



SUSTAINABLE SUPPLY STRATEGY ADOPTED BY SMARTPHONE SELLER DURING COVID-19 LOCKDOWN DUE TO TRANSMISSION OF ONLINE EDUCATION

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1. ABSTRACT:

During Covid -19 Pandemic, not only the public but everything related to the public was badly affected. The economic indicators were showing the panic scenario and the declining human and business health. Educational institutes were ordered to remain closed to control the pandemic spread and the focus was on public health and health infrastructure.

The purpose of this study is to examine Sustainable supply strategy adopted by smartphone sellers during covid-19 lockdown due to transmission of online education. Data collection and sampling has been done online and a particular region was selected i.e.Nallasopara (East) Palghar, Maharashtra

A Google form questionnaire had been deployed for the survey and this form was distributed to 30 Smartphone shops owners through online modes. The objective of the study is to understand the profile of customers, To examine The behaviour of students in buying smartphones and to explore problems faced by Smartphone sellers during COVID-19 lockdown. Findings revealed that initially the Smartphone businesses were moderately affected by the lockdown and it soon recovered due to the announcement of online education of Students. Findings also revealed that at a time smartphone business showed a spike in sales growth and strict government guidelines regarding COVID-19 caused problems to manage sales and logistics supply by the owner.

2. **KEYWORDS:** Smartphone Seller, Covid-19 Pandemic, Supply Strategy and Online Education.

3. INTRODUCTION:

COVID-19 is an airborne disease which started spreading across the world and soon covered the whole world. Many countries ordered complete lockdown to control the spread and protect their citizens. All possible measures were adopted like closing schools, prohibiting social gatherings, encouraging work from home for IT personnel, to stop the positivity rate. This pandemic caused drastic downfall in the economy and left a lot of people jobless but it was observed that some sectors recovered sooner than the others.

Smartphones are devices with almost every capability of a computer, saw an increasing demand after the lockdown was announced and the government decided to start online education for students. After this decision there was a sudden rise in demand for smartphones for study purposes especially from students. In this research paper we will see how the smartphone business started managing sales of smartphones even in lockdown and fulfilling the customers preferences while buying smartphones.

4. OBJECTIVES:

- To understand the profile of customers.
- To examine behaviour of students in buying smartphones during COVID-19 Lock down.
- To explore problems faced by Smartphone sellers during COVID-19 Lock down.

5. REVIEW OF LITERATURE:

5.1 Over 80% students depend on mobile for learning:NCERT

“The Hindu” published an article based on a survey done by NCERT (National Council of Educational Research and Training). This survey shows that around 80-90% students used Mobile phones for their studies. In KV’s, 84% of students used mobile phones, while 19% used laptops.

5.2 Online classes pushed up mobile, laptop sales:

“Economic Times” reported a rise in demand for smartphones after the announcement of online education for students. There was a 84% rise in ₹8,000-₹10,000 category and 51% in ₹10,000-15,000 category. There were 11 million sales in July and 12 million sales in August-2020 which was fueled by e-learning needs of students.

5.3 Online Classes Pushed up Mobile, Laptop Sales

An article released by “Times of India” shows that there was a sudden rise in demand for smartphones after the announcement of e-learning and the first phase of unlocking began. 80% of customers were students and teachers and most of them opted for mid-range phones ranging from ₹8,000-10,000.

5.4 COVID-19 and applications of Smartphones Technology in the current Pandemic

A study done by a group of doctors showed that due to lockdown smartphone technology was used for telemedicine and consultation of patients. COVID-19 led to the closure of the educational institutes and cancellation of scheduled conferences, seminars, workshops and other academic activities. This resulted in an increase in online webinars and smartphones were helpful tools to support them.

5.5 The Role of Mobile Learning During COVID

Vector solutions, a U.S. based company said in it’s article that Smartphones were the essential component of learning during COVID-19 pandemic and it can be developed as an more effective and efficient tool for future learning and teaching.

6. RESEARCH METHODOLOGY:

My research acquires gathering of the relevant data from specified document and complying the data analyzing the data to obtain result will be try sustainable supply strategy adopted by smartphone seller during covid-19 lock down due to transmission of online education in Nallasopara (East) Palghar, in the district of Maharashtra state.

7. DATA COLLECTION METHOD:

- **Primary Data Source:** Under primary data collection method use of questionnaire will be implied .The question will be formed to understand the sustainable supply strategy adopted by smartphone seller during covid-19 lockdown due to transmission of online education To examine behaviour of students in buying smartphone during COVID-19 Lock down and to explore problems faced by Smartphone sellers during COVID-19 Lock down.
- **Secondary Data source:** Will be collected through Daily Newspapers, Sales Reports of smartphone selling Companies and Internet.

8. RESEARCH DESIGN:

The research is descriptive and exploratory in nature. It is aimed at understanding the sustainable supply strategy adopted by smartphone sellers during covid-19 lockdown due to transmission of online education in Nallasopara (East), Palghar, Maharashtra.

9. PRESENTATION OF THE DATA :

The collected data will be properly classified and The dependent variable is smartphone shopkeepers. presented by using suitable Pie charts, Simple, complex and mixed bar diagrams.

10. SAMPLING:

- Geographical Area: Nallasopara (East) Palghar, Maharashtra.
- Sampling unit: (Individual)Smartphone shops.
- Sample Size: Sample size of 30 respondents.
- Sampling Method: Simple random sampling method.

11. PRIMARY DATA INTERPRETATION AND ANALYSIS:

A deliberate attempt has been made to collect primary data through the research instrument i.e. questionnaire which aimed at meeting the objectives of the research to understand the sustainable supply strategy adopted by smartphone sellers during covid-19 lockdown due to transmission of online education. These responses were collected from Nallasopara (East), Palghar, Maharashtra. **Demographic Profile of the respondents.**

Location of shops : All shops are located in Nallasopara (East) Palghar, Maharashtra.

12. DATA ANALYSIS AND INTERPRETATION

12.1 Name of Shopkeepers

The data collected from various respondents have to be analysed for the drawing conclusion so in this chapter effort has been made to analyse and interpret the collective data towards sustainable supply strategy adopted by smartphone sellers during covid-19 lockdown due to transmission of online education. The total number of respondents taken were 30 whose Smartphone shops were located in the Nallasopara region and the below table shows the name of shopkeepers who replied.

Table - 12.1

Sl. No.	Name of Shopkeepers
1.	Vidya Rathod
2.	Saurabh Pandey
3.	Aditya Mishra
4.	Nitesh Gadiya
5.	Guddu singh
6.	Bhavika shinde
7.	Mohan khamkar
8.	Ankit Singh
9.	Aryan singh
10.	Harshal Jain
11.	Shantanu
12.	Sham Singh
13.	Jignesh
14.	Sanjeev ghadiya
15.	Suruchi Hegde
16.	Shravan shinde
17.	Bhavika shinde
18.	Jitender bhati
19.	Harshal Jain
20.	Shaurabh Tajane
21.	Nitesh Gadiya
22.	Mohan khamkar
23.	Anil Kumar

24.	Mohan khamkar
25.	Aniket saravade
26.	Shyamsingh
27.	Aryan Singh
28.	Ankit Singh
29.	Ravi Singh
30.	Surajit Singh

Source: Data collected from primary source through questionnaire method.

Interpretation

In the above table, mentioned names are names of all Smartphones shopkeepers, Whose shops are located in Nallasopara region.

12.2 Name of Shops

Table - 12.2

Sr No.	Name of Shops
1.	Top 10
2.	Om Mobiles &
3.	Shree Swastik Mobiles
4.	Top 10
5.	JK Mobiles
6.	Ganesh Telecom
7.	Mobiles Lab
8.	Mobiles World
9.	Airfone the Mobile Cafe
10.	Om Mobiles
11.	Siddharth Telecom

12.	Om Mobiles
13.	Mahalaxmi Mobiles
14.	Om Mobiles 1
15.	Vivo
16.	Tulsi Mobiles Shop
17.	Shyam Mobiles
18.	Om Mobiles
19.	Telecom
20.	Shree Ganesh Mobile
21.	Rhythm Mobile
22.	Rambaya Mobile
23.	Vishal Mobile
24.	Mobile.com
25.	Omart Fashion
26.	Shree Bhairav Mobile Shop
27.	SSP Enterprise
28.	Om Mobiles
29.	Top-10
30.	Bahubali Mobiles

Source: Data collected from primary source through questionnaire method.

Interpretation

In Above table, the names of Smartphone shops, which are located in the Nallasopara region.

12.3 In this table and Figure we will see where The respondents' shops are Located in the Nallasopara region.

Table No. 12.3

Location of the Shops in Nallasopara	No. of Respondents	Percentage
Nalasopara East	13	43.3%
Nallasopara East	4	13.3%
Nalasopara east	2	6.7%
Achole road surya kirti nagar	1	3.3%
Nallasopara west	1	3.3%
Nallasopara (E)	1	3.3%
Nallasopara e	1	3.3%
Nallasopara east Santosh Bhavan	1	3.3%
Nallasopara east station road	1	3.3%
Nallasopara(east)	1	3.3%
Nallasopara east	1	3.3%
Station road	1	3.3%
Nalasopara east	1	3.3%
Virar	1	3.3%

Source: Data collected from primary source through questionnaire method.

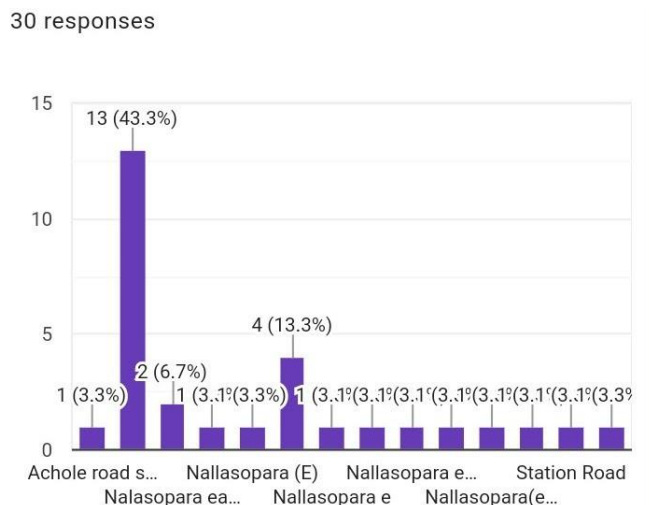


Figure no. 12.3

Interpretation

According to above table and figure 43.3% respondents' shops are Located at Nalasopara East, 13.3% shops are Located at Nallasopara East, 6.7% shops are Located at Nallasopara east, 3.3% Shop located at Achole road surya kirti nagar, 3.3% Shop located at Nallasopara west, 3.3% shop located at Nallasopara (E), 3.3% shop located at Nallasopara e, 3.3% shop located at Nallasopara east, 3.3% shop located at Nallasopara east Santosh Bhavan, 3.3% shop located at Nallasopara east station road, 3.3% shop located at Nallasopara(east), 3.3% shop located at Nallasopara east, 3.3% shop located at Station road, 3.3% shop located at Virar in the Nallasopara region.

12.4 In this table and figure we will see Sales of smartphones have increased due to the transmission of online education during the pandemic lockdown.

Table no. 12.4

	No. of Respondents	Percentage of Respondents
Strongly Agree	21	70%
Strongly Disagree	01	3.3%
Agree	08	26.7%
Disagree	00	0%

Source: Data collected from primary source through questionnaire method.

30 responses

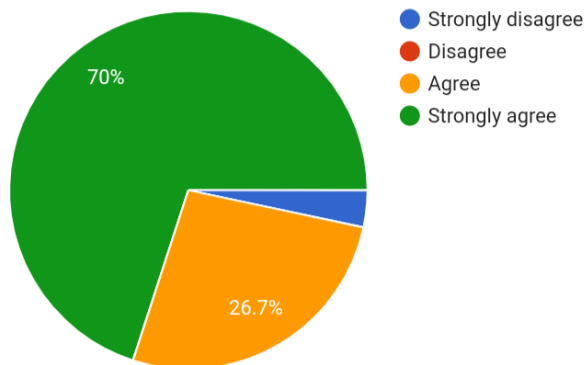


Figure No 4

Interpretation

According to the above table and Figure 70% Smartphone Shopkeepers are Strongly agree that the sales of smartphones have increased due to the transmission of online education during the pandemic lockdown, 26.7% Smartphone Shopkeepers agree and 0.3% are Strongly disagree. According to 0.3% Shopkeepers

Sales of smartphones have not increased after the transmission of online education during the pandemic lockdown.

12.5 In this table and figure we will see Highly featured phones are demanded by the customers during the pandemic lockdown.

Table no. 12.5

	No. of Respondents	Percentage of Respondents
Strongly Agree	02	6.7%
Strongly Disagree	00	0%
Agree	23	76.7%
Disagree	05	16.7%

Source: Data collected from primary source through questionnaire method.

30 responses

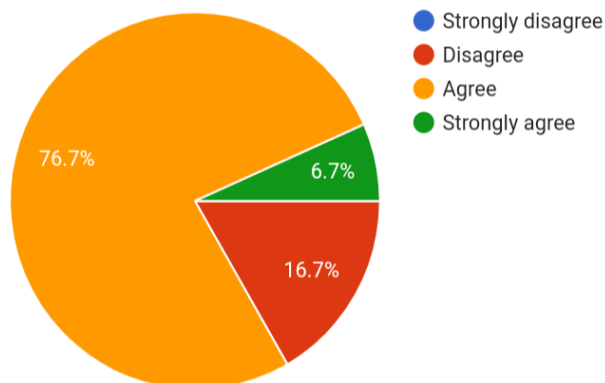


Figure No. 12.5

Interpretation

According to the above Table and Figure 76.7% Smartphone shopkeepers are Agree that the Highly featured phones are demanded by the customers during the pandemic lockdown, 6.7% Smartphone Shopkeepers are Strongly agree and 16.7% Smartphone shopkeepers Disagree. According to 16.7% Shopkeepers Highly featured phones are not demanded by the customers during the pandemic lockdown.

12.6 In this table and figure we will see How much money people are ready to spend on the purchase of smartphones during the pandemic lockdown.

Table No. 12.6

Price Range	No. of Respondents	Percentage of Respondents
5,000-10,000	01	3.3%
10,000-15,000	29	96.7%
15,000-20,000	00	0%
Above	00	0%

Source: Data collected from primary source through questionnaire method.

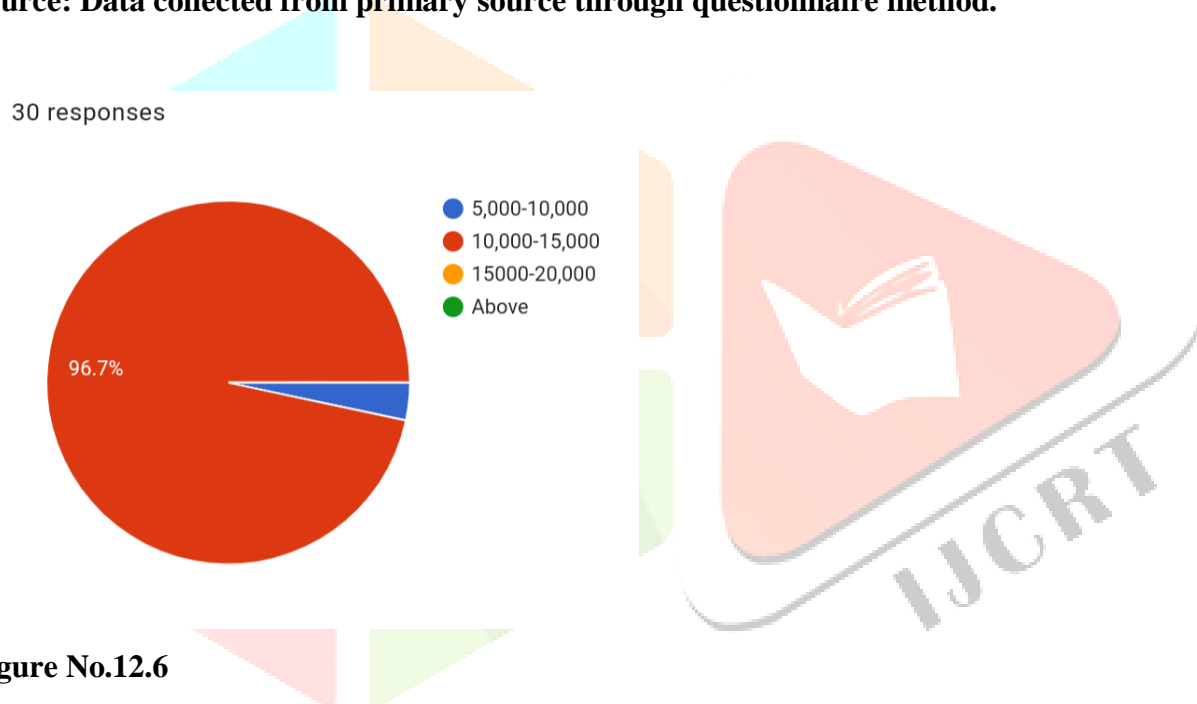


Figure No.12.6

Interpretation

According to the above table and figure 96.7% Customers are ready to spend 10,000 - 15,000 on the purchase of smartphones during the pandemic lockdown and 3.3% Customers are ready to spend 5,000-10, 000 on the purchase of smartphones during the pandemic lockdown.

12.7 In this table and figure we will see that the Which brand phone is highly demanded by the customers during the pandemic lockdown.

Table No. 12.7

Brands	No. of Respondents	Percentage of Respondents
Oppo & Vivo	29	96.7%
Samsung	00	0%
One Plus	01	3.3%
Other	00	0%

Source: Data collected from primary source through questionnaire method.

30 responses

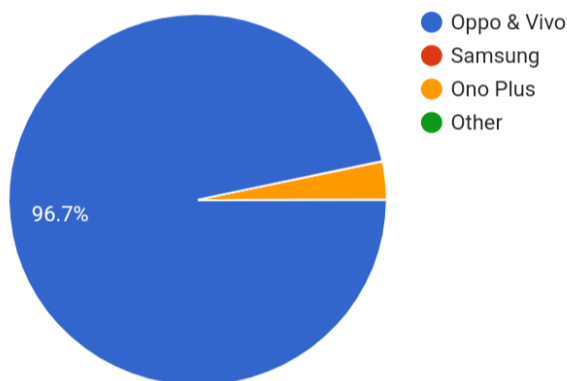


Figure No. 12.7

Interpretation

According to the above table and Figure, Oppo and Vivo brand phones are highly demanded by the customers during the pandemic lockdown i.e. 96.7% and 3.3% One Plus Brand phones are demanded by the customers during the pandemic lockdown.

12.8 In this table and figure we will see The percentage of sales increment During the pandemic lockdown after the transmission of Online education.

Table No. 12.8

Percentage of Sales Increment	No. of Respondents	Percentage of Respondents
10%-20%	01	3.3%
21%-30%	09	30%
31%-40%	20	66.7%
41%-50%	00	0%

Source: Data collected from primary source through questionnaire method.

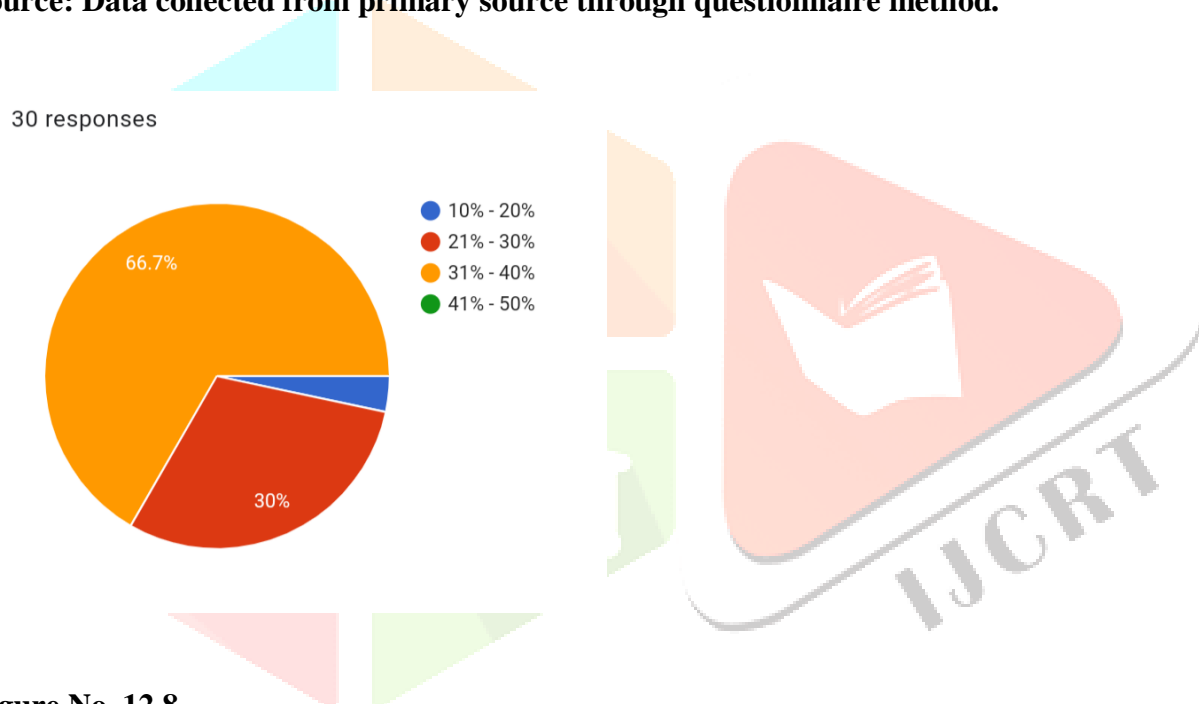


Figure No. 12.8

Interpretation

According to the above table and figure 66.7% Smartphone shopkeepers responded that the 31%-40% Sales increased During the pandemic lockdown after the transmission of Online education . According to 30% Smartphone shopkeepers the sales increased by 21%-30% and according to 3.3 % Smartphone Shopkeepers responded that the sales increased by 10% - 20% During the pandemic lockdown after the transmission of Online education.

12.9 In this table and Figure we will see Which brand phone had the lowest demand.

Table No. 12.9

Brands	No. of Respondents	Percentage of Respondents
Xiaomi	13	43.3%
Nokia	17	56.7%
Motorola	00	0%
I Phone	00	0%

Source: Data collected from primary source through questionnaire method.

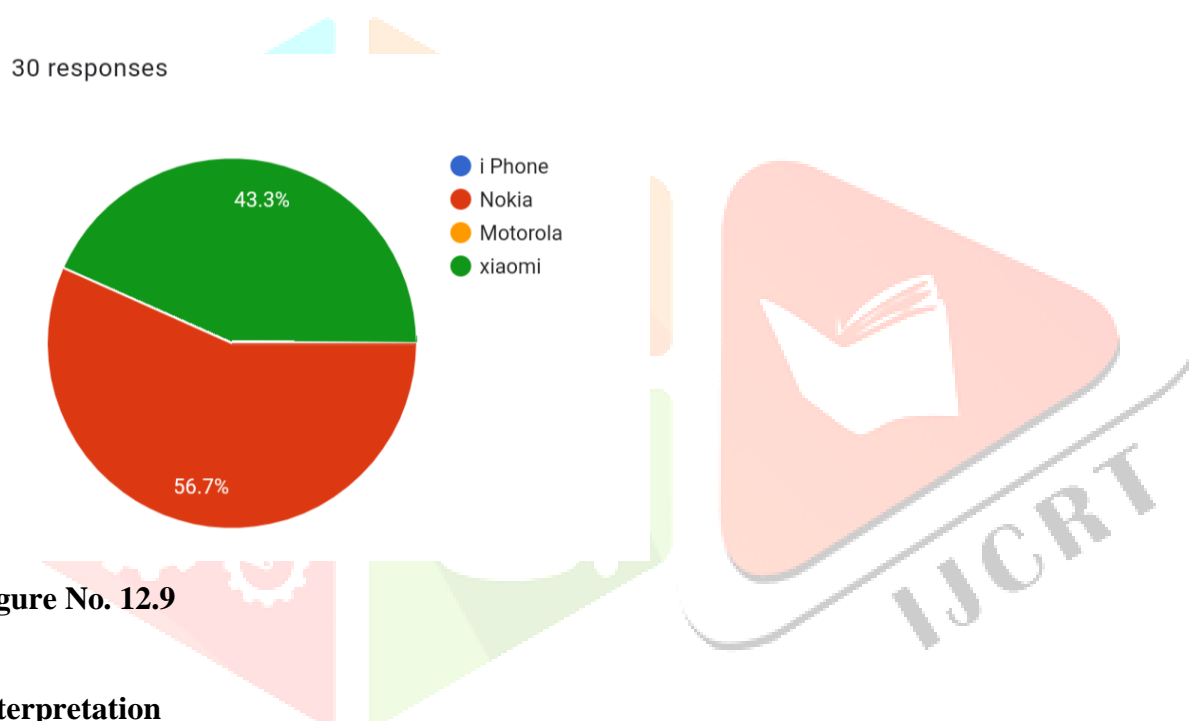


Figure No. 12.9

Interpretation

According to the above table and Figure Nokia brand phone had the lowest demand that is responded by 56.7% Smartphone shopkeepers and the 2nd lowest demanded phone brand is Xiaomi and it responded by 43.3% Smartphone shopkeepers.

12.10 In this table and figure we will see In which month the lockdown smartphone was highly demanded.

Table No. 12.10

Month	No. of Respondents	Percentage
April	3	10%
May	18	60%
May	1	3.3%
April-may-june	1	3.3%
June	2	6.7%
June	1	3.3%
3 july 2020	1	3.3%
Fab	1	3.3%
February	1	3.3%
March	1	3.3%

Source: Data collected from primary source through questionnaire method.

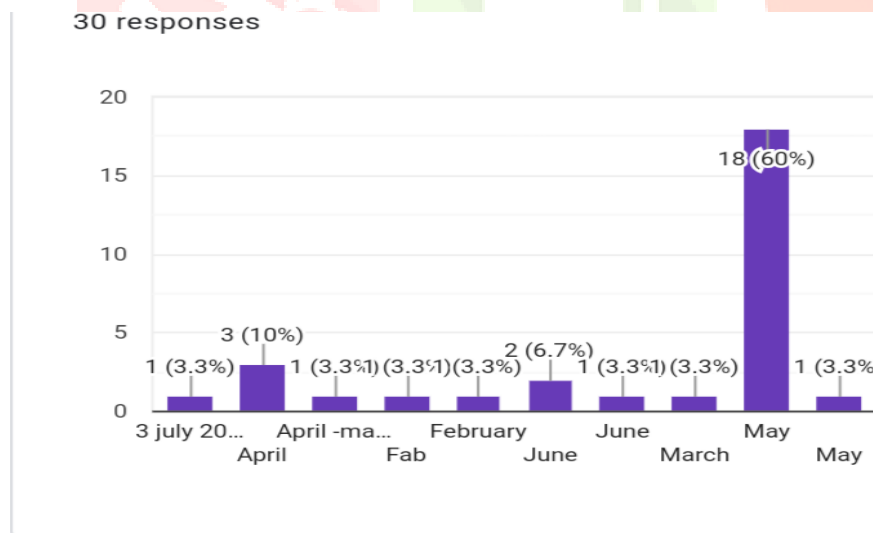


Figure No. 12.10

Interpretation

According to the above table and Figure, at the May month of lockdown, smartphones were highly demanded by the Customers i. e. 60% which is responded by 18 shopkeepers. After that, The 2nd month in which the demand for smartphones was high, is April i.e. 10% and responded by 3 Smartphone shopkeepers.

12.11 In this table and figure we will see At which month of lockdown the demand for smartphones is low.

Table No. 12.11

Month	No. of Respondents	Percentage
10th june 2020	1	3.3%
July	2	6.7%
December	2	6.7%
Starting jan	1	3.3%
January	7	23.3%
Fab	2	6.7%
Feb	3	10%
Fabe	1	3.3%
February	8	26.7%
Feb	1	3.3%
March	1	3.3%
Lava(April)	1	3.3%

Source: Data collected from primary source through questionnaire method.

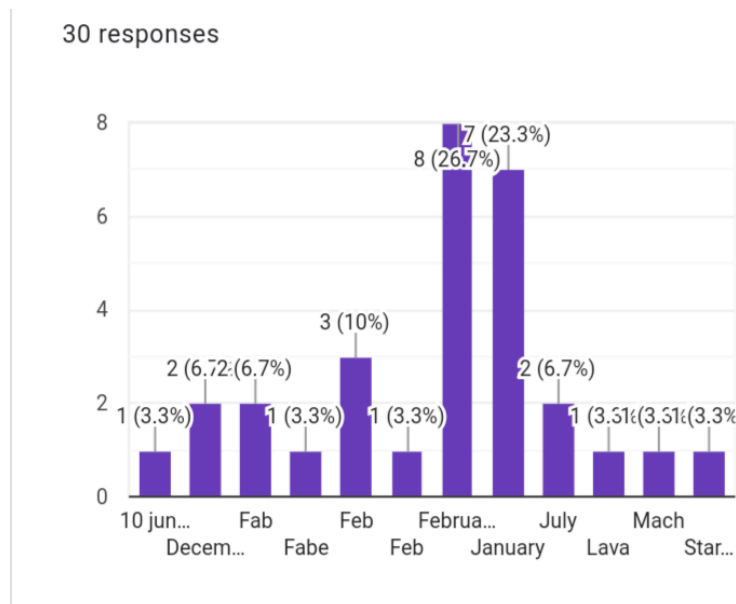


Figure No. 12.11

Interpretation

According to the above table and Figure, the demand of smartphones was Very low at February month of lockdown I.e. 26.7% responded by 8 smartphone shopkeepers. After that the demand of smartphones was low at January month of lockdown I. e 23.3% responded by 7 Smartphone Shopkeepers.

12. In this table and figure we will see What are the preferred payment methods of consumers while buying the Smartphone during the lockdown.

Table No. 12.12

Preferred Payment Method	No. of Respondents	Percentage of Respondents
Cash	21	70%
Credit Card	06	20%
Debit Card	03	10%

Source: Data collected from primary source through questionnaire method.

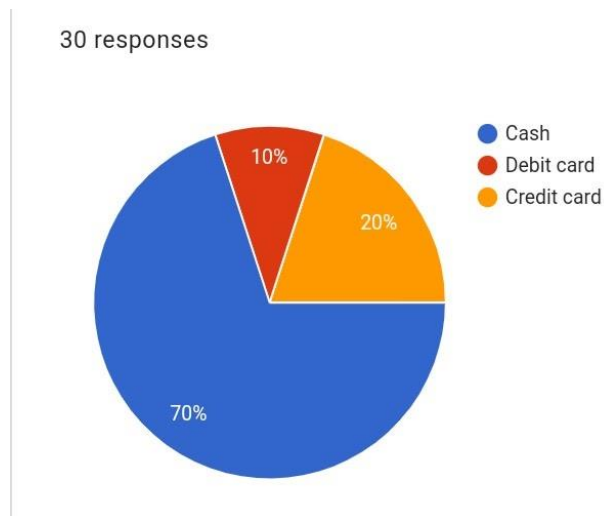


Figure No. 12.12

Interpretation

According to the above table and Figure Cash is the most preferred payment methods of consumers while buying the Smartphone during the lockdown I.e. 70% responded by 21 Smartphone Shopkeepers. The 2nd most preferred payment methods of consumers while buying the Smartphone during the lockdown is Credit card i.e 20% responded by 6 Smartphone shopkeepers.

12.13 In this table and figure we will see Which body type Smartphone customers were likely to buy.

Table No. 12.13

Body Type	No. of Respondents	Percentage of Respondents
Slim Body	30	100%
Heavy Body	00	0%

Source: Data collected from primary source through questionnaire method.

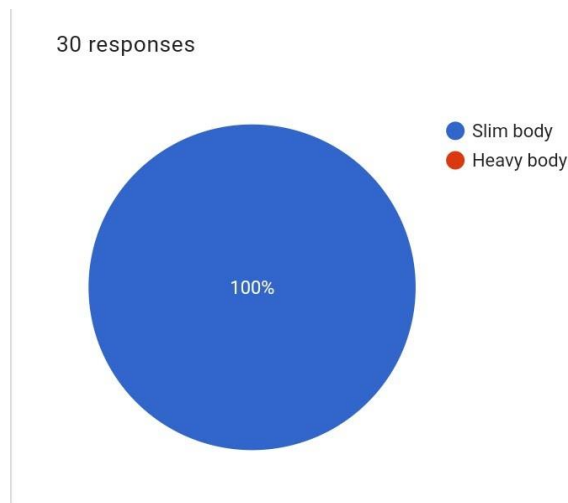


Figure No. 12.13

Interpretation

According to the above table and Figure Slim body type, Smartphone customers are likely to buy i.e. 100% responded by 30 Smartphone Shopkeepers.

12.14 In this Table and Figure we will see that Was there any colour priority, customers were having.

Table No. 12.14

Colour Priority	No. of Respondents	Percentage of Respondents
Yes	29	96.7%
No	01	3.3%

Source: Data collected from primary source through questionnaire method.

30 responses

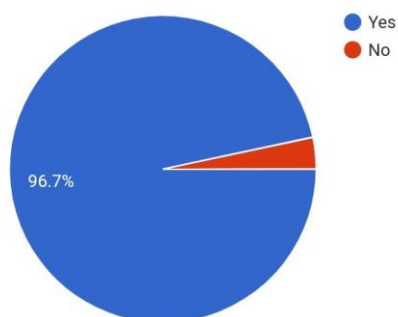


Figure No. 12.14

Interpretation

According to the above table and figure customers were having colour priority while buying the smartphones during the pandemic lockdown i.e. 96.7% responded by 29 Smartphones shopkeepers.

12.15 In this table and figure we will see whether or not Smartphone Shopkeepers have faced problems while supplying the phone in Covid-19 pandemic lockdown.

Table No. 12.15

Problem Faced	No. of Respondents	Percentage of Respondents
Yes	29	96.7%
No	01	3.3%

Source: Data collected from primary source through questionnaire method.

30 responses

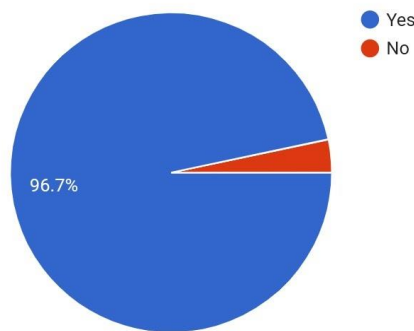


Figure No. 12.15

Interpretation

According to the above table and figure Smartphones Shopkeepers have faced problems while supplying the phone in Covid-19 pandemic lockdown, i.e. 96.7%, responded by 29 smartphones Shopkeepers.

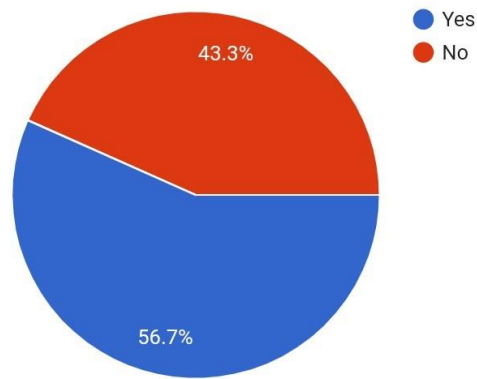
12.16 In this Table and figure we will see that Smartphones shopkeepers have given any discount to their customers or not during pandemic lockdown

Table No. 12.16

Discount Given	No. of Respondents	Percentage of Respondents
Yes	17	56.7%
No	13	43.3%

Source: Data collected from primary source through questionnaire method.

30 responses

**Figure No. 12.16****Interpretation**

According to the above table and figure 56.7% Smartphones shopkeepers have given discounts to their customers during pandemic lockdown and 43.3% Smartphones shopkeepers have not given discounts to their customers during pandemic lockdown.

12.17 In this table and figure we will see that How Smartphone shopkeepers supplied phones to their customers during the pandemic lockdown.

Table No. 12.17

Delivery Method	No. of Respondents	Percentage of Respondents
Home Delivery	30	100%
Consumers come at home	00	0%
Other	00	0%

Source: Data collected from primary source through questionnaire method.

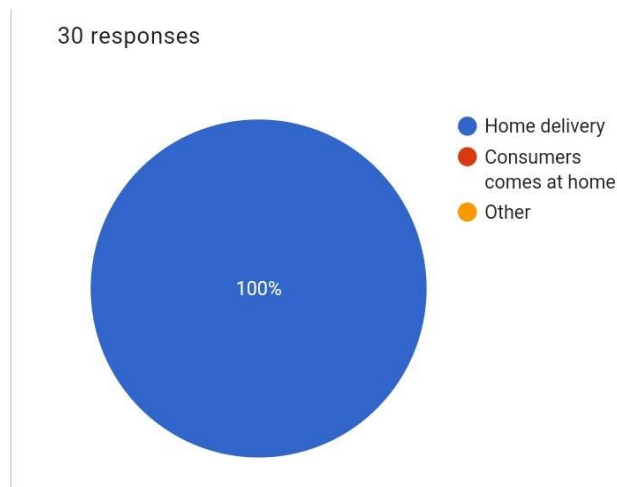


Figure No. 12.17

Interpretation

According to the above table and figure Smartphone shopkeepers supplied phones to their customers during pandemic lockdown through Home delivery option i.e 100% Home Delivery, responded by 30 smartphone Shopkeepers.

12.18 In this table and figure we will see that Did Smartphone Shopkeepers charge for home delivery during the pandemic lockdown.

Table No. 12.18

Charged for Home Delivery	No. of Respondents	Percentage of Respondents
Yes	08	26.7%
No	22	73.3%

Source: Data collected from primary source through questionnaire method.

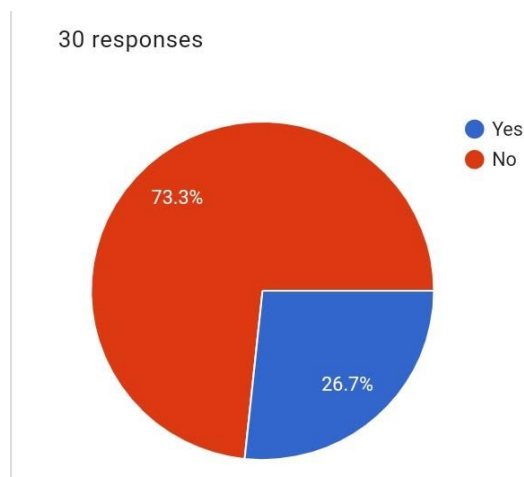


Figure No. 12.18

Interpretation

According to the above table and Figure 73.3% Smartphone Shopkeepers have charged and 26.7% Smartphone Shopkeepers have not charged for home delivery during the pandemic lockdown.

12.19 In this table and figure we will see that consumers are ready to purchase any smartphone during pandemic lockdown due to transmission of online education.

Table No. 12.19

Smartphones Priority	Brand	No. of Respondents	Percentage of Respondents
Yes		26	86.7%
No		04	3.3%

Source: Data collected from primary source through questionnaire method.

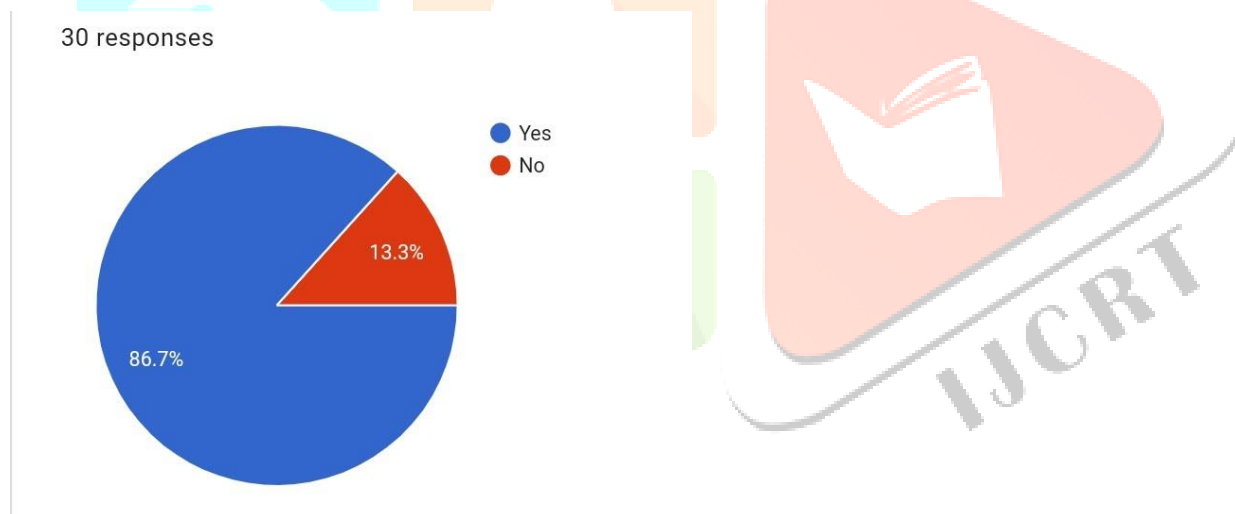


Figure No. 12.19

Interpretation

According to the above table and figure 86.7% shopkeepers have responded that customers are ready to purchase any smartphone and according to 13.3 % smartphone Shopkeeper customers are specific about the Purchase of Smartphone during pandemic lockdown due to transmission of online education.

12.20 Now we will see how Smartphone Shopkeepers managed the logistic supply when it was a complete lockdown.

Most of the Smartphones shopkeepers are saying that they obviously faced managing logistic supply from suppliers to the customers. It was a tough time for all the agencies involved in production, supply and sales of Smartphones so the Retailers were selling the old stock only and they were not receiving any fresh supply from wholesalers. One common problem that was faced from all the shopkeepers is the Deployment of Police for enforcing complete lockdown yet some shopkeepers managed to sell their smartphones. They deliver the smartphone by bike or by reaching the customers in person secretly and hiding from Police.

13. CONCLUSIONS:

After analysis and interpretation of the data following are the Conclusions.

- 70% Respondents are Strongly agree that the Sales of smartphones have increased due to the transmission of online education during the pandemic lockdown.
- 76.7% Respondents are Agree that the Highly featured phones are demanded by the customers.
- According to Respondents 96.7% Customers are ready to spend 10,000 - 15,000 on the purchase of smartphones during the pandemic lockdown.
- Oppo and Vivo brand phones are highly demanded by the customers during the pandemic lockdown i.e. 96.7%
- 66.7% Smartphones shopkeepers responded that the 31%-40% Sales increased

During the pandemic lockdown after the transmission of Online education

- Nokia brand phones had the lowest demand and the 2nd lowest demanded phone brand is Xiaomi.
- At the May month of lockdown, smartphones were highly demanded by the Customers
- The demand for smartphones was Very low in the February month of lockdown.
- Cash is the most preferred payment method of consumers while buying the Smartphone during the lockdown.
- Slim body type, Smartphone customers are likely to buy.
- Smartphones Shopkeepers have faced problems while supplying the phone in Covid-19 pandemic lockdown.

- 56.7% Smartphones shopkeepers have given discounts to their customers during pandemic lockdown and 43.3% Smartphones shopkeepers have not given discounts to their customers during pandemic lockdown. Smartphone shopkeepers supplied phones to their customers during pandemic lockdown through Home delivery option
- 73.3% Smartphone Shopkeepers have charged and 26.7% Smartphone Shopkeepers have not charged for home delivery during the pandemic lockdown.
- 86.7% shopkeepers have responded that customers are ready to purchase any smartphone and according to 13.3 % smartphone Shopkeeper customers are specific about the Purchase of Smartphone during pandemic lockdown due to transmission of online education.
- Most of the Respondents are saying that they faced Problems while managing logistic supply from suppliers to the customers. It was a tough time for all the agencies involved in production, supply and sales of Smartphones so the retailers were selling the old stock only and they were not receiving any fresh supply from wholesalers. One common problem that was faced from all the shopkeepers is the Deployment of Police for enforcing complete lockdown yet some shopkeepers managed to sell their smartphones. They deliver the smartphone by bike or by reaching the customers in person secretly and hiding from the Police.

14. REFERENCE:

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