

An Empirical Evaluation of Perceived Mobile Service Quality Model using Path Analysis

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Abstract:

Purpose : Present study strives to combine both functional as well technical aspects of service quality and an attempt has been made to propose a conceptual model in which perceived mobile service quality are divided into three constructs like Interaction Quality dimension, environment quality dimension, and outcome quality dimensions for mobile service providers with the help of previous conceptual model suggested by Cronin and Brady (2009) with certain modifications and confirmatory factor analysis is used to validate the proposed model.

Methodology /Design: To develop the model, required methodology was drafted by taking into considerations the guidelines suggested by Churchill (1979), Gerbing and Anderson (1988) and O’Leary-Kelly and Vokurka (1998). An exploratory qualitative data collection via interview method and asking open ended questions to various users of mobile phones by random sampling approach so that hidden information as their thought process can be understood in an effective manner. Each interview composed of 30-40 minutes each was made to get an idea about hidden insights about perceived mobile service quality. After this, structured questionnaire was drafted and online survey was conducted in North India (persons who are at least user of one mobile service provider) so that reliable data can be collected.

Findings : The findings of the study reveals that in proposed current model of mobile service quality, interaction quality, Network Environment cum equipment Quality, and Outcome quality are main elements considered by mobile users while availing mobile services , so all mobile service companies an consider these dimensions then accordingly formulate their marketing strategies. Hence is can be concluded that conceptual proposed model of perceived mobile service is valid as per the analysis carried via Confirmatory factor analysis

Limitations : As for as limitation of current study is concerned, sample size was limited so future research can be done by making appropriate clusters of population via demographic segmentation so that robustness and generalization of proposed model can be validated at maximum extent .

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Practical Implications: Current proposed model of perceived mobile service quality is the vital and relevant tool for marketing experts of mobile industry which surely will suggest appropriate insights and about the various attributes of service quality in mobile industry. Because of increased disposable income of Indian People cultivates the mobile market and revolution of smart phone usage among Indian provide mobile service providers to be alert in their service area otherwise competitors will grasp the opportunity to capture market share.

Social Implications: The study will facilitate the population of India to make better understanding of perceived mobile service quality's attributes so that when they will avail any mobile service from service providers.

Keywords: *Perceived Mobile Service Quality, Globalization, Competency, Business Models.*

1. Introduction:

Digitalization in telecommunication industry especially (Mobile Sector) in India has witnessed for the huge growth of industry results into economic growth of the country. The mobile industry is projected to generate a communicative economic value of Rs 14 trillion (US\$ 217.37 billion) by the year 2020 (Telecom Regulatory Authority of India). Hence, business organization uses m-commerce as an important element for their success. Services offered by mobile companies have wide range, so significant contribution in terms of service quality by companies provide core competency to differentiate their business models. Because of incremental growth of Mobile phones as penetration move will surely invites approximately 500 million potential users of internet in India in next 5 years creating tremendous prospects for the new startups (Telecom Regulatory Authority of India, Feb. 2018). This will surely uplift internet data pattern on daily basis from current 3.9 GB (2017) to 18 GB (2023). Business organizations can use mobiles for different purposes. Among all, streamline the effective communication is one of the main reasons of using mobile by them for e-business and promote their products and services. Customers can utilize mobiles for personal communication as well as online shopping via m-commerce.

The use of mobile devices not only for communication but also for m-commerce was proposed by (Lu et al., 2009). Due to emerging use of mobiles in business transactions, 78% of the business organizations strive to adapt the application of this system in their business setups (Agarwal et al., 2019). Therefore, there is transformational shift of doing business from traditional methods to mobile commerce. Recent era of Indian mobile service industry is at full swing to provide various services to subscribers or users for generating revenues and attaining growth. Reliance communications with "Launching of JIO mobiles" in Indian mobile service industry force the other players to work on their service related issues effectively (Chopra et al., 2014). Even through various mobile connection service providers have the information about relevance of service quality in their industry, but most of them in India only concentrate to increase their subscriber's data base and put very little efforts to improve their service quality. In such kind of intensifying industry, ignorance about better service quality can creates a lot of hurdles for growth in coming years. Even though abundant research work was carried by the various researchers for development of conceptual knowledge and empirical investigation about various aspects of service quality in lot of industries like education, hospitality, banking, and healthcare etc. (Hirmukhe,

2012; Khodayari et al., 2011; Chaudhary et al., 2013; Bhargav et al., 2014; Sivanesan, 2013). But the application of structural equation modeling to develop robust model for the effective service quality in mobile usage is the central idea of the present research work.

2. Perceived Service Quality: A Game Changer

Survival of mobile service providers in India is essential dependent on their approach to seriously applying their efforts to serve market with the help effective customer services. Hence, service quality works as differentiator factor for attaining competitive success. (Hampton, 1993) As the demand of users of mobile phones increases, mobile industry becomes more competitive. Digital India, Techno-driven economy, and incremental demands of the Indian customers for availing Classy services have facilitated mobile industry players to enhance core competences to capture relative market share. Hypercompetitive market in mobile service sector opens the windows for domestic as well as global players to show their abilities to perform well respectively.

Service quality as key element for Indian telecommunication industry compels the players to nourish their business activities for survival. Shin & Kim (2008) underlined effective use of IT system helps the business organizations to approach to their targeted markets with the help of Mobile services. Additionally, low prices of the mobiles and better functionality of the mobile devices give opportunities to the business units to execute m-commerce (Lu et al., 2009). Hence the services of cellular mobile connections should be excellent to become the contributing pillar for organizations success. Service quality is positively related to competitive advantage for an organization where better services by the service providers creates uniqueness in the market place results into enjoying competitive edge. Further,

service quality is significantly related to company's profitability (Bloemer et al., 1999; Thompson et al., 1985). Unique company and profitable companies are able to satisfy their customers significantly.

In case of service industry, better service quality generates customer loyalty and retention (Ranaweera & Neely, 2003). Leisen & Vance, (2001); Danaher & Mattsson, (1994) demonstrated positive association of service quality with customer/user satisfaction provide in-depth insights of all the related dimensions of service quality. Previous literature provides a sound foundation to see the sights of this subject area in cellular mobile market. Even though this, almost maximum cellular mobile phone service providers in India are mainly pay their attention to increase their customer (user) base and have a propensity to ignore service quality. Existing literature on this industry revealed the fact that service quality was only investigated on functional aspects of service quality which are related to "delivery process" adopted by mobile service companies. However, technical aspects of service quality related to issues concern about "what is actually delivered to users" is at infancy stage. Because of over bombardment of various frequencies by satellites creates network rush in telecommunication system. Researchers like Wang & Lo, (2002); Johnson & Sirikit, (2002) had realized the relevance of technical aspects of service quality and concluded that for positive perception of customers technical aspects of service quality are very important.

Considering this, present study strives to combine both functional as well technical aspects of service quality and an attempt has made to proposed a conceptual model in which perceived service quality are divided into three constructs like Interaction Quality dimension, environment quality dimension, and outcome quality dimensions for mobile service providers with the help of previous conceptual model suggested by Cronin and Brady (2009) with certain

modifications and confirmatory factor analysis is used to validate the proposed model. Hence, assessment of service quality in present research for mobile services is very relevant areas where companies can explore the hidden variables for their service quality (Turel & Serenko, 2006).

3. Literature Review:

3.1 Studies related Service Quality Scales

Prahalad & Ramaswamy (2000) studied involvement or contribution of customer for shaping competitive strategies of business organizations which forcefully compel them to understand their psychology. Dynamic business model of organizations creates the special provisions of perceived quality dimensions especially in service industry. User driven strategy has become the source of competitive advantage in current era for service industry (Taylor & Baker, 1994). Satisfaction of customers is also significant contributor for attracting the new consumer (Reichheld & Sasser; 1990).

Zeithaml (1987) proposed that service quality is assumed to be overall excellence or superiority about an entity results from whole judgment by individual. Whole judgment is very subjective and difficult to assess especially in case of services as they are intangible in nature (Parasuraman et al., 1985). Other characteristics of services which create difficulty for assessment are inseparability and heterogeneity. Santouridis & Trivellas (2010); Negi (2009); Caro & Garcia (2007); Santos (2003) proposed that main reason for paying special attention understand service quality is as it is the vital element of service industries' success.

Normally service quality measurement models or scales available in marketing literature are SERVEQUAL & SERVPERF. SERVEQUAL scale (Parasuraman et al. (1988) was very popular in

industries like banking, insurance, healthcare etc. Five dimensions are suggested in this scale such as reliability, assurance, tangibles, responsiveness, and empathy which provide significant information to understand the overall service quality of a particular service provider. Brady and Cronin (2001); Parasuraman et al., (1985) highlighted that service quality is the difference between expectation level of customers and overall experienced level. Although this scale was very popular among researchers and marketing professionals yet it was confronted with some critics.

As an output of these criticisms, SERVPERF scale was proposed by Cronin & Taylor (1992) which consider "performance" as indicator of better quality. Cronin & Taylor (1994) propounded that difference between expectations of customers and performance of service providers is not only work for assessment of service quality but also explored that customer satisfaction has positive impact on purchase intention more than service quality has. Although e- service quality scale was developed with the help of service quality literature, yet previous literature also revealed that some of the studies drafted special scales especially for investigating e-service quality in better empirical manner.

E-service quality scale developed by Yang & Jun (2002) has dimensions like credibility of source, security system, reliability, access, personalization, ease of use. This scale has most of constructs derived from previous service quality scales (Parasuraman et al., 1985). 'eTransQual' Scale was proposed by Bauer et al. (2006) with the help of hedonic and utilitarian elements for e-service quality assessment and scale has dimensions like reliability, responsiveness, process, enjoyment and design/functionality. 'E-S-QUAL' as multiple item scale is tested for assessing the service quality (Parasuraman et al., 2005) and argued that two different scales of service quality can

be used for better understanding of quality aspects. E-S-QUAL is the first scale has four different constructs such as efficiency, system availability, fulfillment, and privacy. Second one is E-RecS-QUAL scale has three different constructs such as responsiveness, contact, and compensation. In addition to this, webQual scale was developed with the help of SERVEQUAL scale and having constructs like empathy, assurance, tangibles, reliability, and responsiveness (Barnes & Vidgen, 2001). E-retailing related service quality scale was proposed by Wolfinbarger & Gilly (2003) and suggested constructs like website design, customer service, fulfillment/reliability, and security.

Chae et al, 2002 studied perceived mobile service is initially governed by the mobile settings which are further dependent on mobile devices and explored a model of information service quality for wireless internet mobile services. Extensive conceptual research work on this current issue helps the researchers to have in-depth understanding about the various aspects should be taken into consideration for empirical assessment and validation of modified proposed model. Brun et al. (2017) proposed a conceptual model for mobile banking service quality which concluded that trust, security and practicity (regarded as utilitarian factors) are the significant constructs of mobile banking service quality.

3.2 Studies related to Perceived Mobile Service Quality

Ching & Tseng (2010); Michell et al. (2001); Zeithaml (1988); Gronroos (1982) studied that perceived service quality is the significant predictor of brand equity and high brand equity is directly as well as indirectly influenced by service quality of service providers. Perceived Mobile Service Quality is subjective, as user pattern behavior of an individual for mobiles varies. Subjectivity of perceived mobile

service quality is also supported by the study of (Zeithaml, 1988) which revealed the fact those subjective opinions of an individual mainly affected by personal experience of users, customized needs and situational factors etc. Lu et al. (2009) proposed a multidimensional model of mobile service quality where interaction quality dimension, environmental quality dimension and outcome quality dimension are identified as significant components of mobile service quality. These identified dimensions of mobile service quality are used in present study in order to validate the proposed conceptual model in scientific manner.

Moreover, interaction dimension of perceived mobile service quality defined as the ability of service providers to interact wisely with users during delivering services to customers (Lu et al. in (2009); Brady & Cronin (2001); and Rust & Oliver (1994). Environmental dimension of mobile service quality is suggested by previous researchers but clarity about is missing , so in current study an modification is suggested to define network environment cum equipment quality which clearly explain mobile service quality is also significantly affected by the amplitude, frequency of satellites normally used by mobile service providers in terms of (wireless telecommunication devices) and equipment means mobile device's design like color, shape, navigation, touch etc.

Mobile phone industry is techno driven industry where experience of service provider is very crucial for better services for users. Being *expertise to provide mobile services* can be strength for a company (Brady & Cronin, 2001). Zeithaml (1988) claimed that proper trained and expertise personal the key contributor for any service Industry. Hence, service provider expertise nature is strongly related to interaction dimension of mobile service quality (Stiakakis & Georgiadis, 2011). Interaction dimension of perceived service quality reflects the quality level

of mobile phone user's interaction with service providers during delivering services.

4. Conceptual Framework and Research Methodology

4.1 Conceptual Framework

As per abovementioned views by various researchers, a sound literature review facilitates to develop the

proposed model of mobile service quality which is the modified version of Brady & Cronin (2001), and Lu et al. (2009) .It has its sub components like service provider expertise ability, problem solving approach, Mobile design, Network equipment and Mobile device, Valence as final impression of user etc. These all sub components are finally divided in to three main constructs or dimensions like interaction quality, environment quality, and outcome quality.

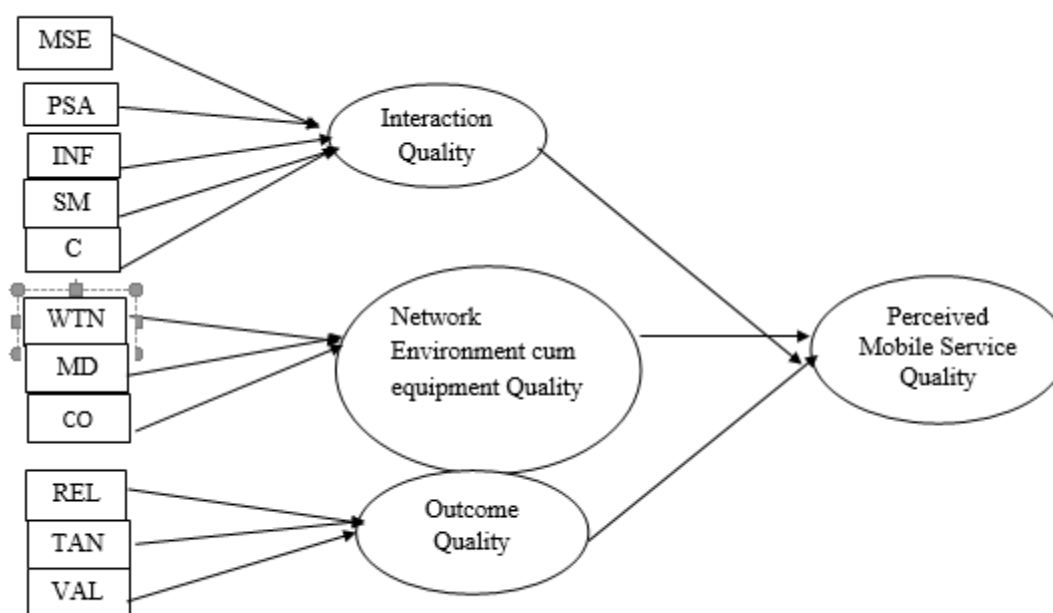


FIGURE: 1

Source: Author's own Model

Note: MSE: Mobile Service Provider's Expertise, PSA: Problem Solving Approach, INF: Information, SM: Security Measures; C: Customization, WTN: Wireless telecommunication network, MD: Mobile design, CO: Context REL: Reliability, TAN: Tangibility; VAL: Valence

4.2 Hypotheses for the Study

Following hypothesis are formulated for the purpose of study.

H1: Mobile Service provider expertise nature is positively related to interaction dimension of perceived mobile service quality.

Ability of mobile phone services providers to tackle critical *problem solving* is also a significant contributor for developing better interaction dimension of perceived service quality (Caro & Garcia;2007). Service providers should have all the complete knowledge about various aspects of services (Zhang & Wang, 2009). Hence problem solving is strongly related to interaction dimension of perceived mobile phone service quality (Stiakakis & Georgiadis, 2011).

H2: *Problem Solving Approach of Mobile service provider is positively related to interaction dimension of perceived mobile service quality.*

Updated, relevant, sufficient *information* in form of impressive, logical content is required for better mobile service quality. So mobile service providers should take care about quality of information with is communicated to the subscribers. Vlachos et al. (2011) stated that information related to mobile services to representatives of mobile companies are the significant contributor of mobile services. So perceived service quality is affected by information domain.

H3: *Information availed by the representatives of companies for a customer is positively related to interaction dimension of perceived service quality.*

Security measures is the another important area of concern for mobile users because of electronic device nature of mobile. Risk is always associated with mobile usage, as confidential information of users if disclosed creates adverse situation for users so security measures are assessed as strong predictors of perceived mobile service quality. Security measures are contributing variables for perceived mobile service quality via interaction dimension of perceived service quality (Stiakakis & Georgiadis, 2011).

H4: *Security measures are positively related to interaction dimension of perceived service quality.*

Expectations of users from mobile service providers is to make confidentiality of personal information of users in personalized and encrypt manner so that it should not be disclosed to anyone. Privacy about personal information is the most demanding attribute for service quality in service industry (Zeithmal et al., 2002; Wolfinbarger & Gilly 2003; Seith et al. 2008). *Customization* for mobile service is the emerging demand for today's dynamic users as they assumes that their specific mobile related packages problems , network related should be tackled by companies in personalized manner. This aspect of service industry was also supported by previous research by Vlahos et al. (2001) and Chae et al. (2002).Therefore mobile service quality is also influenced by customized and personalized approach for users mobile companies.

H5: *Customized and personalized approach for user's mobile companies is positively related to interaction dimension of mobile service quality.*

Network environment cum equipment quality is main dimension of perceived mobile service quality as when fluctuation is network occurs suddenly the calls disconnected which diversely creates negative impact on the satisfaction level of users (Vlachos & Vrechopoulos, 2008). Availability of wireless telecommunication network is acting as backbone for perceived mobile service quality as without consistent frequency of network proper will not be available to mobile devices results into call disconnected (Vlachos & Vrechopoulos, 2008). Zhang & Wang (2009) stated that if the frequency of network missing is very high then weather mobile service provider is very popular, it losses is faith and brand image

H6: *Wireless telecommunication network availability is positively related to Network environment cum*

equipment quality dimension of perceived service quality.

Mobile design in terms of color, navigation, shapes, font, and music are directly or indirectly act as facilitator to affect mobile service quality (Caro & Garcia, 2007). Therefore, mobile service providers have to take certain initiatives to test the technical configurations of the mobile devices available in market or make appropriate alignment of mobile design's configurations with network range which surely provide better solution to resolve network related issues (Brady & Cronin, 2001).

H7: Mobile design is positively related to Network environment cum equipment quality dimension of perceived service quality.

Context is also supported as vital element for mobile service quality as the situation (M. Brady and Cronin (2001). As in emergency situation declared by government bodies and governmental regulations restricts the mobile companies to creates jammers for stopping the frequency to provide range to mobile devices is taken in to consideration for investigating impact of situational context in perceived mobile service quality.

H8: Context is positively related to Network environment cum equipment quality dimension of perceived service quality.

Outcome quality is the last construct of proposed model of perceived mobile service quality which deals with psychological and practical approach shared by users of mobile users in context to their attitude towards their usage experience which same as proposed by Grönroos (1984). Furthermore, sub components as variables like reliability is significant contributor of outcome quality construct of perceived mobile service quality (Chen & Aritejo, 2008; Lu et al. 2009).

H9: Reliability towards service provider is positively related to outcome quality dimension of perceived service quality

Brady and Cronin (2001); Lu et al. (2009); Seth et al. (2008) stated *Tangibles* sub component of outcome quality is also contributor of perceived mobile service quality which deals with ability of M-service providers to project evidence in print form that service has accomplished whereas *Valence* is termed as attribute of mobile service provider which shows once service is accomplished, good experience generates valence for future time (Caro & Garcia 2007; Brady & Cronin 2001; Lu et al. 2009)

H10: *Tangibles* is positively related to outcome quality dimension of perceived service quality

H11: *Valence* is positively related to outcome quality dimension of perceived service quality

Interaction quality, Network Environment cum equipment Quality, and outcome quality are the strong predictors of mobile service quality (Caro & Garcia 2007; Brady & Cronin 2001; Lu et al. 2009). Similarly in current study perceived mobile service quality is taken is to consideration for empirical investigation where perceived mobile service quality will disclose the experience domain of the users after or during availing mobile services.

H12: Interaction quality is positively related to perceived mobile service quality

H13: Network Environment cum equipment Quality is positively related to perceived mobile service quality

H14: Outcome quality is positively related to perceived mobile service quality

4.3 Research Methodology

In order to build up a reliable and valid perceived service quality model, an empirical study was used. To develop the model, required methodology was drafted by taking into considerations the guidelines suggested by Churchill (1979), Gerbing & Anderson (1988) and O'Leary-Kelly & Vokurka (1998). An exploratory qualitative data collection via interview method and asking open ended questions to various users of mobile phones by random sampling approach so that hidden information as their thought process can be understood in an effective manner. Each interview composed of 30-40 minutes each was made to get an idea about hidden insights about perceived mobile service quality. After this structured questionnaire was drafted in which all the identified constructs literature review was taken into consideration.

To carry out the desired objective of research, online survey was conducted in North India (persons who are at least user of one mobile service provider) so that reliable data can be collected. Three thousand

approximately e mails invitations were circulated to users (as national sample) purchased from one of the independent research company. Out of this proposed sample 552 respondents participated to give their responses on the questionnaire representing 18.4 % response rate. After collecting the data from respondents, the collected data is used by applying SPSS.22 and AMOS Software's per requirements. Demographic profile of respondents is presented in Table 1.

The various constructs derived from previous studies are used in this study. Before applying Structural equation modeling, confirmatory factor analysis was used to validate the measurements. The above mentioned constructs adopted by the researcher in current study was identified as per previous available literature. Although these constructs were significantly explored and proposed by the previous studies but assessment of their overall impact of the perceived mobile service quality in organized structural form was not available. Hence an attempt has been made by current study to develop the logical model.

Table: 1 Demographic Profile of Respondents (N=332)

		Frequency	%
Gender	Male	184	55.4
	Female	148	44.61
Age (years)	18 -21	24	7.22
	22-30	113	34.03
	31-40	101	30.42
	41-50	52	15.66
	51-60	27	8.17
	61 & above	15	4.5
Monthly Income (In Rupees)	<10,000	7	2.1
	10,000-19,999	16	4.81
	20,000-29,999	84	25.3

	30,000-39,999	107	32.22
	40,000-49,999	76	22.92
	50,000 & Above	42	12.65
Mobile Service Provider	BSNL	99	29.81
	Airtel	74	22.31
	Reliance	116	34.93
	Others	43	12.95

5. Findings:

The proposed conceptual model as depicted in Figure 1 was validated with the help of Structural equation modeling. Various model fit indices were calculated and it was found that proposed model was fit as per suggested with acceptable indices range. The path coefficients of the constructs are summarized in Table 2. It was observed from the estimates that Mobile Service Provider's Expertise, Problem Solving Approach, Information, Security Measures, and Customization are positively related to interaction component of perceived mobile service quality consequently supports hypotheses 1,2,3,4&5.

Strength of relationship among Mobile Service Provider's Expertise Problem Solving Approach, Information, Security Measures, and Customization related to interaction component of perceived mobile service quality revealed that Mobile Service Provider's Expertise has strong influence on interaction component of perceived mobile service quality (.572***) followed by Security Measures(.512***), Problem Solving Approach(.422***) then information (.421***) and finally customization(.411***). Further in this regards, Wireless telecommunication network, Mobile design, and Context are also positively related to Network Environment cum equipment Quality. Hence

hypotheses 6,7&8 are supported as well in the present model. However, strength of relationship between sub components of Network Environment cum equipment Quality varies from each other to noticeable extent. As Mobile design (.483***) has strong influence on Network Environment cum equipment Quality followed by Context (.434***) and finally Wireless telecommunication network (.326***). Reliability, tangibility, and valence are positively related to outcome quality dimension of perceived mobile quality as path estimates depicted the information so hypothesis 9, 10&11 supported in the proposed model. Whereas assessment of strength of relationship revealed reliability (.487***) has strong influence on outcome quality dimension of perceived mobile quality followed by valence (.483***) and finally tangibility (.301***). Path estimates further shows that interaction quality, Network Environment cum equipment Quality, and Outcome quality as constructs are also have significant influence on perceived mobile service quality and hence supported hypothesis 12, 13&14. Although among all these constructs of perceived mobile service quality, Outcome quality (.566***) has strong influence to explain mobile services user's experience in the form of perceived mobile service quality. The direction of all the constructs is positive in the proposed model showed

that all the sub elements of perceived mobile service quality are significant contributors.

Table 2 Path Coefficient

Constructs	Path	Estimate s
Mobile Service Provider's Expertise	→ Interaction Quality	.572* **
Problem Solving Approach	→ Interaction Quality	.422* **
Information	→ Interaction Quality	.421* **
Security Measures	→ Interaction Quality	.512* **
Customization	→ Interaction Quality	.411* **
Wireless telecommunication network	→ Network Environment cum equipment Quality	.326* **
Mobile design	→ Network Environment cum equipment Quality	.483* **
Context	→ Network Environment cum equipment Quality	.434* **
Reliability	→ Outcome Quality	.487* **
Tangibility	→ Outcome Quality	.301* **
Valence	→ Outcome Quality	.483* **
Interaction Quality	→ Perceived Mobile service quality	.544* **
Network Environment cum equipment Quality	→ Perceived Mobile service quality	.0488 ***
Outcome Quality	→ Perceived	.566*

	Mobile service quality	**
* p< .05, ** p<.01 , ***p<.001		

Table 3 reveals that all the model fit indices of proposed model are in accordance with suggested ranges of different experts. Hence it can be concluded that conceptual proposed model of perceived mobile service is valid as per the analysis carried via Confirmatory factor analysis.

Table 3 Models Fit Analysis

Model Fit Analysis		
Fit Statistic	Recommended Fit for Model	Proposed Model
Chi Square/ Degree of Freedom	≤ 3.0	1.866
GFI	≥ .90	0.871
AGFI	≥ .80	0.844
TLI	≥ .90	0.976
CFI	≥ .90	0.975
RMSEA	≤ .08	0.063

6. Implications and Limitation

Current proposed model of perceived mobile service quality is the vital and relevant tool for marketing experts of mobile industry which surely will suggest appropriate insights and about the various attributes of service quality in mobile industry. Because of increased disposable income of Indian People cultivates the mobile market and revolution of smart phone usage among Indian provide mobile service providers to be alert in their service area otherwise competitors will grasp the opportunity to capture market share. Further, as proposed in the current model that interaction quality, Network Environment cum equipment Quality, and Outcome quality are

main elements considered by mobile users while availing mobile services, so all mobile service companies can consider these dimensions then accordingly formulate their marketing strategies. In the 21st century, various most of the business uses mobile applications as their significant avenues to promote their products, it should be the serious concern of the mobile network companies to overcome all the coverage related issues in all of the rural as well as urban areas of the India. Even service quality is the serious concern of the various industries. For example, in case of financial industry, there is a dynamic shift result into birth of Fintech companies. The businesses of all these companies use AI, Blockchain and Machine learning as their significant tools to increase their effectiveness. In such situation, it is desirable for all mobile companies to be serious about their service quality because in next coming decades, it will surely happen that all these chatboxes like emerging trends require better quality in terms of mobile service as they will be installed in the smart mobile phones. As far as limitation of current study is concerned, sample size was limited so future research can be done by making appropriate clusters of population via demographic segmentation so that robustness and generalization of proposed model can be validated at maximum extent.

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