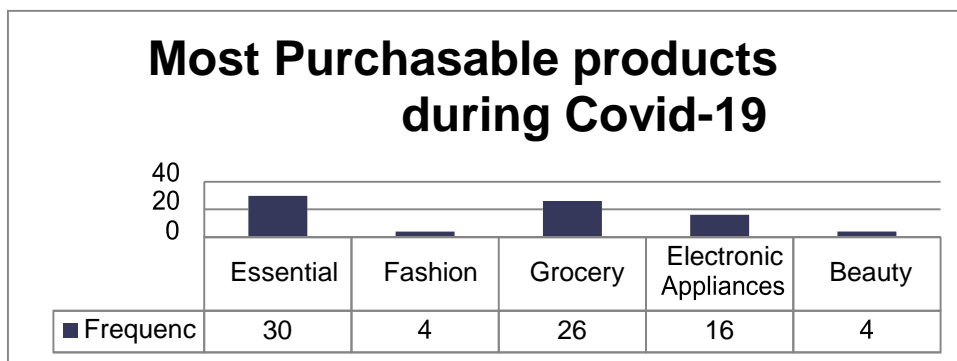


Figure 14: Most purchasable products

Above table states that 37% respondents purchase essential products, 32% respondents purchase grocery, 20% respondents purchase electronic appliances, 5% and 5% respondents purchase beauty and fashion products.

Table 15: Frequency table for factors affecting consumer buying behavior

Factors affecting consumer buying behavior	Frequency	Percentage
Product Shortage	10	12.5
Salary Reduction	38	47.5
Layoffs	32	40
Total	80	100

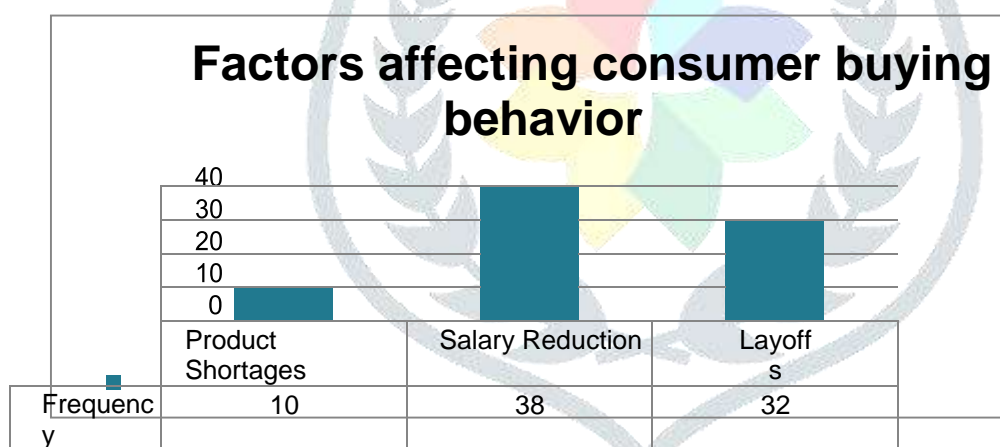


Figure 15: Factors affecting consumer buying behavior

Above table it states that 47% respondents not purchase products due salary reduction, 40% respondents not purchase products online due to layoffs and 12% respondents not purchase products online due to shortage of products.

Table 16: Frequency table for Factors influencing online shopping

Factors influencing online shopping	Frequency	Percentage
Money Saving	12	15
Relaxed Shopping	37	46.25
Entertainment	9	11.25
Discounts and Rewards	22	27.5
Total	80	100

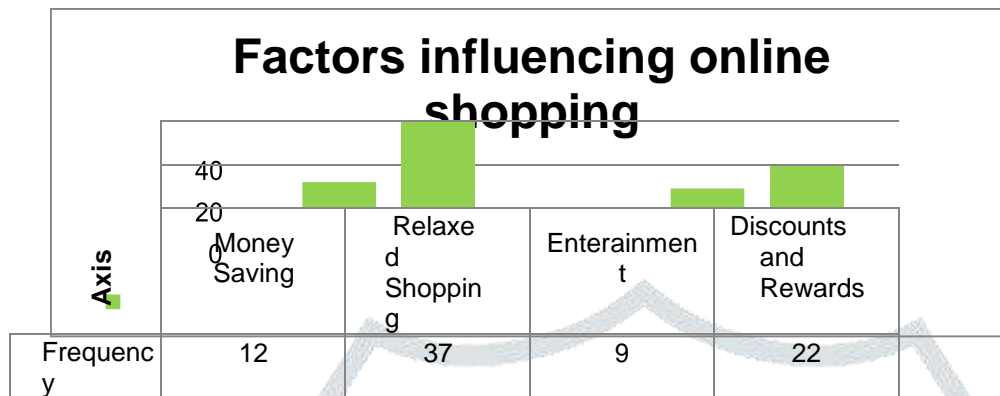


Figure 16: Factors influencing online shopping

Above table states that 46 % respondents represent relaxed shopping, 27% respondents discounts and rewards, 15% respondents represent money saving and 11% respondents represent entertainment

F- test

Table 17: Association between Factors affecting and factors influencing

Sample 1	Sample 2
Factors affecting	Factors influencing
10	12
38	37
32	9
	22

$$H_0 = \sigma_1^2 = \sigma_2^2$$

Sample 1

X_1	$X_1 - X_1^-$	$(X_1 - X_1^-)^2$
10	-16.7	278.8
38	11.3	127.69
32	5.3	28.09
$\Sigma X_1 = 80$		$\Sigma (X_1 - X_1^-)^2 = 434.58$

$$X_1^- = 80/3 = 26.7$$

Sample 2

X_2	$X_2 - X_2^-$	$(X_2 - X_2^-)^2$
12	-8	64
37	17	289
9	-11	121
22	2	4
$\Sigma X_2 = 80$		$\Sigma (X_2 - X_2^-)^2 = 478$

$$X_2^- = 80/4 = 20$$

$$S^2 = \frac{\Sigma (X - X^-)^2}{n-1}$$

$$= \frac{434.58}{3-1} = 217.29$$

$$s^2 = \frac{\sum (X - \bar{X})^2}{n-1}$$

$$= 478/4-1 = 159.3$$

$$F = \frac{s_1^2}{s_2^2}$$

$$= 1.36$$

Degree of freedom for sample 1 = (n-1) = (2-1) = 1 Degree of

freedom for sample 2 = (n-1) = (4-1) = 3 $v_1 = 2, v_2 = 3$

the table value of F at 5% significance level is 9.55.

Since the calculated F value is less than the table value, the null hypothesis is accepted and we conclude that both population have same variance.

Conclusion and Discussion

The study found that there is a change in consumer online behavior. Due to covid-19 pandemic consumers are not feeling safe to purchase products offline. They are interesting in purchasing the products which are related to essential. Customer behavior have been changed towards fashion items and electronic goods, consumers are using these online platforms because there is advancement in technology and people are using internet services in their daily routine. Due to covid-19 pandemic there is variation in the behavior of males and females, it have been found that males are interested in online shopping more than females. The study found that due to covid-19 there is positive impact on online shopping platforms means that there is increase in the number of customer on online shopping platforms because consumers are afraid of going to the market, they feel online shopping is safe, save time, and convenient to purchase goods and services. But on the other hand researcher also found that there is downfall of customers towards online shopping because due to covid-19 pandemic import and export of products and service have stopped. There is change in the customer behavior because of people have lost their jobs or reduction in salary and this ultimately affecting consumer buying behavior and lead to change in customer behavior. Pandemic have changed the living style such as shopping behavior and working behavior.

Referances

- **Aneesh Reddy(2020)** Article on Covid-19 Impact: Consumers Move More Towards Digital *The Hindu Business Line*.
- **Anupam Sharma(2020)** Changing Consumer Behaviours towards Online Shopping - An Impact of Covid 19 *Marketing Studies Journal*, 24(3)
- **Bayad Jamal Ali(2020)** Impact of COVID-19 on Consumer Buying Behavior Towards Online Shopping in Iraq *Economic Studies Journal* 18(3), 267-280.
- **Gagandeep Nagra, R. Gopal(2013)** A study of factors affecting on Online Shopping Behavior of Consumer *International Journal of Scientific and Research Publication*, 3(6)

- **Manishaben Jaiswal, Mehul patel,** "AUTOMATION WITH NETWORKING AND ARTIFICIAL INTELLIGENCE", International Journal of Creative Research Thoughts (IJCRT), ISSN:2320-2882, Volume.9, Issue 1, pp.4748-4759, January 2021, Available at :<http://www.ijcrt.org/papers/IJCRT2101582.pdf>
- **Manishaben Jaiswal,** "ANDROID THE MOBILE OPERATING SYSTEM AND ARCHITECTURE", International Journal of Creative Research Thoughts (IJCRT), ISSN:2320-2882, Volume.6, Issue 1, pp.514-525, January 2018, Available at: <http://www.ijcrt.org/papers/IJCRT1134228.pdf>
- **Kalpna Mathur, Arti Sharma(2014)** A Study of Online Shopping Habits of Consumers in India *International Journal on Customer Relations*, 2(1), 23-28
- **Kaur Harmanjot, Kochar Roopjot(2018)** A review of factors affecting consumer behavior towards online shopping *International Journal of Engineering and Management Research*, 8(4), 54-58
- **O.A.P Otaru and D. Enegesele(2021)** Statistical Analysis on the Impact of Covid-19 on E-Commerce in Nigeria *African Journal of Mathematics and Statistics Studies*, 4(1), 32- 46
- **Pritam P. Kothari, Shivganga S. Maindargi(2016)** A Study on Customers Attitude towards Online Shopping in India and its Impact: With Special Reference to Solapur City *International Journal of Advance Research, Ideas and Innovation in Technology*, 2(6), 1- 10
- **Rachita Ota, Sushree Sangita Ray, and Rahul Kumar(2020)** A study on the Indian Consumer Mindset Towards Online Shopping During the Pandemic Period: A Special Reference to Flipkart *Science, Technology and Development*, 9(8), 197-204.
- **S. Aruna, A. John William(2015)** A study on Customer Behavior Towards Online Shopping in Coimbatore District *International Journal of Research in Business Management*, 3(7), 51-62
- **Shuchi Bansal(2020)** Article on Opinion Will Consumers Behaviour See Shifts Post Covid-19 *Mint*
- **Srikanth Rajath K G and Ranganatha M R(2020)** Covid 19 and its Impact on Customer Behavior Towards Online Shopping in Bangalore City *Aut Aut Research Journal*, 11(9), 187-194
- **Surya Suri(2021)** Article How Consumer Behavior is Changing During Covid-19 Pandemic *Business World*
- Susan Meyer(2020) Article Understanding the Covid-19 Effect on Online Shopping Behavior
- **Tareq N. Hashem(2020)** Examining the Influence of COVID 19 Pandemic in Changing Customers' Orientation towards E-Shopping *Modern Applied Science*, 14(8), 59-76
- **Valaskova, K., Kramarova, K., & Bartosova, V. (2015)** Multi criteria models used in Slovak consumer market for business decision making *Procedia Economics and Finance*, 26, 174–182.
- **Van Kien Pham, Thu Hado Thi, and Thu Hoai Ha Le(2020)** A Study on the Covid-19 Awareness Affecting the Consumer Perceived Benefits of Online Shopping in Vietnam *Congent Business and Management*, 7(1)