

Impact of Quality of Service on Customer Loyalty: A Critical Study of Cellular Mobile Broadband Sector in Pakistan

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Abstract: Quality of Service (QoS) is the degree to which a service provided by an operator promotes customer satisfaction. In telecommunications sector service quality is a set of specific parameters provided by service providers to their customers, which are necessary for achieving the required functionality of the requested service. In current global competitive telecommunication business market, the quality of a service is being considered as a differentiator for users if service features or price of services of service providers are similar. The potential of growth and scope for telecommunication services in general and mobile broadband services in developing countries like Pakistan is encouraging. The objective of this research work is to analyze the impact of service quality gaps with customer loyalty in the mobile broadband sector of Pakistan. The cellular mobile operators in Pakistan are facing issue of declining customer loyalty and increasing churn rate of customers in search of their expected quality of service. In this research the service quality gaps will be considered as independent variables while customer loyalty as dependent variable. The SERVQUAL model proposed by Parasuraman, Zeithaml and Berry (1988) will be used to probe the effects of five dimensions of service quality viz. tangibility, assurance, responsiveness, reliability, and empathy on consumer loyalty. Data of 200 current LTE broadband consumers using mobile service of four cellular mobile operators of Pakistan (Jazz-PMCL, Ufone-PTML, Zong-CMPak and Telenor) will be collected through structured questionnaires. The response received from end users of broadband services through these questionnaires will be analyzed through SPSS to determine the causal relationship of service quality dimensions and customer loyalty. The results of analysis will depict that the service quality dimensions will have significant and positive impact on customer loyalty.

Keywords: Quality of Service, SERVQUAL Model, Customer Satisfaction, Customer Loyalty, Pakistan Telecommunication Authority (PTA)

1. Introduction

Quality of service (QoS) is described by the International Union of Telecommunication (IUT) just as the unified impact of service conduct which estimates the extent of customer loyalty. However, the term QoS has been used by many scientific reports [1]. Additionally, it has been reported that

quality of service is the extent of network excellence that followed the service availability and the quality of the network's transmission. Hence, the quality of service can be represented as a traffic policy in which limitations of transmission rates; by that attestation of a specific amount of bandwidth, will be accessible to operations. Moreover, quality of service shall be considered as traffic shaping, which includes techniques to utilize bandwidth for operations

but not secure availability [1]. Moreover, QoS represents data path operations, physical layer determinations, and control and essential switch components for supporting QoS, just as end host asset support for QoS [2].

Furthermore, it is a conventional and scientific fact that the degree of QoS can only be estimated by Customer loyalty which is illustrated as a viable source for the origination of income similarly loyal Customers tend to be the best choice for services and marketing of different products [4]. Moreover, loyalty is the most important condition of marketing capacity however, Customer retention is more crucial than customer retention [3].

Further, Customer satisfaction is one of the key aspects of customer loyalty which is supported by many kinds of literature [4, 5]. Additionally, customer satisfaction is the estimation of the practice of collaborating with a service provider and is utilized by customers to conclude upcoming estimations [4]. Thus, satisfaction is an enormous phenomenon that is influenced by the QoS, the product itself, its price, and personal factors. Scientific studies proposed that quality of service is composed of three basic dimensions namely product, environment, and delivery, although, quality is delivered over the physical environment, interaction, and outcome [6]. However, all these aspects are devoted to customer loyalty. Adversely quality of service is determined through five elements, such as: empathy, responsiveness, reliability, tangibility, and assurance [8].

The globalization of telecommunications has reformed efficiently just as we invade the time of confluence among wireless networks, the content sector, and broadband networks. However, the consequences of telecommunication are obvious just as it has been enforced in numerous fields for the enhancement of services. Furthermore, in the context of Pakistan undergoing the efficient business of portable broadband is considered one of the important elements in assisting economic growth. Broadband automation can enlarge the quality of service in health and education provided to society [9].

Broadband contributes improvement of organizations to their maximum efficiency, access against certain operations, and connections which leads to extensively new strategies in designing a business model. Hence, the trait of mobile trivia is extending at considerable rates. Therefore, in Pakistan convention of cell phones increases day by day whereas the use of landlines facing extinction [9]. Broadband is generally described to assimilate a selection of transmission advancements, including a link, 3G and 4G portable, digital subscriber loop (DSL), fiber, satellite, Wi-Fi and Wi-Max, etc. with the fact that they convey data at a normal transfer speed. Be that as it may, the extent of these advancements is not steadily identical, nor do they give similar abilities. Moreover, the reported limit of transmission capacity to meet the content of broadband has changed after some time [10].

Additionally, it has been revealed that customers may undergo sensations differently to the same content of video although looking it on TVs, PCs, cell phones, and tablets, which may undergo exceptional modifications in the evaluation of QoS [12]. Thus, these federations are emphasizing offerings improved by applications and

administration to their applicants. Moreover, the considerable challenge in Pakistan among the peculiar telecom operators has incensed the least in the costs of call rates. It encourages clients to choose the efficient framework that best fascinates their requirements and demands [11].

In Pakistan telecom sector is expanding expeditiously and is an efficient source among the most probable sectors that undergo most of the contribution to the achievement of the nation's GDP. Additionally, elements of the comprehensive industry rapidly tend to be adjusted against the five operators as (Jazz-PTML Ufone-PMCL, Zong-CMPak, and Telenor) for all acceptance and requirements. Therefore, customers seeking for improved quality at the same prices which is paid by them to certain organizations. In this aspect, the quality of the network is the most crucial and demanding perspective before administrations. Thus, different organizations are emphasizing the demand for quality that is provided by them to their customer to attain customer satisfaction. Furthermore, quality of service is a crucial aspect to attain an endless flow of clients [13, 14]. It has been reported that advancements in Pakistan's media transmission allocation have been challenging during the last four years.

Globalization and progression undergo rapid modifications in the cell versatility industry of Pakistan. Now as days telecom organizations face significant difficulties due to rapid advancements and deliberate challenges, customer satisfaction, and overseeing high rates. Customer satisfaction can be achieved by identifying the most extensive income-generating customers and dealing with the customer experience for such progressive customers. QoS is considered to be a multifaceted composite that undergoes numerous scopes which have been revealed by many scientific studies during the last twenty-five years [14].

The present study is to elaborate on the indicating factors which influence customers to describe client loyalty in broadband correspondence. In this exploration, customer loyalty is considered as mostly the result of consumer satisfaction which truly is brought about by the quality of Service and customer perceived Value [7].

2. Research Objectives

- i. The reason for the research is to discover the gap between the expected service of customers and what they are bearing in the telecom part of Pakistan and the interrelations of service quality properties with client trustworthiness.
- ii. The study expects to distinguish the different components influencing customer satisfaction and their job in creating customer loyalty in crowd broadband access.
- iii. The study plans to build up a model clarifying the connection between service quality, customer perceived value, customer satisfaction, switching cost, Inertia, and customer loyalty.
- iv. The study likewise centers on switching costs and Inertia as arbitrators of customer satisfaction and customer loyalty interface.

2.1. Research Purpose

The primary focus of this research is to find out a customer loyalty and customer satisfaction in Mobile Broadband service, as we all know that Mobile broadband users are increasing day by day and in this technological era mobile phone is not only for call and messaging purpose, we are using mobile for internet browsing, and we users requirement is fast broadband, in low rates, There is an increasing debate regarding the use and effectiveness of Mobile broadband services to increase the usage by the cellular subscribers and thereby support the declining average user revenue stream.

Critiques in the telecom industry argue that as Mobile broadband is getting commoditized and the consumers have become more demanding, the organizations that can provide a better value proposition to their customers in terms of service offerings and experience would only be able to survive and grow in the coming times of high competition. The success and survival of an operator hinge on the QoS it provides, as the low call charges or upfront costs of mobile are only baited to lure customers and only the QoS can ensure the retention capability for a service provider. It has become imperative for service providers to adopt such technologies and strategies which ensure their success in a dynamic situation.

We will also focus on GAPS basically, there are five gaps that we discussed in the Introduction, but here we will focus on gap no five which is satisfaction, this is very important because telecommunication companies depend on customers when customers satisfy then the customer will not switch the operator, and customer satisfaction is what they perceived from the telecom company, make his/her satisfy, if the customer will satisfy he/she will be loyal so customer satisfaction directly affects the customer loyalty. The satisfaction gap is a deep contrast between customer expectations and the experience delivered. This gap will be the deep cut on any customer-company relationship ever and would be a decisive factor in all things kept upon.

2.2. Questionnaire Design and Development

Since the study is consumer-centric, the primary data has been collected from 400 respondents using the field survey

method. For this purpose, a structured questionnaire was developed, pre-tested, and personally administered to the target population of individual mobile Broadband subscribers. The initial questionnaire was based on SERVQUAL Model. And we target the 5 parameters of the SERVQUAL Model viz. tangibility, assurance, responsiveness, reliability, and empathy on consumer loyalty. The response received from end users of broadband services through these questionnaires will be analyzed through Statistical Package for Social Sciences (SPSS) to determine the causal relationship between service quality dimensions and customer loyalty. The results of the analysis will depict that the service quality dimensions will have a significant and positive impact on customer loyalty.

3. Pakistan Telecommunication Authority Facts & Figures

Pakistan Telecommunication Authority (PTA) has conducted quality of service (QoS) surveys jointly with cellular mobile operators (CMOs) where PTA focuses on data key performance indicators, voice key performance indicators, and SMS Key performance indicators but we will focus only on data key performance indicators which is conducted by PTA in four (04) cities of Punjab, Khyber Pakhtunkhwa and Gilgit Baltistan. The names of these cities are: [15]

- 1) Gilgit;
- 2) Skardu;
- 3) Kohat;
- 4) Khanewal.

3.1. Data – Key Performance Indicators

Data KPIs. The performance of data services of CMOs has been checked by measuring User Data Throughput and Signal Strength Key Performance Indicators (KPIs).

User Data Throughput This KPI defines the user data rate (Internet speed) to be provided by Next Generation Mobile Services (NGMS) operators to mobile users across the coverage areas. The data throughput results of all NGMS licensees are as under:

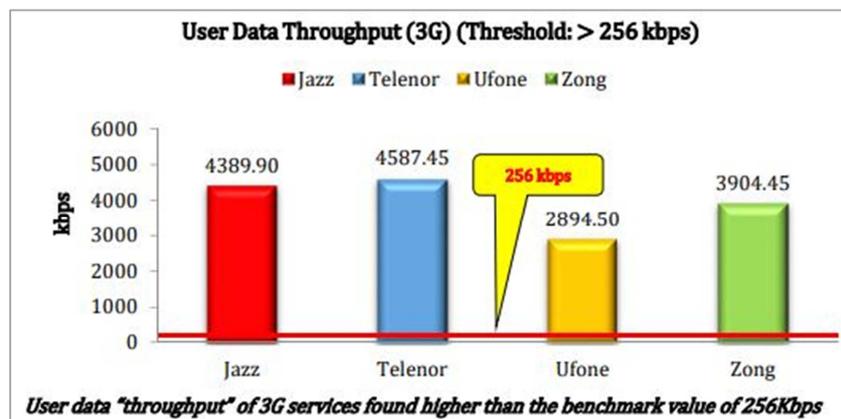


Figure 1. User Data Throughput (3G) [16].

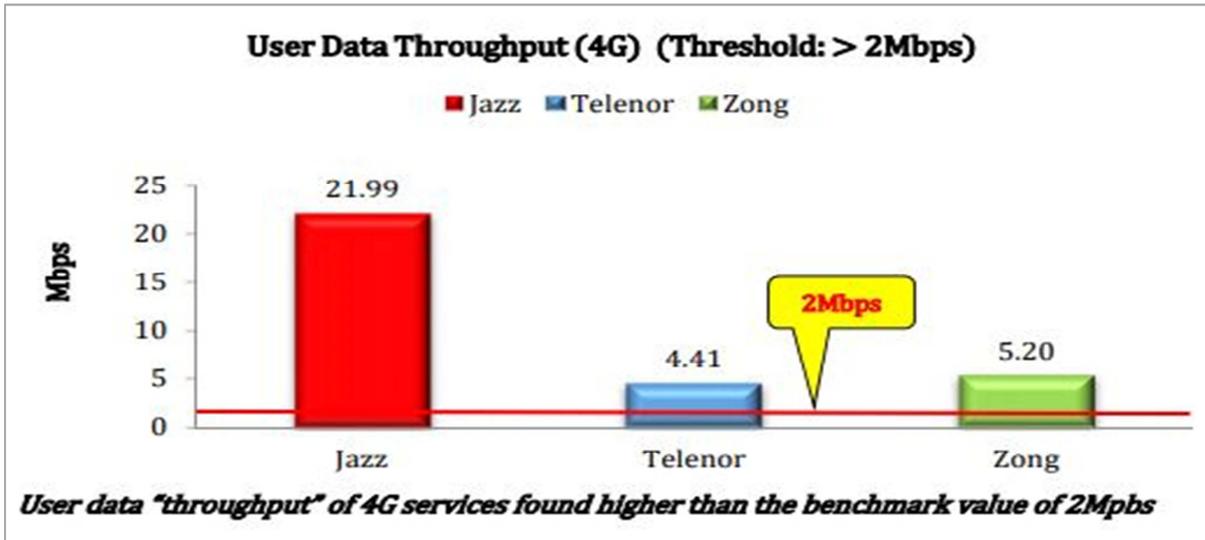


Figure 2. User Data Throughput (4G) (Threshold:> 2Mbps).

3.2. Signal Strength

This KPI defines Received Signal Code Power (RSCP) for 3G and Reference Signal Receive Power (RSRP) for 4G and denotes the power measured by a receiver on a particular physical communication channel. It is used as an indication of signal strength, as a handover criterion, in downlink power control, and to calculate path loss". The Signal Strength for NGMS licensees is as under:

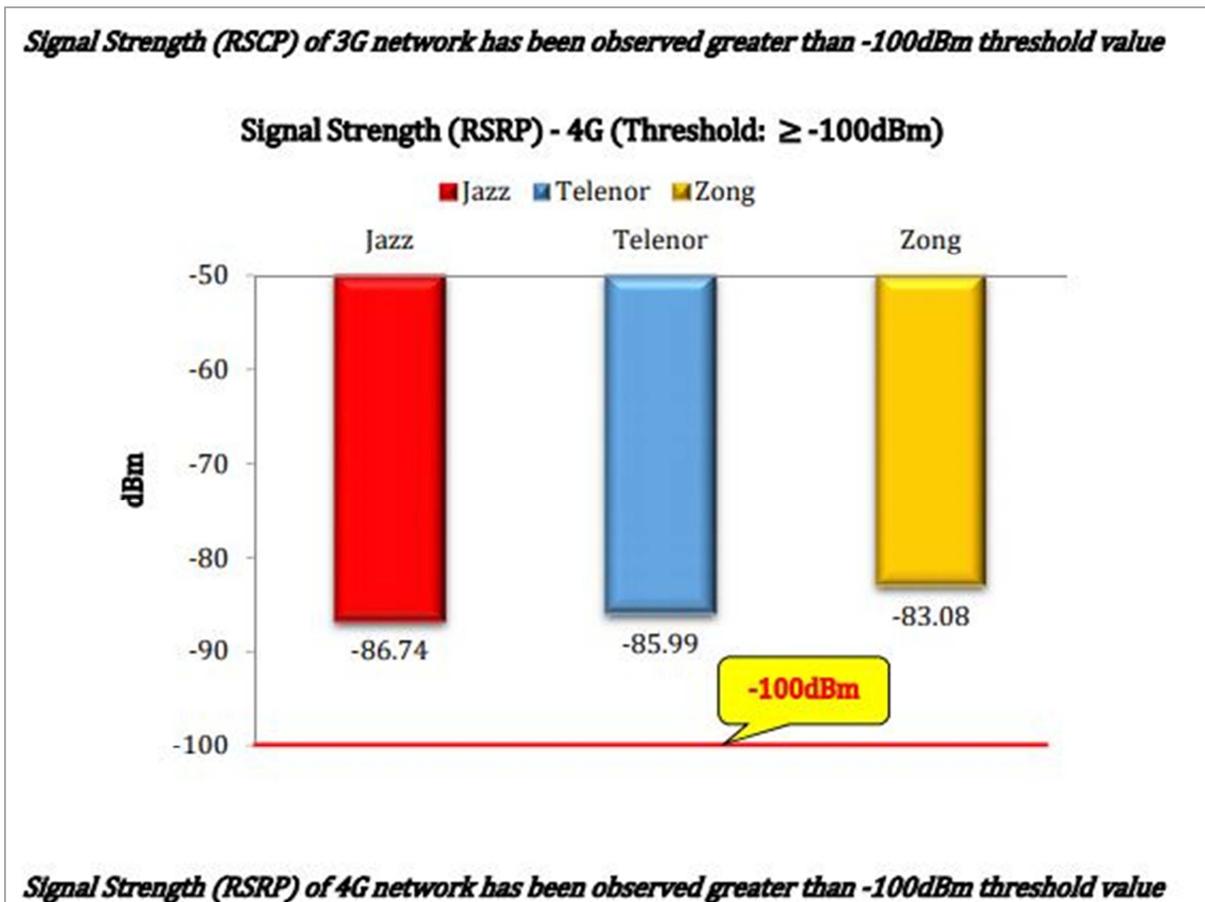


Figure 3. Signal Strength (RSRP) -4G (Threshold: ≥ -100dbm).

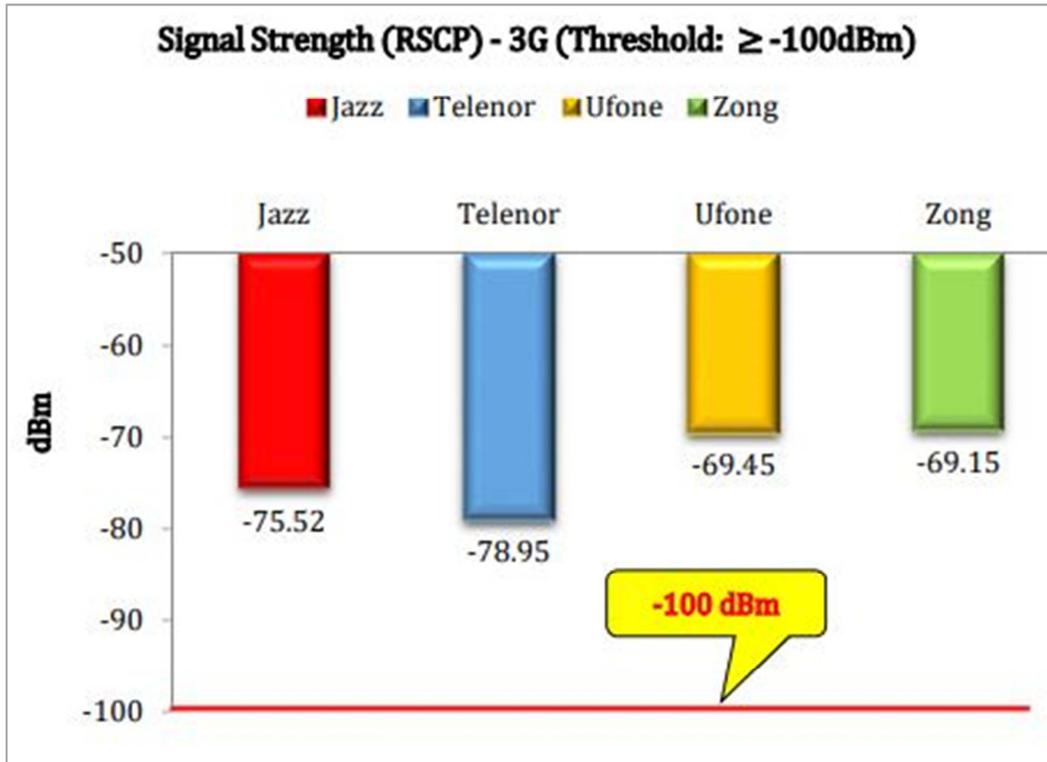


Figure 4. Signal Strength (RSRP) – 3G (Threshold: ≥ -100 dbm).

3.3. Telecommunication Indicators

As per PTA Website, updated till November 2019 the Mobile Users are 164 Million. While 74 Million users are belonging to 3G and 4G. while 76 Million are Broadband Subscribers. Individually calculations as per PTS Latest

report published on the official website, the figures are mentioned under below.

CMPAK Zong 4G users are 14.702 Million while 3G users are 7.6 Million.

PTML 4G Users are 14.505 Million while 3G Users are 12.047 Million subscribers.

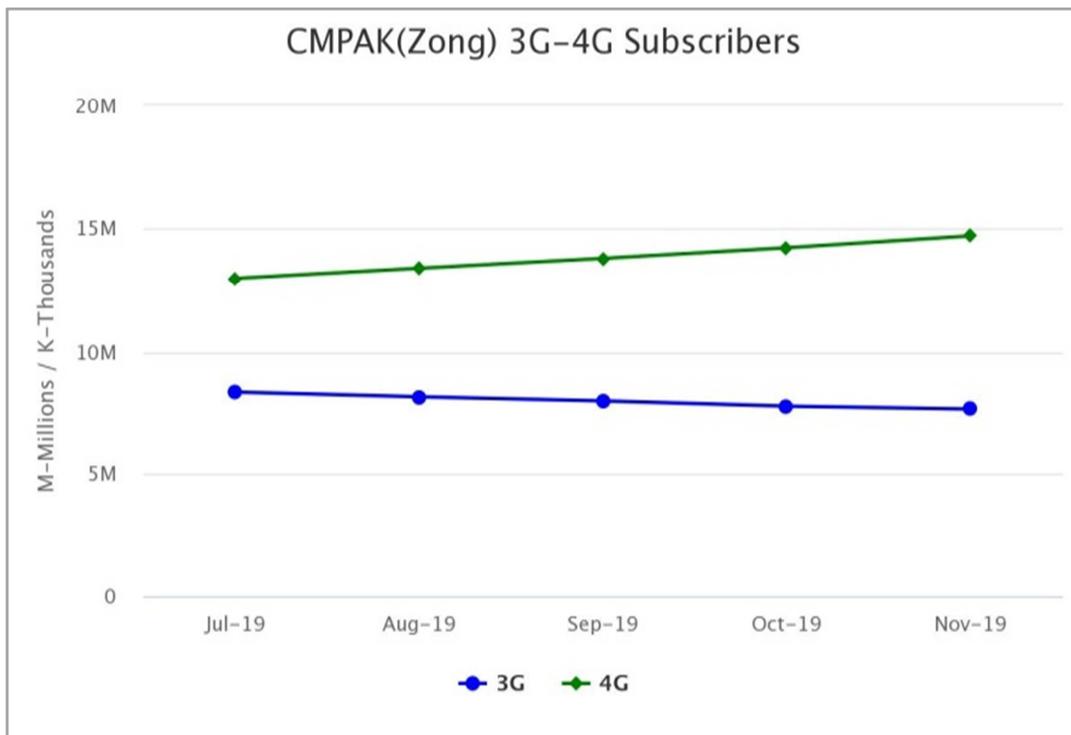


Figure 5. CMPAK (ZONG) 3G-4G Subscribers.

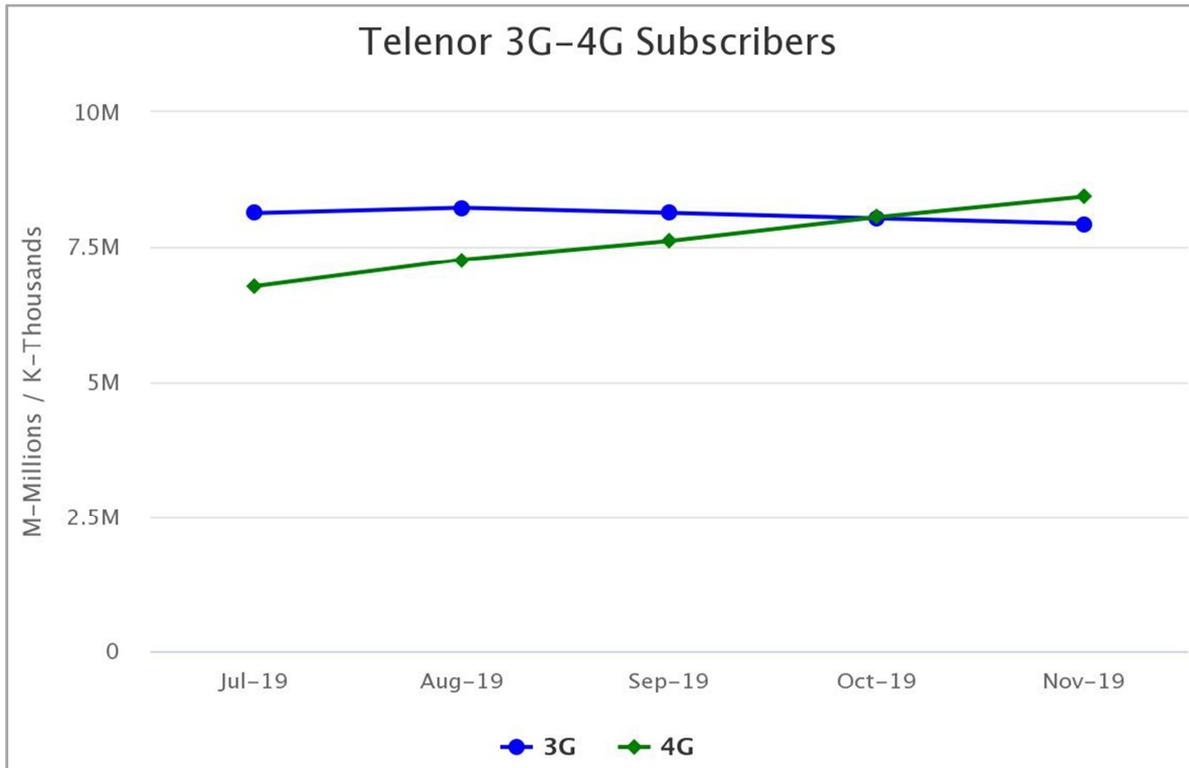


Figure 6. Telenor 3G- 4G Subscribers.

Telenor 4G Users are 8.432 Million subscribers while 3G users are 7.935 Million subscribers.

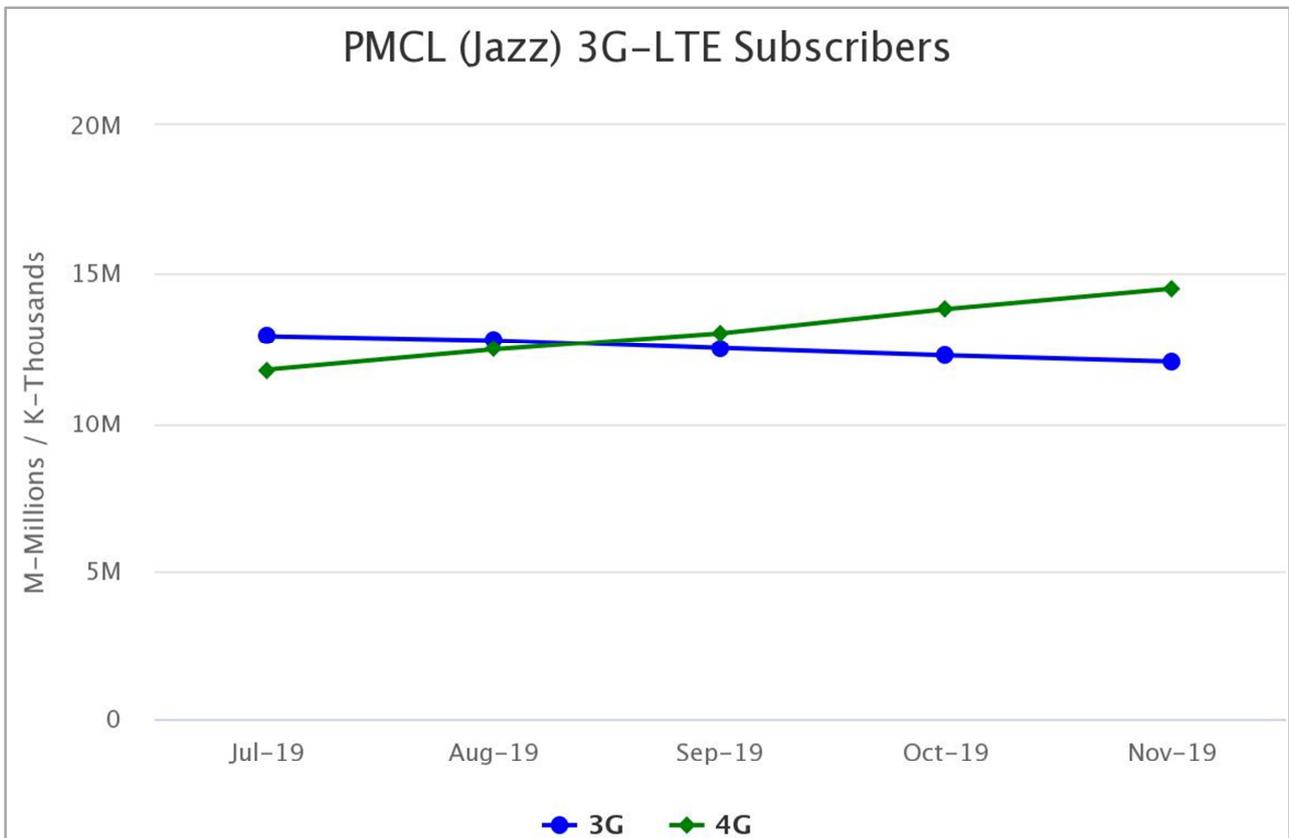


Figure 7. PCML (jazz) 3G-LTE Subscribers.

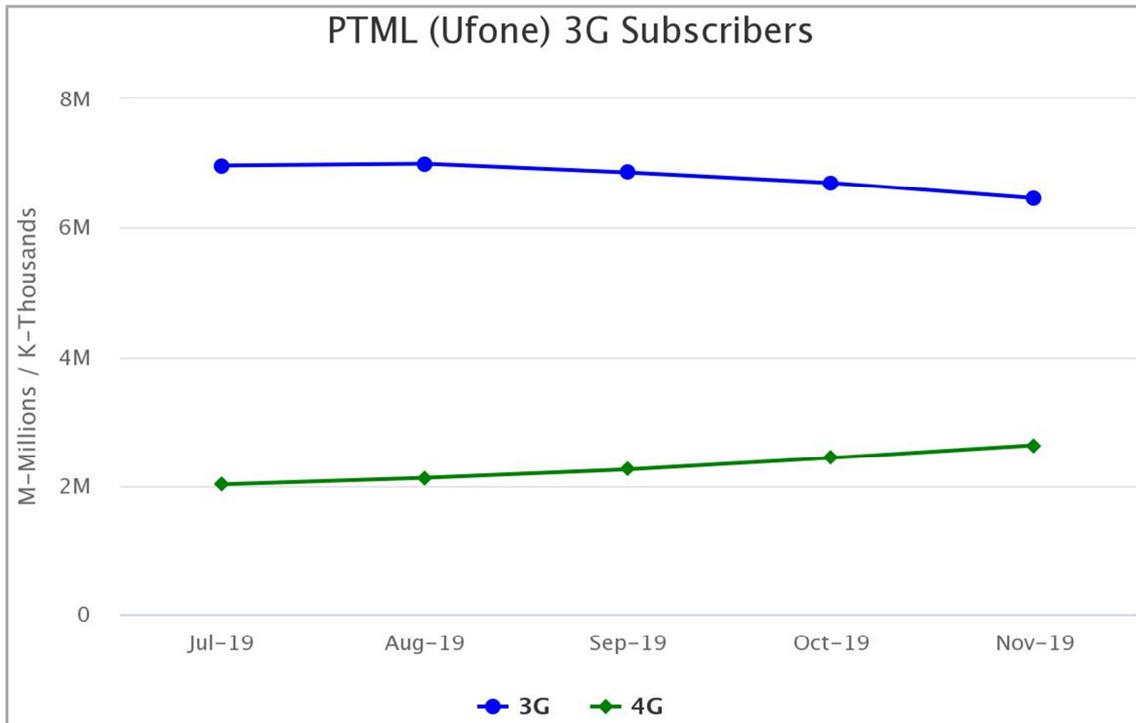


Figure 8. PTCL (Ufone) 3G- 4G Subscribers.



* Figures are updated as on November 2019

Figure 9. 74 Million 3G -4G Subscribers 76 Million Broadband Subscribers as per PTA Updated report November 2019].

PTML 4G users are 2.628 Million while 3G users are 6.45 Million Subscribers.

As per PTA Report.

4. Research Hypothesis

Telecommunication is emerging in a form that is more powerful than it has ever been witnessed before. It is so because two independent sectors viz. telecom and media have integrated, which has led to a change in the very basics of accessing media and communicating. This convergence had led to evolving of the telecom sector in a new direction, where voice has become a commodity and millions of people armed with mobiles wanted to be entertained indicating the size of the potential value-added services market value-added

services bring five values to customers that are: time-critical needs and arrangements; spontaneous needs and decisions; entertainment needs; efficiency needs and ambitions; and mobility-related needs, thus proving to be new opportunities for service operators to provide higher value propositions to the customers. Therefore, pointing towards the fact that value-added services can be effectively used to increase revenue and be a strategic tool for service providers.

- 1) H1: Service quality has a significant positive impact on customer satisfaction.
- 2) H2: The perceived price has a significant influence on the relationship between service quality and customer satisfaction.
- 3) H3: Customer satisfaction has a significant positive impact on customer loyalty.

- 4) H4: Service quality has a significant positive influence on trust.
- 5) H5: Customer satisfaction has a significant positive influence on trust.
- 6) H6: Trust has a positive significant influence on customer loyalty.
- 7) H7: Switching cost has a positive significant influence on customer loyalty.
- 8) H8: inertia has a positive significant influence on customer loyalty.

4.1. Research Objectives

- 1) Service Quality is portrayed and various components impacting Service Quality are perceived.
- 2) Perceived customer Value is described and measured.
- 3) Customer satisfaction is described and considered as an intervening variable between Service quality and customer perceived Value from one perspective and Customer Loyalty on the other.
- 4) Switching costs and Inertia are moreover analyzed as coordinating variables changing the impact of Customer Satisfaction on customer loyalty.

4.2. Research Questions

Research questions help us to find out the results for subject topic, after filling the research questions we conclude the results, research questions basically specific inquiry with

which i seeks research results, and it resides at the core of systematic investigation and help to clearly define a path for my research process.

5. Results and Discussions

The data was collected from 400 respondents each from Three Districts of Quetta Division i.e., District Quetta, District Pishin, and District Killa Abdullah from the subscribers of four major telecom players in these Districts viz: PMCL, PTML, CMPak, and Telenor who were using the Broadband services of their operators. After conducting survey from mentioned districts each telecom subscribers results are mentioned in tables separately more clarity of results.

Basically, I specified end users by their geographical area, by their educational background, by their professional background to point out the end users in light of mentioned tables so results may described specifically.

5.1. Demographical Profile

The section below presents the demographic profiles of the respondents of the study. As mentioned above, the data was collected from Three Districts of Quetta Division, and the districts wise distribution of valid responses has been given in table 1 below:

Table 1. Respondents in select cities.

Districts	Number of Respondents	Percent
Quetta	270	67.5%
Pishin	67	16.8%
Killa Abdullah	63	15.7%
Total	400	100.0%
Mean = 1.4850		Std Deviation =.75909

Table 2. Gender profile of respondents.

Gender	Number of Respondents	Percent
Male	247	61.6%
Female	153	38.4%
Total	400	100.0%
Mean = 1.3825		Std Deviation =.48661

Table 3. Age representation of respondents.

Age Group	Number of Respondents	Percent
Between 16 & 24 Years Old	51	12.7%
Between 25 & 34 Years Old	286	71.3%
Between 35 & 44 Years Old	63	63%
Total	400	100.0%
Mean = 3.0250		Std Deviation =.54324

Table 4. Profession representation of respondents.

Profession	Number of Respondents	Percent
Students	64	16.2%
Government Employs	151	37.7%
Private Employs	173	43.1%
Business	12	3.0%
Total	400	100.0%
Mean = 2.3275		Std Deviation =.77895

Table 5. Education representation of respondents.

Education	Number of Respondents	Percent
Primary School (4 Years)	4	1.0%
Elementary School (6 Years)	2	0.5%
Middle School (9 Years)	9	1.5%
High School (12 Years)	29	7.2%
Bachelor's Degree	245	61.1%
Master's Degree	99	24.7%
Other's	15	4.0%
Total	400	100.0%
Mean = 5.1700		Std Deviation =.84729

Table 6. Language representation of respondents.

Language	Number of Respondents	Percent
English	1	0.2%
Urdu	85	21.4%
Pashto	271	67.6%
Balochi	31	7.7%
Sindhi	7	1.7%
Other	5	1.2%
Total	400	100.0%
Mean = 2.9325		Std Deviation =.69220

Table 7. Representation of respondents having nationality other than Pakistan.

Other than Pakistan Nationality	Number of Respondents	Percent
YES	4	1.0%
NO	296	99.0%
Total	400	100.0%
Mean = 1.9900		Std Deviation =.09962

5.2. SERVQUAL Model

Table 8. Representation of Respondents Using Ufone Mobile Broadband Operator.

PTML (UFONE)		
Your network operator provides information clearly and objectively?		
Response	Counts	Percentage
Agree	71	71.0%
Disagree	14	14.0%
Strongly Agree	14	14.0%
Strongly Disagree	1	1.0%
Total	100	100%
Mean = 1.4500		Sd Deviation = 0.77035
As user, when you have an unresolved situation, your network operator demonstrates determination to solve it?		
Response	Counts	Percentage
Agree	71	71%
Disagree	18	18%
Strongly Agree	10	10%
Strongly Disagree	1	1%
Total	100	100%
Mean = 1.4100		Sd Deviation = 0.71202
Your network operator provides a quick and efficient service?		
Response	Counts	Percentage
Agree	63	63%
Disagree	21	21%
Strongly Agree	12	12%
Strongly Disagree	4	4%
Total	100	100%
Mean= 1.5700		Sd Deviation = 0.85582

PTML (UFONE)		
The employer of your network operator are clear and objective in information they provide?		
Response	Counts	Percentage
Agree	73	73%
Disagree	7	7%
Strongly Agree	17	17%
Strongly Disagree	3	3%
Total	100	100%
Mean = 1.5000		Sd Deviation = 0.88192
The employees of your network operator have a response capacity in answering to the client complaints?		
Response	Counts	Percentage
Agree	68	68%
Disagree	17	17%
Strongly Agree	12	12%
Strongly Disagree	3	3%
Total	100	100%
Mean= 1.5000		Sd Deviation = 0.82266
Your network operator is effective in solving problems?		
Response	Counts	Percentage
Agree	70	70%
Disagree	14	14%
Strongly Agree	12	12%
Strongly Disagree	4	4%
Total	100	100%
Mean = 1.5000		Sd Deviation = 0.85870
Your network operator always provides information about when the contracted services will be preferred?		
Response	Counts	Percentage
Agree	64	64%
Disagree	7	7%
Strongly Agree	27	27%
Strongly Disagree	2	2%
Total	100	100%
Mean = 1.6700		Sd Deviation = 0.94340
The employees of your network are always kinds and polite to you?		
Response	Counts	Percentage
Agree	68	68%
Disagree	9	9%
Strongly Agree	16	16%
Strongly Disagree	7	7%
Total	100	100%
Mean = 1.6200		Sd Deviation = 0.99270
The value for money of services provided by your network is appropriate?		
Response	Counts	Percentage
Agree	60	60.0%
Disagree	23	23.0%
Strongly Agree	11	11.0%
Strongly Disagree	6	6.0%
Total	100	100%
Mean = 1.6300		Sd Deviation = 0.90626
How would you rate, overall, the quality of services provided by your network operator?		
Response	Counts	Percentage
Good	34	34.0%
Very Good	15	15.0%
Excellent	32	32.0%
Week	17	17.0%
Very Week	2	2.0%
Total	100	100%
Mean = 2.3800		Sd Deviation = 1.17877
Who is your broadband service provider?		
Response	Counts	Percentage
Ufone	100	100%
Total	100	100%
Mean = 2.3800		Sd Deviation = 0.000

PTML (UFONE)		
How would you rate, provider meet the level advertised broadband speed for the plan you subscribe?		
Response	Counts	Percentage
Good	38	38.0%
Very Good	17	17.0%
Excellent	23	23.0%
Week	20	20.0%
Very Week	2	2.0%
Total	100	100%
Mean = 2.3100		Sd Deviation = 1.22841
How much do you currently spend for your mobile broadband services each month?		
Response	Counts	Percentage
Up to 5000	5	5.0%
Less than 5000	9	9.0%
Up to 2000	24	24.0%
Up to 1000	22	22.0%
Less than 1000	40	40.0%
Total	100	100%
Mean = 3.8300		Sd Deviation = 1.19810
What do you think, the rates of mobile broadband are justified with services provider?		
Response	Counts	Percentage
Very Justified	25	25.0%
Justified	41	41.0%
Less Justified	19	19.0%
Not Justified	15	15.0%
Not sure	0	0%
Total	100	100%
Mean= 2.2400		Sd Deviation = 0.99615
How do you rate, the response time of mobile Broadband provider against the complaints you made?		
Response	Counts	Percentage
Good	41	41.0%
Very Good	16	16.0%
Excellent	20	20.0%
Week	19	19.0%
Very Week	4	4.0%
Total	100	100%
Mean = 2.2900		Sd Deviation = 1.28939
Have you ported your mobile network?		
Response	Counts	Percentage
Yes	11	11.0%
No	89	89.0%
Total	100	100%
Mean = 1.8900		Sd Deviation = 0.31447
what was the main reason porting your mobile network?		
Response	Counts	Percentage
I Did not change my operator yet	85	85.0%
Not Satisfied with Quality of Service	3	3.0%
Behavior Problem	3	3.0%
Price was to High	9	9.0%
Total	100	100%
Mean = 1.3600		Sd Deviation = 0.91585
Are you satisfy with your current mobile Broadband operator?		
Response	Counts	Percentage
Yes	78	78.0%
No	22	22.0%
Total	100	100%
Mean = 1.2200		Sd Deviation = 0.41633
Your Network operator meets the deadlines?		
Response	Counts	Percentage
Agree	62	62.0%
Disagree	20	20.0%
Strongly Agree	16	16.0%
Strongly Disagree	2	2.0%
Total	100	100%
Mean = 1.5800		Sd Deviation = 0.83097

PTML (UFONE)		
How long have you been a client of other network operator you indicated in the previous?		
Response	Counts	Percentage
Less than 3 Months	3	3.0%
3-6 Months	4	4.0%
6-9 Months	6	6.0%
9-12 Months	8	8.0%
1-2 Years	7	7.0%
2-3 Years	12	12.0%
More than 3 Years	58	58.0%
9 months to 1 year	2	2.0%
Total	100	100%
Mean = 5.9000		Sd Deviation = 1.73205
The employees of your network operator have a groomed appearance and dress appropriately for the function they performed?		
Response	Counts	Percentage
Agree	74	74.0%
Disagree	16	16.0%
Strongly Agree	8	8.0%
Strongly Disagree	2	2.0%
Total	100	100%
Mean = 1.3800		Sd Deviation = 0.72167
The instructions about the product/services provided by your network operator are clear and self-explanatory?		
Response	Counts	Percentage
Agree	73	73.0%
Disagree	16	16.0%
Strongly Agree	9	9.0%
Strongly Disagree	2	2.0%
Total	100	100%
Mean = 1.4000		Sd Deviation = 0.73855

Table 9. Representation of respondents using telenor mobile broadband operator.

Telenor		
Your network operator provides information clearly and objectively?		
Response	Counts	Percentage
Agree	79	79.0%
Disagree	13	13.0%
Strongly Agree	6	6.0%
Strongly Disagree	2	2.0%
Total	100	100%
Mean = 1.3100		Sd Deviation = 0.67712
As user, when you have an unresolved situation, your network operator demonstrates determination to solve it?		
Response	Counts	Percentage
Agree	76	76.0%
Disagree	16	16.0%
Strongly Agree	7	7.0%
Strongly Disagree	1	1.0%
Total	100	100%
Mean = 1.3300		Sd Deviation = 0.65219
Your network operator provides a quick and efficient service?		
Response	Counts	Percentage
Agree	67	67.0%
Disagree	17	17.0%
Strongly Agree	12	12.0%
Strongly Disagree	4	4.0%
Total	100	100%
Mean = 1.5300		Sd Deviation = 0.85818
The employer of your network operator are clear and objective in information they provide?		
Response	Counts	Percentage
Agree	67	67.0%
Disagree	14	14.0%
Strongly Agree	16	16.0%
Strongly Disagree	3	3.0%
Total	100	100%
Mean = 1.5500		Sd Deviation = 0.86894

Telenor		
The employees of your network operator have a response capacity in answering to the client complaints?		
Response	Counts	Percentage
Agree	66	66.0%
Disagree	18	18.0%
Strongly Agree	10	10.0%
Strongly Disagree	6	6.0%
Total	100	100%
Mean = 1.5600		Sd Deviation = 0.90252
Your network operator is effective in solving problems?		
Response	Counts	Percentage
Agree	69	69.0%
Disagree	16	16.0%
Strongly Agree	12	12.0%
Strongly Disagree	3	3.0%
Total	100	100%
Mean = 1.4900		Sd Deviation = 0.82260
Your network operator always provides information about when the contracted services will be preferred?		
Response	Counts	Percentage
Agree	75	75.0%
Disagree	16	16.0%
Strongly Agree	12	12.0%
Strongly Disagree	3	3.0%
Total	100	100%
Mean = 1.4200		Sd Deviation = 0.80629
The employees of your network are always kinds and polite to you?		
Response	Counts	Percentage
Agree	65	65.0%
Disagree	6	6.0%
Strongly Agree	28	28.0%
Strongly Disagree	1	1.0%
Total	100	100%
Mean = 1.6500		Sd Deviation = 0.92524
The value for money of services provided by your network is appropriate?		
Response	Counts	Percentage
Agree	61	61.0%
Disagree	12	12.0%
Strongly Agree	24	24.0%
Strongly Disagree	3	3.0%
Total	100	100%
Mean = 1.6900		Sd Deviation = 0.93954
How would you rate, overall, the quality of services provided by your network operator?		
Response	Counts	Percentage
Good	27	27.0%
Very Good	41	41.0%
Excellent	18	18.0%
Week	4	4.0%
Very Week	0	0.0%
Total	100	100%
Mean = 2.1900		Sd Deviation = 0.99184
Who is your broadband service provider?		
Response	Counts	Percentage
Telenor	100	100%
Total	100	100%
Mean = 2.0000		Sd Deviation = 0.000
How would you rate, provider meet the level advertised broadband speed for the plan you subscribe?		
Response	Counts	Percentage
Good	26	26.0%
Very Good	49	49.0%
Excellent	13	13.0%
Week	11	11.0%
Very Week	1	1.0%
Total	100	100%
Mean = 2.1200		Sd Deviation = 0.95642

Telenor		
How much do you currently spend for your mobile broadband services each month?		
Response	Counts	Percentage
Up to 5000	1	1.0%
Less than 5000	15	15.0%
Up to 2000	43	43.0%
Up to 1000	24	24.0%
Less than 1000	17	17.0%
Total	100	100%
Mean = 3.4100		Sd Deviation = 0.97540
What do you think, the rates of mobile broadband are justified with services provider?		
Response	Counts	Percentage
Very Justified	44	44.0%
Justified	38	38.0%
Less Justified	11	11.0%
Not Justified	6	6.0%
Not sure	1	1.0%
Total	100	100%
Mean = 1.8200		Sd Deviation = 0.92529
How do you rate, the response time of mobile Broadband provider against the complaints you made?		
Response	Counts	Percentage
Good	37	37.0%
Very Good	37	37.0%
Excellent	10	10.0%
Week	15	15.0%
Very Week	1	1.0%
Total	100	100%
Mean = 2.0600		Sd Deviation = 1.08078
Have you ported your mobile network?		
Response	Counts	Percentage
Yes	19	19.0%
No	81	81.0%
Total	100	100%
Mean = 1.8100		Sd Deviation = 0.39428
what was the main reason porting your mobile network?		
Response	Counts	Percentage
I Did not change my operator yet	87	87.0%
Not Satisfied with Quality of Service	7	7.0%
Behavior Problem	1	1.0%
Price was to High	5	5.0%
Total	100	100%
Mean = 1.2400		Sd Deviation = 0.71237
Are you satisfy with your current mobile Broadband operator?		
Response	Counts	Percentage
Yes	86	86.0%
No	14	14.0%
Total	100	100%
Mean = 1.1400		Sd Deviation = 0.34874
Your Network operator meets the deadlines?		
Response	Counts	Percentage
Agree	59	59.0%
Disagree	9	9.0%
Strongly Agree	30	30.0%
Strongly Disagree	2	2.0%
Total	100	100%
Mean = 1.7500		Sd Deviation = 0.95743
How long have you been a client of other network operator you indicated in the previous?		
Response	Counts	Percentage
Less than 3 Months	1	1.0%
3-6 Months	2	2.0%
6-9 Months	9	9.0%
9-12 Months	11	11.0%
1-2 Years	13	13.0%
2-3 Years	20	20.0%
More than 3 Years	38	38.0%
9 months to 1 year	6	6.0%
Total	100	100%
Mean = 5.7500		Sd Deviation = 1.59149

Telenor		
The employees of your network operator have a groomed appearance and dress appropriately for the function they performed?		
Response	Counts	Percentage
Agree	74	74.0%
Disagree	5	5.0%
Strongly Agree	20	20.0%
Strongly Disagree	1	1.0%
Total	100	100%
Mean = 1.4800		Sd Deviation = 0.84662
The instructions about the product/services provided by your network operator are clear and self-explanatory?		
Response	Counts	Percentage
Agree	60	60.0%
Disagree	10	10.0%
Strongly Agree	26	26.0%
Strongly Disagree	4	4.0%
Total	100	100%
Mean = 1.7400		Sd Deviation = 0.98083

Table 10. Representation of respondents using pcml (jazz) mobile broadband operator.

PCML (JAZZ)		
Your network operator provides information clearly and objectively?		
Response	Counts	Percentage
Agree	86	86.0%
Disagree	8	8.0%
Strongly Agree	7	7.0%
Strongly Disagree	1	1.0%
Total	100	100%
Mean = 1.2300		Sd Deviation = 0.61718
As user, when you have an unresolved situation, your network operator demonstrates determination to solve it?		
Response	Counts	Percentage
Agree	74	74.0%
Disagree	14	14.0%
Strongly Agree	10	10.0%
Strongly Disagree	2	2.0%
Total	100	100%
Mean = 1.4000		Sd Deviation = 0.75210
Your network operator provides a quick and efficient service?		
Response	Counts	Percentage
Agree	68	68.0%
Disagree	13	13.0%
Strongly Agree	12	12.0%
Strongly Disagree	7	7.0%
Total	100	100%
Mean = 1.5800		Sd Deviation = 0.95537
The employer of your network operator are clear and objective in information they provide?		
Response	Counts	Percentage
Agree	76	76.0%
Disagree	3	3.0%
Strongly Agree	9	9.0%
Strongly Disagree	12	12.0%
Total	100	100%
Mean = 1.5700		Sd Deviation = 1.07548
The employees of your network operator have a response capacity in answering to the client complaints?		
Response	Counts	Percentage
Agree	79	79.0%
Disagree	10	10.0%
Strongly Agree	8	8.0%
Strongly Disagree	3	3.0%
Total	100	100%
Mean = 1.3500		Sd Deviation = 0.75712
Your network operator is effective in solving problems?		
Response	Counts	Percentage
Agree	71	71.0%
Disagree	14	14.0%
Strongly Agree	11	11.0%
Strongly Disagree	4	4.0%

PCML (JAZZ)		
Total	100	100%
Mean = 1.4800		Sd Deviation = 0.84662
Your network operator always provides information about when the contracted services will be preferred?		
Response	Counts	Percentage
Agree	71	71.0%
Disagree	7	7.0%
Strongly Agree	14	14.0%
Strongly Disagree	5	5.0%
Total	100	100%
Mean = 1.5600		Sd Deviation = 0.94623
The employees of your network are always kinds and polite to you?		
Response	Counts	Percentage
Agree	64	64.0%
Disagree	5	5.0%
Strongly Agree	27	27.0%
Strongly Disagree	4	4.0%
Total	100	100%
Mean = 1.7100		Sd Deviation = 0.99793
The value for money of services provided by your network is appropriate?		
Response	Counts	Percentage
Agree	46	46.0%
Disagree	6	6.0%
Strongly Agree	45	45.0%
Strongly Disagree	7	7.0%
Total	100	100%
Mean = 2.1900		Sd Deviation = 1.05117
How would you rate, overall, the quality of services provided by your network operator?		
Response	Counts	Percentage
Good	16	16.0%
Very Good	15	15.0%
Excellent	58	58.0%
Weak	8	8.0%
Very Weak	3	3.0%
Total	100	100%
Mean = 1.6700		Sd Deviation = 0.94340
Who is your broadband service provider?		
Response	Counts	Percentage
Jazz	100	100%
Total	100	100%
Mean = 1.000		Sd Deviation = 0.000
How would you rate, provider meet the level advertised broadband speed for the plan you subscribe?		
Response	Counts	Percentage
Good	12	12.0%
Very Good	29	29.0%
Excellent	43	43.0%
Weak	14	14.0%
Very Weak	2	2.0%
Total	100	100%
Mean = 2.6500		Sd Deviation = 0.93609
How much do you currently spend for your mobile broadband services each month?		
Response	Counts	Percentage
Up to 5000	3	3.0%
Less than 5000	20	20.0%
Up to 2000	52	52.0%
Up to 1000	5	5.0%
Less than 1000	20	20.0%
Total	100	100%
Mean = 3.1900		Sd Deviation = 1.07021
What do you think, the rates of mobile broadband are justified with services provider?		
Response	Counts	Percentage
Very Justified	59	59.0%
Justified	22	22.0%
Less Justified	12	12.0%
Not Justified	5	5.0%
Not sure	2	2.0%
Total	100	100%
Mean = 1.6900		Sd Deviation = 1.00197

PCML (JAZZ)		
How do you rate, the response time of mobile Broadband provider against the complaints you made?		
Response	Counts	Percentage
Good	27	27.0%
Very Good	10	10.0%
Excellent	50	50.0%
Week	10	10.0%
Very Week	3	3.0%
Total	100	100%
Mean = 2.5200		Sd Deviation = 1.08693
Have you ported your mobile network?		
Response	Counts	Percentage
Yes	12	12.0%
No	88	88.0%
Total	100	100%
Mean = 1.8800		Sd Deviation = 0.32660
what was the main reason porting your mobile network?		
Response	Counts	Percentage
I Did not change my operator yet	91	91.0%
Not Satisfied with Quality of Service	7	7.0%
Behavior Problem	2	2.0%
Price was to High	0	0.0%
Total	100	100%
Mean = 1.1300		Sd Deviation = 0.48524
Are you satisfy with your current mobile Broadband operator?		
Response	Counts	Percentage
Yes	90	90.0%
No	10	10.0%
Total	100	100%
Mean = 1.1000		Sd Deviation = 0.30151
Your Network operator meets the deadlines?		
Response	Counts	Percentage
Agree	61	61.0%
Disagree	7	7.0%
Strongly Agree	29	29.0%
Strongly Disagree	3	3.0%
Total	100	100%
Mean = 1.7400		Sd Deviation = 0.98083
How long have you been a client of other network operator you indicated in the previous?		
Response	Counts	Percentage
Less than 3 Months	4	4.0%
3-6 Months	1	1.0%
6-9 Months	3	3.0%
9-12 Months	10	10.0%
1-2 Years	12	12.0%
2-3 Years	20	20.0%
More than 3 Years	45	45.0%
9 months to 1 year	5	5.0%
Total	100	100%
Mean = 5.9000		Sd Deviation = 1.61746
The employees of your network operator have a groomed appearance and dress appropriately for the function they performed?		
Response	Counts	Percentage
Agree	85	85.0%
Disagree	4	4.0%
Strongly Agree	10	10.0%
Strongly Disagree	1	1.0%
Total	100	100%
Mean = 1.2700		Sd Deviation = 0.67950
The instructions about the product/services provided by your network operator are clear and self-explanatory?		
Response	Counts	Percentage
Agree	77	77.0%
Disagree	5	5.0%
Strongly Agree	13	13.0%
Strongly Disagree	5	5.0%
Total	100	100%
Mean = 1.4600		Sd Deviation = 0.90364

Table 11. Representation of respondents using zong mobile broadband operator.

CMPAK (Zong)		
Your network operator provides information clearly and objectively?		
Response	Counts	Percentage
Agree	74	74.0%
Disagree	16	16.0%
Strongly Agree	7	7.0%
Strongly Disagree	3	3.0%
Total	100	100%
Mean = 1.3900		Sd Deviation = 0.75069
As user, when you have an unresolved situation, your network operator demonstrates determination to solve it?		
Response	Counts	Percentage
Agree	65	65.0%
Disagree	18	18.0%
Strongly Agree	14	14.0%
Strongly Disagree	3	3.0%
Total	100	100%
Mean = 1.5500		Sd Deviation = 0.84537
Your network operator provides a quick and efficient service?		
Response	Counts	Percentage
Agree	62	62.0%
Disagree	20	20.0%
Strongly Agree	16	16.0%
Strongly Disagree	2	2.0%
Total	100	100%
Mean = 1.5800		Sd Deviation = 0.83097
The employer of your network operator are clear and objective in information they provide?		
Response	Counts	Percentage
Agree	61	61.0%
Disagree	17	17.0%
Strongly Agree	8	8.0%
Strongly Disagree	4	4.0%
Total	100	100%
Mean = 1.6500		Sd Deviation = 0.91425
The employees of your network operator have a response capacity in answering to the client complaints?		
Response	Counts	Percentage
Agree	65	65.0%
Disagree	24	24.0%
Strongly Agree	11	11.0%
Strongly Disagree	0	0.0%
Total	100	100%
Mean = 1.4600		Sd Deviation = 0.68785
Your network operator is effective in solving problems?		
Response	Counts	Percentage
Agree	60	60.0%
Disagree	24	24.0%
Strongly Agree	14	14.0%
Strongly Disagree	2	2.0%
Total	100	100%
Mean = 1.5800		Sd Deviation = 0.80629
Your network operator always provides information about when the contracted services will be preferred?		
Response	Counts	Percentage
Agree	63	63.0%
Disagree	21	21.0%
Strongly Agree	16	16.0%
Strongly Disagree	0	0.0%
Total	100	100%
Mean = 1.5300		Sd Deviation = 0.75819
The employees of your network are always kinds and polite to you?		
Response	Counts	Percentage
Agree	72	72.0%
Disagree	8	8.0%
Strongly Agree	18	18.0%
Strongly Disagree	2	2.0%
Total	100	100%
Mean = 1.5000		Sd Deviation = 0.85870

CMPAK (Zong)		
The value for money of services provided by your network is appropriate?		
Response	Counts	Percentage
Agree	54	54.0%
Disagree	19	19.0%
Strongly Agree	20	20.0%
Strongly Disagree	7	7.0%
Total	100	100%
Mean = 1.8600		Sd Deviation = 0.99494
How would you rate, overall, the quality of services provided by your network operator?		
Response	Counts	Percentage
Good	34	34.0%
Very Good	19	19.0%
Excellent	29	29.0%
Week	15	15.0%
Very Week	3	3.0%
Total	100	100%
Mean = 2.3400		Sd Deviation = 1.18253
Who is your broadband service provider?		
Response	Counts	Percentage
Zong	100	100%
Total	100	100%
Mean = 3.0000		Sd Deviation =0.00000
How would you rate, provider meet the level advertised broadband speed for the plan you subscribe?		
Response	Counts	Percentage
Good	25	25.0%
Very Good	26	26.0%
Excellent	25	25.0%
Week	20	20.0%
Very Week	4	4.0%
Total	100	100%
Mean = 2.5152		Sd Deviation = 1.18978
How much do you currently spend for your mobile broadband services each month?		
Response	Counts	Percentage
Up to 5000	2	2.0%
Less than 5000	18	18.0%
Up to 2000	46	46.0%
Up to 1000	20	20.0%
Less than 1000	14	14.0%
Total	100	100%
Mean = 3.2600		Sd Deviation = 0.98083
What do you think, the rates of mobile broadband are justified with services provider?		
Response	Counts	Percentage
Very Justified	22	22.0%
Justified	39	39.0%
Less Justified	26	26.0%
Not Justified	11	11.0%
Not sure	2	2.0%
Total	100	100%
Mean = 2.3200		Sd Deviation = 1.00383
How do you rate, the response time of mobile Broadband provider against the complaints you made?		
Response	Counts	Percentage
Good	38	38.0%
Very Good	20	20.0%
Excellent	19	19.0%
Week	21	21.0%
Very Week	2	2.0%
Total	100	100%
Mean = 2.2900		Sd Deviation = 1.23333
Have you ported your mobile network?		
Response	Counts	Percentage
Yes	27	27.0%
No	73	73.0%
Total	100	100%
Mean = 1.7300		Sd Deviation = 0.44620
what was the main reason porting your mobile network?		
Response	Counts	Percentage
I Did not change my operator yet	73	73.0%

CMPAK (Zong)		
Not Satisfied with Quality of Service	16	16.0%
Behavior Problem	2	2.0%
Price was to High	9	9.0%
Total	100	100%
Mean = 1.4700		Sd Deviation = 0.91514
Are you satisfy with your current mobile Broadband operator?		
Response	Counts	Percentage
Yes	92	92.0%
No	8	8.0%
Total	100	100%
Mean = 1.0800		Sd Deviation = 0.27266
Your Network operator meets the deadlines?		
Response	Counts	Percentage
Agree	85	85.0%
Disagree	6	6.0%
Strongly Agree	8	8.0%
Strongly Disagree	1	1.0%
Total	100	100%
Mean = 1.2500		Sd Deviation = 0.64157
How long have you been a client of another network operator you indicated in the previous?		
Response	Counts	Percentage
Less than 3 Months	5	5.0%
3-6 Months	3	3.0%
6-9 Months	10	10.0%
9-12 Months	17	17.0%
1-2 Years	10	10.0%
2-3 Years	17	17.0%
More than 3 Years	33	33.0%
9 months to 1 year	5	5.0%
Total	100	100%
Mean = 5.3200		Sd Deviation = 1.87423
The employees of your network operator have a groomed appearance and dress appropriately for the function they performed?		
Response	Counts	Percentage
Agree	87	87.0%
Disagree	4	4.0%
Strongly Agree	8	8.0%
Strongly Disagree	1	1.0%
Total	100	100%
Mean = 1.2300		Sd Deviation = 0.63333
The instructions about the product/services provided by your network operator are clear and self-explanatory?		
Response	Counts	Percentage
Agree	86	86.0%
Disagree	5	5.0%
Strongly Agree	8	8.0%
Strongly Disagree	1	1.0%
Total	100	100%
Mean = 1.2400		Sd Deviation = 0.63755

5.3. SERVQUAL MODEL Representation

Our main focus of this research is to find out the loopholes in Broadband operators, so we consider the negative answers, and also compare the results of each broadband operator to find out the loopholes of each one, and the best one, so maximum customers are satisfied, with information regarding their particular broadband operator provide them, but in the efficiency of services, there is the ratio of disagree and strongly disagree is available which means there are loopholes we identify via end users, respondents, while if maximum users, did not port there no but still there is the percentage who particular port their mobile broadband operators, maximum respondents ported their mobile broadband operators because of Low Quality of service & the

price issue. While usage of end users in Quetta district is increasing day by day, but respondents' porting ratio is also increasing Mobile broadband users need to work on their Qos and price rates.

5.4. Recommendations for Mobile Broadband Operators

- 1) The regulator should focus on the KPIs of Mobile broadband operators.
- 2) If any mobile operators will not follow the SOPs or threshold issues from PTA, then PTA Should cancel the license of said mobile broadband operators.
- 3) PTS should look after the price lists, and services of all mobile brand band operators, quarterly, to make sure that the mobile broadband operators working properly as per PTA rules.

6. Conclusion

The focus and reason of this research work are to find out the Quality of service, customer satisfaction, and customer loyalty. We find out the satisfaction gap of customers between the expected service of customs and what they are bearing in the telecom part of Pakistan. The primary reason for the examination is to break down the effect of service quality on consumer loyalty as far as client steadfastness and client turnover is concerned. We conduct this research in the Quetta Division of Baluchistan, Pakistan. We focus on three districts of Quetta division named Quetta district, Pishin district & Killa Abdullah District and then we target customers between the age group of 18 to 50 after which we focus on businesspersons, students, and Govt & private sector employees.

We get filled 400 questionnaires by our respondents from the Quetta division. Our research hypothesis is switching cost & intertie which has a very positive impact on customer loyalty & customer satisfaction. Customer satisfaction has a significant positive impact on customer loyalty. Service quality has a significant positive influence on trust. After concluding that we come up with the results that as per our respondent Jazz has quick and efficient services rather than other mobile broadband operators, customers are satisfied with jazz with the addition of having clear objectives & information they provide. Jazz's response capacity is also very efficient while in politeness behavior of Telenor is number one place and jazz is in number two customer rate Quality of service of Telenor is better than other mobile operators, while jazz is number two, as per our KPI our respondents rate Telenor as 1st and jazz as 2nd, in quality of service, with addition respondents rate as justified with services of jazz as 1st and Telenor as 2nd, the portrayed no rate of jazz is very low compared to other mobile broadband operators, Zong users are satisfied with their mobile broadband operators, while in 2nd jazz mobile broadband operators are satisfied as 2nd no, the reason behind this Zong broadband is cheaper than other mobile broadband operators, plus Quality of service of jazz is far better than other mobile broadband operators as per our respondents. So Basically, Ufone and Telenor should work on QOS as well as their price rates, plus jazz should focus on behavior, and prices and Zong should focus on the quality of services.

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