

# MEASURING CUSTOMER SATISFACTION AND LOYALTY THROUGH SERVICE FAIRNESS, SERVICE QUALITY AND PRICE FAIRNESS PERCEPTION: AN EMPIRICAL STUDY OF PAKISTAN MOBILE TELECOMMUNICATION SECTOR

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**Abstract:** *Today's successful companies serving in telecommunication sector of Pakistan have one thing in common: Like leading world telecom companies such as Vodafone and China mobile, they are highly customer centered and deeply concerned to marketing. Such organizations to win the customer satisfaction and loyalty, demonstrate an understanding of their target markets dynamically. They through service fairness, service quality, and price fairness inspire everyone in the firm to facilitate in building long lasting customer relationships. Thus, the main purpose of this paper was to examine the effect of service fairness, service quality, and price fairness perception on the customer satisfaction and customer loyalty in the mobile telecom sector of Pakistan. A quantitative research design was employed. Data were collected through survey instrument from 220 participants representing the customers of telecom companies of Pakistan. Factor analysis, correlation and regression analysis were conducted using SPSS 17. The results demonstrate that service fairness, service quality and price fairness perception are valid and reliable for measuring customer satisfaction and loyalty. Moreover the findings also show that there is positive relationship between them. Finally, this paper also gives insights into telecommunication sector in Pakistan for service improvement and customer's retention.*

**Key Words:** Customer satisfaction, Customer loyalty, Service quality, Service fairness, Price fairness

## 1. INTRODUCTION:

In the past three decades, telecom industry has become active service industry subject to intense competition and rapid growth [1]. In Asian countries, mobile telecom growth rate is increasing rapidly [2]. For example in china, which has the world largest mobile telecommunication service users having a figure of 180 million subscribers and experiencing growth rate of 200% since 1990 [3]. Similarly, this wave of change can also be witnessed in Pakistan. In Pakistan, mobile phone service was introduced in 1990 and since then this sector has never seen its past. Government of Pakistan's prudent policies dramatically increases the growth of this sector in a single decade. Pakistan telecommunication authority (PTA) designates that this sector has experienced 150% growth rate from the 2003-06. Tele-density of the country touched 68.39% in 2012 reflecting growth of 6.7% from previous year. Moreover, number of mobile phone subscribers in 2003- 2012 increases from 12 million to 109 million. Likewise, in 2012 there has been drastic increase in the number of franchises to 31,303 which were 30,126 in 2011. This sector also plays a significant role in the development of economy. Total telecom revenue during the year 2012 swelled to all time high Rs.362 billion and in national exchequer, this sector contributed over Rs. 116.9 billion[4]. This boost in the revenues and rapid expansion exhibits a magnetic power to attract not only business community but also the academic researchers. Businessmen and Researchers scrutinized this sector in different dimensions and perspectives but among all, customers were given priority. Customers are seen as a

decisive factor for the success of any business organization, their satisfaction and loyalty is far more cost effective than attracting new ones[5,6,7]. Similarly, Chaudhuri, [8] suggested that loyal customers are the competitive asset of any organization [8]. Moreover, Tseng, [9] depicts that major concern of the organizations is customer retention which lead towards long term and profitable relationship [9]. Satisfaction of customer has also been regarded as an important issue for marketing managers [10]. The prime motive of the marketing manager is to increase loyalty by creating a strong bond between customers and company [11].

Currently, in Pakistan, five mobile telecom operators are offering their service i.e. Mobilink, Ufone, Telenor, Warid, and Zong. In line with their vision to maximize their market share and profit, the interests of the consumers remained at their top priority. However, as an unsatisfied customer can easily switch to another company, so the development of customer loyalty and satisfaction is not very simple and consequently, to avoid this behavior, different strategies should be applied [12]. An effective strategy may help the company to build long term relationship [9]. In Pakistan, researchers employ variety of tactics to build satisfaction and loyalty of customers. Study of Hanif, Hafeez & Riaz [13] examines the effect of customer service and price fairness on customer satisfaction [13]. Similarly, the relation of service quality, brand image, trust, customer satisfaction and customer loyalty were also been examined [14, 15, 16, 17, 18] but all these studies have one thing in common, they ignore the service fairness in examining the customers satisfaction and loyalty. According to the best knowledge of

the authors of this study, no empirical study has been conducted to examine the effect of service fairness on the customer satisfaction and loyalty in Pakistan mobile telecom sector. Service fairness refers to the equity theory which is usually defined as rightness and deservingness or unbiasedness. It is also regarded as the perception that a customer makes regarding equal distribution of product or service comparative to the others [19]. Therefore, the purpose of this study is to build such a comprehensive framework which not only includes service quality, price fairness perception but also service fairness as predictors of customer satisfaction and customer loyalty in Mobile Telecommunication sector of Pakistan.

The current study also adds to the body of knowledge on customer satisfaction and loyalty by addressing the research question: (1) among service quality, price fairness perception and service fairness which one is the most influential variable effecting customer satisfaction and loyalty in the mobile telecommunication sector of Pakistan.

In the section to follow, theoretical background regarding the concept and relationship of service quality, price fairness perception, service quality, customer satisfaction and customer loyalty as put forth by research scholars will be examined. Then, in light of prior research, proposed hypotheses of the study will be suggested. Remainder consists of survey methodology and measurement scale followed by results of empirical data analysis. Finally, conclusion along with implications and research limitations will be presented.

## 2. Literature review

### 2.1 Service fairness

Service fairness is based on equity theory which argues that people are motivated when they compare the ratio of their inputs to received outcomes with that of the others [20]. Customers want the procedures to be unbiased and not excessively favoring any individual or group in distributing the service resources. Study of Chebata & Slusarczyk's [19] depict that perceptions of people regarding equal distribution have a significant positive effect on their relationship with service providers. Similarly, study of Ambrose et al. illustrate that people look for fair & consistent service and that unfair treatment leads towards customer complaints. Moreover, customers are satisfied if they receive similar services that are provided to the others [21].

Service fairness has been classified into four dimensions: Distributive fairness, Procedural fairness, Interpersonal fairness, and Informational fairness. Distributive fairness refers to perceived fairness which includes cognitive, affective & behavioral reactions to outcome. Therefore, whenever a particular outcome is unfair it affects the emotions and behavior of an individual [22].

Procedural fairness is expressed as the fairness of the processes and policies that contribute to outcomes representing certain type of normatively acceptable principles [23]. It is also defined as a situation, in which all individuals receive the same service procedures without any biasness. Thus, for maintaining a long-term relationship between exchange parties, significance of procedural fairness cannot be denied. Moreover, interpersonal fairness

is defined as "all the customers should be treated in a single parameter of respect, sincerity and courtesy" [24]. However, Greenberg [25] delineate the informational fairness as providing information or educating customers on procedures that demonstrate regard for their concerns.

Study of Carr, [26] depicts that consumers evaluate services through the above stated principles of distributive, procedural, interpersonal, and informational fairness. Likewise, Ambrose et al. [21] suggest that, individual judgments regarding service-related outcomes of a firm increases as it attains higher level of fairness. Moreover Chiu et al. [27] study asserts that fair treatment influence the customer satisfaction and loyalty intentions.

### 2.2 Service Quality

Service quality is defined as an attitude or judgment relating to the overall excellence or superiority of the service. It is also expressed as a difference between expectations and perception of a customer regarding service performance [28]. Likewise, according to Gronroos's [29] study, service quality is a comparison between customer expectations with the service they perceive to have received. In another words, service quality is considered as a construct that measures the gap between expectations and perception of a customer.

Importance of the service quality in this era of fierce competition can't be neglected. Kim et al. [30] stated that in order to survive and remain competitive, all businesses should develop quality of service that ultimately will lead towards customer's satisfaction and loyalty. Moreover, service quality is one of the predecessors of customer satisfaction and loyalty [31, 32, 33, 34]. Study of Huang & Liu [35] stated that higher level of service quality is supposed to be an effective way to improve customer satisfaction, trust, and loyalty. Therefore, researchers conclude that service quality leads to perceived value, trust, and customer satisfaction [36, 37, 38]

### 2.3 Price fairness perception

Price is considered as an instrument that highly affects the purchasing behavior of the customer. It is considered as an important ingredient in developing marketing strategies and creating customer satisfaction and trust. Researchers agree upon the fact that price perception is a vital instrument in setting the significant behavior of customers, either it increases or decreases customer satisfaction and trust [39, 40]. Understanding the customer's behavior towards price perception assists the companies to develop such pricing strategies that create customer trust and satisfaction.

### 2.4 Customer loyalty

Oliver [41] classified the customer loyalty as customer's commitment to repurchase the product or service consistently for future use, regardless of new situation or competitor offer. Loyal customer show greater resistance to negative word of mouth and they are less price sensitive. Furthermore, Chaudhuri [8] observe loyalty as consumer preference towards goods or services and propose that loyalty leads the firm to capture greater market share.

### 2.5 Customer satisfaction

Olive [41] defined the satisfaction as post consumption judgment by the consumers that whether a product or service provides a gratifying level of consumption-related

fulfillment or not? Study of Boshoff & Gray [42] argued that satisfaction doesn't depend upon the product or service itself rather it relies on the customer's perception. Likewise, Cronin et al. [43] states that satisfaction is a result of perception of the customer about the value received. Moreover, study of Choi et al. [44] found that there is a positive influence of perceived value on the satisfaction. Therefore, it is understood that satisfaction level varies to customers experiencing the same level of services [45]. Rapid technological improvements and sturdy competition are forcing the firms to camber their thoughts towards increased market share, for which, customer satisfaction is recognized as a central concept [46]. Achieving customer satisfaction leads the firms towards customer loyalty, improved profitability, positive word of mouth and depressed market expenditures [47].

**2.6 Relationship between service quality, customer satisfaction & loyalty**

Researchers examined the impact of different variables on customer satisfaction and loyalty. For instance, study of Wong & Lo [3] in telecommunication sector of china portray that service quality has a positive significant relationship with the customer satisfaction. Moreover, their paper also demonstrates that service quality and customer satisfaction are the important factors for the success of any organization. Similarly, research paper of Akber & Parvez [14] in the telecom sector of Bangladesh empirically investigates the relation between service quality and customer satisfaction and customer loyalty. Results exhibits that there is a positive relationship not only between service quality and satisfaction but also between service quality and loyalty. Likewise, in Pakistan, study of Ahmad et al. [15] reveals that service quality and loyalty/customer retention positively relates with each other. Furthermore, their study argues that in order to be successful in the market of competition, telecom operators must provide better quality service. In addition, Saha & Theingi [48] concluded that service quality positively relates with satisfaction of customers.

**2.7 Relationship between price fairness perception, customer satisfaction & loyalty**

Srikanjanarak Omar & Ramayah [49] recent study exemplifies that not only service quality but also fair price positively relates to satisfaction of the customers. In order to build long term profitable relationships with their customers, organizations must create satisfaction and loyalty of their customers which can be achieved through providing them fair price and good quality service. In the same context,

Hanif, Hafeez & Riaz [13] stated that competition in the service sector particularly in the telecom sector is increasing and organizations are using variety of tactics to remain competitive. Therefore, their paper empirically studies the relation between price fairness and customer satisfaction. Hermann et al. [50] made a conclusion that price fairness affects the satisfaction. Moreover, their study links conceptually the satisfaction and the price fairness. Correspondingly, Consuegra & Esteban [51] study shows that price fairness is positively associated with the customer satisfaction and loyalty.

**2.8 Relationship between service fairness, customer satisfaction & loyalty**

Zhu & Chen [52] study argues that service fairness predicts the customer satisfaction and is positively correlated with each other. In the same context, study of Chen et al. [53] depicts that service fairness positively and significantly relate with customer satisfaction. In addition, their study categorizes service fairness into four dimensions i.e. informational, interpersonal, distributive and fair procedure. Similarly, study of Carr [54] empirically found that all the above dimensions of service fairness positively affect customer satisfaction. Furthermore, they depict that overall service fairness is also positively related to the satisfaction of the customers.

All the studies discussed above demonstrate that there is a positive relationship between service fairness, service quality and price fairness perception with the satisfaction and loyalty of customers. All the studies have statistically significant results (p<.05) having adjusted R square of 0.13 to 0.836 and correlation (r) ranging from 0.19 to 0.683. Thus, the above literature leads us to formulate the following hypotheses:

- H1:**The relationship between service fairness and customer satisfaction is positive & significant.
- H2:**The relationship between service fairness and customer loyalty is positive & significant.
- H3:**The relationship between service quality and customer satisfaction is positive & significant.
- H4:** The relationship between service quality and customer loyalty is positive & significant.
- H5:**The relationship between price fairness perception and customer satisfaction is positive & significant.
- H6:** The relationship between price fairness perception and customer loyalty is positive & significant.

**Table1: Literature examining customer satisfaction and customer loyalty through service fairness, service quality and price fairness perception**

Study	Hypothesis	significance	r	R <sup>2</sup>
Wang & Lo, (2002)	Service quality effect positively and significantly on the customer satisfaction.	p	.683	.836
Raza & Rehman (2012)	Service quality is positively related to the customer satisfaction. Fair price is positively related to customer satisfaction.	P p	.682 .600	
Akber & parvez (2009)	Service quality has a positive effect on customer satisfaction Service quality positively affects the customer loyalty.	p p	.19 to .40	
Saha & Theingi (2009)	Service quality positively affects satisfaction.			.13 to .34
Ahmad et., al. (2010)	There is a positive relationship between service quality and	p	.394	

	customer retention or loyalty			
Srikanjanarak Omar & Ramayah (2009)	Price fairness perception positively relates to the satisfaction.	p	.479	
Hermann et., al. (2007)	Price perception positively and significantly influences the satisfaction of customer	P	.40	
	Price offer fairness has positive influence over satisfaction.	p	.46	
	Price procedural fairness has positive influence over satisfaction.	p	.37	
Consuegra & Esteban (2007)	Price fairness is positively associated with customer satisfaction.	p	.512	
	Price fairness is positively related to customer loyalty.		.678	
Chen et., al. (2012)	Service fairness is positively associated with customer satisfaction	p	.62	.59
Zhu & Chen (2007)	Systematic or overall service fairness directly or positively affects customer satisfaction.	p	.627	
Carr (2007)	Dimension of service fairness i.e. distributive fairness is positively related to service quality.	p	.35	
	Procedural fairness positively related to customer satisfaction.	p	.45	
	Interpersonal fairness positively related to customer satisfaction.	p	.41	
	Informational fairness positively related to customer satisfaction.	p	.42	

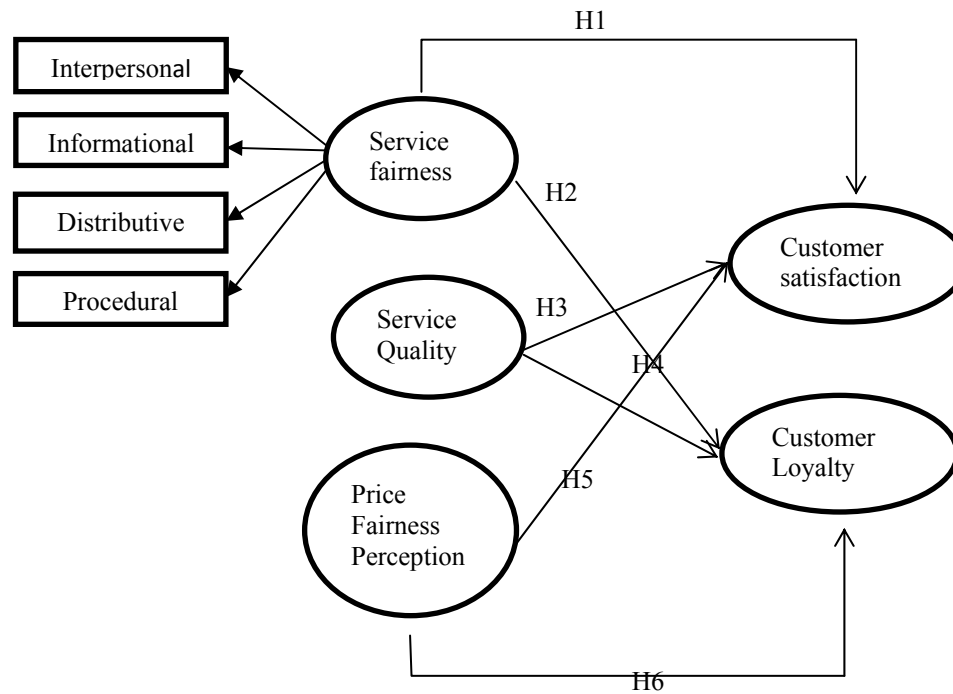


Figure 1: Conceptual framework

**4. RESEARCH FRAMEWORK**

On the basis of above hypotheses, research framework has been shown in figure 1

**3. Data Collection and Measurement Scales**

The main variables of the study are service fairness, service quality, price fairness perception, customer satisfaction and customer loyalty. To measure these variables, standard questions are used which are adopted from previous studies. Moreover, since youth is the major user of mobile telecom service in Pakistan, therefore, data for current study were collected from the students of three universities of Multan (one public and two private), in which students were requested to respond. Out of the 255 students inquired, 233 responded. 13 questionnaires were rejected due to

incomplete responses. Therefore, a total of 220 valid responses were obtained, making a response rate of 86 percent. Portion of male respondents was 59.4% and of female was 41.6%.

Five point likert scale starting from 1 (strongly disagree) to 5 (strongly agree) was used to measure the study variables. For service fairness variable, 16-items scale was adopted from Chen et al. [53] having 4 dimensions: interpersonal fairness-4 items, informational fairness-4 items, distributive fairness-4 items & procedural fairness-4 items. Moreover, 10 items service quality scale was adopted from Zehir, Şahin, Kitapçı, & Özşahin [55]. In the same way, 5 items Price fairness perceptionscale was adopted from Srikanjanarak et al. [49]. Finally, for satisfaction 5 items scale and for loyalty

4 items scale were adopted from the Sondoh Jr, Omar, Wahid, Ismail, & Harun, [56] .Cronbach's alpha values of these five measures were .84, .93, .81, .791 & .816 respectively; hence, showing reliable measures to be used in the current study.

Statistical software SPSS version 17 has been used for validity and reliability analysis. For validity analysis, principle component analysis with varimax rotation was performed for all the five measurement scales. Results in table 2 show three factor solutions of independent variables having a KMO= .797 and variance explained =49.5; first factor service fairness-12 items (4 items out of 16 have been

dropped due to low factor loading). Second factor service quality-8 items (2 items out of 10 have been dropped due to low factor loading). Third factor perceived price fairness-5 items (no item has been dropped). Dependent variables were extracted on two factor solutions as shown in the table 3 having KMO= .734 and variance explained=52.137; first customer satisfaction and second customer loyalty. The data after performing factor analysis was tested for reliability analysis. Cronbach's alpha coefficient values as shown in Table-4 depict that all the constructs are reliable and are in consistent with previous studies [49, 53, 55].

**Table2: Factor analysis of independent variables**

Measures	Constructs		
	Service fairness	service quality	price fairness perception
	KMO= 0.797, Variance Explained= 49.5		
(a) Interpersonal fairness: Employees in the telecom industry are polite. Employees in the telecom industry are respectful Employees in the telecom industry treat customers with dignity.	.653 .825 .640		
(b) Informational fairness: Employees in the telecom industry give thorough explanations Employees in the telecom industry provide reasonable explanations	.778 .661		
(c) Procedural fairness: The Process of wording with employees in the telecom sector is generally fair The activities of the employees in the telecom sector are conducted without bias The processes involving employees in the telecom sector attempt to meet all customer needs The procedures used by employees in the telecom sector are consistent across customers	.682 .614 .671 .479		
(d) Distributive fairness: Employees in the telecom sector help all customers get the outcomes they need without favoring any one group. Employees in the telecom sector produce desired results for all customers without bias of any kind. Employees in the telecom sector deliver good outcomes for all customers regardless of who they are.	.617 .701 .705		
This operator provides superior service. This operator offers excellent service. I have always excellent experience when I use this operator. I feel good about what this operator offers to its customers. Overall, I would say the quality of my interaction with this operator's employees is excellent. I would say that the quality of my interaction with this operator's employees is high. I would say this operator's physical environment is one of the best in its industry. I would rate this operator's physical environment highly.		.629 .672 .673 .605 .776 .775 .634 .633	
This operator offers the best possible price plan that meets my needs This operator makes it easy to change service plans. This operator provides a variety of pricing plans. The price charged by this operator is reasonable. Overall, this operator provides superior pricing options compared to other service providers.			.580 .786 .537 .727 .751

**Table 3: Factor analysis of dependent variables**

Measures	Constructs	
	Customer satisfaction	Customer loyalty
	KMO=0.734, Variance Explained=52.137	
I think that I did the right thing when I used this operator.	.675	
I believe that using this operator is usually a satisfying experience.	.717	
My choice to use this operator has been a wise one.	.701	
I am very satisfied with the decision to use this operator.	.654	
This operator does a good job of satisfying my needs.	.500	
I believe that I can trust that this firm will not try to cheat me		.795
I intend to continue using this operator in near future		.845
I will more likely to repurchase this operator in near future.		.769
I will encourage friends and relatives to use this operator.		.728

**Table4: Reliability analysis:**

Factor	Cronbach's Alpha	Alpha if item deleted
<b>Service fairness</b> <b>(a) Interpersonal fairness</b> 1. Employees in the telecom industry are polite. 2. Employees in the telecom industry are respectful 3. Employees in the telecom industry treat customers with dignity <b>(b) Informational Fairness</b> 1. Employees in the telecom industry give thorough explanations 2. Employees in the telecom industry provide reasonable explanations <b>(c) Procedural Fairness</b> 1. The Process of wording with employees in the telecom sector is generally fair 2. The activities of the employees in the telecom sector are conducted without bias 3. The processes involving employees in the telecom sector attempt to meet all customer needs 4. The procedures used by employees in the telecom sector are consistent across customers <b>(d) Distributive Fairness</b> 1. Employees in the telecom sector help all customers get the outcomes they need without favoring any one group 2. Employees in the telecom sector produce desired results for all customers without bias of any kind 3. Employees in the telecom sector deliver good outcomes for all customers regardless of who they are.	<b>.893</b>	.887 .875 .886 .880 .885 .883 .888 .884 .893 .887 .883 .883
<b>2. Service Quality:</b> 1. This operator provides superior service. 2. This operator offers excellent service. 3. I have always excellent experience when I use this operator. 4. I feel good about what this operator offers to its customers 5. Overall, I would say the quality of my interaction with this operator's employees is excellent 6. I would say that the quality of my interaction with this operator's employees is high 7. I would say this operator's physical environment is one of the best in its industry 8. I would rate this operator's physical environment highly	<b>.848</b>	.828 .830 .824 .847 .822 .822 .836 .834
<b>3. Price fairness:</b> 1. This operator offers the best possible price plan that meets my needs 2. This operator makes it easy to change service plans. 3. This operator provides a variety of pricing plans 4. The price charged by this operator is reasonable 5. Overall, this operator provides superior pricing options compared to other service providers.	<b>.756</b>	.742 .668 .746 .706 .683

<p><b>4. Customer satisfaction:</b></p> <p>1. I think that I did the right thing when I used this operator.</p> <p>2. I believe that using this operator is usually a satisfying experience.</p> <p>3. My choice to use this operator has been a wise one.</p> <p>4. I am very satisfied with the decision to use this operator.</p> <p>5. This operator does a good job of satisfying my needs.</p>	<b>.692</b>	.596 .567 .573 .688 .676
<p><b>5. Customer loyalty:</b></p> <p>1. I believe that I can trust that this firm will not try to cheat me</p> <p>2. I intend to continue using this operator in near future</p> <p>3. I will more likely to repurchase this operator in near future.</p> <p>4. I will encourage friends and relatives to use this operator.</p>	<b>.798</b>	.742 .710 .762 .773

Table5: Correlation analysis

Number	Mean	Standard deviation	Price F	Serv Q	Serv F	C.L	C.S
Price F	4.0518	.60080	1	.327**	.162*	.334**	.303**
Serv Q	4.0324	.61087		1	.269**	.379**	.240**
Serv F	4.1197	.54834			1	.315**	.371**
C.L	4.0080	.69135				1	.187**
C.S	4.0291	.52679					1

\*\*Correlation is significant at the 0.01 level (2-tailed).

\*Correlation is significant at the 0.05 level (2-tailed).

Price F: Price Fairness, Serv Q: Service Quality, Serv F: Service Fairness, C.L: Customer Loyalty, C.S: Customer Satisfaction

**4. Findings**

**4.1 Correlation analysis**

Results of correlation analysis are shown in Table-5, which indicate the relationships between service fairness, service quality, price fairness perception, customer satisfaction and loyalty. As seen in Table 5, the correlation coefficients for the variables under investigation were ranging from 0.162 to 0.379. Service fairness has a positive significant relationship with the customer satisfaction ( $r=0.371$ ,  $p<.001$ ). This particular finding supports the claim that the service fairness has a positive and significant relationship with the customer satisfaction. Moreover, results show that service fairness is also positively and significantly associated with the customer loyalty ( $r=0.315$ ,  $p<.001$ ). Thus findings support the acceptance of H1 & H2 and are in consistent with the previous studies [3, 14, 15, 48]. The construct service quality exhibits the positive and significant relationship with customer satisfaction and loyalty respectively ( $r=0.240$ ,  $p<.001$ ;  $r=0.379$ ,  $p<.001$ ). Thus, these results confirm the H3 & H4 and are in consistent with pervious research studies [52, 53]. Likewise, the results also display the positive and significant relationship of price fairness perception and customer satisfaction, price fairness & loyalty ( $r=0.303$ ,  $p<.001$  &  $r=0.334$ ,  $p<.001$ ).

**4.2 Regression analysis**

Multiple linear regression analysis was run to find out whether service fairness, service quality and price fairness perception are predictor of customer satisfaction and customer loyalty. Major findings of regression analysis are shown in Table-6 and Table-7.

Results of regression analysis indicate that independent variables (service fairness, service quality & price fairness)

account for 20.5% significant variance in customer satisfaction ( $R^2 = .205$ ,  $F = 18.519$ ,  $p=.000$ ). Standardized coefficient beta values as shown in Table-6 between service fairness, service quality & price fairness and customer satisfaction are significant ( $\beta=0.313$ ,  $.203$  &  $.226$ ,  $p<.001$ ) with significant T value (4.949, 3.250 & 3.507,  $p<.001$ ). These results showed that service fairness, service quality and price fairness perception are the predictors of customer satisfaction, hence, the hypotheses H1, H2 & H3 are supported.

Moreover as shown in Table-7, results indicate that independent variables (service fairness, service quality & price fairness) account for 23.5% significant variance in customer loyalty ( $R^2 = .235$ ,  $F = 22.093$ ,  $p=.000$ ). Standardized coefficient beta values between service fairness, service quality & price fairness and customer loyalty are significant ( $\beta=0.213$ ,  $.250$  &  $.218$ ,  $p<.001$ ) with significant T value (3.429, 3.868 & 3.453,  $p<.001$ ). These results showed that service fairness, service quality and price fairness perception are also the main predictors of customer loyalty, thus, the hypotheses H4, H5 & H6 are supported.

**5. DISCUSSION**

The current research was conducted on the Pakistan’s mobile telecommunication sector consisting of five main network providers with the aim to investigate the impact of service fairness, service quality and perceived price fairness on customer satisfaction & loyalty. The findings of the current study revealed that network providers of Pakistan’s mobile telecommunication sector are competing in terms of

Table 6: Regression of customer satisfaction on service fairness, service quality & price fairness perception.

Model	Coefficients				Model summary		Anova		
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	R2	Adjusted R2	F	Sig.
	B	Std. Error	Beta						
(constant)	1.701	.319				.205	.194	18.519	.000
Service Fairness	.071	.057	.313	4.949	.000				
Service Quality	.301	.061	.203	3.250	.001				
Price Fairness	.198	.056	.226	3.507	.001				

Dependent variable: customer satisfaction

Table 7: Regression of customer loyalty on service fairness, service quality & price fairness perception

Model	Coefficients				Model summary		Anova		
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	R2	Adjusted R2	F	Sig.
	B	Std. Error	Beta						
(Constant)	.774	.410				.235	.224	22.093	.000
Service Fairness	.251	.073	.213	3.429	.001				
Service Quality	.283	.073	.250	3.868	.000				
Price Fairness	.268	.078	.218	3.453	.001				

Dependent variable: customer loyalty

quality of service, price fairness and service fairness to build long lasting customer relationship.

Results of this study found that service fairness explained a larger proportion of the variance in the process customer satisfaction followed by price fairness perception and service quality. Moreover, the results depicted that service quality explained a larger proportion of the variance in the process customer loyalty followed by price fairness perception and service fairness. Thus, results of regression analysis indicate that for generating satisfaction of customers, service fairness along with price fairness & service quality are the vital factor, while for generating customer loyalty; service quality along with price fairness perception and service quality are the key factor.

Specially, in Pakistani Telecom Sector where service fairness variable has not been studied collectively, this paper makes a significant contribution towards filling the gap in the marketing literature by examining the role of service fairness, service quality and price fairness perception on customer satisfaction & loyalty.

The present study also has several implications. First, the findings indicate that service fairness revealed a direct effect on customer satisfaction & loyalty illustrating that customers are pleased with service of equity as well as quality. So in order to remain competitive in current marketplace, organizations should not only gear in providing good quality service but also they should heed towards service fairness and price strategies. Therefore, future researchers attempting to examine the effects of service quality on customer satisfaction & loyalty should not only incorporate the concept of service quality but also service fairness as a major contributor.

Second, quality, fairness & price are the imperative factors for consumers when purchasing; therefore, marketing managers while making a customer relationship strategy should consider these variables to gain maximum consumers' satisfaction & loyalty.

Finally, the findings also implied that price strategy is one of the most important criteria for ensuring the satisfaction of customers and maintaining a long-term relationship with their service providers. If price structure is fair according to customer's perception then they will maintain the relationship as long as possible. Thus, in order to capture the satisfaction and loyalty, mobile service providers should develop such a comprehensive strategy which not only based on service quality but service fairness and price fairness should also be taken as a key element.

The current literature indicates strong empirical support for the relationships among service fairness, service quality, price fairness perception, customer satisfaction and customer loyalty. Nevertheless, like all other empirical studies based on survey data, this study also have some potential limitations. First, all of the items included in the survey were measured using a five-point Likert-type scale. Thus, measuring all construct using one type of scale might create a mono-method bias, which can decrease the validity of the study [53]. Another possible limitation is that sample was obtained from a survey of Universities of Multan which include majority of students therefore, results can be biased. Consequently, if the sample is increased and collected from different groups of people, then results might be generalized more vigorously.



**REFERENCES:**

- [1] Graack, C. "Telecom operators in the European Union: Internationalized strategies and network alliances," *Telecommunications Policy*, **20** (5): 341-355(1996).
- [2] Fink, C., Matto, A. and Rathindran, R. "An assessment of Telecommunications Reform in Developing Countries," *Information Economics and Policy*, **15**(4): 443- 466(2003).
- [3] Wang, Y. and H.-P. Lo "Service quality, customer satisfaction and behavior intentions: Evidence from China's telecommunication industry," **4**(6): 50-60(2002).
- [4] Pakistan Telecommunication Authority. (2012) [Online] Available: [http://www.pta.gov.pk/index.php?option=com\\_content&view=article&id=269:telecom-indicators&catid=124:industry-report&Itemid=599](http://www.pta.gov.pk/index.php?option=com_content&view=article&id=269:telecom-indicators&catid=124:industry-report&Itemid=599) / ( April 12, 2013).
- [5] Dick, A.S. and Basu, K. "Customer loyalty: toward an integrated conceptual framework," *Journal of the Academy of Marketing Science*, **22**(2):99-113(1994)
- [6] Saren, M. and Tzokas, N. "Some dangerous axioms of relationship marketing", *Journal of Strategic Marketing*, **6** (3): 187-96(1998).
- [7] Fournier, S.I. and Yao, J.L. "Reviving brand loyalty: A reconceptualization within the framework of consumer-brand relationships," *International Journal of Research in Marketing*, **14**(5): 451-72(1997).
- [8] Chaudhuri, A. (1999). "Does brand loyalty mediate brand equity outcomes?," *Journal of Marketing theory and Practice*, **7**(2) : 136-45.
- [9] Tseng, Y.M. "The Impacts of Relationship Marketing Tactics on Relationship Quality in Service Industry," *Bus. Rev. Cambridge*, **7**(2): 310-314(2007).
- [10] Bennet, R., and Rundle-Thiele, S. "Customer satisfaction should not be the only goal," *Journal of Service Marketing*, **18**(7): 514-523(2004).
- [11] Peng, L.Y., and Wang, Q. "Impact of Relationship Marketing Tactics (RMTs) on Switchers and Stayers in a Competitive Service Industry," *Journal of marketing management*, **22**(1-2): 25-59(2006).
- [12] Stone, M., Woodcock, N., and Machtynger, L. *Customer Relationship Marketing: Get to know your customers and win their loyalty* (Second Edition). Kogan Page Ltd. ISBN: 0-7494-2700-0(2000).
- [13] Hanif, M., Hafeez, S., and Riaz, A. "Factors affecting customer satisfaction," *International Research Journal of Finance and Economics*, **60**: 44-52 (2010).
- [14] Akbar, M. M. and N. Parvez. Impact of service quality, trust, and customer satisfaction on customers loyalty. *ABAC Journal*, **29**(1): 24-38(2009).
- [15] Ahmad, Z., Ahmed, I., Nawaz, M. M., Usman, A., Shaukat, M. Z., and Ahmad, N. "Impact of service quality of short messaging service on customers retention, An empirical study of cellular companies of Pakistan," *International Journal of Business and Management*, **5**(6): 154-160(2010).
- [16] Khan, M. A. "An empirical assessment of service quality of cellular mobile telephone operators in Pakistan," *Asian Social Science*, **6**(10):164(2010).
- [17] Raza, A. and Z. Rehman "Impact of relationship marketing tactics on relationship quality and customer loyalty: A case study of telecom sector of Pakistan," *African Journal of Business Management*, **6**(14): 5085-5092(2012).
- [18] Hassan, M., Malik, A. A., &Faiz, M. F. "An Empirical Assessment Of Service Quality And Its Relationship With Customer Loyalty Evidence From The Telecom Sector Of Pakistan," *International Journal of Asian Social Science*, **2**(10), 1647-1663(1998).
- [19] Chebata, J.-C. andSlusarczyk, W. "How emotions mediate the effects of perceived justice on loyalty in service recovery situations: an empirical study," *Journal of Business Research*, **58**(5): 664-73(2005).
- [20] Adams, J.S. "Inequity in social exchange, in Berkowitz, L. (Ed.), *Advances in Experimental Social Psychology*," *Academic Press, New York, NY*, 267-99(1965).
- [21] Ambrose, M., Hess, R.L. and Ganesan, S. "The relationship between justice and attitudes: An examination of justice effects on event and system-related attitudes", *Organizational Behavior and Human Decision Processes*, **103**(1): 21-36 (2007).
- [22] Cohen, C.Y. and Spector, P.E. "The role of justice in organizations: a meta-analysis," *Organizational Behavior and Human Decision Processes*, **86** (2). 278-321(2001).
- [23] Lind, E.A. and Tyler, T.R. "The Social Psychology of Procedural Justice.Plenum," *New York, NY*. (1988).
- [24] Maxham, J.G. and Netemeyer, R.G. "Modeling customer perceptions of complaint handling over time: the effects of perceived justice on satisfaction and intent," *Journal of Retailing*, **78** (4):239-52(2002).
- [25] Greenberg, J. "Stealing in the name of justice: informational and interpersonal moderators of theft reactions to underpayment inequity," *Organizational Behavior and Human Decision Processes*, **54**(1): 81-103(1993).
- [26] Carr, C. "The FAIRSERV model: consumer reactions to services based on a multidimensional evaluation of service fairness," *Decision Sciences*, **38** (1): 107-30(2007).
- [27] Chiu, C.M., Lin, H.Y., Sun, S.Y. and Hsu, M.H. "Understanding customers' loyalty intentions toward online shopping: an integration of technology acceptance model and fairness theory," *Behaviour and Information Technology*, **28**(4):347-60(2009).
- [28] Parasuraman A., and Zeithaml A. Valarie & Berry L.Leonard, "A Conceptual Model of Service quality and Its Implications For Future Research," *Journal of Marketing*, **49**: 41-50(1985).
- [29] Gronroos, C. Creating a relationship dialogue: communication, interaction and value. *The marketing review*, **1**(1), 5-14(2000).

- [30] Kim, K.-J., Jeong, I.-J., Park, J.-C., Park, Y.-J., Kim, C.G. and Kim, T.-H. "The impact of network service performance on customer satisfaction and loyalty: high-speed internet service case in Korea," *Expert Systems with Applications*, **32** (3): 822-31(2007).
- [31] Herington, C. and Weaven, S. "E-retailing by banks: e-service quality and its importance to customer satisfaction," *European Journal of Marketing*, **43** (9/10):1220-31(2009).
- [32] Hu, H.-H., Kandampully, J. and Juwaheer, T.D. "Relationships and impacts of service quality, perceived value, customer satisfaction, and image: an empirical study", *The Service Industries Journal*, **29** (2): 111-25(2009).
- [33] Jamal, A. and Anastasiadou, K. "Investigating the effects of service quality dimensions and expertise on loyalty," *European Journal of Marketing*, **43** (3/4): 398-420(2009).
- [34] Mohamad, M. and Awang, Z. "Building corporate image and securing student loyalty in the Malaysian higher learning industry," *Journal of International Management Studies*, **4** (1): 30-40(2009).
- [35] Huang, E. and Liu, C.-C. "A study on trust building and its derived value in C2C e-commerce," *Journal of Global Business Management*, **6** (1):186-95(2010).
- [36] Verhoef, P.C., Francis, P.H. and Hoekstra, J.C. "The effect of relational constructs on customer referrals and number of services purchased from a multiservice provider: does age of relationship matter?," *Journal of Academy of Marketing Science*, **30** (3): 202-16(2002).
- [37] Harris, L.C. and Goode, M.M.H. "The four levels of loyalty and the pivotal role of trust: a study of online service dynamics", *Journal of Retailing*, **80** (2): 139-58(2004).
- [38] Olorunniwo, F. and Hsu, M.K. "A typology analysis of service quality, customer satisfaction and behavioral intentions in mass services," *Managing Service Quality*, **16** (2): 106-23(2006).
- [39] Donald R, U., Nancy M, R., & Richard G, N. "Price perception and consumer shopping behavior: A field study," *Journal of Marketing Research*, **30**(2), 234–245(1993).
- [40] Grewal, D., Monroe, K. B., & Krishnan, R. "The effects of price-comparison advertising on buyers' perceptions of acquisition value, transaction value, and behavioural intentions," *Journal of Marketing*, **62**(2), 46–59(1998).
- [41] Oliver, R. "Satisfaction: A Behavioral Perspective on the Consumer," *McGraw-Hill, NewYork, NY*(1997).
- [42] Boshoff, C., and Gray, B. "The relationships between service quality, customer satisfaction and buying intentions in the private hospital industry," *South African Journal of Business Management*, **35** (4): 27–37(2004).
- [43] Cronin, J.J., Brady, M.K. and Hult, G.T. "Assessing the effects of quality, value, and customer satisfaction on consumer behavioral intentions in service environments," *Journal of Retailing*. **76**: 193-218(2000).
- [44] Choi, K., Cho, W., Lee, S., Lee, H. and Kim, C. "The relationship among quality, value, satisfaction and behavioral intention in health care provider choice: a South Korea study," *Journal of Business Research*, **57**: 913-21(2004).
- [45] Ueltschy, L.C., Laroche, M., Eggert, A., and Bindl, U. "Service quality and satisfaction: An international comparison of professional services perceptions," *Journal of Services Marketing*, **21**(6), 410–423(2007).
- [46] Jones, T.O. and Sasser, W.E. Jr. "Why satisfied customers defect," *Harvard Business Review*, **73**: 88-99(1995).
- [47] Reichheld, F.F. "The Loyalty Effect," *Harvard Business School Press, Boston, MA*(1996).
- [48] Saha, G. C. "Service quality, satisfaction, and behavioural intentions: a study of low-cost airline carriers in Thailand," *Managing Service Quality*, **19**(3), 350-372(2009).
- [49] Srikanjanarak, S., Omar, A., & Ramayah, T. "The conceptualisation and operational measurement of price fairness perception in mass service context," *Asian academy of management journal*, **14**, 79-93(2009).
- [50] Herrmann, A., Xia, L., Monroe, K.B. and Huber, F. "The influence of price fairness on customer satisfaction: An empirical test in the context of automobile purchases," *Journal of Product & Brand Management*, **16**(1): 49-58(2007).
- [51] Martín-Consuegra, D., Molina, A., & Esteban, Á. "An integrated model of price, satisfaction and loyalty: an empirical analysis in the service sector," *Journal of Product & Brand Management*, **16**(7), 459-468(2007).
- [52] Zhu, Y. Q., & Chen, H. G. "Service fairness and customer satisfaction in Internet banking: exploring the mediating effects of trust and customer value," *Internet Research*, **22**(4), 482-498 (2012).
- [53] Chen, H. G., Liu, J. Y. C., Sheu, T. S., Ming-Hsien Yang, M. H., "The impact of financial services quality and fairness on customer satisfaction", *Managing Service Quality*, **22**(4), 399 – 421(2012).
- [54] Carr, C. L. "The Fairserv model: consumer reactions to services based on a multidimensional evaluation of service fairness," *Decision Sciences*, **38**(1), 107-130(2007).
- [55] Zehir, C., Şahin, A., Kitapçı, H., & Özşahin, M. "The Effects of Brand Communication and Service Quality In Building Brand Loyalty Through Brand Trust; The Empirical Research On Global Brands," *Procedia-Social and Behavioral Sciences*, **24**, 1218-1231(2011).
- [56] Sondoh Jr, S. L., Omar, M. W., Wahid, N. A., Ismail, I., & Harun, A. "The effect of brand image on overall satisfaction and loyalty intention in the context of color cosmetic," *Asian Academy of Management Journal*, **12**(1), 83-107(2007).