NATIONAL UNIVERSITY OF SCIENCES & TECHNOLOGY
(NUST)
NUST BUSINESS SCHOOL

BUSINESS PROJECT REPORT:

"3G MOBILE INTERNET IN PAKISTAN & THE CHANGE EXPECTED"

BY:

MUHAMMAD AWAIS

EMBA 2K 12

NUST REGISTRATION NO: NUST201260017MNBS75112F

Executive Summary

This study will show how the 3G bubble was burst as opposed to what was expected. The purpose of this study will be to provide a framework that can help Telcos in Pakistan to target their customer base better for 3G experience. This will also look at the different Mobile Internet Customer Segments these Telcos have formulated and how to address these segments. The major focus of this dissertation will be to come up with a relationship between 3G attributes that affect customer experience, satisfaction level and the post purchase intent. The idea is to break the code and start working on the characteristics which are more likely to address major customer concerns. This study will involve interacting with real 3G customer base and then use multiple techniques to find out the relationship.

Professionally, I am working in the capacity of Easypaisa Products Specialist in Telenor Pakistan. The dissertation will help me apply my academic learning at NBS directly to my professional career.

Acknowledgment

During the course of preparation of this dissertation, I have been lucky enough to have the support and guidance of my colleagues at Telenor Pakistan and faculty members of NUST Business School. It would have been very difficult to perform the level of research and in-depth analysis, which I have been successful in performing, without their help.

I would especially like to acknowledge my project supervisor Ms. Rabeel Khan for her valuable attention, advice and backing. Not only her grip on the subject & excellent coaching methodology facilitated my learning of Consumer Behavior and its practical application, but also helped me get a better insight on its impact in Telecommunication Industry.

Table of Contents

Table of Figures

1. Introduction

This project has been carefully chosen to reflect the current drive of all telecommunication firms and how 3G experiences is being ignored. Mentioned below are the details regarding project.

1.1 Scope

This project is focused on exploring the opportunities these telecommunication firms are not availing by grabbing the importance of Customer Experience Mapping regarding 3G rollout in this industry. The project gives a detailed insight on how Mobile Service Providers have invested so heavily in Telecommunication industry in Pakistan but the focus on service oriented approach has diffused the charm the 3G Mobile Internet had before.

This project also talks about one particular telecom firm in Pakistan which is also second largest mobile service provider and possesses the largest 3G subscriber base. Telenor Pakistan is a perfect example how innovation in this industry can be revolutionary and even then it's pretty difficult to make customers satisfied. It gives us a ground to analyze other firms under same microscope.

Several techniques have been utilized to conduct research for the said purpose and an in-depth analysis has been conducted to find the underlying patterns, loopholes and unexplored opportunities. It also suggests ways to make a smooth shift from service oriented culture to a customer oriented culture with a preliminary impact analysis.

1.2 Limitations

There are however, certain limitations in this project such as;

a. Access to the confidential data of telecom firms
b. Market Segmentation of telecom firms
c. Only case study that is discussed in detail is Telenor Pakistan
d. Consumer Research Techniques will mostly be applied on Telenor Customer base
e. Suggestions are based on the research conducted on Telenor

As much as it's true that we cannot paint all these firms with the same brush, we do not have much room to play around. The only example we could manage to discuss in detail is Telenor Pakistan.

2. Telecom Industry of Pakistan

Pakistan has seen tremendous growth in telecom sectors over the last 2 decades. A lot of revolutionary phases have been seen in this wireless era. A brief description about the journey is given below.

2.1 History

Telecom industry is booming in Pakistan, with multiple companies already got licensed, the competition is tough as a result the consumer is getting benefit and enjoying cheap call rates and internet access. In the country of a population of more than 16 million, telecom is one of the best revenue generating industry. As voice over IP, web conferencing and online video sessions are becoming popular and industry is growing at a rapid rate these companies have bright future ahead. These companies and their investment in local market of Pakistan are providing an enormous, economic, social and financial support to Pakistan's people and government.

The popular companies providing telecom services in Pakistan are Mobilink, Ufone, Telenor, Zong, Warid and PTCL etc. According to PTA (2008) the Pakistan cellular market had reached the mark of 90 million subscribers in September 2008, almost double from 2006 numbers. The growth slowed after that and at the end of November 2008 the total mobile subscribers were 90.5 million. The year 2008 was also marked by changes in SIM sales and registration process, enforced by PTA, the government regulator. Here's a brief description of all the mobile companies in Pakistan.

Mobilink

At the top is Mobilink, the Pakistani unit of Egypt-based Company Orascom. Company has been operating in Pakistan since1994. It has the biggest market share of subscriber base.

Ufone

This is a wholly owned subsidiary of PTCL, is now under the control of Etisalat group of UAE. It holds about 21% of market share.

Warid

Owned by the Abu Dhabi group of the United Arab Emirates and sister of Wateen group is number 5 in competition with 18% market of subscribers. Recently it sold 30% share to SingTel.

Telenor

Norway's Telenor, entered in 2004 with about a billion US dollar investment in Pakistan has been doing well, based on its recent earning report. It holds the second largest market share. Telenor's stock is listed in the Oslo stock market (TEL) and in US (TELNY).

Zong

Formerly Paktel, it was the latest target of foreign investment. After it got acquired by China Mobile it was rebranded as Zong and launched one of the most successful and productive campaigns. Within a matter of few months, Zong has achieved third spot in competition.

2.2 Telecom Industry Today

The telecom industry posted its highest ever revenue in the fiscal year 2013. Total investment in the sector at $472 million was a major improvement from the $240.3 million invested in the prior year. And consolidation is also taking place in the cellular industry. The number of cell phone subscribers touched nearly 128.93 million in FY13, up 6.74 per cent year on year. But, this was lower than the 10.23 per cent growth recorded in FY12. By end-September 2013, total subscribers had reached over 129.58 million.

Mobilink, Telenor and Ufone have recently acquired 3G licenses while Zong and Warid have gone for 4G licenses. This acquisition has definitely provided a next level of play ground to these firms. Internet accessibility is becoming more common each day and such technological advancements let these firms to provider even more enhanced services.

One of the major issues impacting the sector's revenues is the so-called 'grey traffic,' which essentially refers to calls that are routed illegally either to or from the country. According to the PTA, Pakistan loses an estimated $1 billion annually due to this.

2.3 Competitive Landscape

Cellular subscriptions of customers reached its peak in Pakistan by the end of March 2014, by standing at 136.5 million according to a statement recently by Pakistan Telecommunication Authority. In Pakistan by the end of first quarter 2014 overall mobile phone subscribers toll 136,469,886 with a cellular teledensity of around 74.9 percent.[1]

During the month of March, Mobilink reached the milestone of 38 million customers for the first time. Likewise Zong was able to claim third spot in country subscription wise after crossing Ufone's subscription count.

While Telenor remained vibrant for during month of March as it was able to cross the landmark of 35 million marks for the first time since it became operational in Pakistan. Now the difference between Mobilink, market leader in Pakistan's cellular industry, and Telenor is just three million subscriptions the. Warid had a share of 12.94 million subscribers.

[1] Propakistani., (2014) Pakistan Mobile Users Reach 136.5 Million – Retrieved June 2014 from http://propakistani.pk/2014/05/02/mobile-phone-users-in-pakistan-reach-136-5-million/

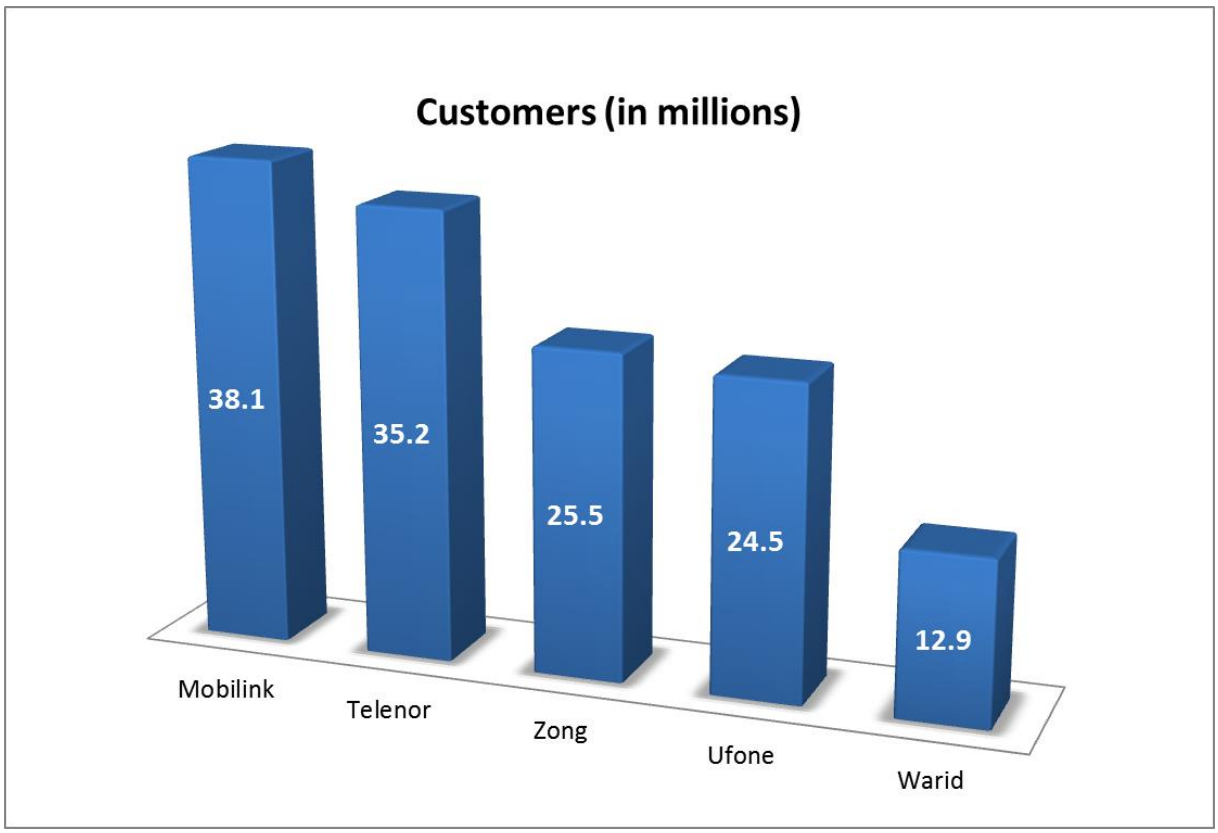


Figure 2-1Telecommunication base in Pakistan

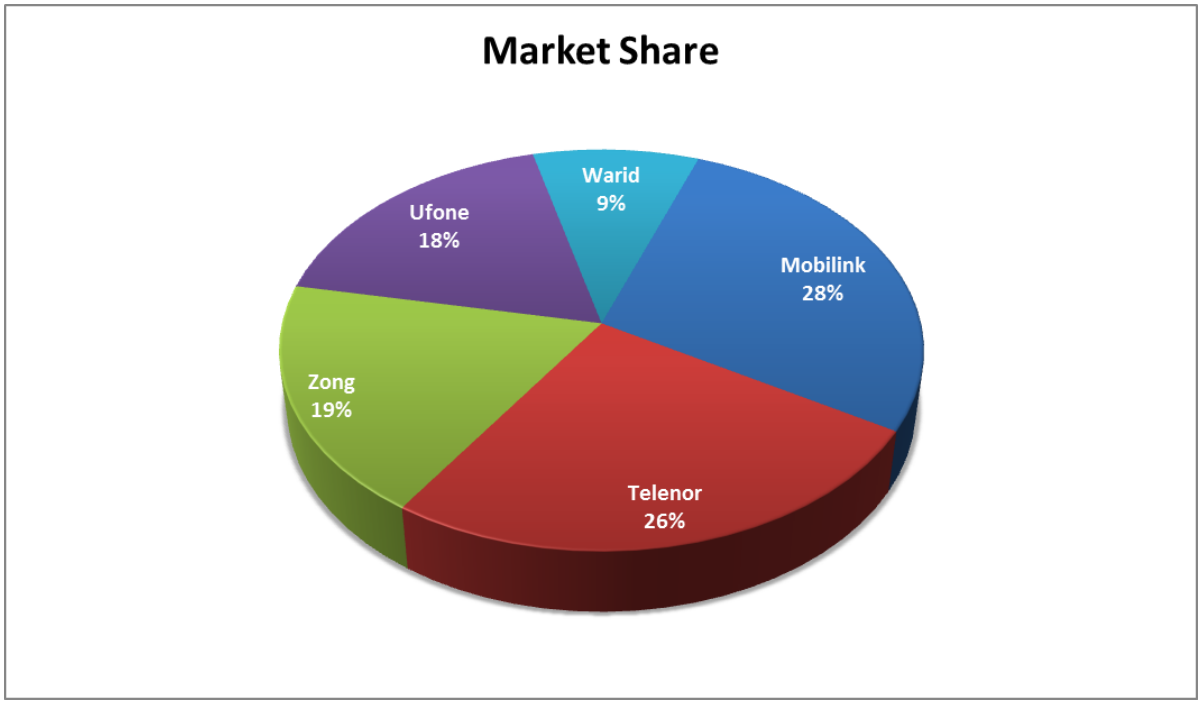


Figure 2-2 Operators share in Pakistan

Telecom is giving huge challenges to Operators. In this competitive ground, Telecom and services provided by operators have quickly turned in to a thing of need and commodity. Meanwhile, boundaries are also getting limited.[2] "Customer-first" or "customer-centric" initiatives are being launched by many operators as slogan. But mostly nothing is delivered as a good result. Apple, Google or eBay are Players from adjacent online industries which are expanding their customer information and are outlining the standard for customer experiences and acceptances.

A game plan on how Telco operators can turn into customer centric firm is presented by this study. Change in beliefs and process, developing the business strategy around customer needs are the initiatives should be taken out by senior management. Trustworthy data management is key requirement for success. In this study, we set out to demonstrate how the data approach can help backing the customer approach at each step of the way. Our agenda helps to reshape the relevant processes, adjust the IT infrastructure to the new requirement and set up the business case.

3. Literature Review

This section will entail the backdrop and the problem statement that will be then discussed in details along with a case study. Since most of the telecom companies are service oriented, customers are more than often left out of picture. This is why the project really zooms in the importance and the ways customers can be brought on board in order to improve the success of 3G facility.

3.1 Backdrop

Telecom companies got a bad knock when it came to customer experience. All too often, clients felt that service falls short of their expectations, and that complaints seem to be falling on deaf ears. Yet despite poor customer sentiment, few telecom companies have made customer centricity a priority.

Customarily, telecom providers have looked at cost and coverage as two of the main areas of investment. But in an intensely competitive market, where companies are constantly trying to get ahead of their contenders, lack of investment in customer-centric was causing negative turn back. Cost and coverage were also main factors along with customer preferences and all.

'Technology swap' the recent happening, included replacing existing platforms with new ones, and the current 3G/4G rollout, Telecom networks had been through a series of maintenance processes. With better processes plans and updated technologies Telecom firms has obviously created a wave in market. But there are certain areas which are suffering far more than the others and customer experience is hampering severely.

[2] Manage Engine, Support Center Plus., Customer Support for Telecom – Retrieved from http://www.manageengine.com/products/support-center/telecom.html

As because of so much maintenance and upgrading in the system network quality was adversely affected making a perception on the customers that network quality and signals are not up to mark. This perception caused a huge setback for the company and for solving that several points were pondered on. But apart from that was not the only threat, customer feedback was also important factor for keeping action aligned with the ambition.

There is a very classy and sophisticated complaint handling process designed at each of these firms but that proved to be not enough when it comes on the wide coverage of customer choices, liked and disliked features of the company.

3.2 Problem Statement

Question to be answered:

"How can Telecommunication firms make 3G a success?"

In Pakistan, customer experience in their lines of products and services was firstly given importance and consideration by Telenor as mobile service provider. While telecom business players often give words about being customer centric but it is noticed that words are not taken into action and promises remain unfulfilled.

The hesitancy to put in effort on improvement of the customer experience might be because of the fact that most telecommunication companies are on the same opinion, with the top companies not doing much better than those who are low ranked.

Very complex and incoherent data structures are followed by telecom operators that are result of inherited processes. A lot of manual work is required for squeezing out valued knowledge from such non-harmonized data. Because of this, customer centricity built on factual consumer understanding resulted in a very ambiguous concept.

Customer centricity is kind of a belief and values centered on the customer's individual needs and are more than a catchphrase. In the corporate strategy it must be merged in and should be infused on the entire association. Growing this exhaustive customer understanding is significant in keeping a viable control in the Telco division.

4. Research Methodology

This project comprises different research techniques that can reflect the ways an organization drive its business strategy towards being a customer centric firm. Some of the insights come from the data already available to the firm and then we can also deploy many recently developed methodologies globally acknowledged to bring in maximum customer input into the organization.

4.1 Data Acquisition

510 customer feedbacks were captured during the research. A random pool of 3G users were picked and then asked different questions pertaining to Telenor 3G Mobile Internet. These feedbacks were

gathered by the help of a third party company support excelled in consumer research. A questionnaire was shared with the company and when a customer answers all the questions, he/she would qualify for the analysis.

The template is attached below for the reference.

3G Mobile Internet Questionnaire.docx

4.2 Bottom-up Net Promoter Score

At the organization's frontlines, "bottom-up" surveys triggered by recent customer transactions help identify types of interactions or experiences that cause customers to become promoters, passives or detractors. Through follow-up calls with willing respondents, employees develop insights that spur continuous learning and improvement. The steady feedback enables frontline employees and their supervisors to use the Net Promoter Score to measure their progress.

4.3 Consumer Surveys

This method involves asking a set of questions to general audience with a series of questions that may highlight some important concerns. The objective of this survey is to get an unanchored result showing multiple streams of possible improvements.

4.4 Research Paper

The literature review based on different papers and material reveals different firms around the globe have been working on customer centricity. Hence we have couple of Customer Experience Mapping frameworks for references. [3]

5. Telenor Pakistan – Under Customer Experience Microscope

For telecom firms around the world, network is the key element in their entire infrastructure. Every product or service they come up with is entirely dependent on their network. This makes it the most important attribute of any mobile service provider. Seeing the importance of it, telecom firms are quite vulnerable when it's about the customer experience of their network quality. Any disturbance in network can lead to poor company rating and customer churn which can become a nightmare. Telenor recently went through a series of services related activities and apparently customers are not appreciating the services compared to pre-activities era.

The hypothesizes I'm establishing at this point are

Null Hypothesis:

[3] Maritz., The Three Dimensions of Customer Experience Management (2010)

"Network has no direct relationship with the success of 3G Mobile Internet of Telenor Pakistan"

And the alternative hypothesis established is

"Network is the major reason of customer detraction for 3G Mobile Internet of Telenor Pakistan"

5.1 Background

More than often, telecom firm in Pakistan have focused on cost and revenue as two primary attributes of the organization. In fact, even marketing campaigns are targeting prices are the main differentiator for a customer. But in a price sensitive & competitive market, where companies are constantly trying to win over their competitors, lack of interest in customer centric measures is leading to massive customer churn. While prices and features are important factors to a customer, they are not enough to avoid him to churn.

Telecom sector in Pakistan gets a bad rap when it comes to customer experience. On many occasions, customers feel that service falls short of their expectations, and that complaints aren't reaching the right ears. Yet despite poor customer sentiment, Telenor Pakistan has manned up to have customer centricity a priority.

With the recent Technology swap project, which involved replacing Huawei platforms with ZTE ones, and the current 3G rollout, Telenor network had been through a series of maintenance drills and outages. This has obviously created a ripple in market as far as the network quality of Telenor is concerned. But that's not the only problem Telenor is facing currently. There are certain areas which are suffering far more than the others and customer experience is hampering severely. There have been so much maintenance lately that customers have made up a perception in their minds about the poor network quality. This perception is what is causing a huge trouble of the marketer inside firm and several options are being considered. But apart from that word-of-mouth is not the only peril, customer feedback is also necessary to keep operation aligned with the customer centric drive.

5.2 Research Analysis

5.2.1 Research Papers

I've gone through multiple research papers but the one I selected for this research is "The relationships among service quality, perceived value, customer satisfaction, and post-purchase intention in mobile value-added services". The reason I've selected this paper was because it reflects exactly the same metrics that we can use in Telenor to measure customer satisfaction. It allows me to establish the hypothesis that customer post purchase intent is directly proportional to the satisfaction.

5.2.2 *Customer Bottom-up NPS*

For research purposes I've utilized multiple sources of information. Filled questionnaire is attached for the reference.

510 customers on each were asked to answer an NPS form which basically asked general questions related to company NPS. My NPS is based on 2 different approaches. First is related to the rating of 3G and the other one is about recommending it[4].

- Rate 3G Mobile Internet of Telenor Pakistan
- What is the main reason for your score?

The NPS Score for this feedback resulted in -**15%** with scorer distribution as follows:

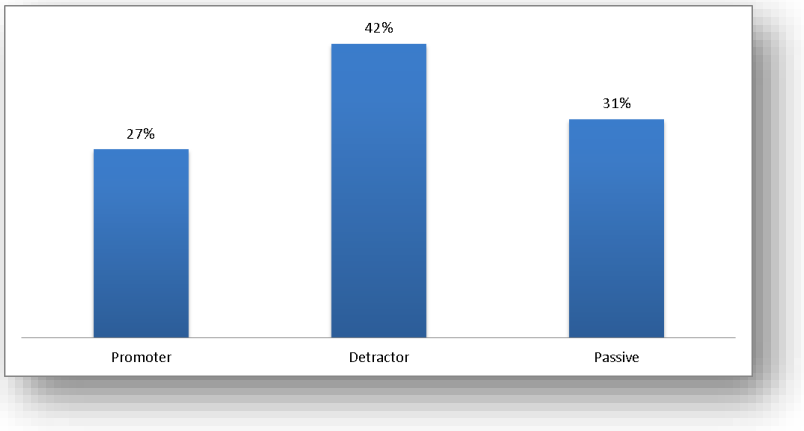


Figure 5-1 NPS Breakdown

a. **Rate Telenor 3G**: Customers were asked to rate Telenor 3G. This will reflect a general image customers have about Telenor 3G Mobile Internet.

[4] Ying-Feng Kuo, Chi-Ming Wu & Wei-Jaw Deng., The relationships among service quality, perceived value, customer satisfaction, and post-purchase intention in mobile value-added services (2009)

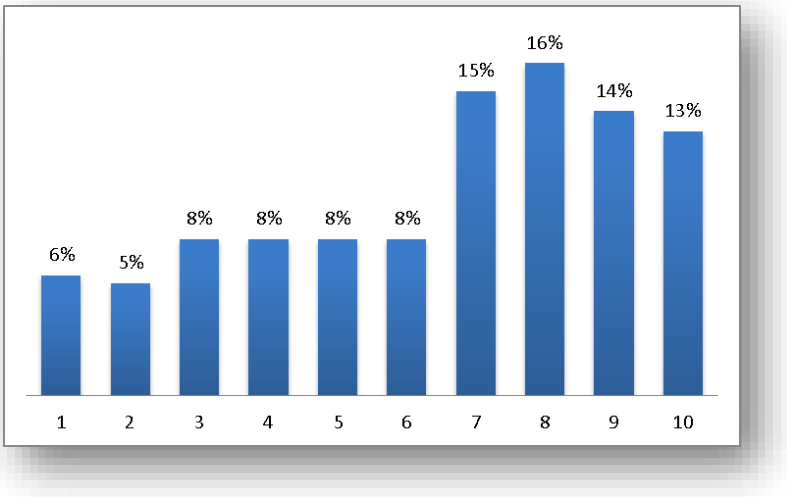


Figure 5-2 NPS Rating Breakdown

b. **Reasons of rating**: Customers were given different options about why did they rate 3G Telenor what they rated.

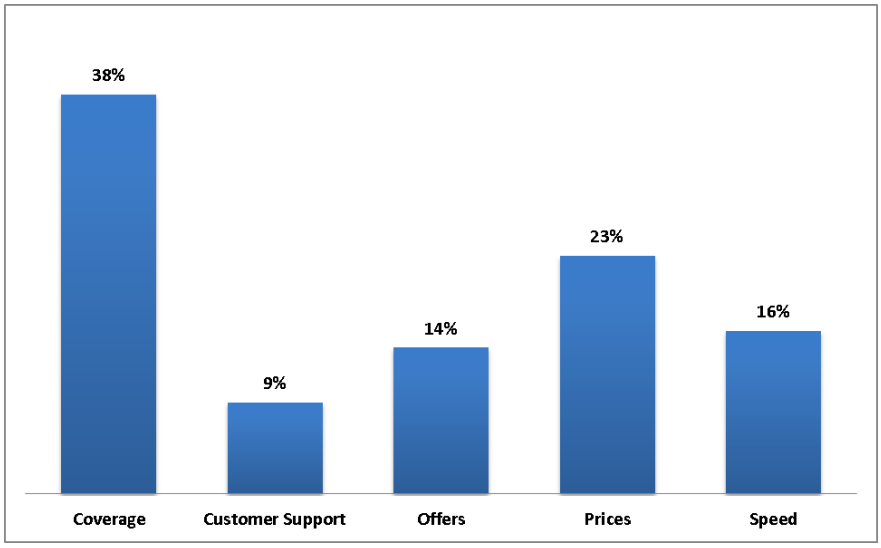


Figure 5-3 NPS Categories Breakdown

c. **NPS Split:** From customer's feedback, we can see the split of promoters & detractors.

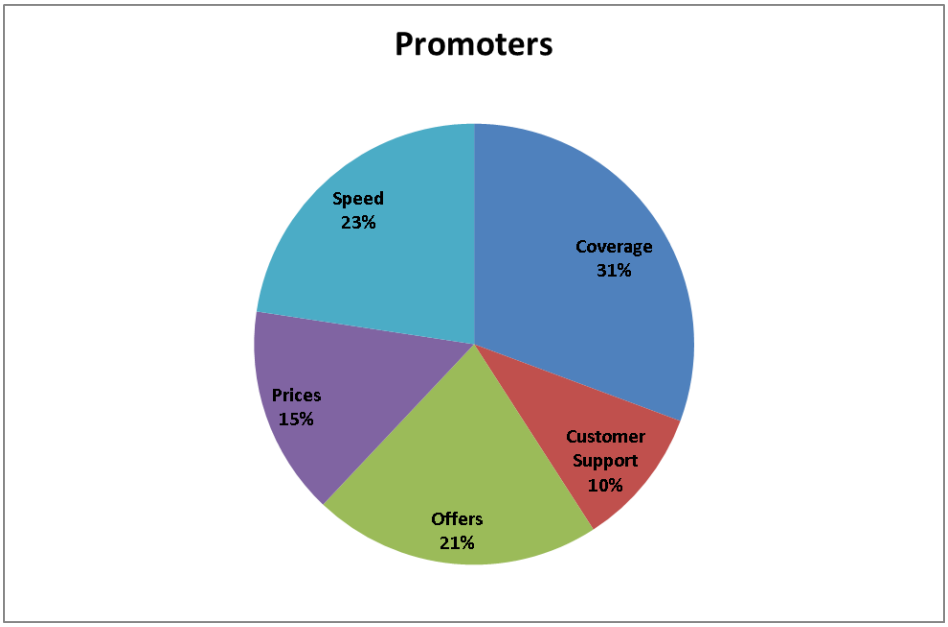


Figure 5-4 Promoters Split

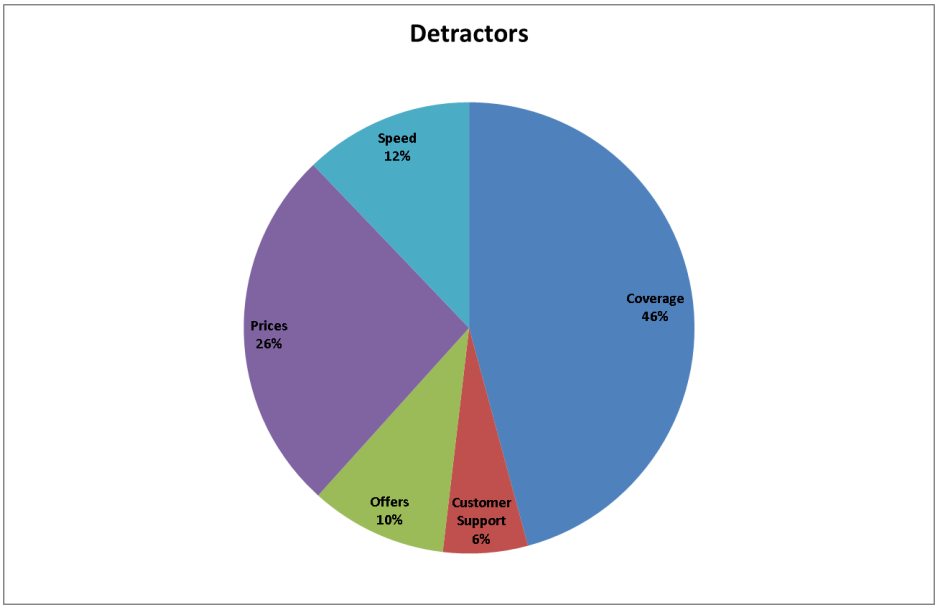


Figure 5-5 Detractors Split

Now when we follow the approach of recommending Telenor 3G Mobile Internet, results are slightly different. NPS calculated from this data is **-27%**.

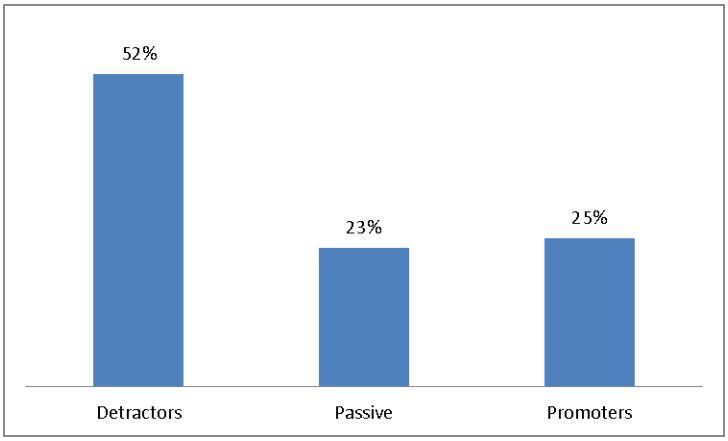


Figure 5-6 NPS Split for Recommendation

5.2.3 Regression Analysis

A major section of our analysis is consisted of regression analysis. This is based on both linear & logistic regression depending on the variables and scenarios. The outcomes of all these regressions gave us a relationship between dependent & independent variables.

a. Satisfaction vs. Drivers

I've used Binomial Logistic Regression to establish a relationship between Satisfaction, Coverage, Customer Support, Offers&Prices, Speed and Expectations with Satisfaction as an independent variable and rest as independent.

The results show that only coverage has a significant impact on the satisfaction.

Success	Failure	Total	p-Obs	p-Pred	Suc-Pred	Fail-Pred	LL	% Correct	HL Stat
1	0	1	1	0.304327	0.304327	0.695673	-1.18965	0	2.28594
0	1	1	0	0.385183	0.385183	0.614817	-0.48643	100	0.626499
0	1	1	0	0.38358	0.38358	0.61642	-0.48383	100	0.62227
0	1	1	0	0.332579	0.332579	0.667421	-0.40433	100	0.498304
1	0	1	1	0.439743	0.439743	0.560257	-0.82157	0	1.274057
0	1	1	0	0.338608	0.338608	0.661392	-0.41341	100	0.511963
1	0	1	1	0.365915	0.365915	0.634085	-1.00535	0	1.732873
1	0	1	1	0.333131	0.333131	0.666869	-1.09922	0	2.001819
1	0	1	1	0.285729	0.285729	0.714271	-1.25271	0	2.499825
1	0	1	1	0.384228	0.384228	0.615772	-0.95652	0	1.602624
1	0	1	1	0.412917	0.412917	0.587083	-0.88451	0	1.421794
0	1	1	0	0.333242	0.333242	0.666758	-0.40533	100	0.499795
1	0	1	1	0.364288	0.364288	0.635712	-1.00981	0	1.745084
0	1	1	0	0.344747	0.344747	0.655253	-0.42273	100	0.526127
0	1	1	0	0.360352	0.360352	0.639648	-0.44684	100	0.563361
0	1	1	0	0.425478	0.425478	0.574522	-0.55422	100	0.740578
0	1	1	0	0.43204	0.43204	0.56796	-0.5657	100	0.760688
1	1	2	0.5	0.402994	0.805988	1.194012	-1.42466	50	0.078226
0	1	1	0	0.366609	0.366609	0.633391	-0.45667	100	0.578803

Coeff
-1.46063
-0.15088
-0.00883
0.061355
0.051345
0.068378

LL0	-339.73
LL1	-335.337
Chi-Sq	8.785078
df	5
p-value	0.11795
alpha	0.05
sig	no
R-Sq (L)	0.01293
R-Sq (CS)	0.017078
R-Sq (N)	0.0232
Hosmer	488.0663
df	494
p-value	0.566828
alpha	0.05
sig	no

Figure 5-7 Binomial Regression Satisfaction vs. Drivers

The rest of the variables aren't important since the p-value is very insignificant. This actually proves the hypothesis we'd established earlier that Coverage/Network is the major reason of satisfaction and all other are insignificant.

b. Post Purchase Intention vs. Satisfaction vs. NPS

Through regression, we found out that NPS has very weak impact on post purchase intentions rather Satisfaction had a stronger impact so we cannot take it as independent variable.

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.121219
R Square	0.014694
Adjusted R Squa	0.012754
Standard Error	2.946239
Observations	510

ANOVA

	df	*SS*	*MS*	*F*	*gnificance F*
Regression	1	65.76091	65.76091	7.57586	0.006127
Residual	508	4409.604	8.680322		
Total	509	4475.365			

	Coefficients	*tandard Err*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*ower 95.0%*	*pper 95.0%*
Intercept	5.751592	0.166266	34.59274	1.2E-135	5.424939	6.078246	5.424939	6.078246
Satisfaction	0.738204	0.268201	2.752428	0.006127	0.211284	1.265123	0.211284	1.265123

Figure 5-8 Regression Post Purchase vs. Satisfaction vs. NPS

c. Coverage vs. Indicators

I ran linear regression on Coverage and its sub indicators to develop a relationship for how a customer would rate Coverage based on the importance of these variables.

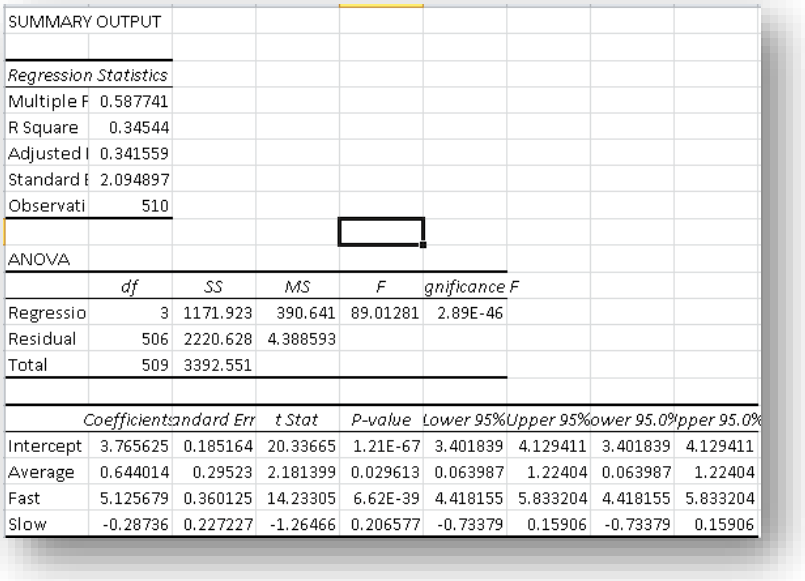
Regression Statistics								
Multiple F	0.601812							
R Square	0.362178							
Adjusted I	0.358396							
Standard	2.380088							
Observati	510							
ANOVA								
	df	*SS*	*MS*	*F*	*gnificance F*			
Regressio	3	1627.642	542.5473	95.77483	4.21E-49			
Residual	506	2866.399	5.664821					
Total	509	4494.041						
	Coefficients	*tandard Err*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*ower 95.0%*	*pper 95.0%*
Intercept	6.011152	0.145117	41.42293	1.1E-164	5.726047	6.296258	5.726047	6.296258
Data Loss	-1.74585	0.280826	-6.21683	1.06E-09	-2.29757	-1.19412	-2.29757	-1.19412
Good Data	3.193393	0.387046	8.250677	1.37E-15	2.432978	3.953808	2.432978	3.953808
Good Sign	3.251474	0.279784	11.62136	7.76E-28	2.701792	3.801156	2.701792	3.801156

Figure 5-9 Regression Coverage vs. Indicators

This shows that Good Signal is the most important factor for a customer while rating for coverage followed by Good Data Connectivity and it's inversely proportional to Data Loss. The p-values of all these variables are according to the benchmark set.

d. Speed vs. Indicators

The relationship between 3G speed and its sub indicators is visible through the linear regression performed.



SUMMARY OUTPUT

Regression Statistics	
Multiple F	0.587741
R Square	0.34544
Adjusted I	0.341559
Standard E	2.094897
Observati	510

ANOVA

	df	*SS*	*MS*	*F*	*gnificance F*
Regressio	3	1171.923	390.641	89.01281	2.89E-46
Residual	506	2220.628	4.388593		
Total	509	3392.551			

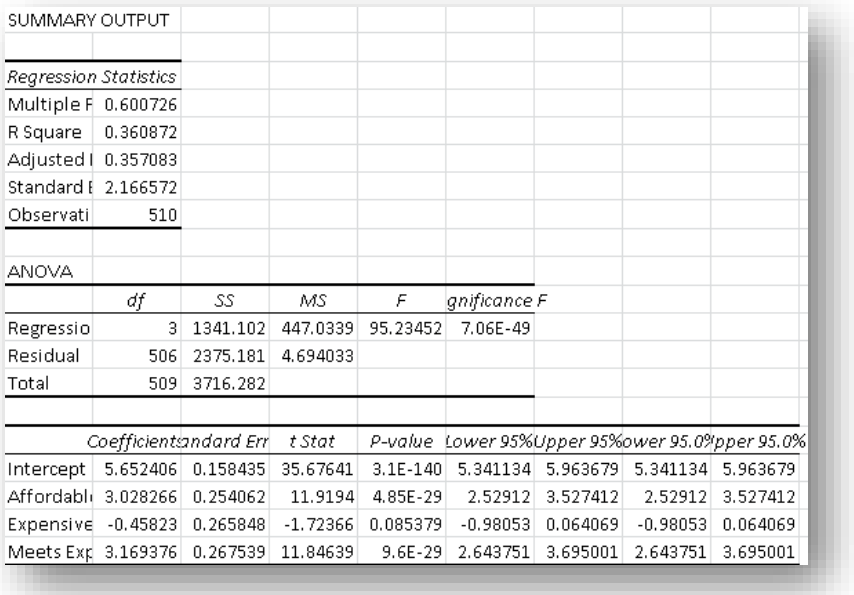
	Coefficients	*tandard Err*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*ower 95.0%*	*pper 95.0%*
Intercept	3.765625	0.185164	20.33665	1.21E-67	3.401839	4.129411	3.401839	4.129411
Average	0.644014	0.29523	2.181399	0.029613	0.063987	1.22404	0.063987	1.22404
Fast	5.125679	0.360125	14.23305	6.62E-39	4.418155	5.833204	4.418155	5.833204
Slow	-0.28736	0.227227	-1.26466	0.206577	-0.73379	0.15906	-0.73379	0.15906

Figure 5-10 Regression Speed vs. Indicators

Average & Fast are the 2 most important factors for rating of 3G Speed. Since the p-value of "Slow" is not up to the mark, we're not considering it for the final relationship.

e. Offers & Prices vs. Indicators

The relationship between 3G offers n prices are directly proportional to customers rating regarding "Affordability" & "Meets Expectations".



SUMMARY OUTPUT

Regression Statistics	
Multiple F	0.600726
R Square	0.360872
Adjusted I	0.357083
Standard E	2.166572
Observati	510

ANOVA

	df	*SS*	*MS*	*F*	*gnificance F*
Regressio	3	1341.102	447.0339	95.23452	7.06E-49
Residual	506	2375.181	4.694033		
Total	509	3716.282			

	Coefficients	*tandard Err*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*ower 95.0%*	*pper 95.0%*
Intercept	5.652406	0.158435	35.67641	3.1E-140	5.341134	5.963679	5.341134	5.963679
Affordabl	3.028266	0.254062	11.9194	4.85E-29	2.52912	3.527412	2.52912	3.527412
Expensive	-0.45823	0.265848	-1.72366	0.085379	-0.98053	0.064069	-0.98053	0.064069
Meets Exp	3.169376	0.267539	11.84639	9.6E-29	2.643751	3.695001	2.643751	3.695001

Figure 5-11 Regression Offers n Prices vs. Indicators

f. Customer Support

Through linear regression, this is quite visible that a customer rates customer based on 3 inversely proportional indicators i.e. late resolution, No issue resolution & Poor guidance.

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.353826
R Square	0.125193
Adjusted R Square	0.118264
Standard Error	2.124848
Observations	510

ANOVA

	df	*SS*	*MS*	*F*	*gnificance F*
Regression	4	326.2979	81.57448	18.06752	7.02E-14
Residual	505	2280.065	4.51498		
Total	509	2606.363			

	Coefficients	*andard Err*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*ower 95.0%*	*pper 95.0%*
Intercept	9.222222	0.708283	13.02054	1.27E-33	7.830679	10.61377	7.830679	10.61377
Agent knows all	0.777778	1.185184	0.656251	0.511962	-1.55072	3.106276	-1.55072	3.106276
Late resolution	-4.57866	0.739167	-6.19435	1.21E-09	-6.03088	-3.12644	-6.03088	-3.12644
No issue resolution	-4.63027	0.726369	-6.37454	4.14E-10	-6.05735	-3.20319	-6.05735	-3.20319
Poor guidance	-4.58874	0.722561	-6.35066	4.78E-10	-6.00833	-3.16914	-6.00833	-3.16914

Figure 5-12 Regression Customer Support vs. Indicators

g. Post Purchase vs. NPS vs. Switching

The Post purchase is directly proportional to NPS as shown in the summary below. So if a customer is a promoter, he's likely to purchase from the same firm in future.

SUMMARY OUTPUT

Regression Statistics	
Multiple F	0.508558
R Square	0.258631
Adjusted I	0.255707
Standard E	2.558158
Observati	510

ANOVA

	df	*SS*	*MS*	*F*	*gnificance F*
Regressio	2	1157.469	578.7344	88.43507	1.13E-33
Residual	507	3317.896	6.544173		
Total	509	4475.365			

	Coefficients	*andard Err*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*ower 95.0%*	*pper 95.0%*
Intercept	2.573286	0.312939	8.222955	1.68E-15	1.958469	3.188104	1.958469	3.188104
Recomme	0.496687	0.050218	9.890596	3.29E-21	0.398026	0.595348	0.398026	0.595348
Switching	0.062472	0.050194	1.244627	0.213844	-0.03614	0.161086	-0.03614	0.161086

Figure 5-13 Regression Post purchase vs. NPS vs. Switching

h. Post purchase vs. Gender vs. Rating

SUMMARY OUTPUT

Regression Statistics	
Multiple F	0.079889
R Square	0.006382
Adjusted I	0.002463
Standard E	2.961556
Observati	510

ANOVA

	df	*SS*	*MS*	*F*	*gnificance F*
Regressio	2	28.56261	14.28131	1.628276	0.197292
Residual	507	4446.802	8.770813		
Total	509	4475.365			

	Coefficients	*tandard Err*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*ower 95.0%*	*pper 95.0%*
Intercept	5.596204	0.412424	13.56906	5.33E-36	4.785934	6.406474	4.785934	6.406474
Gender	-0.14215	0.319155	-0.44541	0.656215	-0.76918	0.484875	-0.76918	0.484875
Rating	0.085531	0.048412	1.766712	0.077878	-0.00958	0.180645	-0.00958	0.180645

Figure 5-14 Post purchase vs. Gender vs. Rating

This actually shows that gender of a customer has very minute or no effect on the post purchase intent.

i. Post purchase vs. Usage vs. Rating

SUMMARY OUTPUT								
Regression Statistics								
Multiple F	0.080321							
R Square	0.006451							
Adjusted I	0.002532							
Standard E	2.961453							
Observati	510							
ANOVA								
	df	*SS*	*MS*	*F*	*gnificance F*			
Regressio	2	28.87279	14.43639	1.646073	0.193834			
Residual	507	4446.492	8.770201					
Total	509	4475.365						
	Coefficients	*andard Err*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*ower 95.0%*	*pper 95.0%*
Intercept	5.519778	0.343082	16.08879	2.36E-47	4.84574	6.193816	4.84574	6.193816
Usage	-0.1309	0.27073	-0.4835	0.628952	-0.66279	0.400994	-0.66279	0.400994
Rating	0.090529	0.049905	1.814044	0.070262	-0.00752	0.188575	-0.00752	0.188575

Figure 5-15 Post purchase vs. Usage vs. Rating

Usage doesn't show any effect on the post purchase intent thus making it clear that the immediate effect on the satisfaction remains to be the Network.

6. Impact & Conclusion

The regression analysis & NPS test list down a number of key takeaways.

a. Network is the biggest detraction in 3G Mobile Internet

The major reason of 3G dissatisfaction turned out to be the coverage related issues of Telenor Pakistan which is also the biggest concern of companywide NPS. This makes it the most important factor to tend to for Telenor. But there are some key barriers in the quick actionability of this factor. One is the installation of new sites and deploying new hardware. In these tough times economically and politically, it's very difficult to make such steps so rapidly.

b. Coverage is the most important factor in deriving 3G Satisfaction

Customers, through the survey, are not bothered by the rates, variety of offers, customer care or even speed of 3G. All they care about is smooth, continuous and good coverage without any data loss or disconnection. As easy as it sounds to cater to, this is the most challenging task currently faced by all Telcos.

c. Post purchase intent is directly proportional to Satisfaction

The post purchase behavior of the customers is directly related to the satisfaction which is driven by good network. This means that if Telenor wants its customers to stay connected after purchasing 3G products and keep the purchasing behavior consistent, it needs to make the network its strongest driver. That will ensure the satisfaction and in turn keep customers loyal to Telenor Pakistan.

d. Customer Oriented approach needed rather service oriented

For years, mobile services providers in Pakistan have been focusing on service oriented approach towards their customers. Throwing numerous products & services to the customers based on the numerical data these firms get and assume that these products are being liked by their customers. It's only recently that these telecommunication firms have started bringing in customers in the service design process. But there is a long road ahead when these firms put customers before each key decision they make.

e. Mobile Internet Close Feedback Loop / NPS

CFL methodology ensures that the queries, concerns & issues faced by the customers are addressed to their root causes. Customers are being asked about the problems, related teams are being brought on-board, issues are being fixed and these customers are then again contacted about the renewed experience. I would suggest same for Mobile Internet solely. Since this era is all about Internet Of Things and Telenor has an objective of Internet For All, CFL will definitely ensure a huge uplift in achieving this mission once Telenor knows about how their customers feel about their current Mobile Internet.[5]

f. Focus

Surveys have revealed that according to customers which areas should be the immediate concern for Telenor Pakistan

[5] Customer Experience Matter., 6 C's of Customer DNA (2009) – Retrieved from https://experiencematters.wordpress.com/2009/04/10/6-cs-of-customer-centric-dna/

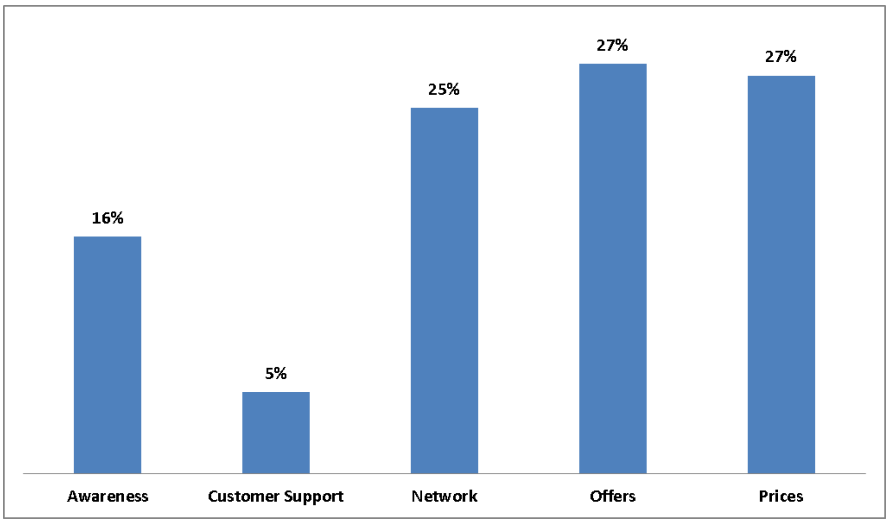


Figure 6-1 Focus in customer opinion

g. 3G Valued Attributes

Customers were also asked about the attributes they feel are valued for them.

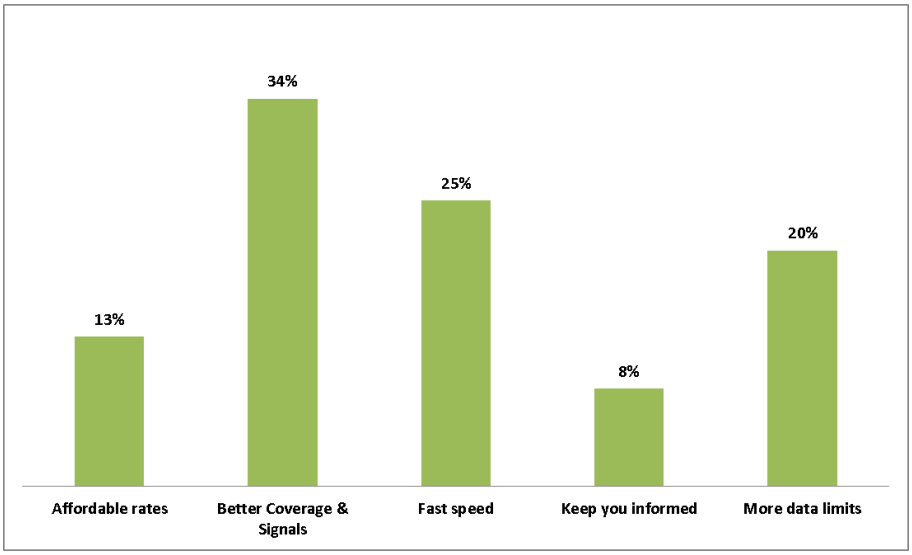


Figure 6-2 Valued attributes for customers

As shown, Better Coverage & Signals are the most valued attributes of 3G Mobile Internet for Telenor Customers.

h. Media

Our research also shows the medium customers feel they can be easily reached. This gives an idea on how customers want to be approached and kept informed.

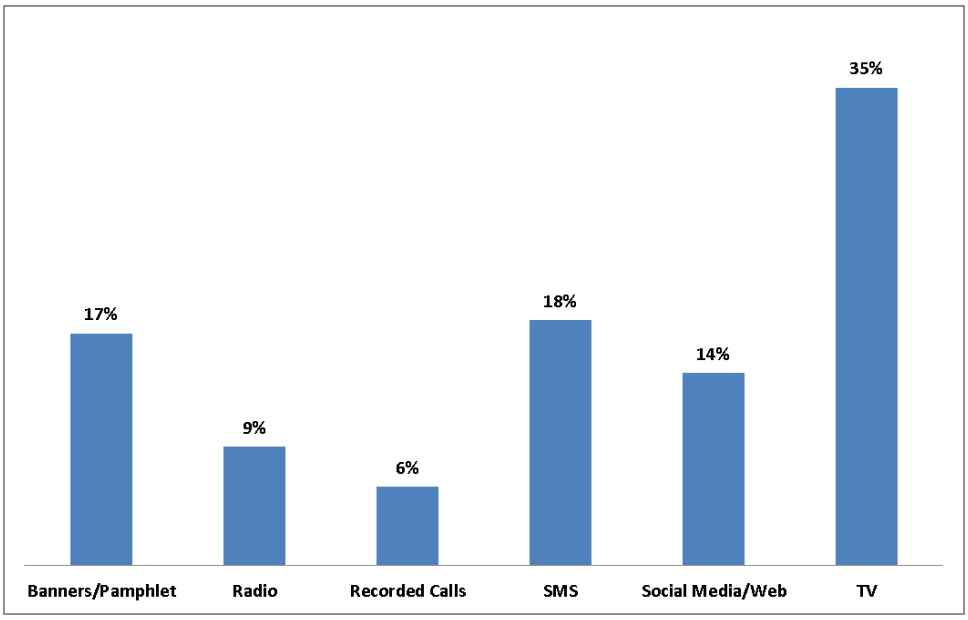


Figure 6-3 Favorable Media for customers

7. Future Roadmap

There are multiple initiatives we think Telenor Pakistan can use to derive the success of 3G which was imagined at the initial launch phase.

a. Segmentation

This entails customer profiling for 3G. Based on their demographics, customers should be sorted out in multiple segments. These segments then should be asked about their needs and different campaigns should be run to address the internet requirements of each of these segments.

b. Location Tagging

Targeted actions based on origin of customer feedback following cluster based model. Customers should be tagged based on their locations. And a predictive model should be established on this data to see the satisfaction of customers depending on their locations.

c. Brand Image

Revamping 3G brand via IMC is an important brick in the wall of 3G. When projecting it as a brand, a thorough IMC plan should be formulated to address the awareness related concerns.

8. References

[1] Propakistani., (2014) Pakistan Mobile Users Reach 136.5 Million – Retrieved June 2014 from http://propakistani.pk/2014/05/02/mobile-phone-users-in-pakistan-reach-136-5-million/

[2]Manage Engine, Support Center Plus., Customer Support for Telecom – Retrieved from http://www.manageengine.com/products/support-center/telecom.html

[3] Maritz., The Three Dimensions of Customer Experience Management (2010)

[4] Ying-Feng Kuo, Chi-Ming Wu, Wei-Jaw Deng., The relationships among service quality, perceived value, customer satisfaction,and post-purchase intention in mobile value-added services (2009)

[5] Customer Experience Matter., 6 C's of Customer DNA (2009) – Retrieved from https://experiencematters.wordpress.com/2009/04/10/6-cs-of-customer-centric-dna/