



ORIGINAL RESEARCH PAPER

Commerce

A STUDY ON CUSTOMER SATISFACTION TOWARDS SMARTPHONE USERS

KEY WORDS: Smartphones, Customer Satisfaction, Communication, Technology

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ABSTRACT

Smart phones are getting smarter each day. In view of the rapid development, multi-functionality, ubiquity and connectivity of mobile devices, it offers a new and potentially powerful market for the Smartphone users. The objective of the study is to identify the brand of Smartphone preferred by the respondents, to analyse the satisfaction of the consumers towards Smartphone usage and to compare the satisfaction score among selected demographic variables. The sample size is 200 respondents. The statistical tools used in this study are Simple percentage, Descriptive analysis, Rank analysis, ANOVA, T-test and Regression analysis. The concept of customer satisfaction has attached much attention in recent years. Organizations that try to analyze this concept should begin with an understanding of various customer satisfaction models. They are living in world which is totally networked with the communication. With the advent of fast technology, the world has become a global village. With the click of small buttons on a computer one can easily get any information according to user needs and choice. Recent developments in mobile technologies have produced a new kind of device, a programmable mobile phone, the smart phone. Generally, smart phone users can program any application which is customized for needs. Furthermore, they can share these applications in online market. Therefore, smart phone and its application are now most popular keywords in mobile technology. Hence, it is vital to analyse the customer satisfaction among Smartphone users and make necessary changes in the technology in order to with stand in the competitive market. The findings state that the consumers are more satisfied with user friendliness, picture and sound quality of smartphones but not satisfied with after sales service. Samsung brand of Smartphone has an influence over satisfaction. Samsung brand is mostly preferred by the respondents.

INTRODUCTION

A few years ago, people only sent (received) calls and messages using cellular phones. However, with the application of new technology to cell-phones, people can see movies, listen to music and Watch TV programs anywhere anytime. In addition, as Wi-Fi (Wireless Fidelity) functions embedded in smartphones are introduced, users can use the Internet on the move. Using such phones, people can connect to the Internet free at Wi-Fi zones, check their emails and manage social networking sites. As many functions and new features are embedded, users derive enjoyment from using them. However, these Smart phones also cause users stress because they are difficult to use and users do not know how to deal with phone-related problems. As a Smartphone's power and capability enhance, these problems are expected to increase. In addition, this stress decreases a Smartphone user's satisfaction. The consumer buying a variety of smartphones which satisfy his wants and they are always influenced by his purchasing activities by some considerations which lead him to select a particular brand or a particular operating systems in preferred to others. Consumers mostly preferred Smart phones.

OBJECTIVES OF THE STUDY

1. To identify the brand of Smartphone preferred by the respondents
2. To analyse the satisfaction of the consumers towards Smartphone usage
3. To compare the satisfaction score among selected demographic variables.

RESEARCH METHODOLOGY

Sample size is 200 respondents drawn on random sampling basis. The data collected is tabulated, analyzed and interpreted by applying the following statistical tools; Simple percentage, Descriptive analysis, Rank analysis, ANOVA, T-test and Regression analysis.

REVIEW OF LITERATURE

1. **Oliver (1987)** defined Customer satisfaction as an outcome of a purchase/usage experience would appear

to be an important variable in the chain of purchase experience linking product selection with other post purchase phenomena including favorable word-of-mouth and customer loyalty.

2. **Terblanche And Boshoff(2001)** assessed the influence of certain factors on customer's level of satisfaction in their study. It has been found that service quality, product quality and product varieties are the three dimensions that influence customer satisfaction.
3. **Ching-chow Yang(2003)** stated that customer satisfaction measurement highlights the strength and the area of improvement in the quality of product. Continuous improvement is considered one of the important quality activities for a firm to pursue the best quality for its products. Through the continuous improvement actions, the enterprise can increase customer satisfaction and raise profits.
4. **Butt and Run (2008)** determined the factors that contributed towards consumer satisfaction in Pakistani mobile cellular services. Customer satisfaction of cellular phone users in Pakistan consisted of four factors including price, transmission quality, usage ease and service support.
5. **Shakir Hafeez and S.A.F. Hasnu (2010)** in their article titled, "Customer satisfaction for cellular Phones in Pakistan: A Case Study of Mobil ink" have studied that Customer satisfaction is a crucial element for the success of all businesses. One of the biggest challenges for a market is how to satisfy and retain the customers. Overall customer satisfaction and customer loyalty is comparatively low among the consumers. The customer loyalty in mobile sector is relatively low because it is an emerging industry. New players are entering in this market and customers are more fascinated to try the new service providers.
6. **S.Jamuna and Jegadesh Kannan (2010)** "Conducted a Study on Customer Satisfaction towards BSNL in Madurai City". The study mainly concentrates on general Price level, quality and Overall satisfaction about BSNL

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services, general awareness and consumer preferences of BSNL. The study is to find the BSNL consumer problems and their perceptions about services of the company. In majority of the cases consumers are adverse about the services offered by the BSNL

7. **Singh (2011)** conducted a mobile phone satisfaction survey in Punjab with a sample of size of 100 respondents. The seven major parameters Viz. convenience, responsiveness, reliability, tangible, assurance, network quality and economy were studied. Findings of the study is availability of modern equipment, timely delivery of bills, fulfilling the needs of the customer, ease of understanding of schemes and offering.
8. **T.Kavipriya and P.Renugarajan (2012)** in their article, "User's Level of Satisfaction with mobile phone service providers- with Special Reference to Tirupur District, Tamil Nadu" have point out in recent the demand for mobile phone is increasing. Though cell phone industry has its origin in the recent past and growth has been excellent. And the market for cell phone has become very competitive. The finding of the study to market their services, every company is adding many new features. Day by-day, many new competitors enter the market with new attractive schemes, provide additional facilities, adding new features to existing ones, reduce the charges of incoming and outgoing calls, introduce varieties of handsets, models a healthy competition that benefits the subscribers.
9. **Nidhi P. Shah (2013)** "Customer Satisfaction of Samsung Mobile Handset Users" has said that the main aim of this research paper is to find customers satisfactions with relations to some variables like individual features, price, brand name etc. Study indicates an average satisfactions of customers towards mobile handset users of Samsung.
10. **Vipan Bansal and Bindu Bansal (2013)** have studied the customer satisfaction of Mobile phone service users operating in Malwa Punjab". This paper is used to trace the reason for purchasing mobile phones and usages of mobile phone applications. This study revealed that SMS is the most widely used Valued Added Service. The results revealed that most of the respondents were satisfied with their current service provider, show maximum willingness for shifting to Airtel.
11. **Abdalla Nayef Al-Refai and Nor Azila Bt Mohd Noor (2014)** in their article entitled, "The Influence of the Trust on Customer Satisfaction in Mobile Phone Market: An Empirical Investigation of mobile phone Market" have focused on the impact of trust on customer Satisfaction in mobile phone sector. The findings of the study have substantiated the significant impact of trust on customer satisfaction in mobile phone market.
12. **Dr.T.N.R.Kavitha and Mr.R. Mohana Sundaram(2014)** in their study entitled "A Study on Customer Satisfaction towards Samsung Mobile Phone in Erode City". This paper carried out with an objective to determine the consumer preference and satisfaction. This paper concentrated on one particular mobile phone brand called Samsung and its Price, quality, colour and satisfaction level. The findings of the study is all customers are satisfied with after sale services of Samsung mobile brand.

DATA ANALYSIS AND RESULTS:-

TABLE NO: 1 DEMOGRAPHIC PROFILE OF RESPONDENTS

Characteristics		No. of Respondents	Percentage
AGE GROUP	Upto 20years	22	11.0
	21-30 years	64	32.0
	31-40 years	64	32.0
	41-50 years	35	17.5
	Above 50 years	15	7.5
Gender	Female	96	48.0
	Male	104	52.0

Marital Status	Married	135	67.5
	Unmarried	65	32.5
Educational Qualiication	School level	44	22.0
	Graduate	39	19.5
	Post Graduate	37	18.5
	Professional	47	23.5
	Diploma	33	16.5
Occupational Status	Student	36	18.0
	House Wife	18	9.0
	Employed	73	36.5
	Agriculture	9	4.5
	Business	24	12.0
	Professional	40	20.0
Number Of Earning Members	1 Member	41	20.5
	2 Members	119	59.5
	3 Members	32	16.0
	Above 3 Members	8	4.0
	Family Income Per Month	Less than Rs.20,000	46
Rs. 20,000- 40,000		75	37.5
Rs. 40,000- 60,000		35	17.5
Rs. 60,001- 80,000		29	14.5
Above Rs. 80,000		15	7.5
Number Of Family Members	2 Members	9	4.5
	3 Members	49	24.5
	4 Members	101	50.5
	Above 4 members	41	20.5
	Family System	Nuclear Family	147
Joint Family		53	26.5

32% Of the respondents age is between 21-30 years and 31-40 years. 52% of the respondents are male. 67.5% of the respondents are married. 23.5% of the respondents are Professional. 36.5% of the respondents are employed. 59.5% of the respondents are having 2 earning members. 37.5% of the respondents Family monthly income is between Rs.20,001-40,000. 50.5% of the respondents are having 4 members in their family. 73.5% of the respondents are living as Nuclear family.

TABLE NO: 2 PRESENT BRAND OF SMARTPHONE

Brand Of Smartphone	No .of Respondent	Percentage
Samsung	48	24
Redmi	24	12
VIVO	22	11
Nokia	15	7.5
LG	11	5.5
OPPO	12	6
Lenova	10	5
Moto	12	6
Micromax	8	4
Lava	7	3.5
Others	31	15.5
TOTAL	200	100

Source:Primary data

24%, (48) of the respondents present brand of Smartphone is Samsung phone, 12% (24) of the respondents present brand of Smartphone is Redmi, 11% (22) of the respondents present brand of Smartphone is VIVO, 7.5% (15) of the respondents present brand of Smartphone is Nokia, 5.5% (11) of the respondents present brand of Smartphone is LG, 6% (12) of the respondents present brand of Smartphone is OPPO, 5%, (10) of the respondents present brand of Smartphone is

Lenova, 6% (12) of the respondents present brand of Smartphone is Motto, 4% (8) of the respondents present brand of Smartphone is Micromax, 3.5% (7) of the respondents present brand of Smartphone is Lava and 15.5% (31) of respondents are having other brand of smartphones. Most of the respondents present brand of Smartphone is Samsung Brand.

TABLE NO:3 NUMBER OF TIMES CHANGES OF SMARTPHONE

CHANGES OF SMARTPHONE	NO. OF RESPONDENT	PERCENTAGE
One	85	42.5

TABLE NO:4 SATISFACTION LEVEL OF SMARTPHONE

Satisfaction Factors	N	Minimum	Maximum	Mean	S.D	Rank
User friendly	200	1.00	5.00	4.3550	.61715	1
Picture and sound quality is clear	200	1.00	5.00	4.1800	.72125	2
Good signal strength	200	1.00	5.00	4.0150	.89374	4
Long battery life	200	1.00	5.00	3.8200	.99627	10
Best promotional offers	200	1.00	5.00	3.6300	.96840	12
Satisfy the after sales service	200	1.00	5.00	3.4450	.98071	13
Good screen clarity	200	1.00	5.00	3.9700	.93996	7
Internet access speed	200	1.00	5.00	4.0050	.90503	5
Inbuilt application and features	200	1.00	5.00	3.7300	.95481	11
Download speed	200	1.00	5.00	4.0200	.95612	3
Wi-fi connectivity	200	1.00	5.00	3.9400	.95444	8
Bluetooth operation	200	1.00	5.00	3.8700	.98384	9
Memory capacity	200	1.00	5.00	3.9900	.95101	6

For 5 statements average ratings fall between four and five i.e., Satisfied to Highly Satisfied. For 8 statements the average ratings fall between three and four which indicates that the respondents are Neutral and Satisfied. Among several items, respondents are Satisfied that the smartphones are User friendly with a mean rating of 4.35 and also the Picture and sound quality is clear with a mean rating of 4.18. The lowest mean rating is 3.44 for after sales service. i.e the level of Satisfaction of the respondents fall between Neutral and Satisfied for this factors. The respondents are more satisfied with User friendliness and with the quality of picture and sound.

TABLE NO: 5 ANOVA FOR SMARTPHONE SATISF ACTI ON SCORE

Smartphone Satisfaction Score	Sum Of Squares	DF	Mean Square	F	SIG
AGE	Between Groups	134.950	4	33.738	0.612 NS
	Within Groups	10746.870	195	55.112	
Educational Qualification	Between Groups	218.935	4	54.734	1.001 NS
	Within Groups	10662.885	195	54.681	
Occupational Status	Between Groups	194.784	5	38.957	.707 NS
	Within Groups	10687.036	194	55.088	
Family Income Per Month	Between Groups	165.194	4	41.298	.751 NS
	Within Groups	10716.626	195	54.957	
Number Of Cellphone Owned By Respondent	Between Groups	235.511	3	78.504	1.445 NS
	Within Groups	10646.309	196	54.318	

Two	60	30.5
Three	11	5.5
Above three	12	6.0
None	32	16.0
TOTAL	200	100

42.5%, (85) of the respondents have changed their Smartphone only once, 30.5%, (60) of the respondents have changed their Smartphone two times, 16%, (32) of the respondent have not changed their Smartphone ,6%, (12) of the respondents have changed their Smartphone more than three times and 5.5% , (11) of the respondents have changed Smartphone three times.

Number Of Time Changes Of Smartphones	Between Groups	417.370	4	104.342	1.944 NS
	Within Groups	10464	195	53.664	
Price Of Current Brand Of Samartphone.	Between Groups	780.217	3	260.072	5.046 **
	Within Groups	10101.603	196	51.539	

NS Not Significant ** Significant at 1% Level

H0. The mean satisfaction scores do not differ significantly among the personal variables groups namely, age, gender, education, occupation, family income, number of cell phone owned by respondents, number of time changes of Smartphones, price of smart phone.

ANOVA and T-test was applied to test the hypothesis. The result show that the F-Values for age, education, occupation, family income, Number of cell phone owned by respondent, Number of time changes of Smartphone are found to be not significant. The F-Value comparing the mean scores of groups of price of current brand of smart phone was found to be significant at 1% level. Hence it is inferred that the mean Satisfaction scores differ significantly for the groups based on price of current brand of smart phone and hence the hypothesis is rejected.

TABLE NO: 6 T-TEST FOR SMARTPHONE SATISFACTION SCORE- GENDER

Smartphone Satisfaction Score	Mean	S.D	NO	T-Test Value	Significant	
Gender	Female	49.36	7.57	96	3.009	**
	Male	52.45	6.94	104		
TOTAL	50.97	7.39	200			

** significant at 1% level

The T-test value is 3.009 which shows that there is significant difference between male and female in the mean Satisfaction scores. Hence the hypothesis was rejected

TABLE NO: 7 REGRESSION ANALYSIS - SATISFACTION SCORE

Dependent Variable	Regression Coefficient (B)	Std.error	Beta	T	SIG.
(Constant)	17.312	7.237			
Age	-.407	.688	-.060	-.592	NS
Gender	2.900	1.108	.196	2.618	**
Marital status	.201	1.544	.013	.130	NS
Educational Qualification	.293	.375	.056	.780	NS
Number of earning members	-1.564	.837	-.153	1.870	NS
Family income per month	.254	.576	.041	.440	NS
Number of family members	1.383	.715	.147	1.935	NS
Family system	.475	1.176	.028	.404	NS
Number of cell phone owned by respondent	-.055	.805	-.005	-.069	NS
Type of Smartphone by SIM	.691	1.509	.032	.458	NS
Number of time changes of Smartphone	-.382	.351	-.075	-1.090	NS
Price of current brand of Smartphone	1.533	.657	.170	2.333	*
Smart phone Advantage Score	.497	.118	.299	4.215	**
Smart phone Disadvantage Score	.097	.109	.064	.886	NS
R	R SQUARE	F	SIG		
.474	.225	3.837	**		

The above table shows that education, family income per month, number of family members, price of current brand of smart phone, smart phone advantage score and smart phone disadvantage score have positive effect on satisfaction score. Gender, price of current brand of smart phone and advantage score also have significant effect on satisfaction of the respondents. The Beta values show the relative contribution of each independent variable compared to other variables. Among the beta values, Smart phone Advantage score has highest beta value (0.299) which shows that it has more contribution towards satisfaction score, followed by Gender with a beta value of 0.196 compared to other variables. The multiple correlation @ value is 0.474 which shows that there is a moderate correlation between Satisfaction score and the set of all independent variables taken together. The correlation is significant at 1% level (F=3.837). R square value explains that 22.5 % variation in the dependent variable is explained by the set of all the variables included in the equation.

CONCLUSION

Today life is so busy and everyone is trying to complete his own needs. No-one has such time to look around him and think for a while to what he/she wants. The economies are becoming stable and unstable sometimes. To overcome the needs of consumers of bigger digital devices, smart phones are solving the issues. One can use smart phones for a lot of purposes of routine life and because of this it don't have to carry heavy weight laptops and digital dairies, one can save anything in smart phone so one can get benefits of this anywhere any time. This advancement of technology shows that smart phones will take over the other digital devices

easily. Similarly, with the passage of time everyone is getting more busy in their routine life and no one has such time to visit physical markets for shopping. So this online shopping made life so easier to explore new adventures and find out the exact need. The customers are more satisfied with the user friendliness of smart phones and with the quality of picture and sound. They are not very much satisfied with the after sales service and promotional offers. The manufacturers, wholesalers and retailers have to offer better promotional strategies and provide with better after sales service to satisfy the customers.

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