Topic:- To Study And Analyze Smartphone Market Disruption With The Rollout Of 5G Networks In India

Author: Aniket Shiledar

University: Sri Balaji University Pune

Country: India

State: Maharashtra

1. Abstract

Smartphones are one of the important forms of gadget to boost the digital revolution in India. Smartphone sales have increased excessively over the last decade, both in terms volume and value. India is the second largest smartphone market globally, next only to china. In today's digital world smartphones have established themselves as the essential need of human life. Smartphones have differentiated themselves in both personal and professional life of human beings. Many researchers have carried out research on various aspects of smartphones such as penetration strategies, market analysis, risk factors and consumer behavior towards certain aspects of smartphones. Similarly, this research will focus on disruption of smartphone market with the roll out of 5G networks and 5G handsets. In this research we will be also studying the buying behavior of customers with the rollout of 5G enabled handsets and technology. Will the Indian customers consider 5G as a decision-making factor in purchasing a smartphone or will they stick with the 4G handsets is what we are going to cover in this research. The purpose of this research is to study the overall smartphone market with strong emphasis towards buying behavior of customers with the roll out of 5G enabled handsets and how this 5G technology is affecting the buying behavior of Indian customers when they purchase a new smartphone. The research design consists of using both primary as well as secondary data. Collection of primary data is done with the help of effective and efficient questionnaire. Secondary data is collected from various technology-based articles and websites. After collecting and analyzing data from the respondents we have calculated the overall responses with the help of statistical tools. After interpretation of statistical data, we have concluded the overall buying behavior of customers towards 5G smartphone market and how 5G has become one of the important parameters in choosing next smartphone.

Key words: -5G, smartphones, technology, digital world.

2. Introduction

Smartphones have become an essential part of human life. Smartphones are not just a source of communication but also one of the medium to connect to a digital world. Smartphones are used for personal as well as for professional use. Smartphones are trying to replace existing computers because of its compactness, ease of access and various other features which a computer can't perform but a smartphone can. Customer preference for smartphone devices is changing every day, with the evolving technology smartphones are getting more powerful and more feature packed which satisfies all the requirements of human beings. With the ever-evolving smartphone market we cannot find a way to live without a smartphone. The growing smartphone

market is one of the important factors for increasing the economic growth for developed and developing markets. If we consider Indian smartphone market, Indian smartphone market ranks 2nd in term of handset shipments and has already surpassed U.S. Various smartphone manufacturers have started setting their manufacturing plants in India in order to provide these devices at a cheaper rate to the consumer. India being 2nd global smartphone hub has already shipped 158 million smartphones in 2019 and trailing behind China which is a market leader in terms of smartphone shipments. Indian consumers are price sensitive; they often consider price as an important factor over any other feature. If we consider the shipments of 2019, Xiaomi topped the shipment chart followed by Samsung and Vivo. Chinese smartphone manufacturers market share hit a record 72% for 2019 compared to 60% as that of 2018. 2020 is often considered as start of 5G revolution, many countries such as U.S, South Korea, Germany and U.K have rolled out 5G services. In India there is no sign of 5G yet, the 5G auctions have been delayed till early 2021. It is estimated that in the initial years of 5G roll out the 5G services are going to be expensive, device migration is to be expected with the inclusion of 5G services. Various smartphone manufacturers such as IQOO, Realme and Oneplus have launched 5G smartphones in India. Considering the initial price of 5G equipment and smartphones they fall into premium price category. With the inclusion of 5G handset there will be disruption in smartphone market and may even alter the buying behaviour of Indian customers. Some users have a tendency to be future proof and upgrade phones after two or three years, for such users it is beneficial to buy a 5G product. Hence, it is critical and substantial to study mind-set of Indian consumers before launching a smartphone in India

3. Research Problem

- The impact of 5G on smartphone market in India is not studied properly
- Introduction of 5G handsets is altering the overall buying behaviour of consumers
- Customers are not aware of 5G related technologies and services.
- No confirmation regarding 5G rollout in India.
- Is it beneficial to launch 5G smartphones even though there is no rollout of 5G technology is a matter of concern.
- How much are consumers willing to pay for 5G services is yet to be known.

4. Objectives

1. To study the overall buying behaviour of consumers with the pre-mature launch of 5G centric smartphones in India.

5. Hypothesis

H0 – The introduction of 5G smartphones in the market will not disrupt the buying behaviour of consumers

H1 – The introduction of 5G smartphones will disrupt the buying behaviour of consumers

6. Literature Review

In 2019 India has dethroned USA to become the second largest smartphone market in the world only after China, which is currently the number one smartphone market in the world. Considering the shipments of 2019, India had shipped around 158 million smartphones with Xiaomi and Vivo leading the smartphone race in India. Various factors affect the buying decision of the consumers; these factors can be brand promotions which lure the customers into buying a specific product; another factor can be customer reviews or the reviews published on the internet by various experts which can ease smartphone buying decisions. The aggressive inclusion of Chinese smartphone manufacturers with effective pricing and marketing strategies led to many top tier smartphone manufacturers such as HTC and Sony to exit the Indian smartphone market. Chinese smartphone manufacturers are providing flagship grade features at a nominal price to Indian consumers. India being a price sensitive market, most of the customers in India tends to purchase mid-range smartphones rather than buying a top tier full-fledged flagship. Industry experts have stated that it will take at least four to five years to fill the gap or to dethrone China In terms of smartphone shipments. Fifth generation of mobile communication or 5G promises advancement in digital revolution and the tech world is getting ready for it, tech infrastructure majors such as Ericsson, Samsung, Nokia and Huawei are set to rollout 5G equipment for cellular operators. The Indian Government announced that 5G auctions have been delayed till end of 2020 or early 2021, so expect that India will be 5G ready in mid-2021, but these are just assumptions, telecom giants such as Airtel and Vodafone-Idea are facing tremendous financial crunch, by the initial assumptions we can consider that only Jio is ready to enter into 5G auction. In the US, Verizon, one of the telecom service providers has already launched 5G on trial basis, another US telecom service providers Sprint and T-Mobile have started to rollout 5G services. South Korea became the second country to rollout 5G services in select cities including Seoul in December 2019, many technology experts believe that till mid 2020 5G will roll out in Japan, UK and possibly China. This could possibly be the reason that Apple is gearing up to launch 5G enabled phone in 2020, if we consider other smartphone manufacturing companies, Samsung has already launched S10 5G in South Korea and now they have launched S20 5G series globally excluding India where they have launched the 4G variant. Oneplus has confirmed that from 2020 onwards all their smartphones will be 5G enabled. If we consider Indian smartphone market, India is yet to launch 5G services and still various smartphone manufactures have launched 5G smartphones in India, these smartphone manufacturers are promoting 5G related features in such a way that consumers are getting lured in buying those smartphones. If we compare 4G and 5G, when 4G was initially lunched it was cheap, even the 4G smartphones were cheap but this is not the case in 5G. 5G smartphones are expensive, not because they are 5G enabled but the fact that 5G components are expensive hence, these 5G enabled smartphones fall into premium price tag. In India majority of the smartphone consumers prefer mid-range smartphone (ranging from Rs10000 to 20000) rather than buying a flagship device and considering the fact these 5G smartphones fall into premium price category, will the Indian consumer buy 5G smartphones is a matter of concern. Hence in this research we will study whether Indian Consumers would buy 4G smartphones or will they purchase 5G smartphones and make 4G smartphones obsolete.

Prasad S. (2016) conducted a research in which he stated that young age group of 20-35 years (91.75%) and is mostly students and executives have purchased android smartphones which clearly shows customers are more comfortable in buying smartphones with android os rather than iOS and windows os. In factor analysis it was concluded that there are three most important factor in purchasing any smartphone in India, first one is the service provided by the brand that is

nothing but amount of service centers in nearby locality, brand name and network technology; second factor is nothing but the physical appearance of the device which comprises of durability, screen size and weight; third factor comprises of hardware design and features, cost associated with the device and camera quality.

Department of Telecommunications (DOT) (ETTelecom 2020) have revealed that The Department of Telecommunications are likely to push the spectrum auction to October-December quarter of current fiscal year due to corona virus (Covid19) pandemic, if the situation gets more severe the auction may get delayed till first half of 2021. Initially this auction was scheduled in July 2020 but had to be delayed due to on-going pandemic. The government is planning to auction 8303.05 MHz of 4G and 5G spectrum which will raise around 5.23 lakh crore even after selling these airwaves at their base price.

Rounak Jain(Business Insider 2020) conducted a research where he stated that 5G is aimed at providing reliable, high speed connection to end users, if there is no 5G ecosystem in our country what is the point to own a 5G enabled device, if a user wants to be future proof then we can consider it but for current scenario we cannot recommend 5G enabled devices.

Jasmeet Singh Sethi (BGR.IN 2020) conducted a research where he mentioned to not expect 5G to be cheap, infrastructure is going to be different than on going technology and initially the 5G data plans are also going to be expensive as compared to 4G. In this report it was also mentioned that users will go through device migration after launch of 5G technology, users have to upgrade to a 5G enabled smart devices in order to access 5G services.

Brijendra Syngal (The Hindu Business Line 2020) conclude that in India 5G is still inexplicable, telecom service providers are going through tremendous financial crunch. There are numerous challenges in order to rollout and develop 5G based technologies; the most important challenge is fragmentation of current technology that is 4G to 5G technology. In this report it was also mentioned that merely eight countries in the world have around 80 per cent 4G penetration. Technologically advanced countries like Israel have refused to implement 5G technology because of hazardous 5G millimetre waves which are suspected to be dangerous for humans as well as animals.

91Mobiles (2019) conducted a survey in 2019 and the outcome of survey was two out of five Indian consumers replace their smartphones every twelve months. In this survey responses of over 15,000 users were taken into consideration and 78 per cent of users were planning to upgrade to new smartphones in coming months. The analysis was further divided by differentiating users by demographic factors such as age, gender and location, the outcome of this analysis was, men upgrade smartphones more frequently than women; Men generally consider pricier smartphone as compared to women; 80 per cent users use online channels to research and purchase their products; Women are likely to buy smartphones online as compared to men; Women care more about camera capability of smartphone as compared to men who prefer performance, benchmark scores, processor and durability of a smartphone.

The Steering Committee (2018) conducted a research where they stated that 5G will provide revolutionary and evolutionary services which might have a deep impact on Indian economy. In this research it was also concluded that 5G will be a bigger opportunity and will advance "Digital Revolution" in India. Considering Indian population if telecom majors rollout 5G services at cheaper rates then 5G technology will be an instant hit in the Indian market but the issue is Indian Government might not rollout 5G services cheaper at initial stage.

Dominic and Appiah (2019) conducted a research where they stated that in disruptive smartphone market, brand loyalty and customer satisfaction plays an important role in smartphone buying decision but the drawback of this research is, if we compare this research with Indian smartphone market then it is not viable as Indian consumers are price sensitive and consider price as an upmost factor in purchasing new smartphone rather than brand loyalty.

Prasid Banerjee (Livemint 2020) clearly indicated that Indian consumers should not include 5G as decision making factor in order to purchase a smartphone, applying 5G badge on smartphone is nothing but a marketing gimmick in order to increase the cost of the smartphone.

Rajat Kathuria and Mansi Kedia (2019) conducted a research where they stated that 4G was a driving force in India's smartphone industry as 4G was cheap and even manufacturers rolled out 4G smartphones at a cheaper price, but the drawback of this research is, it is only focused on 4G centric market and no assumptions on 5G technology is taken into consideration.

Hence after reviewing these articles and research papers we got an idea about the deployment of different technologies (2G 3G 4G) during different times and how the mobile phones were introduced into the market which could adapt to such technologies. 5G has been rolled out in a few countries and chances are it could be deployed in our country in the coming year or so. The research gap that we found out about was that there wasn't much mentioned about the 5G technology introduction and how it's introduction can have an impact on the mobile phone market.

My research aims at studying smartphone market disruption as well as customer mind-set and what are the decisions a customer takes into consideration when he plans to upgrade to a new smartphone, are customers ready to upgrade to a 5G smartphone? whether the smartphone market get disrupted with the launch of 5G devices and whether the 4G devices get obsolete with the launch of 5G smartphones is what we are going to study

7. Research Methodology

Research Design

Research is essential in any organization of the present world. Research helps us to identify consumer preference, consumer needs and consumer satisfaction level towards a specific brand or product. The feasibility of research is based on methodology adopted. The study is based on primary data which is collected with the help of questionnaire.

The research methodology deals with-

- Data collection
- Research techniques
- Analysis and interpretation

Sample size and sampling method-

Sampling is a method of selecting a suitable sample, or specific part of population. Sample size of 208 respondents is taken into consideration for this research. In this research it consists of random sampling as we have taken response of random customers.

Research design-

To find an appropriate answer to research question, a terminology framework named "Research Design" is created. In this research, Descriptive Research is used.

Statistical tools used-

Data analysis was carried out with the help of SPSS software. Chi Square using cross tab was used in analysis of variables for hypothesis and other key findings.

Data Collection Method

In this Paper, Researchers has used the Primary Data collected by structured Questionnaire mostly dichotomous questions and secondary data was collected from Internet, Magazines, Journals.

8. Analysis of Data

9.

Table 1: Case Processing Summary

		N	%
Cases	Valid	208	99.0
	Excluded ^a	2	1.0
	Total	210	100.0

a. Listwise deletion based on all variables in the procedure.

Table1.1: Reliability Statistics

	Cronbach's	
	Alpha Based on	
	Standardized	
Cronbach's Alpha	Items	N of Items
.861	.861	7

Cronbach's alpha is used to measure the internal consistency and reliability, that is, how closely the data is related as a set of items or a group. The above-mentioned coefficient for seven items is 0.861, indicating that the items have higher internal consistency

Correlations

		Are you aware of 5G handsets and its advantages	Are you aware of 5G technology	Would you consider 5G as a decision making factor for next smartphone	With the introduction of 5G smartphones the demand for 4G smartphones will get low?	If your next smartphone has two different models, 5G and 4G, which model will you buy?	Are you willing to pay a premium price for 5G smartphones ? Code
Are you aware of 5G	Pearson Correlation	1	.295**	.154*	.135	.152*	.186**
handsets and its advantages	Sig. (2-tailed)		.000	.026	.030	.029	.003
-	N	208	208	208	208	208	208
Are you aware of 5G	Pearson Correlation	.295**	1	.219**	.201**	.250**	.273**
technology	Sig. (2-tailed)	.000		.001	.004	.000	.000
	N	208	208	208	208	208	208
Would you consider 5G	Pearson Correlation	.154*	.219**	1	.098	.047	.122
as a décision making factor for your	Sig. (2-tailed)	.026	.001		.000	.498	.000
nextpurchase a smartphone?	N	208	208	208	208	208	208
With the introduction of	Pearson Correlation	.135	.201**	.098	1	.304**	.262**
5G smartphones the demand for 4G	Sig. (2-tailed)	.004	.004	.002		.000	.000
smartphones will get low	N	208	208	208	208	208	208
If your next smartphone	Pearson Correlation	.152*	.250**	.047	.304**	1	.430**
has two different models, 5G and 4G, which model	Sig. (2-tailed)	.029	.000	.498	.000		.000
will you buy?	N	208	208	208	208	208	208
Are you willing to pay a premium price for 5G	Pearson Correlation	.186**	.273**	.122	.262**	.430**	1
smartphones?	Sig. (2-tailed)	.007	.000	.003	.000	.000	
	N	208	208	208	208	208	208

From the above test, calculated value of Pearson correlation for all 6 variables is 0.295, 0.273, 0.122, 0.262, 0.430, 1 respectively and the Sig(2-tailed) is 0.000 while N = 208 is the total no of survey respondents. Based on the significant value obtained for all 6 variables, that is, 0.000 < 0.05. It can be concluded that all 6 variables are valid.

Table 2: On what parameters will you choose your next smartphone?

		Frequency	Per cent	Valid per cent	Cumulative per cent
Valid	Better features (Compared	37	17.6	17.8	17.8
Valid	to similar models from other	37	17.0	17.0	17.0
	brands)				
	Priced competitively	29	13.8	13.9	31.7
	(Compared to similar				
	models from other brands)				
	Online, print, media reviews	15	7.1	7.2	38.9
	Performance	26	12.4	12.5	51.4
	Build quality	13	6.2	6.3	57.7
	Battery life	8	3.8	3.8	61.5
	Camera	23	11.0	11.1	72.6
	5G enabled	57	27.1	27.4	100.0
	Total	208	99.0	100.0	
Missing	System	2	1.0		
Total		210	100.0		

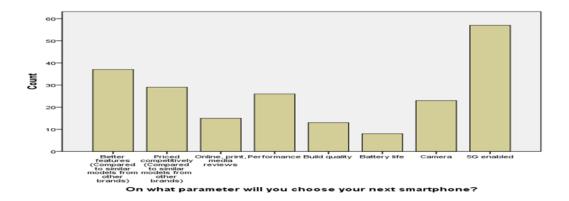


Table 2 consist of all the important parameters which are to be considered when user tends to buy a new smartphone. By calculating the frequencies of all the parameters, the highest frequency calculated is 57, this value corresponds to "5G enabled". This calculated value clearly indicates that customers are more concerned regarding availability of 5G as the most dominant feature in their next smartphone

Table 3: Opinion of respondents to check whether they are ready to pay premium price for 5G smartphones?

		Are you willing to		
		Yes	No	Total
Annual family income	1 lakh- 5 lakhs	19	7	26
	5 lakhs- 10 lakhs	53	40	93
	>10 lakhs	66	23	89
Total		138	70	208

Table 3.1: Chi-Square Tests

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	Value	df	Asymp. Sig. (2-sided)			
Pearson Chi-Square	19.977ª	3	.003			
Likelihood Ratio	20.037	3	.000			
Linear-by-Linear	7.992	1	.005			
Association						
N of Valid Cases	208					

Table 3 represents whether the customers are willing to pay a premium price for 5G smartphones. Out of 208 respondents 138 are ready to pay premium price for 5G smartphones and ready to avail 5G benefits. In table 3.1 the value of chi square (.037) is less than p value of chi square (.05) hence we reject null hypothesis and conclude that demand for 5G smartphones is increasing while demand for 4G smartphones is decreasing.

Table 4: Opinion of respondents whether they are aware of 5G enabled handsets and its advantages.

nandsets and its advantages.							
		Do you have a Enabled" han advan					
		Yes	No	Total			
Age	18-25	82	24	106			
	35 and above	10	16	26			
	Below 18	13	15	28			
	26-35	28	20	48			
Total		133	75	208			

Table 4.1 Chi-Square Tests

_			
L	Value	df	Asymp. Sig. (2-sided)
	19.977a	3	.008
	20.037	3	.000
	7.992	1	.005
	208		

Table 4 consists of various age groups followed by respondents that may or may not have knowledge regarding 5G handsets and its advantages. Out of 208 respondents 138 are aware of advantages related to 5G handsets. In table 4.1 the value of chi square (0.001) is less than p value (0.05) hence we conclude that maximum respondents are aware of advantages of buying a 5G enabled handsets.

Table 5: Opinion of respondents regarding demand for 5G smartphones.

		Do you think with of 5G smartphor for 4G smartphor	nes the demand	
		Yes	No	Total
Gender	Male	111	25	136
	Female	49	23	72
Total		160	48	208

Table 5.1 Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12.762ª	2	.002
Likelihood Ratio	13.726	2	.001
Linear-by-Linear	6.022	1	.014
Association			
N of Valid Cases	208		

Table 5 represents gender followed by respondents which consider 5G smartphones over 4G smartphones or vice versa. 160 respondents out of 208 think that with the introduction of 5G smartphones the demand for 4G smartphones will get low. Table 5.1 clearly indicates the value of chi square (0.027) is less than p value (0.05). Hence, we reject the null hypothesis and accept the alternate hypothesis which states that with the launch of 5G smartphones there will be disruption in buying behaviour of customers in smartphone market.

Table 6: Opinion of respondents regarding smartphone preference

		If the smartphor buy has two dif 5G enabled and only 4G, which bu	fferent models, d the other with model will you	
		5G	4G	Total
Age Code	18-25	97	9	106
	35 and above	20	6	26
	Below 18	22	6	28
	26-35	37 11		48
Total		176	32	208

Table 6.1: Chi-Square Tests

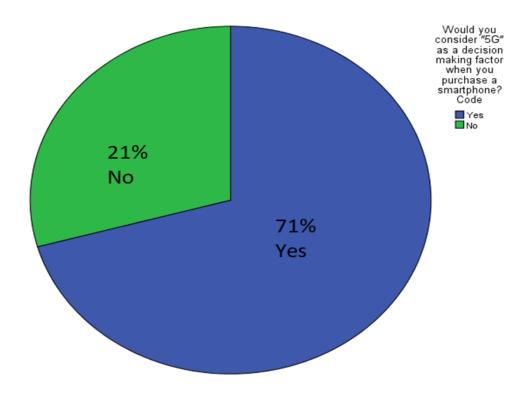
	Value	df	Asymp. Sig. (2-sided)		
Pearson Chi-Square	7.929a	3	.047		
Likelihood Ratio	8.132	3	.043		
Linear-by-Linear	6.207	1	.013		
Association					
N of Valid Cases	208				

Table 6 indicates if customers are given preference amongst 4G and 5G models of same handsets then customers would prefer 5G handsets over 4G handsets. Table 6.1 shows the value of chi square (0.047) is less than p value (0.05). Hence, we reject null hypothesis and accept alternate hypothesis. With the help of above statistical testing we can conclude that with the introduction of 5G smartphones there is disruption in buying behaviour of consumers.

Additional Insights

Table 7: Opinion of respondents whether they consider 5G as a decision-making factor

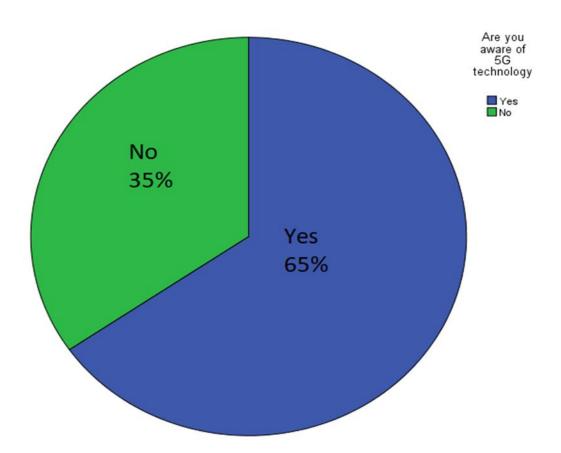
	Would you consider "5G" as a decision-making factor when you purchase a smartphone?		
	Yes	No	Total
Number of respondents	147	61	208
Total			



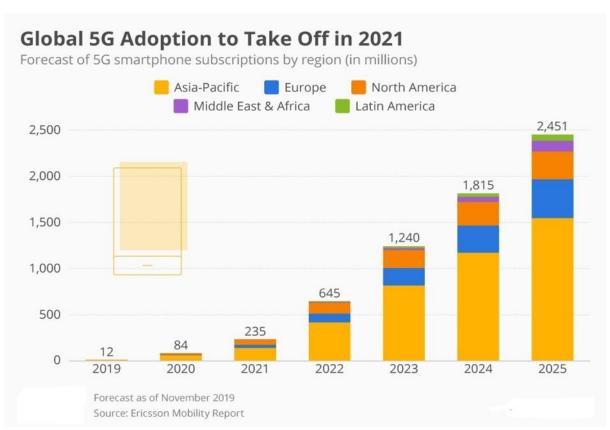
If we consider the above statistical data, out of 208 respondents 147 consider 5G as a decision-making factor in their next smartphone purchase. 71% respondents are ready to enter 5G bandwagon.

Table 8: Opinion of respondents towards awareness of 5G technology

	Are you aware of 5G technology		
	Yes	No	Total
Number of respondents	136	72	208



According to table 8 which is related to customer awareness towards 5G technology, out of 208 respondents 136 are aware of 5G technology which clearly indicates customers are getting technologically as well as digitally advanced towards 5G.



Ericsson mobility report represents the overall adaption rate of 5G smartphones in various countries. According to this report Asia Pacific regions have a stronghold in terms of 5G, South Korea is considered as the market leader in terms of 5G penetration and adaptivity followed by United States and Europe. In this report it is predicted that, by 2025 there will be around 2451 million 5G smartphone users globally

JIO'S CONTRIBUTION TOWARDS 5G ROLLOUT

- Jio's recent announcement towards 5G commitments will attract more customers to buy 5G enabled handsets.
- Jio is said to have an efficient end-to-end 5G solution that is ready for deployment once the 5G auction is complete.
- Qualcomm has invested in Jio platforms to strengthen the 5G infrastructure in India.
- Additionally, with Google investing in Jio platforms, Jio plans to manufacture cheaper 5G smartphones with optimized version of Android.
- Jio also plans on exporting 5G solution to other telecom operators globally.
- According to Jio, 5G solution will be ready for trials as soon as 5G spectrum is available and can be ready for field deployment next year.

10. Findings

- Out of 208 respondents, 57 respondents considered "5G" as an important parameter for their next smartphone.
- India being a price sensitive market, almost 67% of the respondents are ready to pay a premium price for "5G" centric smartphones. As of now the "5G" enabled smartphones are a bit expensive in India.
- Around 64% of respondents are aware of advantages of buying a "5G" enabled handset.
- If we consider the initial demand for "5G" smartphones, around 77% of respondents think that with the launch of "5G" smartphones the demand for "4G" smartphones will get low.
- Around 65% of respondents are aware of "5G" technology and their advantage which is a good sign as lot of customers are getting technologically advanced.

11. Discussion

This research was carried out to check the overall buying behaviour of consumers with the launch of 5G centric smartphones in India. In this research we also realized whether customers are aware or do they have any knowledge regarding 5G technology. Earlier customers use to visit stores or took suggestions from family members before buying a new smartphone, but nowadays customers prefer online media content such as expert reviews, review articles from renowned tech-based websites and hands on experiences. In this research we concluded that even though most of the consumers own a midrange smartphone but with the launch of 5G smartphones and 5G technology, consumers are ready to pay a premium price to avail benefits of 5G technology. Nowadays smartphone manufacturers are launching a model in two variants such as 4G and 5G, but in online questionnaire when such questions were asked "whether you prefer 4G or 5G variant of the same model?", most of the respondents selected 5G which clearly indicates there is tremendous demand for 5G enabled smartphone. Other findings include the most dominant smartphone brand amongst the respondents in which Xiaomi and Samsung emerged victorious.

12. Suggestions and Future Scope

The demand for 5G smartphones has witnessed a tremendous uptake. As 5G technology advances In India the demand for 4G smartphones will become relatively less. 80% of smartphone sales comprises of mid-range handsets, hence smartphone manufacturers should start selling 5G centric smartphones in mid-range category to boost sales of 5G smartphones. In this research paper we took random respondents hence random sampling was taken into consideration. Due to random sampling the data collected is quite vague. If the researcher wants to further elaborate ideas on this thesis, he/she may consider specific group of respondents in order to get accurate results. In this way the researcher can use convenient sampling to get more insights from the research. As of now there are no 5G services in India, in future when 5G is readily available in India the researcher can focus on measuring the impact of 5G on India's digital revolution and how it is affecting the lives of Indian consumers on daily basis. In future the researcher can also focus on the new strategies implemented by smartphone manufacturers with the launch of 5G services in India.

13. Conclusion

5G is considered as the next step to further enhance the digital revolution in India. In India 5G technology is still years away, yet many smartphone manufacturers are launching 5G enabled smartphones. Due to these strategies there's a disruption in ever booming smartphone market in India. It is expected that 5G auction will be in first half of 2021 with Jio as the only mainstream telecom service provider to participate in the 5G auction. Even though auctions will be held in 2021 we can expect the roll out of 5G services in phased manner. Initially 5G services will be expensive, a report published by economic times suggested

the cost of 5G services will be 30% more than 4G. Initially the cost of 5G smartphones is going to expensive. If we consider Indian smartphone market, majority of buyers fall into budget or midrange segment.

Online questionnaire helped us to gather various responses from the respondents. With the help of responses, we concluded the overall buying behaviour of Indian consumers towards roll out of 5G smartphones. Respondents are willing to avail the benefits of 5G enabled handsets and are ready to pay a premium price for it. There is a clear inclination towards 5G centric smartphones and respondents are aware of advantages of 5G technology. If given an option between 4G and 5G handsets maximum number of respondents voted for 5G handsets which indicates the demand for 5G smartphones is rising. Even though there are no 5G services, yet there is an excess demand for 5G smartphones in India. Majority of the respondents are considering "5G" as a decision-making factor in their next smartphone which clearly indicates there's a disruption in smartphone market as demand for 4G smartphones is getting low while 5G enabled handsets will dominate the smartphone race in India.

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