Service Quality and Customer Satisfaction in a Telecommunication Service Provider

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Abstract. Using the SERVQUAL model, this study aimed to examine the impacts of reliability, responsiveness, assurance, empathy and tangible aspects on customer satisfaction. A total of 200 current users of a GSM provider participated in this study. Gap analysis was used to determine the perceived importance and satisfaction on each dimension of service quality, and regression analysis was conducted to test the relationship between service quality and levels of customer satisfaction. Results indicated that reliability, responsiveness, assurance and empathy significantly positively influenced customer attitudes in terms of satisfaction and loyalty. In addition, *t*-test results showed that there was a significant gap between the perceived satisfaction and importance (P-I) on all of the service quality dimensions.

Keywords: Service quality, customer satisfaction, telecommunication, Malaysia

1. Introduction

Telecommunication service providers (TSPs) are of paramount importance to both developed and emerging economies In Malaysia, TSPs are projected to contribute greatly to the national goal of achieving status as a developed nation by the year 2020. With stiff competition between three providers of Global System for Mobile Communications (GSM) and one private automatic branch exchange (PABX) landline provider, customer satisfaction is a necessity for survival in the market. At the same time, Malaysians are becoming equipped with necessary knowledge about quality service delivery. Many telecommunication service providers in Malaysia offer various products and services in the market. TSPs have to compete with each other to ensure optimal customer satisfaction in terms of products or services.

Quality is generally regarded as being a key factor in the creation of worth and in influencing customer satisfaction. Hence, the telecommunication industry in Malaysia has to be strategically positioned to provide quality services to satisfy customers. To provide improved quality service, telecommunication companies need to investigate degree of customers' sensitivity and expectations toward service quality. Armed with such information, telecommunication outfits are then able to strategically focus service quality objectives and procedures to fit the Malaysian market. The purpose of this study was to examine the impact of several product and service delivery factors on reported levels of service quality within a single GSM provider.

2. Literature Review

2.1. Importance of Service Quality

Service quality can be described as a rationale of differences between expectation and competence along the important quality dimensions. Parasuraman, Zeithaml and Berry [1] identified ten requirements useful for customers' evaluation of the quality of services: reliability, responsiveness, tangibles, communication, credibility, security, competence, courtesy, understanding the customers and service accessibility. Zeithaml, Parasuraman, and Berry [2] proposed a service quality scale (SERVQUAL), a generic instrument that has 5

dimensions of service quality: reliability, responsiveness, assurance, empathy and tangibles, the constructs were found to have high correlation.

This instrument continues to be widely used in marketing studies of customer satisfaction and consumer preference [3], despite some argument that other models may be better [4] [5] [6] and [7]. The stage of performance that a top quality service will need to give was conditioned through the expectation of the customers. Service quality is judged low when the performance was below expectation.

The SERVQUAL model is a common diagnostic tool used to measure customer service and perceived satisfaction. Reliability is the service company ability to deliver promises on time. In this study we focused on five factors that could predict the quality of the service provided by the investigated telecommunication service provider. Responsiveness is the degree to which customers perceive service providers' readiness to assist them promptly. Assurance is the degree of courtesy of service providers' workers and their ability to communicate trust to customers. Empathy is the care and importance the service provider gives to an individual customer, and the degree to which specific customer needs and preferences can be understood and articulated. Lastly, tangibility is the evidence of facilities, personnel, and communication materials used by the company while offering services to customers [2] [8].

2.2. Service Quality Gap

In previous service research, meeting and exceeding expectations of clients and customers is a perspective that has gained most attraction. This concept is all inclusive and cuts across service domains, but expectations change and experiences with alternate service providers could shape the customers' expectations. The important research gap here is attaining customers' expectation towards a particular service [8].

A gap is the difference, imbalance or disparity which is determined to exist between customers' perception of firm performance and their prior expectation.. Service quality (SQ) perceived by customers is therefore as a result of a comparison of customers' expectation (E) of services that the organization should offer versus their perception of the performance (P) delivered by the service organization.

$$\text{Service Quality (SQ)} = \text{Customer's Perception (P)} - \text{Customer's Expectations (E)}$$

Management of service quality largely focuses on managing the gaps between expectations and perceptions of customers [9]. The goal of the firm is to minimize the gap between (P) and (E). Rowley [10] pointed out that previous researchers such as Lehtinen and Lehtinen [11] and Gronroos [12] also applied gap principles similar to that proposed by Parasuraman et al. [1].

2.3. Customer Satisfaction

Customer satisfaction is a personal feeling of either pleasure or disappointment resulting from the evaluation of services provided by an organization to an individual in relation to expectations [13] [14]. Service providers frequently place a higher priority on customer satisfaction, because it has been seen as a prerequisite to customer retention. As a positive outcome of marketing activities, high customer satisfaction leads to repeat visitation to stores, repeat product purchases, and word-of-mouth promotion to friends [15] [17], while low customer satisfaction has been associated with complaining behavior [19]. A satisfied customer often stays loyal longer, and is likely to patronise the firm in future [3].

Customer satisfaction can be conceptualized as either transaction-specific satisfaction or cumulative satisfaction [20]. Transaction-specific satisfaction is a customer's evaluation of her or his experience and reactions to a specific company encounter [21]. Cumulative satisfaction refers to customers overall evaluation of patronage experience from inception to date [22].

3. Methodology

Research Model and Hypotheses

The aims of this study are twofold: First, using SERVQUAL model, we examined significant differences in the five service quality dimensions (tangibility/physical aspects, reliability, responsiveness, assurance and empathy) by evaluating customers' expectations and their actual perceptions of the GSM telecommunication

firm. Secondly, we examined the impact of the five service quality dimensions on customer perceptions of service delivered by the firm (see Fig. 1).
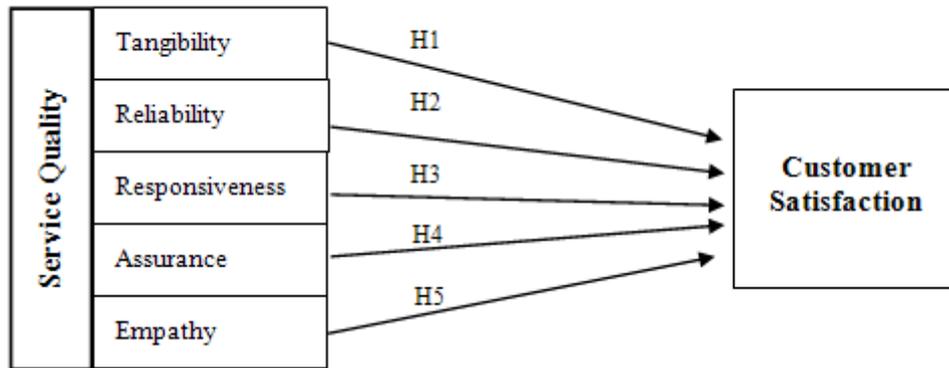

Fig. 1: Research Framework

The five hypotheses are as follows:

H1: Tangibility will have a significant impact on customer satisfaction

H2: Reliability will have a significant impact on customer satisfaction

H3: Responsiveness will have a significant impact on customer satisfaction

H4: Assurance will have a significant impact on customer satisfaction

H5: Empathy will have a significant impact on customer satisfaction

4. Data Analysis and Results

4.1. Demographic Profile

Participants of this study were 119 female and 81 male consumers. Mean age was 29.6 (SD=13.98). 20 were students whereas 180 of them are working adults 51.5 percent private sector jobs, 31 percent were government servants, and 7.5 percent were self-employed. In term of ethnicity background, the majority of participants were Malay (53.7 percent), followed by Chinese (25.5 percent) and Indian participants (or 21 percent).

4.2. Reliability

Cronbach's alpha reliability analysis was conducted on the independent variables in order to determine the reliability of the instrument used. Nunnally [23] has suggested 0.70 as the acceptable level for reliability measure. Alpha values ranged from 0.832 to 0.929, thus indicating an acceptable level of reliability (see Table 1).

Table 1: Reliability Analysis

Service Quality Dimensions	Cronbach's Alpha	
	Expectations	Perceptions
Tangibility/ Physical aspects		
Customer service counter is well-equipped with up-to-date facilities e.g. reload/top-up machine, free WIFI.		
Physical layout of equipment and furniture are comfortable for customer interacting with staff.	0.894	0.929
Staff are well-dressed and appear neat.		
Material and information associated with the service (e.g. promotional brochure) are visually appealing at the customer service counter.		
Reliability		
When the service provider promises to do something by a certain time, services	0.848	0.839

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are delivered as promised.
When I face problems, the service provider staff is sympathetic and reassuring.
The service provider staff is dependable
The service provider staff keeps the transaction records accurately.

Responsiveness

The service provider staff tells the customer exactly when services will be performed.
I receive prompt service from the service provider staff.   0.879   0.836
Service provider staff is always willing to help the customers.
Service provider staff does not appear to be too busy in responding customer requests.

Assurance

I can trust the service provider staff.
I feel safe when conducting business with the service provider staff.
The customer service staff is polite.   0.835   0.832
Customer service staff seems to have received adequate supports from the service provider to do their job well.

Empathy

The service provider staff gives me individual attention.
The service provider staff knows what I actually want.
I have interest in the services provided by the service provider.   0.840   0.855
The service provider operates according to the business hours that are convenient to most of the customers.

4.3. Gap Analysis: Comparison of Expectations and Perceptions on Service Quality

Based on t-test results, the comparison between expectations and perceptions rated by participants on all five service quality dimensions (tangibility/ physical aspects, staff reliability, responsiveness, assurance and empathy) delivered by this TSP indicated a significant gap ($p<0.01$). As shown in Table 2, the largest mean difference between expectations and perceptions of service were noted from the assurance perspective (mean difference = -0.31) followed by staff responsiveness perspective and the empathy perspective (mean difference = -0.28 for both). On the other hand, the smallest mean difference between expectations and perceptions of the services were identified from the staff reliability (mean difference = -0.15).

Table 2: Gap Analysis Results (n=200)

Service Quality Dimensions	Expectations		Perceptions		Gap (P-E)			
	Mean	S	Mean	S	Mean	S	T	***Sig.
Tangibility/ Physical aspects	4.67	0.57	4.46	0.67	-0.22	0.66	4.74	0.000
Reliability	4.38	0.72	4.23	0.63	-0.15	0.74	2.83	0.005
Responsiveness	4.59	0.61	4.31	0.62	-0.28	0.68	5.83	0.000
Assurance	4.61	0.57	4.30	0.61	-0.31	0.65	6.84	0.000
Empathy	4.57	0.72	4.31	0.61	-0.28	0.72	5.00	0.000

4.4. Hypothesis Testing: Perceived Service Quality Dimension and Customer Satisfaction

The regression results reported in Table 3 showed that the five perceived service quality dimensions explained 80.5% of the customer satisfaction towards the GSM telecommunication firm ($F=162.08$, $p<0.01$), thereby confirming the fitness of the model. We found out that empathy has the strongest effect on the customer satisfaction ($\beta=0.297$, $p<0.01$), followed by staff reliability ($\beta=0.226$, $p<0.01$) and staff responsiveness ($\beta=0.203$, $p<0.01$). However, tangibility/ physical aspect was found to be insignificant towards customer satisfaction.

Table 3: Hypothesis Testing Results (n=200)

Hypothesis	Path	B	SE B	β	p-value
H1	TANG → CS	0.140	0.038	0.196	0.055
H2	REL → CS	0.168	0.043	0.226	0.000**
H3	RES → CS	0.162	0.041	0.203	0.000**
H4	ASSU → CS	0.073	0.038	0.101	0.000**
H5	EMP→ CS	0.255	0.044	0.297	0.000**

Note: TANG=Tangibility/Physical aspects; REL=Reliability; RES=Responsiveness; ASSU=Assurance; EMP=Empathy; CS=Customer Service
Note: $p < 0.01$ **

5. Discussion and Conclusion

Pariseau and McDaniel [24] argued that if there is an agreement that service quality exceeds, meets or falls below expectation, there would be a common ground for continuation or improvement of the service quality level. In this study, we found that customers from the GSM telecommunication firm experienced a difference between expectation and perception on the service received. We further observed that in accordance with previous studies [16] [18], "assurance" has the biggest difference between expectation and perception. Since assurance was conceptualized as the employees' knowledge and courtesy, and the ability to inspire trust and confidence, such finding indicated that the perception fall far below the expectations, and that the ability of the staff to communicate trust and assurance to the customers is lacking.

Based on the regression results, Hypotheses 2 to 5 were supported but Hypothesis 1 was rejected. This finding has confirmed a significant positive relationship between service quality and customer satisfaction except in the area of tangibility or physical aspects [18]. This is explicable as the customers seemed to emphasize less on the appearance of the physical aspects provided by the GSM telecommunication firm. Prompt and reliable services are vital to attract, serve and retain the customers.

The importance of empathy in influencing satisfaction suggested that customer relationship management strategy should focus on improving in-depth understanding of consumer motivation and lifestyle factors. The training and performance measurement of customer service agents needs to include relational elements allowing them to realize and articulate client needs.

As the present research examined service quality factors in a single firm, additional studies need to be undertaken to examine customer satisfaction patterns in other regions and with larger samples. Nevertheless, we would argue that our findings provide additional insight into customers' perceived satisfaction within the telecommunications domain. Results of this study should encourage strategy development for superior service quality management particularly in the areas of assurance, empathy and responsiveness. Training programs should be tailored equip staff with necessary skills to better serve the customers and ultimately to remain competitive in the market.

6. Acknowledgements

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