

Chapter 9

Perceived Service Quality of Mobile Providers Through the Lens of Indian Young Adults



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Abstract Assessing customers' expectations and experiences is a strategic lever for service providers. Especially for mobile service operators, it is highly significant to stabilize the market. In this perspective, a comparative study was undertaken on 617 young adults of West Bengal and Chhattisgarh to evaluate their perception regarding the service quality of their mobile providers. To address the six various dimensions regarding customers' expectations and experiences, the SERVQUAL model was considered. The statistical analysis (including descriptive and ANOVA analyses, as well as Kruskal Wallis, Wilcoxon Signed Rank, and paired Sample t-Tests), uncovered significant findings. This research provides then several directions to mobile providers to improve their service quality and their users' satisfaction. It also reveals interesting trends and outcomes for academics and offers them insightful opportunities to delve deeper into future investigations.

Keywords Perceived service quality · Young adults' expectations · Young adults' experiences · Mobile service providers · Quality assessment

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1 Introduction

Marketing is a societal process that fulfills the human and social needs of citizens, aiming at satisfying them. Nevertheless, to do so, it seems that the production perspective, which is founded on the development of products and services before searching their corresponding market, does not fit the purposes of the marketing orientation. Indeed, according to Belás and Gabčov (2016) and Chavan and Ahmad (2013), among a variety of factors influencing customer satisfaction, service constitutes an important criterion that should be taken into account and it is gaining a growing importance day by day, as compared to products. For this reason, marketers are conveyed to develop their USP by providing a superior service value to customers. For instance, in few industries like telecommunication, banking, health care, or hotel industry, the focus has been mainly put on service, and customers' satisfaction has been usually assessed through the provided service. Moreover, whenever customers' experiences exceed their expectations, the positioning of the provider company grows in the market, given the fact that customers feel so satisfied. Service quality improvement is then a critical success factor for any organization and it denotes its development or failure (Thompson et al., 2000). For the service-oriented firms, customer retention and market growth are mainly ensured via the quality of services offered to customers (Hassan et al., 2013; Lee & Moghavvemi, 2015). In this perspective, we can cite SERVQUAL, which is a popular model used by service firms to assess the interplay between service quality and customer satisfaction (Zeithaml et al., 1988). This model depicted that, to highlight the difference between customers' expectations and their perceptions, firms need to consider some important criteria related to service quality, such as tangibility, reliability, responsiveness, assurance, and empathy (Bitner 1990; Parasuraman et al. 1985).

After liberalization and business internationalization, and during the digital era, significant changes have occurred in the telecommunication sector, which becomes an essential field, stressing the importance that should be paid to service quality at a very high level, in order to enhance customer satisfaction needed for the success of any organization. In this perspective, most companies are using the SERVQUAL model to assess their customer satisfaction in terms of provided services (Yavas et al., 1997). For instance, in India, it is noteworthy that mobile service sectors have witnessed a significant growth in terms of users and revenues, so that their development goes beyond the urban market to spread over the rural market with a high volume. That is why, with the increasing demand related to this competitive sector, all the competitors are struggling to increase their customers' base and their long-term relationship with them. In this regard, it is of tremendous importance to measure the service quality to minimize the gap between customers' expectations and their real experiences. It is also noted from various former studies that, among the dimensions taken into account by firms to evaluate the performance of their service quality, marketers are giving a growing interest to 22 criteria. Those encompass reliability, responsiveness, competence, accessibility, courtesy, communication, credibility, security, understanding, efficiency, fulfillment, privacy, empathy, and

convenience (Parasuraman et al., 1985; Zethamal et al., 2002; Yang & Fang, 2004; Liu & Arnett, 2000; Riel et al., 2001; Joseph et al., 1999).

More particularly, in fields like banking or hospitality, mobile service providers are giving a high priority to the services they are offering to their consumers and stakeholders to respond to their everyday problems and preferences in the present context of mobile service.

The rapid growth of information and communication technologies, as well as the shifting of market conditions from the traditional to the modern viewpoint and its moving to the digital age, has generated an increase in Internet, Wi-Fi, and mobile services' users and providers (Wu & Wang, 2005). Moreover, the technological progress engendered the development of the mobile commerce, which is actually considered the most lucrative trade for marketers and customers as well (Lu et al., 2009). Most of the companies providing e-commerce services depend mostly on mobile service providers who could help them gaining competitive advantages in the market and developing a good market response by enabling customers to shift themselves from traditional to digital methods and tools. Such a process is facilitated through mobile communication services (Turel & Serenko, 2006).

Therefore, it appears from the above discussion that mobile service quality is an important lever for every business operations. In fact, it is pursued as a prerequisite element taken into consideration by both service providers and non-service operator firms and strongly associated with all other services and non-service operators while managing their business operations. Such a service is gaining an increasing importance from both customers and marketers. Hence, the present study seeks to assess the service quality offered by major service providers who are located in two high-cultural Indian zones: Kolkata and Chhattisgarh.

2 Literature Review

Marketers evaluate their service quality on the basis of customers' assessment of the service they benefit from and the way it is utilized by them as service quality is directly associated with customer loyalty (Slack et al., 2020; Slack & Singh, 2020). For this reason, most companies do their best to deliver a high-quality service, which is in an integrated form, covering various aspects required by customers who search to fulfill their needs. It also develops customer retention with all-round satisfaction towards service providers (Ghylin et al., 2006; Poulose et al., 2018). Besides, it is commonly known that a high level of service quality reduces customers' switching tendencies and increases the possibilities of their retention (Rahul & Majhi, 2014; Aslam & Frooghi, 2018; Jacob & Subramoniam, 2021). Marketers consider a few important criteria like intangibility, heterogeneity, and inseparability to assess the service quality (Parasuraman et al., 1985; Ladhari, 2009). Those criteria serve to improve customer satisfaction, which is of tremendous importance for sustaining a business. To be more precise, customers are currently attracted by high-quality services whose performance is greater than their expectations. Therefore, the level of

trust and commitment act as powerful mediators between service providers and users (Nelson & Kim, 2021; Purwanto et al., 2020; Yousaf et al., 2020) and marketers should draw considerable attention to the quality of service offered to customers (Asubonteng, 1996). Marketers are also appealed to unveil the customer needs and preferences before designing their service quality parameters. When it comes to the mobile service sector, this tendency becomes quite higher because customers evaluate instantly the performance of service providers in comparison with their own expectations (Parasuraman et al., 1988). According to Gronroos (1982), perceived service quality refers to the service outcome assessed by customers on the various proposition of the service provided by the company (Kang & James, 2004). It is assimilated to a psychological dimension deriving from the comparison between customers' expectations and their overall evaluation of their own experiences with the corresponding service providers (Jones & Suh, 2000). If the experience of customers is greater than their expectations, then they become satisfied with the service offered to them by providers (Cronin & Taylor, 1992). Accordingly, customers' satisfaction is based on their experience with service providers and their satisfaction levels are related to the outcome of services offered to them. For this reason, organizations, which constantly evaluate their service quality and satisfy their clientele, enjoy a higher level of customer retention and loyalty, which turns into a better return on investment in terms of sales and profitability (Wicks & Roethlein, 2009).

By considering the prior research on service quality assessment, it appears that measuring service quality has been a common practice followed by service firms as well as product-oriented ones. Additionally, marketers have been employing mainly two common approaches to measure their service quality corresponding to the SERVQUAL and the SERVPERF models. However, most of telecommunication and mobile service industries are essentially using the SERVQUAL model in a regular mode to evaluate their service quality. Indeed, their recourse to such a model has usually been explained by the fact that their customers' base has a higher tendency to change from a service provider to another one (Leisen & Vance, 2001; Negi, 2009; Van der Wal et al., 2002; Wang & Lo, 2002; Ward & Mullee, 1997).

The SERVQUAL model was developed by Parasuram et al. (1988) who implemented five important dimensions to access service: tangibility, reliability, responsiveness, assurance, and empathy (Li & Shang, 2020; Slack et al., 2020). In this model, the assessment of service quality was based on the difference between customers' expectations and their experience (Parasuraman et al., 1985; Brady & Cronin, 2001). In other words, the young adult evaluates the service in view of the degree of his involvement towards his corresponding service provider. His perceived service quality corresponds to the result of attitudinal changes coming from his own experience and his expectation with regard to the performance of service providers (Angell et al., 2008; Kahn et al., 2002; Parasuraman et al., 1988), which could turn to superiority or deficiency.

On the other hand, the SERVPERF model developed by Cronin and Taylor (1992), was originally derived from the SERVQUAL model, then amended by dropping customers' expectations and measuring their service quality perceptions that derive from their overall feelings toward the service. Implicitly, the SERVPERF

model assesses customers' experience based on the same attributes as the SERVQUAL emanating from the related attitude literature; and closely concurs them with similar satisfaction implications (Cronin, 1992, p. 64). Later, Teas (1993, p. 23) developed the evaluated performance model (EP) in order to overcome some of the issues associated with the research gap in this area dedicated to the service quality conceptualization (Grönroos, 1982; Parasuraman et al., 1985, 1988). This model measures the gap between perceived performance and the ideal amount of customers' expectations. The same scholars argued that the P-E (perception–expectation) framework is of a questionable validity due to its conceptual and definitional problems involving the conceptual definition of the expectations' component and its theoretical justification, as well as its measurement validity.

When it comes to mobile services, customers generally manifest a quite higher degree of contact with their service providers and their buying intention depends on their degree of satisfaction with the services offered to them (Stan et al., 2013). If they are unsatisfied, they can effortlessly switch and turn to an alternative mobile service operator, as the switching costs are very low. However, whenever they are satisfied, their retention becomes easier (Cronin & Taylor, 1992). Indeed, consistent with the new principles of the Telecom Regulatory Authority of India-TRAI, it is quite easy for the customer to switch to another service provider without changing the basic content. For those reasons, mobile service operators are constantly following their customers' trends and changing accordingly their service operation procedures looking into various segments (Leisen & Vance, 2001). Moreover, they are accustomed to design different paths of services in different periods to attract and retain their customers (Kim et al., 2004).

Therefore, it appears that the SERVQUAL model would be the most appropriate and important tool that could be helpful in the current research, which seeks to measure the perceived service quality for mobile service providers and operators of West Bengal and Chhattisgarh (Wang & Lo, 2002; Van Der Wal et al., 2002).

Owing to the aforementioned observations, it appears that assessing perceived service quality had received an increasing importance because of its considerable effect on retailers' sales and profits. Nevertheless, a scant attention has been dedicated to measuring perceived service quality among young adults who intend to buy mobile phones in specific Indian areas. For this purpose, the present study seeks to assess the difference between expectations and experiences of young Indians of West Bengal and Chhattisgarh regarding mobile services offered to them by their correspondent providers. It aims also at examining the influence of gender and location of young Indian adults on their expectations and experiences.

3 Research Method

In the present study, a quantitative research method was adopted. For this purpose, our sample encompasses 221 adults living in Chhattisgarh and 400 adults located in West Bengal, in India. To gather the required data, a questionnaire was

administrated to respondents. It was organized into two sections, containing respectively 24 items for the expectations' assessment of adults and 24 others related to their experiences. After their collection, data were scored and cleaned and complete responses were gathered from 617 young adults using mobile phones at least for the last 2 years (Mean age = 23.21, SD = 2.70; Men = 67% and Women = 33%).

Finally, data were analyzed using parametric and non-parametric techniques; and Indian adults' expectations and perceptions were assessed via the SERVQUAL Model. Accordingly, the statistical analysis included the descriptive statistics, Paired Sample t-test, One-way ANOVA and Two-way ANOVA, Kruskal Wallis, and Wilcoxon Signed Rank tests.

4 Results' Presentation and Discussion

4.1 Differences Between the Expectations of Indian Adults and Their Experiences with Mobile Phone Providers

A paired sample t-test was performed to examine whether there is any significant differences between the expectations and experiences of Indian young adults regarding their mobile service providers. Results revealed that there are significant differences between the expectations of Indian adults and their experiences, as indicated by a significant t-value [$t(420) = 24.16, p < 0.0001$]. In fact, mean values indicated that the experience of Indian young adults is much less than their level of expectations from the service providers (see Table 9.1).

For more precision, the domain analysis also revealed significant differences for all the domains encompassing: Tangibility [$t(420) = 16.70, p < 0.0001$], Reliability [$t(420) = 20.41, p < 0.0001$], Responsiveness [$t(420) = 8.67, p < 0.0001$], Empathy [$t(420) = 22.98, p < 0.0001$], Products [$t(420) = 16.12, p < 0.0001$], and Assurance [$t(420) = 2.54, p < 0.01$]. In other words, customers' expectations and experiences significantly differ, not only with respect to their respective perception of tangibility, reliability, responsiveness, and empathy of their service providers; but also depending on the insurance and product quality provided by them. In all cases, it was found that Indian adults' expectations are higher than their experiences, as indicated by the mean values (in Fig. 9.1 shown below); which means that the corresponding service provider was unable to fulfill the expectations of the young clientele.

Table 9.1 Descriptive statistics and Paired sample t-test statistic for assessing the differences in expectations and experiences of Indian young adults ($n = 421$)

	Mean	SD	t-value	df	p-value
Expectations	147.82	15.82	24.16	420	0.0001
Experiences	128.86	17.14			

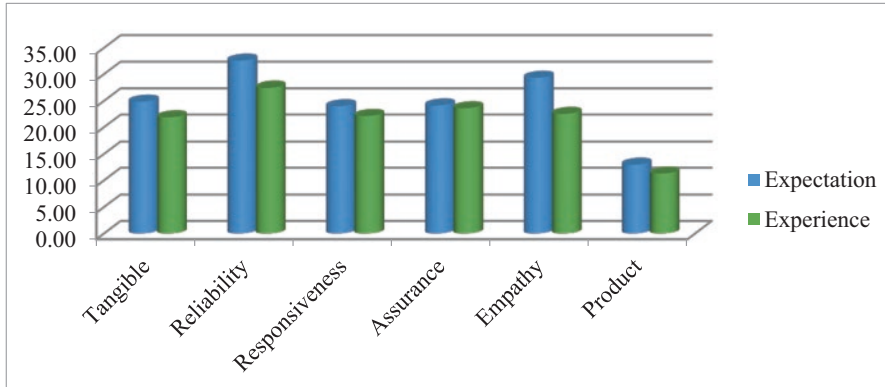


Fig. 9.1 Mean values of young adults’ expectations and experiences with respect to the SERVQUAL sub-domains ($n = 421$)

4.2 Differences Between Expectations of Indian Young Adults and Their Experiences with Respect to Their Providers’ Service Quality Perception

The significance regarding the differences between the expectations of Indian young adults and their experiences was examined for each parameter of customer satisfaction via the Wilcoxon Signed-Rank Test. This test was performed after applying a Bonferroni correction by using the $(\alpha/24)$ formula, being the fact that those differences were checked for the 24 parameters of customer satisfaction. Thus, the alpha level was decided to be 0.0002 ($0.05/24$) and the confidence interval was fixed at 99.80%. Following recommendations related to the alpha level, it could be deduced that a significant difference exists between the expectations of Indian young adults and their experiences as regards their satisfaction parameters ($p < 0.0001$), except for the ‘employees’ knowledge’ parameter ($p = 0.622$).

Furthermore, results revealed that for almost all the parameters, Indian young adults’ expectations were higher than their experiences, as shown below in Table 9.2.

4.3 Differences Between Expectations of Indian Young Adults (West Bengal and Chhattisgarh) and Their Experiences Regarding Mobile Service

A variance analysis was conducted to assess whether the expectations of young adults of West Bengal and Chhattisgarh and their experiences regarding mobile services were similar or different. To do so, the entire data were obtained equally from a randomly selected sample comprising 200 Indian young adults living in West Bengal and Chhattisgarh. Findings supported significant differences existing

Table 9.2 Wilcoxon signed-rank test with Bonferroni corrections assessing differences between the expectations and experiences of Indian young adults regarding their satisfaction parameters ($n = 421$)

Young adults' satisfaction parameters	p -value	Significance level
Modern equipment of service provider	0.0001	"Significant"
Visually appealing physical facilities	0.0001	"Significant"
Appearance of employees	0.0001	"Significant"
Clean physical environment	0.0001	"Significant"
Execution of promises within deadline	0.0001	"Significant"
Sincerity in solving problems	0.0001	"Significant"
Consistency in service	0.0001	"Significant"
Keeping promises	0.0001	"Significant"
Maintaining records	0.0001	"Significant"
Information easily accessible	0.0001	"Significant"
Prompt service	0.0001	"Significant"
Willingness to help	0.0001	"Significant"
Promptness to respond	0.0001	"Significant"
Good behavior and instilling confidence	0.0001	"Significant"
Safety in transactions	0.0001	"Significant"
Polite behavior	0.0001	"Significant"
Knowledge acquired by young adults	0.622	"Significant"
Providing individual attention	0.0001	"Significant"
Convenient operating hours	0.0001	"Significant"
Giving personal service to customers	0.0001	"Significant"
Prioritizing customers' welfare	0.0001	"Significant"
Catering to specific needs of customers	0.0001	"Significant"
Variety of services	0.0001	"Significant"
Good quality service	0.0001	"Significant"

Table 9.3 Descriptive statistics and F -values for assessing the differences between expectations and experiences of Indian young adults from West Bengal and Chhattisgarh ($n = 421$)

		N	Mean	SD	F -value	df	p -value
Expectations	Chhattisgarh	200	141.56	19.91	69.26	1, 419	0.0001
	West Bengal	221	153.48	7.18			
Experiences	Chhattisgarh	200	122.51	21.42	59.68	1, 419	0.0001
	West Bengal	221	134.62	8.71			

between the experiences of young adults and their expectations in both places, as indicated by significant ANOVA results, [$F_{\text{Expectation}}(1, 419) = 69.26, p < 0.0001$; $F_{\text{Experience}}(1, 419) = 59.68, p < 0.0001$]. In both cases, young adults from West Bengal scored higher in comparison to those from Chhattisgarh with respect to their expectations and experiences with their mobile service providers (for more details, see Table 9.3).

Furthermore, the one-way ANOVA applied to each domain revealed that a significant difference exists in all the expectation domains with respect to customers

residing in Chhattisgarh and West Bengal. This is why customers from both places differ significantly with respect to their expectations concerning tangibility [$F_{\text{Tangibility}}(1, 419) = 85.86, p < 0.0001$], reliability [$F_{\text{Reliability}}(1, 419) = 163.18, p < 0.0001$], responsiveness [$F_{\text{Responsiveness}}(1, 419) = 8.60, p < 0.004$], empathy [$F_{\text{Empathy}}(1, 419) = 13.11, p < 0.0001$], and products expected from service providers [$F_{\text{Product}}(1, 419) = 168.48, p < 0.0001$], except for assurance in service [$F_{\text{Assurance}}(1, 419) = 3.17, p = 0.07$].

Similarly, for the domains related to experience, there is a significant difference between customers residing in Chhattisgarh and those located in West Bengal. It implies that customers from both places differ significantly with respect to their experience with service providers' tangibility [$F_{\text{Tangibility}}(1, 419) = 63.63, p < 0.0001$], reliability [$F_{\text{Reliability}}(1, 419) = 83.45, p < 0.0001$], responsiveness [$F_{\text{Responsiveness}}(1, 419) = 178.61, p < 0.0001$], assurance in service [$F_{\text{Assurance}}(1, 419) = 211.67, p < 0.0001$], empathy [$F_{\text{Empathy}}(1, 419) = 187.65, p < 0.0001$], and products expected from their service providers [$F_{\text{Product}}(1, 419) = 82.62, p < 0.0001$].

4.4 Differences Between Expectations of Indian Young Adults and Their Experiences with Respect to Their Different Service Providers

To check whether there is a difference between the expectations of Indian young adults and their experiences with respect to their different service providers, parametric testing could not be carried out as the number of users for each service provider was not equal. For this reason, a non-parametric Kruskal Wallis test was performed and results revealed that there is a significant difference among users of different service providers with respect to their expectations and experiences, as shown below in Table 9.4. Thus, customers' expectations and experiences differ significantly as regards their service providers.

The obtained mean rank indicated that, for all the service providers, there has been a difference between their expectations and experiences with respect to their different service providers. As depicted in Fig. 9.1, this difference is the highest for "Idea, Reliance, and Jio", for all the customers; while it is the lowest for "BSNL and Vodafone" (Fig. 9.2).

4.5 Differences Between Expectations of Indian Young Adults and Their Experience with Respect to Their Gender

The one-way Analysis of Variance was conducted to examine whether there is any difference between the expectations and experiences of Indian young adults with respect to their gender. Results revealed that there is no significant difference

Table 9.4 Kruskal Wallis test examining the differences between the expectations and experiences of Indian young adults regarding their different service providers

	Service providers	N	Mean rank	Chi-Square value	d	p-value
Expectations	Airtel	104	212.37	13.93	5	0.02
	BSNL	23	221.28			
	Idea	54	162.40			
	Reliance Jio	186	219.70			
	Vodafone	43	239.21			
	Tata Docomo	11	160.82			
Experiences	Airtel	104	216.43	20.60	5	0.001
	BSNL	23	248.00			
	Idea	54	161.50			
	Reliance Jio	186	212.61			
	Vodafone	43	252.63			
	Tata Docomo	11	135.36			



Fig. 9.2 Differences between expectations and experiences of Indian young adults regarding their different service providers

regarding expectations [$F_{\text{Expectation}}(1, 198) = 3.34, P = 0.07$] and experiences [$F_{\text{Experience}}(1, 198) = 0.045, p = 0.83$] of both male and female customers. Thus, male and female customers have approximately equal levels of expectations and experiences with their mobile service providers.

However, the one -way ANOVA analysis carried out for all the domains demonstrated that there is a significant difference related to the expectation domains with respect to customers’ gender. It implies that both male and female customers differ significantly with respect to their expectations concerning tangibility [$F_{\text{Tangibility}}(1, 419) = 3.87, p = 0.05$], reliability [$F_{\text{Reliability}}(1, 419) = 6.85, p < 0.009$], responsiveness [$F_{\text{Responsiveness}}(1, 419) = 4.73, p = 0.03$], assurance [$F_{\text{Assurance}}(1, 419) = 4.13, p = 0.04$], and products expected from service providers [$F_{\text{Product}}(1, 419) = 6.97, p < 0.009$],

except for empathy in service [$F_{\text{Empathy}}(1, 419) = 0.15, p = 0.69$]. Thus, gender differences are highly significant for reliability, and products expected from service providers; but they are weakly significant for tangibility, responsiveness, and assurance of service providers.

ANOVA results supported the non-existence of significant differences between male and female customers regarding all the domains of experience. Besides, findings indicated that both male and female customers have similar experiences according to their service providers' tangibility [$F_{\text{Tangibility}}(1, 419) = 1.19, p = 0.27$], reliability [$F_{\text{Reliability}}(1, 419) = 3.03, p = 0.08$], responsiveness [$F_{\text{Responsiveness}}(1, 419) = 3.35, p = 0.07$], service assurance [$F_{\text{Assurance}}(1, 419) = 3.67, p = 0.06$], empathy [$F_{\text{Empathy}}(1, 419) = 1.14, p = 0.29$], as well as products expected from them [$F_{\text{Product}}(1, 419) = 2.50, p = 0.12$].

4.6 Interaction Effect of Gender and Location on Expectations and Experiences of Indian Young Adults

To check the interaction effect of gender and location on the expectations and experiences of Indian young adults, a (2×2) two-way analysis of variance was conducted by considering gender and location as independent variables and each of the domains related to customers' expectations and experiences as a dependent variable.

On the one hand, and as shown in Table 9.5, hereafter, results supported that no significant interaction effect could be found for both expectations and experiences of young Indian young adults regarding all service providers' domains, including respectively tangibility in service, reliability, assurance, responsiveness, and empathy. In fact, adjusted R-squared indicated 18% of the variance in the expectation of tangibility and 13% of the variance in the experience of tangibility (explained by gender and location of customers); 30% of the variance in the expectation of reliability and 17% of the variance in the experience of reliability; 3% of the variance in the expectation of responsiveness and 30% of the variance in the experience of responsiveness (explained by gender and location); 2% of the variance in the expectation of assurance and 34% of the variance in the experience of assurance; 3% of the variance in the expectation of empathy and 31% of the variance in the experience of empathy; 30% of the variance in the expectation of products and 16% of the variance in the experience of products.

On the other hand, findings pointed out that when both gender and location are considered together, a significant main effect exists only for the location of young adults, but not for gender, in the expectation and experience of customers regarding tangibility in service, assurance, products, empathy, responsiveness, and reliability of their service providers.

Table 9.5 Two-way analysis of variance applied to check differences between expectations and experiences of Indian young adults regarding different service providers' domains ($n = 421$)

Domains	DV	IV	<i>i</i> value	<i>p</i> -value	Partial eta square (η^2)	Adjusted R square
Tangibility of service	Expectation	Gender	1.06	0.30	–	0.18
		Location	72.92**	0.0001	0.15	
		Gender*Location	4.90*	0.03	0.01	
	Experience	Gender	0.001	0.97	–	0.13
		Location	59.45**	0.0001	0.12	
		Gender*Location	0.031	0.86	–	
Reliability of service	Expectation	Gender	1.82	0.17	–	0.30
		Location	144.66**	0.0001	0.26	
		Gender*Location	1.90	0.17	–	
	Experience	Gender	0.41	0.52	–	0.17
		Location	75.14**	0.0001	0.15	
		Gender*Location	0.48	0.45	–	
Responsiveness of service providers	Expectation	Gender	3.67	0.06	–	0.03
		Location	5.55*	0.02	0.01	
		Gender*Location	1.96	0.16	–	
	Experience	Gender	0.02	0.88	–	0.30
		Location	171.93**	0.0001	0.30	
		Gender*Location	0.78	0.18	–	
Assurance	Expectation	Gender	3.82*	0.05	0.01	0.02
		Location	1.41	0.23	–	
		Gender*Location	2.68	0.10	–	
	Experience	Gender	0.06	0.79	–	0.34
		Location	197.21**	0.0001	0.33	
		Gender*Location	0.07	0.78	–	
Empathy of service providers	Expectation	Gender	0.000	0.98	–	0.03
		Location	11.10**	0.0001	0.03	
		Gender*Location	1.32	0.25	–	
	Experience	Gender	0.43	0.51	–	0.31
		Location	176.77**	0.0001	0.30	
		Gender*Location	0.46	0.50	–	
Products	Expectation	Gender	1.94	0.16	–	0.30
		Location	148.44**	0.0001	0.26	
		Gender*Location	2.90	0.09	–	
	Experience	Gender	0.16	0.68	–	0.16
		Location	76.82**	0.0001	0.16	
		Gender*Location	0.00	0.98	–	

Note: *=0.05; **= 0.01

5 Results' Discussion

The present research offers the opportunity to revisit the SERVQUAL model and yields some interesting and practical implications related to the assessment of quality service of mobile service providers serving Indian young adults, who are located in Chhattisgarh and West Bengal, in India. It offers significant results issued by carrying out parametric and non-parametric techniques. By mingling and analyzing the findings of the collected data, this study has attempted to provide researchers, marketers, and customers with meaningful knowledge of the subdomains related to the assessment of the perceived quality of service providers. Several important conclusions could then be derived from the results' analysis and interpretation as follows:

- This research gives a detailed overview of the significant gaps existing between young adults' expectations and their actual experiences regarding their mobile providers' quality service (including responsiveness, empathy, assurance, tangibility in service, and products offered by them).
- Furthermore, this study underlines that young adults from West Bengal had higher expectations as well as experiences with respect to their mobile service providers, compared to those from Chhattisgarh. Besides, young adults' expectations and experiences differ significantly for all the service providers. However, the difference was found to be the highest for Idea and Reliance Jio for all the customers, while it was lower for BSNL and Vodafone.
- There is a significant gender difference in the expectations of Indian young adults, but not in their experiences with respect to the tangibility, reliability, responsiveness, assurance, empathy, and products of their service providers.
- When both gender and location are considered together, a significant main effect exists only for location in the expectations and experiences of young adults. Moreover, no significant interaction effect was found for any of the domains of expectations and experiences with respect to service providers.

Overall results indicated that none of those young adults located in both locations covered by our survey meet his own expectations. However, the findings of the present study can enlighten the extent and reasons behind such a problem. Indeed, young adults' dissatisfaction extends across all the domains, except for the domain of employees' knowledge. It implies that whenever the personnel involved in delivering services to their clientele have the basic required knowledge, the actual service delivered across all the service domains is below customers' expectations. This is indeed an alarming matter that should be taken into account by service providers. Such a finding is similar to those of Nurysh et al. (2019) who already explained that the perceived value and service quality are positively correlated with customer satisfaction. However, it was found that the interaction of those two variables with the attractiveness of alternative customers does not improve clientele satisfaction.

Furthermore, it is noteworthy that all our respondents were Indian young adults who pertain to the most critical age group, as they are considered the heaviest users

of mobile services. They are also expected to dominate the customer base in India for the next decade. Accordingly, service providers are conveyed to address those young adults' requirements in order to survive. In the same orientation, some prior studies carried out by Sharma (2014); Sharma et al. (2012); Chen et al. (2017); as well as Misra (2012) have supported the same statement.

One of the most interesting findings of this study is that both expectations and actual experiences among young adults located in West Bengal are higher than those of respondents belonging to Chhattisgarh. This could be explained by the fact that service providers have a better infrastructure in metro areas, and could then provide better services to customers who might experience higher expectations. It could also be explained by significant cultural differences between the citizens of Chhattisgarh and those of Kolkata. These reasons could be explored with greater depth in subsequent studies.

The present study also revealed that, apart from the customers' perception of the overall service quality, significant differences exist with respect to young adults residing in Chhattisgarh and West Bengal. Thus, respondents differ significantly with respect to their expectations and experiences with service tangibility, reliability, assurance, as well as with their providers' empathy and products. The differences in every single service domain, including people-oriented domains such as empathy and responsiveness could be explained by differences in the quality of service provided and by the infrastructural support existing in the two areas (Kolkata, the major metro city and Raipur in Chhattisgarh, which is a much smaller city). This statement was already supported by Yousaf et al. (2020); Zubair et al. (2019); as well as Nelson and Kim (2021).

Additionally, it was found that one of the largest service providers in terms of customer base, and located in Reliance Jio, did not have the highest service quality, which means that various latent factors are possibly coming into play. Thus, further studies could be undertaken to fully understand the issues involved.

Another important finding revealed by the analysis underlines the differences between male and female respondents while analyzing the various domains of service quality including tangibility, reliability, responsiveness, assurance, empathy, and products of service providers. These differences were highly significant for reliability, and products in service; but weakly significant for tangibility, responsiveness, and assurance in service providers. In the same perspective, Jhamb et al. (2020) reported the same idea and mentioned that customer perception toward telecom services is significantly prompted via five service dimensions, i.e. tangibility, reliability, responsiveness, assurance, and empathy."

On the other hand, this study emphasizes that gender could affect customers' purchase behavior. Such a statement is supported by past researchers including Meyers-Levy (1989) and Zeeshan (2013) who found out gender differences in mobile purchase behavior and preferences related to mobile service. Thus, the results of our study conform to the past understanding in this area. However, results supported that these differences are highly significant when the focus is made on expectations; but the distinctions vanish when the actual experience is taken into

consideration. This effect may be caused by the fact that all the respondents involved were young and well- educated and gender-related socio-cultural factors did not cloud their judgment of actual service proved. Thus, while young adults' expectations may have been different, their assessment of the reality of the service quality was not colored by any extraneous influence. Then, mobile service providers are appealed to segment the market by gender and provide appropriate services to each gender segment, so that their market position could be enhanced.

Overall, the current study uncovers significant issues related to young adults' perceptions regarding mobile services offered to them. It provides directions to service providers who seek to improve their offerings to the attractive significant segments of their mobile users. It also reveals several interesting trends and findings for academicians and researchers; and dedicates them meaningful opportunities to delve deeper into several areas through additional research.

6 Practical Implications, Limitations, and Future Research Directions

Customers' expectations and experiences should be taken into account by providers who seek to upgrade their service quality in order to satisfy their clientele, and increase their market shares and profitability. In this perspective, this study has attempted to offer service providers meaningful insights and knowledge on the perceived service quality issues. It gives an overview of the most important criteria that may influence its assessment by customers. This research may help marketers as well as service providers to design the appropriate business strategy for capturing better markets. For this purpose, this paper pointed out which areas marketers should focus on to minimize service-related issues and problems that might occur. This study is also meaningful for new entrants who should understand how to meet customers' expectations in a new market setting.

Like any other research, ours also have some limitations that should be recognized and discussed. First of all, the number of young adults subscribing to the different service providers was not equal since it could not be controlled. A more or less equal number of young adults subscribing to different service providers could have helped to make a comparative analysis. Second, the present study focused only on Indian young adults who live in two main cities. A variation in the age group considered in the sample could have provided a better comparison of the expectations and experiences of adults. Third, the socioeconomic status of young adults was not taken into account in the present study. Nevertheless, considering this parameter could also give a better picture of the assessment of perceived service quality. Finally, the data did not permit the application of multivariate modeling due to the lack of normality in most cases. Nonetheless, parametric univariate techniques could be used as long as the sample size is quite large.

References

- Angell, R. J., Heffernan, T. W., & Megicks, P. (2008). Service quality in postgraduate education. *Quality Assurance in Education*, 16(3), 236–254.
- Aslam, W., & Frooghi, R. (2018). Switching behaviour of young adults in cellular service industry: an empirical study of Pakistan. *Global Business Review*, 19(3), 635–649.
- Asubonteng, P. (1996). A critical review of service quality. *The Journal of Service Marketing*, 10(6), 62–81.
- Belás, J., & Gabčová, L. (2016). The relationship among customer satisfaction, loyalty and financial performance of commercial banks. *E&M Economics and Management*, 19(1), 132–147.
- Bitner, M. J. (1990). Evaluating Service Encounters: The Effects of Physical Surroundings and Employee Responses. *Journal of Marketing*, 54(2), 69–82. <https://doi.org/10.1177/002224299005400206>.
- Brady, M. K., & Cronin, J.J. Jr. (2001). Some New Thoughts on Conceptualizing Perceived Service Quality: A Hierarchical Approach. *Journal of Marketing*, 65(3), 34–49. <https://doi.org/10.1509/jmkg.65.3.34.18334>.
- Chavan, J., & Ahmad, F. (2013). Factors affecting on customer satisfaction in retail banking: An empirical study. *International Journal of Business and Management Invention*, 2(1), 55–62.
- Chen, A., Feamster, N., & Calandro, E. (2017). Exploring the walled garden theory: An empirical framework to assess pricing effects on mobile data usage. *Telecommunications Policy*, 41(7), 587–599.
- Cronin, J. (1992). Measuring service quality re-examination and extension. *The Journal of Marketing*, 56(3), 55–68.
- Cronin, J. J., & Taylor, S. A. (1992). Measuring service quality: A reexamination and extension. *Journal of Marketing*, 56(3), 55–68.
- Ghylin, K. M., Green, B. D., Drury, C. G., Chen, J., Schulta, J. L., Uggirala, A., Abraham, J. K., & Lawson, T. A. (2006). Clarifying the dimensions of four concepts of quality. *Theoretical Issues in Economics Science*, 9(1), 73–94.
- Gronroos, C. (1982). A service quality and its marketing implications. *European Journal of Marketing*, 18(4), 36–44.
- Hassan, M., Malik, A., Imran, M., Hasnain, A., & Abbas, J. (2013). Relationships among customers' perceived service quality, satisfaction and loyalty in the retail banking sector of Pakistan. *World Applied Science Journal*, 24(8), 1020–1030.
- Jacob, R., & Subramoniam, S. (2021). Identifying the critical success factors of telecom switching barriers using the AHP. *Global Business Review*, 22(3), 767–779. <https://doi.org/10.1177/0972150918816897>.
- Jhamb, D., Mittal, A., & Sharma, P. (2020). The behavioral consequences of perceived service quality: A study of the Indian telecommunication industry. *Business: Theory and Practice*, 21(1), 360–372. <https://doi.org/10.3846/btp.2020.11480>
- Jones, M. A., & Suh, J. (2000). Transaction-specific satisfaction and overall satisfaction: an empirical analysis. *Journal of Services Marketing*, 14(2), 147–159. <https://doi.org/10.1108/08876040010371555>
- Joseph, M., McClure, C., & Joseph, B. (1999). “Service quality in the banking sector: the impact of technology in service delivery”. *International Journal of Bank Marketing*, 17(4), 182–91.
- Kahn, B. K., Strong, D. M., & Wang, R. Y. (2002). Information quality benchmarks: Product and service performance. *Communications of the ACM*, 45(4), 184–192. <https://doi.org/10.1145/505999.506007>
- Kang, G., & James, J. (2004). Service quality dimensions: An examination of Gronroos's service quality model. *Managing Service Quality*, 14(4), 266–277.
- Kim, M. K., Park, M. C., & Park J. H. (2004). The Effect of Switching Barriers on Customer Retention in Korean Mobile Telecommunication Services. [Online] Available: userpage.fubertlin.de/~jmueller/its/conf/helsinki03/.../Kim-Moon.pdf.

- Ladhari, R. (2009). A review of twenty years of SERVQUAL research. *International Journal of Quality and Services Science*, 1(2), 172–198.
- Lee, S., & Moghavvemi, S. (2015). The dimension of service quality and its impact on customer satisfaction, trust, and loyalty: A case of Malaysian banks. *Asian Journal of Business and Accounting*, 8(2), 91–121.
- Leisen, B., & Vance, C. (2001). Cross-national assessment of service quality in the telecommunication industry: Evidence from the USA and Germany. *Managing Service Quality*, 11(5), 307–317.
- Li, Y., & Shang, H. (2020). “Service quality, perceived value, and citizens’ continuous-use intention regarding e-government: empirical evidence from China”. *Information and Management*, 57(2), 103197.
- Lu, Y., Zhang, L., & Wang, B. (2009). A multidimensional and hierarchical model of mobile service quality. *Electronic Commerce Research and Applications*, 8(5), 228–240.
- Meyers-Levy, J. (1989). Gender differences in information processing: A selectivity interpretation. In P. Cafferata, & A. M. Tybout (Eds.), *Cognitive and affective responses to advertising*. Lexington, MA: Lexington Books/DC Heath & Com.ity interpretation. In P. Cafferata, & A. M. Tybout (Eds.), *Cognitive and affective responses to advertising*. Lexington, MA: Lexington Books/DC Heath & Com.
- Misra, R. (2012). An empirical study on the preference and satisfaction for the pre-paid and post-paid cellular subscribers. *Abhigyan*, 30(3), 23–34.
- Negi, R. (2009). Determining customer satisfaction through perceived service quality: A study of Ethiopian mobile users. *International Journal of Mobile Marketing*, 4(1), 31–38.
- Nelson, J. L., & Kim, S. J. (2021). Improve trust, increase loyalty? Analysing the relationship between news credibility and consumption. *Journalism Practice*, 15(3), 348–365.
- Nurysh, N., Naghavi, N., & Fah, B. C. (2019). *Study on factors affecting customer satisfaction in mobile telecommunication industry in Malaysia*. Retrieved from Meel, Dr. Pankaj. Analysis of the Researches on Service Quality in Telecom Industry from 2000–2020 <https://ssrn.com/abstract=3675040> or <https://doi.org/10.2139/ssrn.3675040>, August 2016.
- Parasuraman, A., Zeithaml, V., & Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. *Journal of Marketing*, 49, 41–50.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing*, 64(1), 12–40.
- Poulose, J., Sharma, V. & Joseph, S. (2018). “Determinants of consumer retention strategies for telecom service industry in Central India”. *Problems and Perspectives in Management*, 16(2), 306–320.
- Purwanto, E., Deviny, J. & Mutahar, A. M. (2020). The mediating role of trust in the relationship between corporate image, security, word of mouth and loyalty in M-banking using among the millennial generation in Indonesia. *Management and Marketing*, 15(2), 255–274.
- Rahul, T., & Majhi, R. (2014). An adaptive nonlinear approach for estimation of consumer satisfaction and loyalty in mobile phone sector of India. *Journal of Retailing and Consumer Services*, 21(4), 570–580.
- Riel, V. A., Liljander, V., & Jurriens, P. (2001). Exploring Consumer Evaluations of e-Services: A Portal Site. *International Journal of Service Industry Management*, 12, 359–377. 10.1108/09564230110405280.
- Sharma, B. (2014). Customers satisfaction in telecom sector in Saudi Arabia: An empirical investigation. *European Scientific Journal*, 10(13), 1857–7881.
- Sharma, P., Chen, I. S. N., & Luk, S. T. K. (2012). Gender and age as moderators in the service evaluation process. *Journal of Services Marketing*, 26(2), 102–114.
- Slack, N., & Singh, G. (2020). The effect of service quality on customer satisfaction and loyalty and the mediating role of customer satisfaction. *The TQM Journal*, 32(3), 543–558.
- Slack, N., Singh, G., & Sharma, S. (2020). The effect of supermarket service quality dimensions and customer satisfaction on customer loyalty and disloyalty dimensions. *International Journal of Quality and Service Sciences*, 12(3), 297–318.

- Stan, V., Caemmerer, B., & Cattani-Jallet, R. (2013). Customer Loyalty Development: The Role Of Switching Costs. *Journal of Applied Business Research*, 29, 1541–1554. 10.19030/jabr.v29i5.8069.
- Teas, R. K. (1993). Expectations, Performance Evaluation, and Consumers' Perceptions of Quality. *Journal of Marketing*, 57(4), 18–34. <https://doi.org/10.1177/002224299305700402>.
- Thompson, J., Green, C., & Bokma. (2000). *Customer E-Services: Problems and solutions* (pp. 11–13). IIMA.
- Turel, O., & Serenko, A. (2006). Satisfaction with mobile services in Canada: *An empirical investigation. Telecommunications Policy*, 30(5–6), 314–331.
- Van der Wal, R.W.E., Pampallis, A., & Bond, C. (2002). Service Quality in a Cellular Telecommunications Company: a South African Experience. *Managing Service Quality*, 12(5), 233–236.
- Wang, Y., & Lo, H.-P. (2002). Service quality, customer satisfaction and behavior intentions—Evidence from China's telecommunication industry. *The Journal of Policy Regulation and Strategy for Telecommunication Information and Media*, 4(6), 50–60.
- Ward, K.E., & Mullee, A.W. (1997). *Quality of Service in Telecommunications*. The Institution of Electrical Engineers Press, Stevenage.
- Wicks, A. M., & Roethlein, C. J. (2009, Spring). A satisfaction-Based definition of quality. *Journal of Business & Economics Studies*, 15(1), 82–97.
- Wu, J. H., & Wang, S. C. (2005). What drives mobile commerce? An empirical evaluation of the revised technology acceptance model. *Information and Management*, 42(5), 719–729.
- Yavas, U., Bilgin W, F., & Shemwell, D. (1997). Service quality in the banking sector in an emerging economy: A consumer survey. *International Journal of Bank Marketing*, 15, 217–223. <https://doi.org/10.1108/02652329710184442>.
- Yousaf, A., Mishra, A. & Bashir, M. (2020). “Brand trust, institutional commitment, and their impact on student loyalty: evidence for higher education in India”. *Studies in Higher Education*, 45(4), 878–891.
- Zeithaml, V. A., Berry, L. L. & Parasuraman, A. (1988). The behavioral consequences of service quality. *Journal of Marketing*, 60(2), 31–46.
- Zeeshan, M. Z. (2013). The impact of mobile service attributes on males and females purchase decision. *Management & Marketing Challenges for the Knowledge Society*, 8(4), 669–682.
- Zeithaml, V. A., Parasuraman, A. & Malhotra, A. (2002). “Service quality delivery through Web sites: a critical review of extant knowledge”. *Journal of the Academy of Marketing Science*, 30(4), pp. 362–75.
- Zubair, A., Kiran, F., Shahzadi, I. & Mahmood, M. A. H. (2019). “How to generate loyalty through service quality”. *Indo American Journal of Pharmaceutical Sciences*, 6(1), 652–661.