An Empirical Study On Demographic Factors Influence On Service Quality Perceptions Of Mobile Network Services In Pune District

Devika Shinde
Address Smt. Kashibai Navel College of
commerce, Erandwane, Pune
Emails : devikashine4411@gmail.com

Dr. Praveen. N. Chougale
Principal,D. R. Mane Mahavidyalaya, Kagal
Tal – Kagal, DIST- Kolhapur (Maharashtra)

ABSTRACT:
Purpose
    This study aims to develop and analyse the impact of demographics characteristics on perceptions of mobile network services. This study was mainly carried out to find influence of demographic factors such as age, gender, and income on perceptions.
Research Design:
    A total of 384 mobile service subscribers were surveyed using a self-administered questionnaire and data collected from Pune city by using purposive convenience sampling.A survey questionnaire, based on widely accepted SERVQUAL model. A descriptive statistics analysis was used to analyse the data collected.
Findings
    – The findings indicated that service quality perceptions based on demographic such as Consumer age, income were having influence on perceptions of service quality. Whereas gender has no influence on perceptions of service quality
Research implications/limitations
    The result of study elaborates the influence of demographics characteristics on perceptions of service quality in Mobile network service provider. Overall the research highlights some demographic characteristics which having influence on some perception dimensions. It suggested to managers and decision makers to take into account these demographics while improving service quality.

Keywords: Mobile network service providers, Perceptions, Satisfactions, Service Quality, telecom

Introduction

    India has the world's second-largest mobile phone users with over 980.80 million as of June 2015. The speed of development in telecom sector is very fast. The Indian mobile companies are expanding and growing rapidly and will contribute substantially to India's gross domestic product (GDP). Latest technology and innovation are giving focus on user value for money. Company are creating value for customer in the form of convenience, user friendliness etc. Hence today's telecommunication market has great segment for mobile network. In India tele-density has increased by multi- folds in last four years due to Mobile phones. According to TRAI Data Tele density (2014) is 77.58% and for Rural Tele density 46.09% which are quite high figure when it compare with population of India.

    The success in such dynamic industry is depend on the customer feedback i.e. customer satisfaction. According to Phillip Kotler, customer satisfaction provides a leading indicator of consumer purchase intentions and loyalty.In ever increasing intense competition, providing service quality is vital for Mobile service providers to compete. Customer satisfaction is outcome of excellent service quality. Service quality and customer satisfaction are widely recognized as key influences in the formation of consumers' purchase intentions in service environments (Taylor, 1994,)Consumers today have more choices of products and services than ever before, but they seem dissatisfied. Firms invest in greater product variety but are less able to differentiate themselves. (Prahalad, C. K. and Ramaswamy V., 2004).Typically services are product which requires high involvement of consumer in the consumption process. (Grönroos, 1984). Service quality and customer satisfaction are widely recognized as key influences in the formation of consumers' purchase intentions in service environments (Taylor, 1994,).In dynamic business environment, the role of customer is changing. (Prahalad&Ramaswamy, 2000).as in Cited (Taylor, 1994,) Despite its importance, quality of service is one of the least understood, least measurable functions at many companies (Farris P. W., Bendle , Phillip , & Reibstein, February 2010,).Quality is essential when service is what is being sold (Berry, Zeithaml, & Parasuraman, 1985). Service quality is measured as a gap between perception and expectations towards service providers' service quality. (Zeithaml, Parasuraman, & Berry, 1990)(Kang & James) Service encounter and representative of company providing services has influence on service quality perceptions.

Objectives of the study

The objective of this research paper was to investigate the perceptions of Mobile network services from the customers' perspective and assessing their satisfaction of Mobile network services providers. A sample of 384 subscribers of Mobile network services in Pune district was selected by random sampling technique. A survey questionnaire, based on widely accepted SERVQUAL model. A descriptive statistics analysis was used to analyse the data collected.

1. To examine Gender wise customers' perceptions of service quality provided by Mobile network operators in Pune District.
2. To find influence of age groups on perception of service quality
3. To identify income class influence on service quality perception dimensions.

Growth of Telecom Subscription in India (Data from 2004 to Oct 2015)
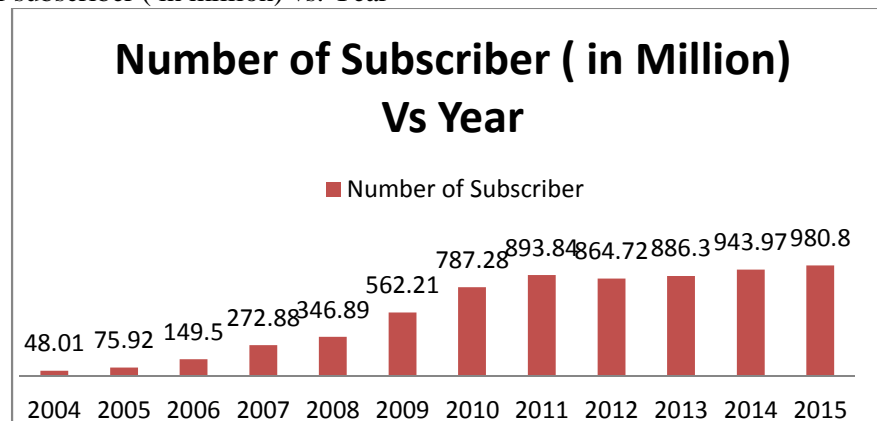
The table 1.0 is showing data of Wireless subscribers of GSM & CDMA data in (Million). This table is showing the growth of telecommunication on last decade. We can see the scope of wireless telecommunication in India. (Chart 1.1)

Table 1.0: Wireless subscriber data in (Million)

Year	2004	2005	2006	2007	2008	2009
Mobiles Subscriber GSM & CDMA	48.01	75.92	149.5	272.88	346.89	562.21
Growth Percentage	NA	58.13 %	96.91 %	82.59%	27.12%	62.07%
Overall Tele-density	8.62	11.43	17.16	23.89	33.23	49.50
Year	2010 till Dec	2011 till Dec	2012 till Dec	2013 till Dec	2014 till Dec	2015 till June
Mobiles Subscriber GSM & CDMA	811.59	893.84	864.72	886.30	943.97	980.80
Growth Percentage	44.36%	10.13%	-3.25%	2.50%	6.51%	3.90%
Overall Tele-density	63.22	74.15	70.82	71.69	75.43	77.90

(Data Source: Telecom Regulatory Authority of India Data compiled by researcher)

Chart 1.1: Number of subscriber (in million) vs. Year

Number of Subscriber (in Million) Vs Year

■ Number of Subscriber

48.01 75.92 149.5 272.88 346.89 562.21 787.28 893.84 864.72 886.3 943.97 980.8
2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015

(Data Source: Telecom Regulatory Authority of India Data compiled by researcher)

Review of literature

(Parasuraman ,Zelthaml , & Leonard , 1985) developed a model of service quality after carrying out a study on four service settings: retail banking, credit card services, repair and maintenance of electrical appliances, and long-distance telephone services. The SERVQUAL model represents service quality as the discrepancy between a customer's expectations of service offering and the customer's perceptions of the service received. Hence SERVEQUAL model questionnaire has been used here to collect response of consumer about their perceptions of service quality.

(Sein & Chey , 2014)done research to investigate service quality of higher education and the impact of demographic variables (gender, age, nationality and current level of study) on service quality evaluation. It found that nationality and gender have considerable impact on the weights of relationships.

Table 1.1 Summary of research findings of demographics' impact on perception of service quality

Service Area	Author(s)	Major	Service Quality	Findings

		Demographic variables	Model	
Retailing	Gagliano&Hathcoste (1994)	Race, Marital	SERVQUAL	Consumer demographic characteristics of race, marital status, and income provided significant differences between expectations and perceptions for Reliability and Convenience.
Health care	Al-Khalil & Mahmoud (2012)	Gender, Education, Age, Income	20-item multidimensional scale	Lower educated female patients could hold less perceived service quality for health care services than other categories of patients.
Transport / Travel service	(Ganesan-Lim, et al. (2008)	Age, Gender and Income	Interaction quality, outcome quality and physical environment quality (Brady & Cronin, 2001)	Consumer age was found to affect service quality perception. However, no differences in the service quality perceptions on the basis of quality, perceptions on the basis of gender or income were found
telecommunication	Chih, et al. (n.d.)	Gender, Age, Education, Occupation, Disposable Income	Modified SERVQUAL	Significant differences exist in service quality perception across lifestyle and demographic variables

Table source :(Sein & Chey , 2014)

Hypothesis of study

H1: Gender of mobile network service subscribers does not influence the perceptions of service quality.

H2: Age of mobile network service subscribers does not influence the perceptions of service quality

H3: Income of mobile network service subscribers does not influence the perceptions of service quality

Research Methodology

A total of 384 mobile service subscribers were surveyed using a self-administered questionnaire and data collected (Approx. 50% Males & 50% Females) from Pune city by using purposive convenience sampling. A survey questionnaire, based on widely accepted SERVQUAL model. A descriptive statistics analysis was used to analyse the data collected. A questionnaire consisting of 22 items based on SERVQUAL model was administered on the sample by self-administration type of survey. The questionnaire was divided into 3 sections. The first section measured demographics of sample and the second, perception (P) of service quality of mobile network operators in Pune District. The third section dealt with the respondents' satisfaction levels. A five-point Likert Scale ranging from strongly disagree = 1 to strongly agree = 5, was used to measure the 22 attributes relating to five dimensions.

Findings and discussion

Reliability testing of perception of respondents

The same test Cronbach's Alpha was also conducted on the parameters related with perceived service quality and got following outcome.

Table 1.2 Reliability Statistics of respondents' perceptions variables

		N	%	Cronbach's Alpha	N of Items
Cases	Valid	384	100.0	.912	21
	Excluded[a]	0	.0		

| | | Total | 384 | 100.0 | | |

The survey question uses the 5-point Likert scale in the measurements. The reliability of the data is checked with the reliability test using the Cronbach's Alpha value. The Cronbach's Alpha is found to be 0.912. The coefficient above 0.6 is accepted as good score.(Kothari, 2004)

Analysis of Demographic Profiles of Respondents (Table 1.2)
Table 1.3 Descriptive Statistics of Demographics of Respondents

Sr. No	Variables	Option	Frequency	Percentage
1	Gender	1=Male	212	55.2
		2=Female	172	44.8
		Total	384	100
2	Age	1=8 to 17 years	22	5.7
		2= 18 to 27 years	309	80.5
		3=28 to 37 years	39	10.2
		4=38 to 47 years	7	1.8
		5= 48 to 57 years	5	1.3
		6=58 years and above	2	0.5
		Total	384	100
3	Income	1= Less than 200000 INR	28	7.3
		2=200001 to 400000 INR	131	34.1
		2=400001 to 600000 INR	51	13.3
		4=600001 to 800000 INR	13	3.4
		5=800001 to 1000000 INR	3	0.8
		6=10000001 INR and above	3	0.8
		7=NA (Not applicable in case of students and housewives)	155	40.4
		Total	384	100

Source: (Field Data Compiled by Researcher)

The results and analysis gives insights to performance and future expectations from customers. Gender of respondents' & customers perceptions

Table 1.4 One way ANOVA

	Hypothesis 1 Gender		Hypothesis 2 Age		Hypothesis 3 Income	
	F	Sig.	F	Sig.	F	Sig.
Tangibles Perception score	3.890	.051	2.057	.070	1.818	.094
Reliability Perception score	3.127	.078	2.899	.014	1.191	.310
Responsiveness Perception score	.010	.920	4.372	.001	2.591	.018
Assurance Perception score	3.502	.062	2.945	.013	1.418	.206
Empathy Perception score	.288	.592	3.092	.009	3.022	.007
N	384	384	384	384	384	384

This is the table that shows the output of the ANOVA analysis and whether we have a statistically significant difference between our group means. We can see that the significance level is above 0.05 which indicate no a statistically significance difference and below 0.05 a statistically significant difference.

H1: Gender of mobile network service subscribers does not influence the perceptions of service quality.
According to the One way ANOVA test there was no influence of Gender of respondents' on the customers perceptions in present study. The table is showing significance greater than 0.05 for all parameters. Hence accept null hypothesis.

H2: Age of mobile network service subscribers does not influence the perceptions of service quality
There was influence of age of respondents' on the customer's perceptions in present study. The table is showing significance less than 0.05 for all parameters except tangibles having significance .07 which is very close to 0.05. Hence null hypothesis rejected.

H3: Income of mobile network service subscribers does not influence the perceptions of service quality

According to the One way ANOVA test there was influence of income of respondents' on the customers perceptions in present study. The table is showing significance greater than 0.05 for all parameters except empathy and responsiveness having significance .007 and 0.018 respectively.

1.5 Chi-Square test results of individual demographic factor, group analysis

Hypothesis	Demographic Factor	Chi-Square	Degree of Freedom	P-Value	Decision
H1	Gender	4.167	1	.081	Accepted
H2	Age	1140.438	5	.000***	Reject
H3	Income	431.901	6	.000***	Reject

*** p = .000, ** p < .05, *

According to table 1.5, Hypothesis 1 chi- square coefficient (.081) which is greater than significance level 0.05 hence accept the null hypothesis. Since the P-value H2 (.000) and H3 (.000) are less than the significance level (0.05), hence we cannot accept the null hypothesis. Thus, we conclude that there is a relationship between age groups and perceptions and income class and perceptions. Hence age and income demographic factors were having influence on perceptions of service quality of telecommunication services. According to above table it found that ageand income have influenced on the perceptions of customers.

Conclusion & Discussion:

The conclusion of the testof hypotheses showed the significant influence of demographic factors on the evaluation of service quality. In other words, the demographic factors of mobile service subscribers can playimportant role in evaluation of service quality. The results of this study provide important clue for the management to understand the demographics influence in service quality. Overall result of this study shows the importance of individual basic characteristics such as age and income play important role while evaluating service quality. The study insights will helpful to manager for considering demographic profile while segmenting the market and designing the marketing mix of services.

Bibliography

Berry, L. L., Zeithaml, V. A., & Parasuraman, A. (May-June , 1985). Quality Counts in Services, Too. *Business Horizons*.

Rust, R., & Oliver, R. (1994). *Service Quality: New Directions in Theory and Practice*. Sage Publications, 1994.

Farris, P. W., Bendle , N. T., Phillip , P. E., & Reibstein, D. J. (February 2010,). *MARKETING METRICS : THE DEFINITIVE GUIDE TO MEASURING MARKETING PERFORMANCE* (SECOND EDITION ed.).

Grönroos, C. (1984). A Service Quality Model and its Marketing Implications. *European Journal of Marketing, 18*(4), 36 – 44.

Kang , G.-D., & James, J. (n.d.). Service quality dimensions: an examination of Gronroos's service quality model. *Managing Service Quality, 14*(4), 266–277.

Kothari, C. R. (2004). *Research Methodology Methods and techniques*. New Delhi: NEW AGE INTERNATIONAL (P) LIMITED, PUBLISHERS.

Lo Liang , K., Mahamad, O., Ramayah, T., & Mosahab, R. (November, 2010). The Impact of Service Quality on Customer Loyalty: A Study of Banks in Penang, Malaysia. *International Journal of Marketing Studies, 2*(2).

Parasuraman , A., Zelthaml , V. A., & Leonard , B. L. (1985). A Conceptual Model of ServiceQuality and Its Implicationsfor Future Research. *Journal of Marketing, 49*, 44.

Prahalad, C. K. and Ramaswamy V. (2004). "Co-creation experiences: The next practice in value creation.". *Journal of Interactive Marketing*(18), 5-14.

Sein, M., & Chey , C. (2014). Demographic Factor in the Evaluation of service quality in higher education A Structural Equation Model (SEM) Approach. *International Journal of Marketing, 6*(1), 90-102.

Taylor, S. A. (1994,). *Journal of Retailing, 70*(2), 163–178.

Zeithaml, Parasuraman, & Berry. (1990). "Delivering Quality Service; Balancing Customer Perceptions and Expectations. Free Press.

****