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Service Quality an Antecedent of Customer Satisfaction; A Comparative Analysis of Four Alternative Service Quality Models on Customers of the Banking Sector of Pakistan

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Abstract

The study is conducted on bank customers in Pakistan to find out whether service quality is an antecedent of customer satisfaction. The study also provides the comparative analysis of four alternative extended versions of service quality models, namely SERVQUAL, Weighted SERVQUAL, SERVPERF, and Weighted SERVPERF. A quantitative analysis was conducted, and to form the sample for the study, self-administered questionnaires were distributed and responded to by 500 customers of Pakistani commercial banks. The comparative analysis of four alternative service quality models has been carried out by applying construct validity, reliability, uni-dimensionality, and model fit indices on service quality variables, revealing that all four service quality models fulfilled the requirement of validity, reliability, and goodness of fit as well as the models significantly and positively impact the customer satisfaction. However, the superiority and higher effectiveness of the Weighted SERVPERF model over the other three service quality models have been established. The mean-based ranking of four alternative service quality models has been attempted, and further analysis of banks' high and low-performing variables from a customer perspective was performed. In the Weighted SERVPERF model, the tangible, reliability, and responsiveness variables were established as *high-performing*, whereas *empathy* and *assurance* variables were established as *low-performing variables*. The bank management should enhance customer satisfaction by improving service quality with a more focused approach as provided in this study.

1 Introduction

Extensive research has been conducted on service quality and its dimensions by management and marketing domains (Ghamry & Shamma, 2022). Leninkumar (2019)

argued that marketers use service quality strategy to outperform competitors. Banking is considered one of the rapidly growing service sectors due to the advancement of technology

and digitalization, which leads to pressure on the management to seek new effective practices to handle the cut-throat competition (Durrah et al., 2018). According to Raza and Burney (2020), the quality assessment of services provided by Pakistani banks is vital as this sector serves a wide variety of customers, from individuals to corporations, and provides services for overall financial management.

In the mid-80s, Parasuraman et al. (1985) laid the groundwork for the "GAP Model," a disconfirmation paradigm. They developed the SERVQUAL model where SQ = f(P-E) where 'P' represents 'Perception' and 'E' represents 'Expectation'. The model has gained popularity and has found extensive use since then. In 1991, the author further improved the model by introducing the Weighted SERVQUAL model where SQ=(P-E) x I where 'I' represents 'Importance' weight (Parasuraman et al., 1991). The model faced criticism from Cronin & Taylor in 1992, who laid down the foundation of the "Performance Only" scale and introduced SERVPERF where SQ=f(P) and its weighted version Weighted SERVPERF where SQ=f(P)x I (Cronin Jr & Taylor, 1992). These four models use the RATER dimensions as independent variables to assess customer satisfaction.

The Semi-annual Performance Review released by the State Bank of Pakistan from January 2023 to June 2023 emphasizes the financial soundness of the banking sector which has Rs. 26,785 billion in deposits, Rs. 21,504.3 billion in investments, Rs. 2,953.9 billion in total assets, and Rs. 12,059.6 billion in advances. The review also highlighted that financial institutions have only 6% of the deposit base, i.e., 1,448, compared to customers, which have 94%, i.e. 25,336 billion. Further, as of June 2023, there are thirty-two commercial banks, of which twenty are private local banks, five are public sector banks, four are foreign banks, and three are specialized commercial banks. The banking industry has a wide variety of clientele from individual customers to different sectors i.e. small enterprise, medium enterprise, commercial, corporate, and agriculture, encompassing many industries like commodity, textile, chemical, insurance, electronics, automobile, cement, etc.

According to the above, almost 80% of banking assets in Pakistan are now held by the private sector. Technology that was non-existent a few years ago has revolutionized. Now,

the banking sector offers world-class technology, i.e., alternative delivery channels, e.g., ATM, and other digital banking platforms such as phone banking, Internet banking, and digital applications that offer 24/7 access to the customers as well as reduce the cost of doing business to the banking sector. They also offer many products and services, including debit cards, credit cards, auto loans, consumer durables, and other personal loans. Now the middle class is the biggest beneficiary of these new products and services. Raza and Burney (2020) state that banks in Pakistan play a significant role in the economic landscape and customers are very attuned to the quality of service the bank provides. The study conducted a comparative analysis of all four alternative service quality models regarding reliability, validity, and predictability by researching customers in Pakistan's banking sector. The study goals are diverse and encompass the following:

The research aims to evaluate the suitability of analytical models for multi-dimensional studies by conducting a comparative analysis of four alternative service quality models, namely (a) SERVQUAL, (b) Weighted SERVQUAL, (c) SERVPERF, (d) Weighted SERVPERF. The study seeks to find out whether service quality acts as an antecedent of customer satisfaction (Irshad et al., 2022) through such crucial factors as (a) perception, (b) expectation, (c) importance, (d) service quality, and (e) customer satisfaction. Furthermore, the research aims to identify the relative significance of the service quality RATER dimension within the service quality framework and assess how service quality as a mediator influences customer satisfaction within the banking sector. The ultimate objective is to propose strategic recommendations to the bank's management, providing concise and actionable insights to enhance service quality standards and achieve higher customer satisfaction.

2 Literature Review

2.1 Service Quality

The publication of a pioneering article on service quality entitled "The Service Revolution" by Regan, wherein he identified, conceptualized, and coined the term service quality measurement. In this article, he differentiated service quality and characterized it by four properties: heterogeneous, perishable, inseparable, and intangible (Regan, 1963). The

paradigm of disconfirmation and the paradigm of performance (Fahim et al., 2021), are the two contradictory paradigms defined by scholars of service quality (Raza & Burney, 2020). The foundation of a disconfirmation paradigm lies in assessing perceived service quality, which results from a comparison between customer expectation and their experience (Grönroos, 1984). The service delivered matches the services expected (Kumar, 2022). According to Parasuraman et al. (1985), service quality is indicated by the level of discrepancy between the customer's perception and their expectations. The 'expectancy disconfirmation model' starts with the process of formation of expectations and ends with the disconfirmation of those expectations with their perception laid down the foundation of the SERVQUAL scale and thus operationalization of the GAP model. Zygiaris et al. (2022) propose that "service quality" can be defined as the difference between consumer expectations and their perceived level of service. Cronin Jr and Taylor (1992) proposed the SERVPERF scale, which ruled out the expectation requirement and solely relied on perception, the authors also argued that SERVPERF is a more valid and reliable than the SERVQUAL scale. As defined by Kurnia and Besra (2020), service is the organizational activity focused on fulfilling consumer needs, aiming to establish a unique impression. The quality of service has consistently played a crucial role in the success of businesses, as noted by Hizam and Ahmed (2020). From a corporate standpoint, service quality can be seen as the efficiency with which operational performance is carried out to meet the needs of customers (Hien et al., 2019).

2.2 Service Quality Measurement

Service quality measurement was mainly evident in the research conducted by Parasuraman et al. (1985), who initially developed SERVQUAL with ten dimensions and later refined SERVQUAL with five dimensions of RATER (Zeithaml et al., 1988). The SERVQUAL model under five dimensions, established a set of 22 variables. Since the model is based on the concept SQ=f(P-E) being a gap between perception and expectation of customers, the measurement scale contained 22 items for expectation and 22 for perceptions, as the (P-E) score increases the level of quality of service increases. According to Choe et al. (2022), service quality results from comparison, i.e., what the client expects concerning what he has received.

Cronin Jr and Taylor (1992) raised doubt about the conceptualization of SERVQUAL, abandoned the expectation, and introduced the SERVPERF model. In this model, the performance component has been employed, supported by theoretical as well empirical evidence from four industries, including banks, to prove the pre-eminence of the SERVPERF SQ=f(P)– Perception Only model over the SERVQUAL – (P-E) model. Besides proving superiority, the scale also reduced the item by 50%, being a single-item scale, and is comprised of only 22 items as used in SERVQUAL. According to Jain and Gupta (2004), the importance of numerous quality attributes used in service quality scales can significantly vary across diverse service types and customers. Since the characteristics of service quality are not necessarily uniform across various service sectors, (Cronin Jr & Taylor, 1992; Parasuraman et al., 1991; Zeithaml et al., 1988) proposed to include importance weights in service quality which leads to the development of four alternative service quality measurement models namely

SERVQUAL SQ=f (P-E),

SERVPERF SQ=f (P)

Weighted SERVQUAL SQ=f(P-E) x I

Weighted SERVPERF SQ=f(P) x I

The study aims to assess the four alternative service quality models' validity, reliability, and model fit indices.

A brief definition of the variables under study is provided in Table 1.

Table 1 Definition of Variable

Variables	Definitions
Reliability	The capacity of the bank to deliver the promised service.
Responsiveness	Bank preparedness to support customers and deliver prompt service.
Assurance	The bank personnel's proficiencies, expertise, and their ability to inspire trust and confidence.
Empathy	The bank's caring and individualized service meets customer needs
Tangible	The physical appearance of a bank in terms of interior and exterior as well as the appearance of its employees.

Service Quality	Assessment of dimension-wise positive impact on customer satisfaction.
Customer Satisfaction	Overall satisfaction of customers from banking services.

2.3 Service Quality Dimensions – Theoretical basis

2.3.1 Tangible

Jawaid et al. (2023) define tangibles in a bank as the spatial arrangement of the branches and communication infrastructure. The study further confirmed that the tangible variable had a positively significant impact on customer satisfaction (Kim et al., 2021). Hyken (2020) states that the tangible elements encompass physical elements of services, encompassing all the equipment and tools used in the service delivery. Shafiq et al. (2019) define tangibles as personnel, communication materials, physical facilities, and equipment.

2.3.2 Reliability

According to Jawaid et al. (2023), The variable of reliability means the strategy to provide accurate services and offer secure and fast transactions. According to Tedjokusumo and Murhadi (2023), reliability means the capacity of banks to fulfill their responsibilities correctly. Empathy and physical aspects. Reliability involves consistently delivering dependable performance (Yaşar & Özdemir, 2022). Felix (2017) defines the reliability of a service firm as providing services right the first time and honoring its promise, including punctuality of service, ability to abide by the agreement, correct services and accurate records, and providing services consistently and accurately.

2.3.3 Responsiveness

Jawaid et al. (2023) define responsiveness as an emphasis of the bank on accuracy and speed as a competitive advantage. According to Jahan and Shahria (2022), responsive and quick responses by bank operators when consumers encounter issues are essential for boosting customer satisfaction. Mwiya et al. (2022) define responsiveness as the willingness and readiness of employees to deliver speedy services, prompt response, and the ability to resolve customer issues quickly. According to Sharma et al. (2022), the responsiveness of retailing impacts customers' post-purchase behavior, resulting in heightened involvement (Munawar et al., 2022) in activities such as cross-buying, revisiting, and making referrals. Organizations must prioritize speedy service delivery for optimal responsiveness,

influencing customer satisfaction (Akdere et al., 2020; Sohail & Hasan, 2021). Studies have established that customer satisfaction positively and significantly regresses responsiveness (Jahan & Shahria, 2022).

2.3.4 Assurance

Jawaid et al. (2023) define assurance as the sense of security enhancement between the customer and bank through verbal and nonverbal messages to form trust. According to Felix (2017), the dimension of assurance is a combination of security, competence, credibility, and courtesy of the personnel, where security refers to freedom from risk of doubt and danger, competence refers to requisite skills and knowledge; courtesy refers to consideration, friendliness, and politeness of staff (Fiaz & Fahim, 2023); credibility refers to honesty, believability, and trustworthiness of employees.

2.3.5 Empathy

According to Jawaid et al. (2023), empathy embraces caring services to customers that positively influence customer satisfaction when banks provide prioritized services in information security and management and staff are available for customer assistance with their needs. According to Felix (2017), empathy concerns individualized and caring attention to customers, and it's the combination of access, communication, and understanding of customers where access refers to the ease of contact and approachability; communication refers to listening to the customer and use native language to inform customer; understanding the customer involves gaining insight into the customer and their explicit requirement. Jawaid et al. (2023) confirmed empathy's significance and positive direction with customer satisfaction.

2.4 Service Quality and Customer Satisfaction

According to Maladi et al. (2019), service quality substantially affects customer satisfaction and retention. The management of customer satisfaction is highly dependent on the crucial factor of service quality, as indicated by Zygiaris et al. (2022). To maintain the customer satisfaction it is necessary for firms to monitor and manage service quality (Park et al., 2022). Ofosu-Boateng and Acquaye (2020) states that there exists a strong positive correlation between service quality, customer satisfaction, and customer loyalty. De Bruin

et al. (2021) research reveals a statistically significant and positive connection between service quality and customer satisfaction.

Consumer satisfaction has become a paramount concept in marketing research, as emphasized by Haq and Awan (2020). Choe et al. (2022) define customer satisfaction as evaluating whether customer requirements and expectations regarding products or services are met. Kotler (2020) defines customer satisfaction as the results felt by customers who experience the organization's performance and find it aligned with their expectations. Satisfied customers persisted in using services, whereas displeased ones were more prone to switching to an alternative (Ahmed et al., 2022). Senou et al. (2019) consider service quality a key factor for success in banking services. Service quality, recognized as a pivotal determinant of customer satisfaction, is a complex construct with dimensions that differ across various sectors (Nunkoo et al., 2020).

According to Raza and Burney (2020), all service quality variables exhibit a noteworthy positive association with customer satisfaction, and the mediator role in this relationship pertains to overall service quality. Leninkumar (2019) argued that customer satisfaction can be measured by measuring the image of the bank, trust, value perceived, and service quality. Dandis and Wright (2020) found a significant impact of service quality dimensions on Islamic banks' customer satisfaction. All service quality variables positively correlated with customer satisfaction (Raza & Burney, 2020).

2.5 Theoretical Framework and Analytical Model

The evaluation and measure of the service quality impact on Customer Satisfaction and the comparative analysis of four alternative service quality models; the study uses the analytical model proposed by Raza and Burney (2020).

Figure 1 Theoretical Model

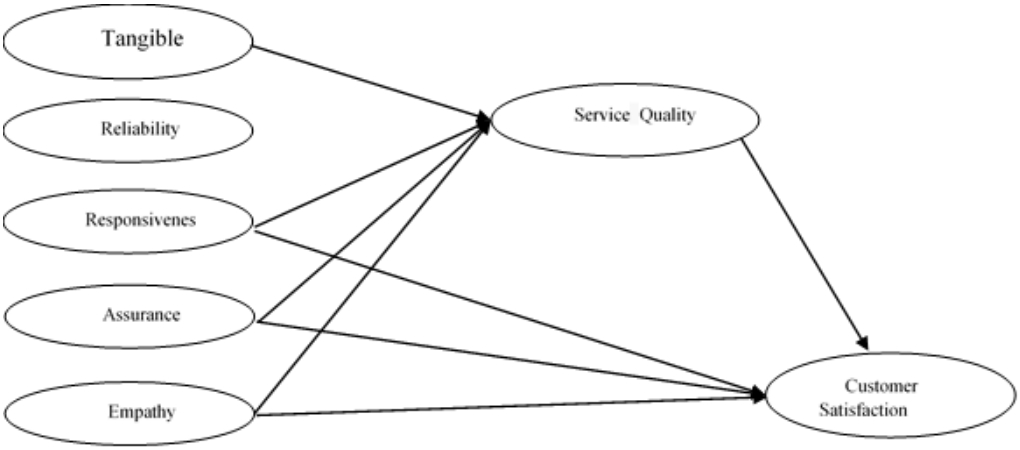


Figure 1 Service Quality Extended Model by Raza and Burney (2020) based on Cronin Jr and Taylor (1992); Parasuraman et al. (1985)

The theoretical model consists of the following parts:

- Five Service Quality Dimensions as (IVs)
- Service Quality as (MV)
- Customer Satisfaction as (DV)

In terms of customer satisfaction, the model emphasizes the role of the two-pronged approach to service quality measurement. The framework is built upon the presumption that service quality's five dimensions acting as independent variables (IV) influence customer satisfaction (DV) individually and in a composite service quality effect. In this construct, service quality represents the customers' evaluations of each dimension combined for measurement as a mediator (MV).

This study uses multiple service quality models to make a comparative analysis in terms of (a) uni-dimensionality, (b) validity, (c) reliability (d) diagnostic-ability to propose the finest model among these four alternative service quality models.

2.6 Development of Hypotheses

The study analyzes four well-established service quality constructs; the premise behind these constructs is that service quality and its variables positively and significantly influence customer satisfaction. These relationships were confirmed by service quality classic studies like (Cronin Jr & Taylor, 1992; Grönroos, 1984; Parasuraman et al., 1985), and the relationship is also well established in many recent studies including but not limited to (Jahan & Shahria, 2022; Jawaid et al., 2023; Moosa, 2023; Raza & Burney, 2020) that five dimensions of service quality have positive impact on customer satisfaction. Further, Raza and Burney (2020) also established validity and reliability with the mediating effect of Service Quality with the extended model of service quality. Drawing from the existing literature, we formulate three hypotheses from H1 to H3 to test the relationship between variables of Service Quality (IV), Service Quality (MV), and Customer Satisfaction (DV).

H1: Variables of service quality (IVs) have a significant positive impact on Service Quality (MV).

H2: Variables of service quality (IVs) have a significant positive impact on Customer Satisfaction (DV).

H3: Service Quality (MV) has a significant positive impact on Customer Satisfaction (DV).

The study analyzed four well-established alternative service quality models i.e., SERVQUAL crafted by (Parasuraman et al., 1985); Weighted SERVQUAL created by (Zeithaml et al., 1988), the performance-based model SERVPERF and the addition of weight; Weighted SERVPERF model is formulated by (Cronin Jr & Taylor, 1992) these all models are widely used in the service quality studies for last four decades, and recent studies (Choe et al., 2022; Jahan & Shahria, 2022; Maladi et al., 2019; Pakurár et al., 2019; Zygiaris et al., 2022) also confirmed the validity of the models in applying evaluation in different service industries, Based on the studies; we develop following hypothesis H4 to check the validity, reliability of four extended service quality models:

H4: Four extended service quality models, i.e., SERVQUAL, Weighted SERVQUAL, SERVPERF, and Weighted SERVPERF, are valid and reliable constructs to assess Customer Satisfaction.

The research performs a comparative assessment of four alternative service quality models as previously studied by various scholars, prominent among them(Czajkowska & Manuela, 2021; Park et al., 2022, 2023) for evaluation of superiority among alternative models of service quality in terms of validity, reliability, and predictability. Based on the above studies, four distinct hypotheses from H5 to H8 are developed to evaluate the superiority among these models concerning reliability, validity, and predictability:

H5: The SERVQUAL model has superiority over the other three alternative service quality models in terms of reliability, validity, and predictability.

H6: The Weighted SERVQUAL model has superiority over the other three alternative service quality models regarding reliability, validity, and predictability.

H7: The SERVPERF model has superiority over the three alternative service quality models regarding reliability, validity, and predictability.

H8: The Weighted SERVPERF model has superiority over the other three alternative service quality models regarding reliability, validity, and predictability.

3 Methodology

The study followed the hypothetic deductive research strategy for this research work. The sample of this study is restricted to bank customer of urban Karachi as it offers a large number of educated respondents who better understands the meaning of the questions put to them in the survey questionnaire, Karachi city is a financial hub and contains almost all banks operating in Pakistan and consider as an appropriate representation of Pakistani bank customers.

The study analyse four alternative service quality models that have different definitions of Service Quality as shown in Table 2.

Table 2 Service Quality Definition of Four Alternative Service Quality Models

Measurement Model	Definition
SERVQUAL	SQ=f(P-E)
Weighted SERVQUAL	SQ=f(P-E) x I)
SERVPERF	SQ=f(P)
Weighted SERVQUAL	SQ=f(P-E) x I)

The above table shows mathematical expression of alternative service quality models Where (SQ) represents five dimensions of service quality, (P) represents Perception, (E) represents Expectation, and (I) represents Importance.

3.1 Sampling Size

The quantitative analysis has been conducted, by utilizing the survey questionnaire of randomly selected five hundred customers of commercial banks of Pakistan as respondents to understand the perspective regarding the quality of service offered by the commercial bank and how it will impact the satisfaction of customers. The study follows the principle of size of the sample suggested by Krejcie and Morgan (1970) for 1,000,000 and above population will necessitate 384 or more respondents as a sample, statistical calculation utilized for appropriate sample size by putting the level of confidence 95% and 5% margin of error having population 1,000,000/- give an appropriate sample size of 384. The CFA and SEM sample size requirement for statistical analysis recommended by Wolf et al. (2013) ranges from 30 to 460 cases. The current research in the service quality field by Tedjokusumo and Murhadi (2023) has a sample size of 194, Mardhiah et al. (2023) has 122 respondents, Moosa (2023) having 163 respondents.

3.2 Measurement Variables

The survey questionnaire has been developed to cover all aspects and variables required for analysis in four alternative service quality models. The main variables required for analysis are expectation, perception, Importance, service quality, and customer satisfaction. The detailed description Layout of the Questionnaire and No. The variables required for four alternative service quality models are shown in Table 3.

Table 3 Layout of Questionnaire

Parts	Variables	Reference
Profile of Customer	4	(Raza & Burney, 2020)
Customer Relationship	2	(Raza & Burney, 2020)
Expectation	22	(Parasuraman et al., 1985)
Perception	22	(Parasuraman et al., 1985)
Importance	5	(Cronin Jr & Taylor, 1992)
Service Quality	6	(Raza & Burney, 2020)
Customer Satisfaction	7	(Raza & Burney, 2020)

Further, the requirement of variables for four alternative models are also provided in Table 4

Table 4 Variables Requirement for Four Alternative Service Quality Models

Service Quality Models	Expectation Variables (E)	Perception Variables (P)	Importance Variables (I)	Service Quality (SQ)	Customer Satisfaction (SAT)	Total Model Variables	Total Model Measures
SERVQUAL	22	22	-			44	(P-E)
SERVPERF	-	22	-			22	(P)
Weighted SERVPERF	-	22	05			27	I x (P)
Weighted SERVQUAL	22	22	05			49	I x (P-E)
Service Quality	-	-	-	08		08	(SQ)
Customer Satisfaction	-	-	-		06	06	(SAT)
Total Items Required	(E) 22	(P) 22	(I) 05	(SQ) 08	(SAT) 06	(Total) 63	

3.3 Validating the Measurement Model

The research study validates four alternative service quality models by using the SEM. CFA is the validating procedure of SEM through recommended validity and reliability tests with model fit indices and according to the recommended criteria mentioned in Table 5.

The benchmarks recommended for all the validating tests and model fit indices by several authors, prominent among them, are Fornell and Larcker (1981); Jöreskog and Sörbom (1981); Bentler and Bonett (1980); L. t. Hu and P. M. Bentler (1999); Toufani and Montazer (2011) are as under:

Table 5 Validating and Reliability and Model Fit Indices

	Measurement Test	Criteria
Uni-dimensionality	Standardized Factor Loading	Factor Loading > 0.6
Construct Validity	Convergent Validity	CR>AVE and AVE > 0.5
	Discriminant Validity	Square Root of AVE> Inter construct Correlation, ASV<AVE, MSV<AVE
Construct Reliability	Internal Reliability	Cronbach Alpha: α >0.70 CR > 0.7
Model Fit Indices	X2/DF, CFI, NFI, RMSEA, GFI, AFGI	<3, > 0.90, >0.90, <0.05,>0.95, >0.80

Further, the following analyses have been conducted to test the hypotheses: regression analysis and bootstrap approach to identify the effect of mediation concerning no, partial, or complete mediation in the model. Mean-based ranking of variables of service quality to ascertain the relative significance of these variables.

3.4 Scaling Procedure

The yardstick must demarcate the high and low-performing service quality dimensions to attain the study's objectives and enhance the understanding of how this research can benefit management.

The questionnaire employs a Seven-point Likert scale and follows the overall mean criteria recommended by Rhee (2009) to differentiate between high-performance and low-performance service quality variables in place of the midpoint of the Likert scale. The purpose is to eliminate the respondents' biases, 'Naysayers' and 'yeasayers' as pointed out by Greenleaf (1992).

4 Result & Discussion

4.1.1 Demographics Profile

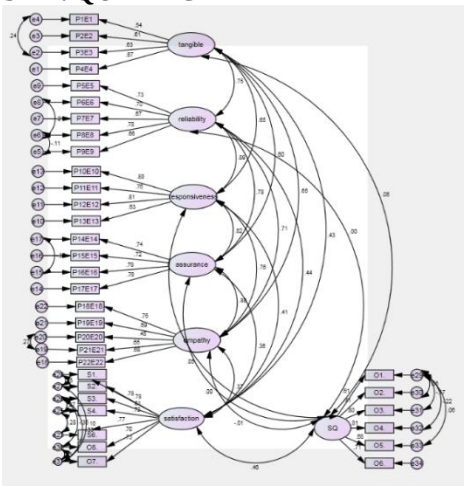
The demographic profile of the respondents is presented in Table 6 in which respondents' characteristics, i.e., gender, age, occupation, qualification, type of bank, and account holding duration, have been summarized.

Table 6 Demographic Profile of Respondents

Demographic Variables	Category	Frequency
Gender	Male	309
	Female	191
Age	Eighteen to Twenty-Five	42
	Twenty-Six to Thirty-Five	161
	Thirty-Six to Forty-Five	98
	Forty-Six to Fifty-Five	118
	Fifty-Five and above	81
Occupation	Private Service	183
	Private Service	150
	Self- employed	62
	Business	105
	Matriculation	10
	Undergraduate	101
Qualification	Graduate	173
	Postgraduate	198
	Other	18
Types of Bank	Conventional Bank	354
	Islamic Banks	146
Duration of Account Holding	One to Three-years	130
	Three to Six-year	108
	Six to Ten-years	150
	Ten years and above	112

Figure 2

SERVQUAL – CFA



Weighted SERVQUAL - CFA

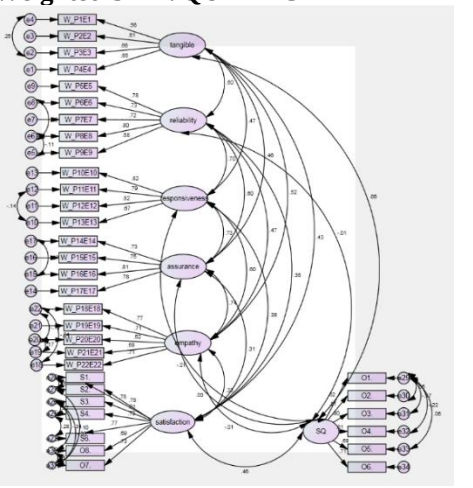
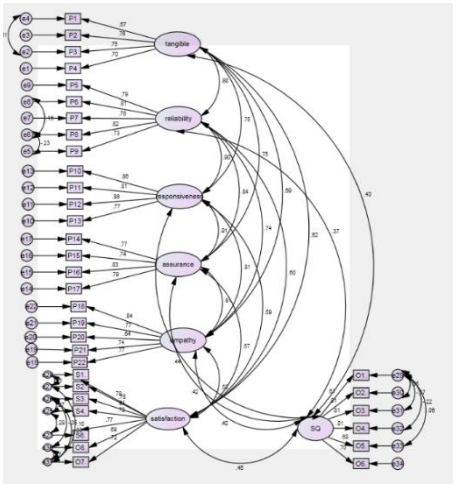
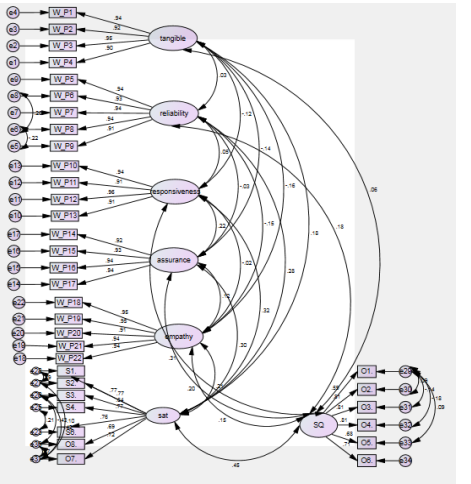


Figure 3 CFA Analysis – Four Alternative Service Quality Models

SERVPERF - CFA



Weighted SERVPERF - CFA



4.2 Construct Uni-dimensionality, Validity, and Reliability

The study conducted validity and reliability tests of four alternative service quality models through IBM SPSS AMOS version 22. The study uses SEM to validate the model comprehensively. The SEM validating process is recognized as CFA and is carried out to determine reliability and validity. The model assessment through CFA includes uni-dimensionality, construct validity, and construct reliability.

4.3 Construct Uni-dimensionality

The standardized factor loading 0.70 and above is ideal, and 0.60 is considered an acceptable level for factor loading values: Barclay et al. (1995).

The measurement model has to achieve uni-dimensionality when all measurement items of the study have an acceptable level, i.e., the cutoff criteria of factor loading is 0.6 and above for their respective latent variable. As per the coefficient alpha of all four alternative service quality models has an acceptable level of >0.6. The summary of uni-dimensionality of four alternative models, i.e., SERVQUAL model has Cronbach Alpha between 0.7 to 0.9, Weighted SERVQUAL has Cronbach Alpha between 0.7 to 0.9, SERVPERF has Cronbach Alpha between 0.8 to 0.9 and Weighted SERVPERF has the highest coefficient alpha value which is 0.87 to 0.971. All the models have acceptable Cronbach Alpha values and thus established uni-dimensionality. However, the Weighted SERVPERF model has the highest value of uni-dimensionality established.

Table 7 Standardized Factor Loading – Four Alternative Service Quality Models

Variable	SERVQUAL	Weighted SERVQUAL	SERVPERF	Weighted SERVPERF
Tangible				
Tan1	0.60	0.60	0.67	0.95
Tan2	0.61	0.61	0.76	0.92
Tan3	0.62	0.63	0.75	0.93
Tan4	0.62	0.64	0.70	0.90
Reliability				
Rel1	0.73	0.78	0.79	0.93
Rel2	0.70	0.73	0.81	0.94
Rel3	0.57	0.72	0.78	0.95
Rel4	0.78	0.80	0.82	0.93
Rel5	0.66	0.68	0.73	0.91

Responsiveness				
Res1	0.80	0.82	0.86	0.94
Res2	0.76	0.79	0.81	0.91
Res3	0.81	0.82	0.86	0.96
Res4	0.63	0.67	0.77	0.91
Assurance				
Ass1	0.74	0.73	0.77	0.92
Ass2	0.72	0.75	0.74	0.93
Ass3	0.79	0.81	0.83	0.94
Ass4	0.76	0.78	0.79	0.94
Empathy				
Emp1	0.75	0.77	0.84	0.95
Emp2	0.69	0.71	0.77	0.95
Emp3	0.48	0.52	0.64	0.91
Emp4	0.65	0.68	0.74	0.94
Emp5	0.68	0.71	0.77	0.94
Service Quality				
Sq1	0.61	0.62	0.61	0.59
Sq2	0.91	0.81	0.81	0.81
Sq3	0.80	0.80	0.81	0.81
Sq4	0.81	0.81	0.81	0.81
Sq5	0.68	0.68	0.63	0.68
Sq6	0.71	0.71	0.70	0.71
Customer Satisfaction				
S1	0.78	0.78	0.78	0.77
S2	0.78	0.78	0.78	0.77
S3	0.81	0.81	0.81	0.84
S4	0.72	0.79	0.72	0.77
S5	0.77	0.77	0.77	0.76
S6	0.70	0.69	0.69	0.69
S7	0.73	0.73	0.72	0.72

4.4 Construct Reliability

Construct reliability refers to consistency and reproducibility. Hair et al. (1998) define construct reliability as an assessment of the consistency of results of variables measurement on repeated measure.

As per Table 8, all four alternative service quality models have acceptable levels of CR >0.7 and Alpha >0.7. The summary of uni-dimensionality of four alternative models, i.e., the SERVQUAL model has Cronbach Alpha between 0.728 to value 0.908 and CR value

0.707 to 0.904, the Weighted SERVQUAL has Cronbach Alpha between value 0.738 to 0.908 and CR value 0.715 to 0.903, SERVPERF has Cronbach Alpha between 0.827 to 0.908 and CR value 0.812 to 0.902, the Weighted SERVPERF has Cronbach Alpha value 0.872 to 0.971 and CR value 0.877 to 0.973. All the models have acceptable Cronbach alpha values and Composite Reliability values. It is worth noting that the weighted SERVPERF model achieved the highest value for both Cronbach's alpha and composite reliability.

Table 8 Construct Reliability– Four Alternative Service Quality Model

Dimensions	SERVQUAL		Weighted SERVQUAL		SERVPERF		Weighted SERVPERF	
	alpha	CR	alpha	CR	alpha	CR	alpha	CR
`Tangible	0.728	0.707	0.738	0.715	0.827	0.812	0.960	0.961
Reliability	0.836	0.835	0.861	0.860	0.888	0.890	0.971	0.971
Responsiveness	0.832	0.839	0.851	0.859	0.890	0.895	0.963	0.963
Assurance	0.824	0.839	0.837	0.852	0.865	0.864	0.962	0.964
Empathy	0.797	0.788	0.797	0.812	0.868	0.862	0.973	0.973
Service Quality	0.872	0.878	0.872	0.879	0.872	0.873	0.872	0.877
Satisfaction	0.908	0.904	0.908	0.903	0.908	0.902	0.908	0.906

4.5 Construct Validity

Construct validity has been calculated through two sub-validity types, i.e. convergent and discriminant.

4.6 Convergent Validity

According to Hair et al. (2010), the measurement model is assumed to achieve convergent validity when the CR> 0.7 and AVE>0.50

The result shown in Table 9 is that the (CR) and (AVE) values of all four alternative service quality models have acceptable levels of AVE>0.5 and CR >0.7. The analysis of four alternative models concerning convergent validity the result shows that the SERVQUAL model has CR values between 0.707 to 0.904 and AVE values between 0.503 to 0.577, the Weighted SERVQUAL has CR values between 0.715 to 0.903 and AVE values between 0.551 to 0.604, the SERVPERF has CR value between 0.812 to 0.902 and AVE value between 0.520 to 0.682, the Weighted SERVPERF has CR value 0.877 to 0.973. All the models have established convergent validity as all models have adequate values of

AVE>0.50 and CR>0.70. It is worth noting that the weighted SERVPERF model achieved the highest value for both (AVE) and (CR).

Table 9 Convergent Validity – Four Alternative Service Quality Models

Dimensions	SERVQUAL		Weighted SERVQUAL		SERVPERF		Weighted SERVPERF	
	CR	AVE	CR	AVE	CR	AVE	CR	AVE
Tangible	0.707	0.577	0.715	0.586	0.812	0.520	0.961	0.861
Reliability	0.835	0.503	0.860	0.552	0.890	0.619	0.971	0.869
Responsiveness	0.839	0.568	0.859	0.604	0.895	0.682	0.963	0.865
Assurance	0.839	0.567	0.852	0.590	0.864	0.613	0.964	0.870
Empathy	0.788	0.531	0.812	0.567	0.862	0.670	0.973	0.880
Service Quality	0.878	0.548	0.879	0.551	0.873	0.538	0.877	0.547
Satisfaction	0.904	0.575	0.903	0.570	0.902	0.568	0.906	0.579

4.7 Discriminant Validity

The measurement of the degree of distinctiveness of a construct from another construct is called discriminant validity. In other words, it measures how many factors of the construct are distinct and uncorrelated. The discriminate validity is analyzed by Average Shared Variance – Benchmark ASV <AVE, Maximum Shared Variance– Benchmark MSV < AVE, √AVE – Benchmark √AVE >Inter Construct Correlation.

The measurement model is assumed to achieve discriminant validity when ASV <AVE, MSV < AVE, √AVE >Inter Construct Correlation. The result shown in Table 10 shows that the discriminant validity criteria of ASV<AVE is established in all four alternative service quality models where the highest Average Shared Variance benchmark has been established in Weighted SERVPERF followed by SERVPERF, Weighted SERVQUAL, and SERVQUAL, the second criteria MSV < AVE is also established in all four alternative service quality models where high Maximum Shared Variance benchmark has been established in Weighted SERVPERF followed by Weighted SERVQUAL, SERVQUAL, and SERVPERF.

Table 10 Discriminant Validity – Four Alternative Service Quality Models

Dimensions	SERVQUAL			Weighted SERVQUAL			SERVPERF			Weighted SERVPERF		
	CV	DV		CV	DV		CV	DV		CV	DV	
	AVE	MSV	ASV	AVE	MSV	ASV	AVE	MSV	ASV	AVE	MSV	ASV
Tangible	0.577	0.563	0.326	0.586	0.270	0.209	0.520	0.505	0.464	0.861	0.032	0.016
Reliability	0.503	0.492	0.443	0.552	0.221	0.260	0.619	0.613	0.533	0.869	0.078	0.022
Responsiveness	0.568	0.492	0.41	0.604	0.533	0.291	0.682	0.620	0.5664	0.865	0.102	0.044
Assurance	0.567	0.474	0.424	0.590	0.548	0.291	0.613	0.528	0.5709	0.870	0.090	0.035
Empathy	0.531	0.474	0.403	0.567	0.548	0.251	0.670	0.625	0.491	0.880	0.044	0.022
Service Quality	0.548	0.212	0.036	0.551	0.212	0.036	0.538	0.212	0.173	0.547	0.202	0.0662
Satisfaction	0.575	0.212	0.171	0.570	0.212	0.146	0.568	0.384	0.3183	0.579	0.202	0.0916

The measurement model is assumed to achieve discriminant validity when √AVE >Inter Construct Correlation. The results shown in Table 11, Table 12, Table 13, and Table 14 that √AVE – Benchmark - √AVE >Inter Construct Correlation has been achieved in all four models. All four alternative service quality models have achieved the criteria of uni-dimensionality, Construct validity, and Construct reliability.

Table 11 √AVE and Analysis of Construct Correlation– SERVQUAL Model

	Tangible	Reliability	Responsiveness	Assurance	Empathy	Satisfaction	Service quality
Tangible	0.614						
Reliability	0.550	0.711					
Responsiveness	0.547	0.689	0.754				
Assurance	0.603	0.679	0.683	0.752			
Empathy	0.553	0.612	0.624	0.576	0.656		
Satisfaction	0.427	0.438	0.415	0.360	0.374	0.756	
Service Quality	0.053	0.000	0.046	-0.005	-0.008	0.456	0.743

Table 12 √AVE and Analysis of Construct Correlation - Weighted SERVQUAL

	Tangible	Reliability	Responsiveness	Assurance	Empathy	Satisfaction	Service quality
Tangible	0.623						
Reliability	0.599	0.745					
Responsiveness	0.466	0.703	0.779				
Assurance	0.457	0.597	0.725	0.769			
Empathy	0.525	0.470	0.601	0.640	0.682		
Satisfaction	0.432	0.362	0.377	0.315	0.329	0.756	
Service Quality	0.057	-0.010	-0.006	-0.002	-0.007	0.456	0.743

Table 13 √AVE and Analysis of Construct Correlation - SERVPERF

	Tangible	Reliability	Responsiveness	Assurance	Empathy	Customer Satisfaction	Service quality
Tangible	0.720						
Reliability	0.701	0.788					
Responsiveness	0.696	0.618	0.823				
Assurance	0.654	0.741	0.759	0.785			
Empathy	0.688	0.715	0.745	0.672	0.754		
Customer Satisfaction	0.619	0.595	0.593	0.568	0.533		
Service Quality	0.401	0.371	0.441	0.421	0.396	0.457	0.755

Table 14 √AVE and Analysis of Construct Correlation– Weighted SERVPERF

	Tangible	Reliability	Responsiveness	Assurance	Empathy	Satisfaction	Service quality
Tangible	0.816						
Reliability							
Responsiveness	-0.116	0.049					
Assurance	-0.137	-0.028	0.319				
Empathy	-0.163	-0.149	-0.018	0.255			
Satisfaction	0.182	0.283	0.321	0.295	0.307		
Service Quality	0.063	0.177	0.314	0.205	0.151	0.451	

4.8 Model Fit Indices

The research study must analyze model fit indices in CFA, which will evaluate the model compatibility with the collected data. The "Good Fit" data established in model fit indices indicate support for the data and ensure the consistency of the construct with the observed data.

The study followed the "Goodness of Fit" recommended by well-known scholars i.e. Bentler and Bonett (1980); Toufani and Montazer (2011); Bentler (1990); Hu and Bentler (1995); ENG MacCallum et al. (1996); Joreskog and Sorbom (1989). Further, there are also recommendations regarding the threshold for different fit indices measurement provided by L.-T. Hu and P. M. Bentler (1999).

Table 15 Model Fit Indices – Four Alternative Service Quality Models

Indices	Recommended cutoff Criteria	SERVQUAL	Weighted SERVQUAL	SERVPERF	Weighted SERVPERF
X2/df	<3	1.997	1.873	2.131	1.824
P Val	<0.05	.000	0.000	0.000	0.000
GFI	>0.90	0.925	0.903	0.915	0.961
AGFI	>0.80	0.875	0.882	0.862	0.880
RMR	<0.08	0.067	0.074	0.054	0.096
NFI	=>0.90	0.914	0.905	0.910	0.950
TLI	>0.95	0.936	0.943	0.943	0.973
CFI	>0.95	0.944	0.950	0.950	0.976
RMSEA	<0.05	0.045	0.042	0.048	0.041

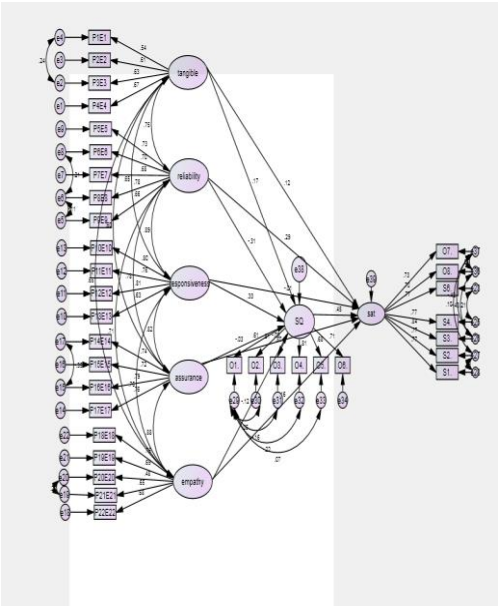
The result is shown in the above table of Model fit indices that all four alternative models of service quality meet the recommended cut of criteria i.e. X2/df <3, P <0.05, GFI >0.90, AGFI>0.80, RMR<0.08, NFI>0.90, TLI>0.95, CFI>0.95 and RMSEA <0.05 criteria of Model fit indices, thus establish the consistency of all four hypothesized model with the observed data.

4.9 Structural Equation Modelling

After a comprehensive evaluation of reliability, validity, and fitness of data through model fit indices, the study further carried out Structural Equation Modeling of these models:

Figure 4

SERVQUAL – SEM



Weighted SERVQUAL – SEM

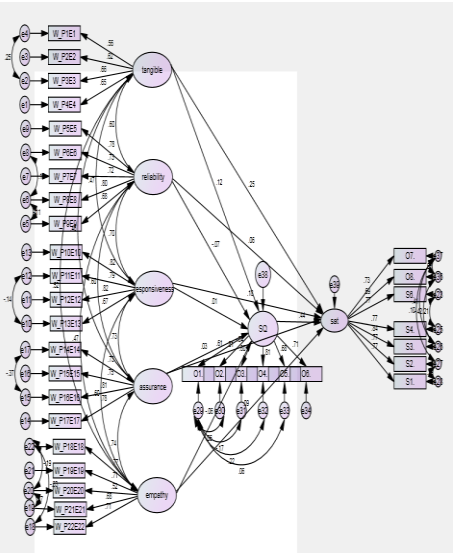
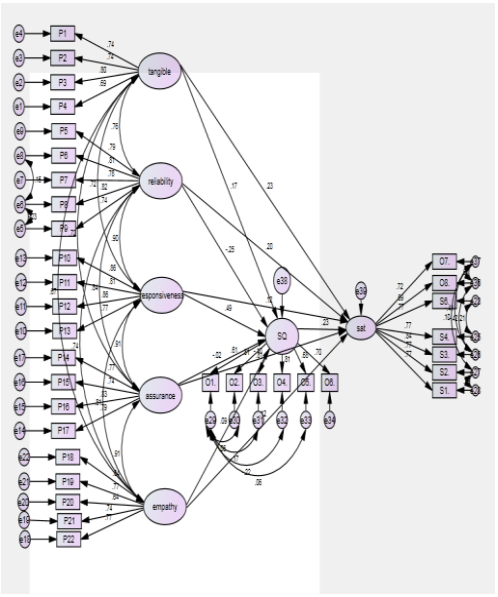
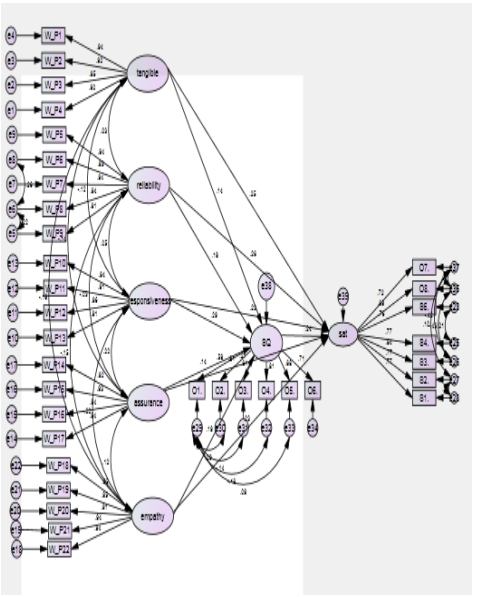


Figure 5

SERVPERF – SEM



Weighted SERVPERF– SEM



The outcome of regression has been presented in Table 16 that all independent variables (IVs) regress positively and significantly with Service Quality (MV) where $P < 0.05$ in all four service quality models. Service Quality (MV) also regresses positively and significantly with Customer Satisfaction (DV). All four alternative service quality model independent variables (IVs) regress positively with Customer satisfaction (DV). Weighted SERVPERF shows better significance as P values are highly significant compared to the other three alternative service quality models.

Table 16 Regression Weights – Four Alternative Service Quality Models

Regression			SERVQUAL		Weighted SERVQUAL		SERVPERF		Weighted SERVPERF	
			Est.	P-Value	Est.	P-Value	Est.	P-Value	Est.	P-Value
SQ	←	Tangible	.530	0.003	.682	0.018	.532	0.045	.640	0.002
SQ	←	Reliability	.633	***	.545	0.044	.683	0.012	.560	***
SQ	←	Responsiveness	.538	0.041	.604	0.035	.745	0.034	.670	***
SQ	←	Assurance	.720	0.032	.716	0.013	.656	0.036	.590	0.003
SQ	←	Empathy	.684	0.023	.639	0.015	.516	0.051	.560	***
Sat	←	SQ	.698	***	.687	***	.660	***	.688	***
Sat	←	Tangible	.147	0.033	.270	***	.577	0.003	.524	***
Sat	←	Reliability	.334	0.044	.060	0.032	.625	0.043	.722	***
Sat	←	Responsiveness	.007	0.040	.176	0.025	.533	0.037	.519	***
Sat	←	Assurance	.085	0.042	.041	0.045	.502	0.046	.616	***
Sat	←	Empathy	.179	0.034	.093	0.035	.640	0.042	.508	***

4.10 SEM - Mediation through bootstrap approach (indirect effects)

After conducting the regression analysis of four alternative service quality models through SEM, further analysis of indirect effects through bootstrapping has been conducted.

Table 17 Indirect Effects - Four Alternative Service Quality Models

	Empathy	Assurance	Responsiveness	Reliability	Tangible	SQ	Sat
SQ	...	...	...	...	...	...	...
Sat	.703	.750	.124	.280	.306	...	...
	Indirect Effects– Weighted SERVQUAL						
	Empathy	Assurance	Responsiveness	Reliability	Tangible	SQ	sat
SQ	.024	.046	...	...	...	...	...
sat	.353	.689	.024	.369	.002	.002	...
	Indirect Effects– SERVPERF						
	Empathy	Assurance	Responsiveness	Reliability	Tangible	SQ	sat
SQ	...	...	...	...	...	...	...
sat	.576	.950	.026	.118	.048	...	...
	Indirect Effects– Weighted SERVPERF						
	Tangible	Empathy	Reliability	Assurance	Responsiveness	SQ	Sat
SQ	...	...	...	...	...	...	...
Sat	.002	.001	.001	.001	.001	...	...

As shown in Table 17, all independent variables (IVs) of four alternative service quality models significantly affect the mediator variable (MV) Service Quality (SQ) and (MV)

Service Quality affects significantly on dependent variable (DV) customer satisfaction (Sat). However, all independent variables (IVs) of only the Weighted SERVPERF Model have significant indirect effects on the dependent variable (DV), customer satisfaction (Sat).

4.11 SEM –Mediation through bootstrap approach (direct effects)

The data was further analyzed for independent and mediator variables' direct effects on the dependent variable.

Table 18 Direct Effects –Four Alternative Service Quality Models

	Empathy	**Assurance**	**responsiveness**	**Reliability**	**Tangible**	**SQ**	**Sat**
SQ	.729	.758	.135	.294	.292	...	...
Sat	.348	.663	.900	.156	.162	.002	...
			Direct Effects– Weighted SERVQUAL				
	Empathy	assurance	responsiveness	reliability	tangible	SQ	sat
SQ	...	...	...	...	...	...	...
Sat	.627	.768	.973	.610	.295	...	...
			Direct Effects– SERVPERF				
	Empathy	assurance	responsiveness	reliability	Tangible	SQ	sat
SQ	.589	.946	.035	.157	.075	...	...
Sat	.406	.764	.556	.183	.008	.002	...
			Direct Effects– Weighted SERVPERF				
	Tangible	Reliability	Empathy	Assurance	Responsiveness	SQ	sat
SQ	.004	.003	.001	.005	.001	...	...
Sat	.002	.002	.003	.002	.002	.001	...

As shown in Table 18 shows that out of all four service quality models, only the Weighted SERVPERF model (IVs) has a significantly direct effect on Customer satisfaction (DV), and Service Quality (SQ), a mediator variable (MV) is also considerably affected by all independent variables (IVs) in the Weighted SERVPERF model.

The outcome of the analysis indicates that the only Weighted SERVPERF model achieved partial mediation as all independent variable (IVs) of this model have significant indirect effects through mediator variable (MV) Service Quality (SQ) on the dependent variable (DV) and all Independent Variable (IVs) also have significant direct effects on the dependent variable (DV).

4.12 Service Quality dimensions relative importance in four alternative service quality models

After comprehensive reliability and validity analysis through CFA and SEM, the study further analyzed the data on the mean-based ranking of variables in four alternative service quality models to achieve the study's objective.

Table 19 Mean-based Ranking of Variables – Four Alternative Service Quality Models

Service Quality Dimensions	SERVQUAL (P-E)		Weighted SERVQUAL (P-E) x (I)		SERVPERF (P)		Weighted SERVPERF (P) x (I)	
		Mean		Mean		Mean		Mean
Tangibles	2nd	(0.506)	2nd	(0.508)	1st	5.566	2nd	5.599
Reliability	4th	(0.662)	5th	(0.718)	2nd	5.519	1st	5.981
Responsiveness	5th	(0.687)	4th	(0.698)	5th	5.439	3rd	5.519
Assurance	3rd	(0.585)	3rd	(0.551)	3rd	5.501	5th	5.189
Empathy	1st	(0.479)	1st	(0.456)	4th	5.447	4th	5.207
Overall Mean		(0.582)		(0.586)		5.493		5.501

As per the results shown in Table 19, all service quality variables have different mean values and rankings in four alternative service quality models. The result showed a negative mean value in SERVQUAL and weighted SERVQUAL models as these models are based on criteria (P-E) and (P-E) x (I), respectively, and a positive mean value in SERVPERF and Weighted SERVPERF as these models are based on criteria (P) and (P) x I.

The results presented in Table 20 provide the high-performing and low-performing variables based on the overall mean of four alternative service quality models. The results help banks to make necessary improvements in low-performing variables and maintain the high-performing variables. By results, the superiority of the Weighted SERVPERF model over the other three models in reliability, validity, and predictability as established in this study, the results of the Weighted SERVPERF are used for management decisions in maintaining the tangible, reliability, and responsiveness dimensions as these are evaluated as high-performing variables and the weak area where banks have to work is assurance and empathy as these are considered as low-performing variables.

Table 20 High and Low Performing Variables in Four Alternative Service Quality Models

Models	High-Performing Variables	Low-Performing Variables
SERVQUAL Overall mean (0.582)	empathy, tangible	assurance, reliability, responsiveness
Weighted SERVQUAL Overall mean (0.586)	empathy, assurance, tangible	responsiveness and reliability
SERVPERF Overall mean (5.493)	tangible, reliability, assurance	responsiveness, Empathy
Weighted SERVPERF Overall mean (5.501)	tangible, reliability, responsiveness	Assurance, empathy

4.13 Hypotheses Testing

The hypotheses set at the start of the study were tested based on analysis in terms of whether the hypotheses were supported or not in Table 21.

Table 21 Hypotheses Testing

Hypothesis No.	Description	Supported / Not Supported
H1:	Variables of Service Quality (IVs) have a significant positive impact on Service Quality (MV).	Supported
H2:	Variables of Service Quality (IVs) have a significant positive impact on Customer Satisfaction (DV).	Supported
H3:	Service Quality (MV) has a significant positive impact on Customer Satisfaction (DV).	Supported
H4:	Four extended service quality models, i.e., SERVQUAL, Weighted SERVQUAL, SERVPERF, and Weighted SERVPERF, are valid and reliable constructs to assess Customer Satisfaction.	Supported
H5:	The SERVQUAL model has superiority over the three alternative service quality models regarding reliability, validity, and predictability.	Not Supported
H6:	The Weighted SERVQUAL model has superiority over the three alternative service quality models regarding reliability, validity, and predictability.	Not Supported
H7:	The SERVPERF model has superiority over the three alternative service quality models regarding reliability, validity, and predictability.	Not Supported
H8:	The Weighted SERVPERF model has superiority over the three alternative service quality models in terms of reliability, validity, and predictability.	Supported

5 Conclusion

The comparative analysis of the four alternative service quality models regarding validity, reliability, and goodness of fit test revealed that all four alternative service quality models have met the uni-dimensionality as measurement items have acceptable factor loading as recommended cutoff criteria of 0.6 and above. The four alternative service quality models' have also met the construct reliability as measurement factors have acceptable Composite Reliability and Alpha cutoff criteria Composite Reliability>0.70 and Coefficient Alpha>0.70.

As far as construct validity is concerned, the outcome of the analysis confirmed that all four alternative service quality models' have met the construct validity by having acceptable criteria for convergent validity CR>0.7 and AVE>0.50, discriminant validity where MSV< AVE, ASV< AVE, √average variance extracted >Inter Construct Correlation. The goodness of fit test through recommended model fit indices confirmed that all four alternative models meet the recommended model fit indices cutoff criteria, i.e., X2/df <3, P <0.05, GFI >0.90, AGFI>0.80, RMR<0.08, NFI>0.90, TLI>0.95, CFI>0.95 and RMSEA <0.05 criteria. After the validity reliability and model fit indices test, the study evaluated the regression weights, and the result confirmed that all four alternative service quality models' independent variables (IVs) positively and significantly regress the Service Quality (MV) and Customer Satisfaction (DV).

The mediation through the bootstrap approach applies direct and indirect effects to check the mediation effects. The result revealed that only the Weighted SERVPERF model independent variable (IVs) have significant indirect effects through Service Quality (MV) on customer satisfaction (DV), and all variables have significant direct effects on customer satisfaction (DV). The model has met the partial mediation.

The mean-based ranking approach is applied to all four alternative service quality models to achieve the study's objective, provide the relative importance of service quality factors for management implications, and provide a holistic view. The result revealed that all service quality models have different sets of sequences due to the different approaches applied in the evaluation of service quality models, i.e., P-E, (P-E) x (I), (P), and (P)x(I).

Further, to identify the strong and weak areas of service quality, the study distinguishes high-performing and low-performing variables based on overall mean criteria for all four service quality models, highlighting the management's strong and weak areas of service quality of banks' service quality. Lastly, based on the analysis of the study in hand, where the weighted SERVPERF model has superiority over other service quality models' banks have to work on the list provided in the low-performing area of this model for management implication and sustain the high-performing area to maintain the service quality thus achieving customer satisfaction.

5.1 Managerial Implication

There are many implications for bank management in this study as this study provides the relative importance of variables of service quality of four alternative service quality models, which will help management understand the service quality from different perspectives of customers and view customers' viewpoints from different dimensions. The results of SERVQUAL based on (P-E) identify service quality after considering how much of a gap is found in the perception and expectation of customers, which enables management to fill the expectation and perception gap. In contrast, in addition to the (P-E), the results of the Weighted SERVERF model also provide importance weight in the service quality performance gap, i.e. (P-E) x I, which enables management to consider how important each service quality variable is while filling the service quality gap. The results of the SERVPERF model identify the service quality with the perspective of perception (P) only, which enables management to directly work on the low perceived service quality variables to meet the customer service quality requirement. In contrast, in addition to (P) perception, the results of the Weighted SERVPERF model also provide the importance weight in service quality perception, i.e. (P) x I, which enables management to take into account how important each variable of service quality to customers while the development of their service quality plan. The study also lists high-performing and low-performing variables of service quality, highlighting the strong and weak areas of banks' service quality. The bank management may use the results of Weighted SERVPERF for decision-making. Compared with other service quality models, this model has superiority concerning reliability, validity, and predictability, as established in this research.

To improve the service quality of banks and to enhance customer satisfaction, bank management may maintain i.e. tangible, reliable, and responsiveness variables of service quality as respondents consider these variables as high-performing variables and improve the weak areas i.e., assurance and empathy as these are considered as low-performing variables of service quality in banking sector of Pakistan.

5.2 Theoretical Implication

The study in hand provides a few important theoretical implications primarily, the study provides the extension in theory by introducing service quality as a mediator in all four service quality models i.e. (SERVQUAL, SERVPERF, Weighted SERVPERF, Weighted SERVQUAL) for evaluation of customer satisfaction. Secondly, this study also introduces the yardstick of overall mean criteria where the "mean value" of variables above the overall mean is considered a high-performing variable and the 'mean value" of a variable below the overall mean is considered a low-performing variable in all four alternative service quality models under study.

5.3 Limitation and Future Direction

The objective set for the study has been achieved; however, some limitations may be addressed in the future. The sample was drawn from customers in the urban area of Karachi. However, future studies may conduct a comparative analysis of rural and urban area respondents to understand the difference of opinion concerning service quality evaluation. Further, the study evaluates the effect of service quality on customer satisfaction. However, it is recommended that qualitative research be conducted to explore factors other than service quality that influence customer satisfaction. The study evaluates the effect of service quality on customer satisfaction and conducts a comparative analysis of all four alternative service quality models. It is recommended that these four service quality models be extended to evaluate customer loyalty.

5.4 Contribution to the Body of Knowledge

This research considerably advances the body of knowledge in the domain of service quality and customer satisfaction by applying the comprehensive approach that integrates

the comparative analysis of four alternative service quality models – SERVQUAL, Weighted SERVQUAL, SERVPERF, and Weighted SERVPERF with extension and validates the applicability across diverse contexts. The exploration of antecedents of customers' satisfaction with the application of service quality perceptions, expectations, and importance to understand the complex relationship shaping customer experience. The study unveils the mediation role of service quality within the RATER dimensions, providing a deeper understanding of how these factors influence overall service quality and subsequent customer satisfaction. The research contributes by recognizing and highlighting sector-specific knowledge derived from Pakistan's banking sector that influences service quality and customer satisfaction dynamics. The study provided recommendations tailored for the banking industry and bridges the gap between theoretical implication and actionable managerial decision-making. By identifying research gaps and limitations, the study sets the stage for future investigations, fostering the continual evolution of the body of knowledge in service quality and customer satisfaction.

Reference

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