



# MODELING A FRAMEWORK ON THE IMPACT OF SERVICE QUALITY ON CUSTOMERS' SATISFACTION AND SERVICE LOYALTY IN SELECTED COMMERCIAL BANKS IN CAMEROON

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**Abstract:** *The increasing importance of customers' loyalty and service quality remain indispensable factors toward sustainable market competition. This study seeks to assess the impact of service quality on customer satisfaction and service loyalty in selected mainstream commercial banks operating in Cameroon. A conclusive case study research design consisting of 331 active clients of both the United Bank of Africa (UBA) and the National Financial Credits (NFC) bank of Cameroon were purposely sampled. Data for the study was sourced using closed-structured questionnaires with the adoption of The SERVQUAL model for variables identification. Structural Equation Modeling was used to analyze for both the direct and indirect relationships among research variables. The analysis was completed using SPSS 24 and Amos 24 statistical packages. The results revealed that; service tangible and service empathy have a significant positive impact on service loyalty; service empathy is positively related to customer satisfaction and similarly, service quality has a positive significant impact on customer satisfaction whereas, service tangibles has an insignificant impact on customers satisfaction. It was further proven that customer satisfaction has a positive significant mediating effects on the relationship between service quality and service loyalty. The study, therefore, concludes that customer satisfaction and service loyalty are both being influenced by service tangibles and service empathy. Finally, this study contributes to the modeling of empirical evidence on the impact of service quality on customer satisfaction and service loyalty in Cameroon's mainstream commercial banking sector.*

**Keywords:** *Service Quality, Customer Satisfaction, Service Loyalty, SERVQUAL, SEM*

## 1.0. Introduction:

Performance is an indisputable yardstick to measure management competence, growth and future survival of a firm. It is even more relevant in competitive business environment where survival is highly critical. Consequently, foreign banks penetrating domestic banking market has increased sharply in the last few decades (Claessens & Horen, 2009). Such entries often triggered intense competition in domestic banking markets. Discussions on performance related issues in domestic

banking markets involving both foreign and domestic operators have attracted a lot of scholarly attentions (Berger et al., 2000; DeYoung & Nolle, 1996; Peek et al., 1999; Mahajan et al., 1996; Kraft et al., 2006; Havrylchyk, 2006; Grigorian & Manole, 2006). That notwithstanding, this study reposition performance measurement criteria within the scholarly scope of Customer-Based Performance Indicators such as: Service Quality (SQ), Customer Satisfaction (CS), Service Tangibles (ST) and Service Loyalty (SL). These perspectives allow customers

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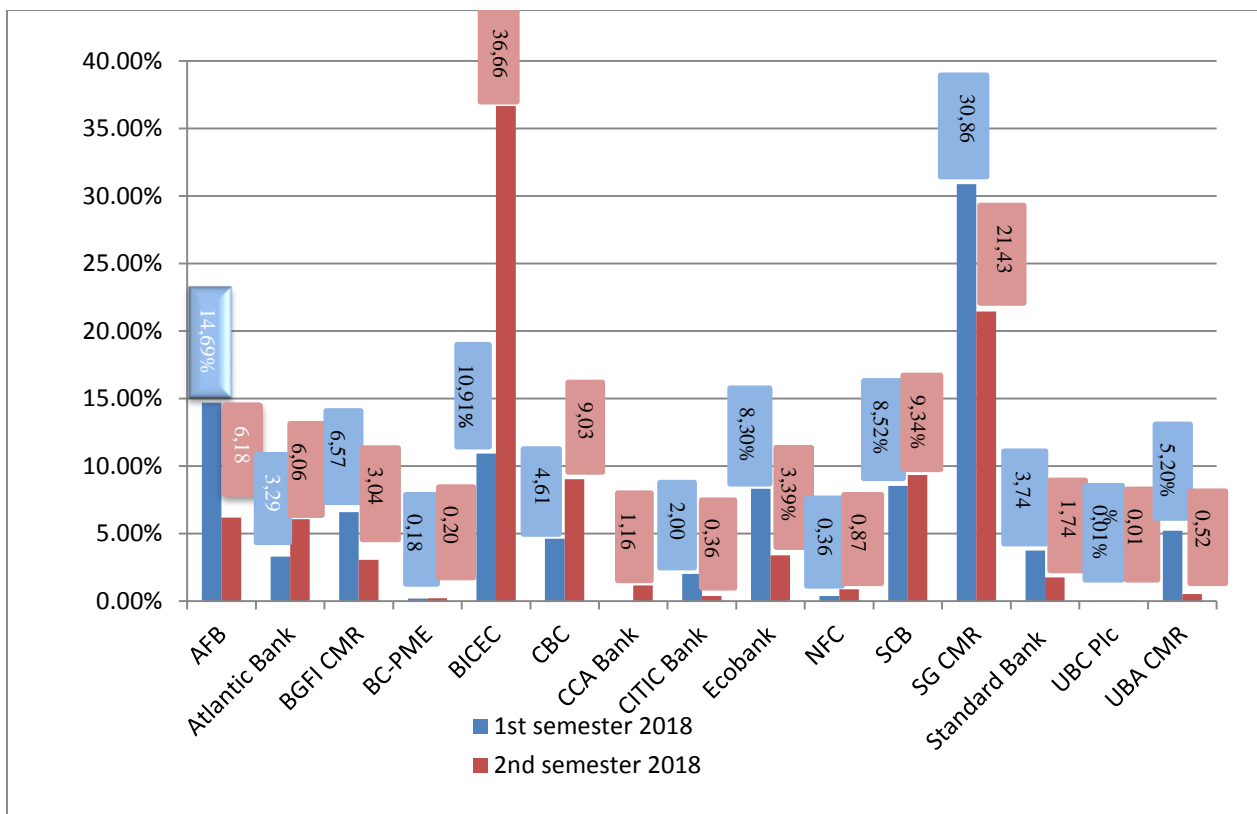
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to make assessment of the performance of banks as opposed to traditional financial-based performance standards. Empirical evidence strongly hypothesized that, Service Quality (SQ) constructs greatly impact customer satisfaction (Caruana, 2002; Boulding, Kaltra, staelin, & Zeithaml, 1993; Rust & Zahorik, 1993; Rust, Zahorik, & Keiningham, 1995; Woodside, Frey, & Daly, 1989; Zeithaml, Berry, & Parasuraman, 1996). To this effect, and by extension, it could be argued that, banks with strong culture of Service Quality (SQ) can gain competitive advantage in terms of higher revenue, customer loyalty, and customer retention (Arun et al., 2010).

### 1.1 Research Problem/motivation

FIGURE 1: CREDIT MARKET SHARES OF CAMEROON BANKS



Source: DSFABFE, based on TEG reporting by credit institutions (2019)

It is worth mentioning that the commercial banking sector of Cameroon was the monopoly of the government bank;

The moved by the government of Cameroon to modernize and digitize the banking sector was confirmed in a financial partnership agreement signed with the Africa Development Bank for the construction of over 916 km of optical fiber cables to enhance e-banking experience in the country. This resulted to an increase in the number of mainstream commercial banks from ten (10) in the 1990s to fifteen (15) in 2019 (BEAC & COBAC, 2019). Such growth in the banking sector favored the dominance of foreign-owned banks (12) over domestic banks. The competitive footprints of banking activities caused by fluctuations in the market share of both foreign-owned banks and domestic banks are shown below:

Banque Internationale pour le Commerce et de L'Industrie' du Cameroun (BICIC). However, the denationalization of the commercial banking sector was geared toward enhancing private sector ownership and



extend indigenous financial emergence in the 90's. Unfortunately, the performances of indigenous banks were dismal with series of liquidations. The Commercial Bank of Credit Lyonnaise (SCB-LC) merged with the Cameroon Bank Corporation (SBC) in 1989; meanwhile the Rural Development Fund (FONADIS), the Development Bank of Cameroon (BCD), Banque Paribas (Paribas), and the Bank of Cameroon were all liquidated in 1989. In 1996, a merger between the Meriden Cameroon Bank (MCB) and the International Bank for West Africa in Cameroon (BIAOC) was liquidated. Credit Lyonnais acquired Credit Agricole du Cameroun that replaced the defunct FONADE in 1997. Banque Internationale du Cameroun pour L'Epargne et le Cr dit (BICEC) replaced the liquidated Banque Internationale Pour le Commerce et de L'Industrie` du Cameroun (BICIC), meanwhile, the Attijariwafa bank from Morocco acquired Societe` Commerciale de Banque Cameroun (SCB).

In the same struggle, the NFC bank which is 100% indigenous private ownership suffered acute insolvency

and liquidity crises (COBAC, 2018). The decision number D-2013/011 of 21/11/2012 saw the reclassification of the NFC bank under provisional administration shifting ownership and management to the supervisory authority of COBAC and the government of Cameroon. To further expose the performance dilemmas of commercial banks in the CEMAC region and Cameroon in particular, within the last five years, four (4) commercial banks have had their licenses withdrawn, and their operations scrutinized due to financial instability and ethical practices. Three of these banks were from Cameroon and one from Gabon. They include: Bank of Africa (BDA) , Africa Leasing Company (ALC), Amity Bank and BICI-Bail Bank respectively (**COBAC, 2018**). Despite effort by the government of Cameroon to encourage indigenous ownership in the commercial banking sector of Cameroon, the outcome has been very disappointing as foreign investors dominate ownership with 80%, whereas indigenous investors represent just 20%. This classification is as shown below:

**TABLE 1: COMMERCIAL BANK OWNERSHIP AND SHAREHOLDING IN CAMEROON**

BANK NAME	OWNERSHIP	MAJORITY SHAREHOLDER
Afriland First Bank	Local-private	SBF and co
Atlantic Bank Cameroon	Foreign	Atlantic Finance Group Central and East
Banque International du Cameroun pour l'Epargne et Cr�dit (BICEC)	Foreign	Banques Populaires Caisses d'Epargne
BGFIBank Cameroon	Foreign	BGFI Bank SA
United Bank for Africa (UBA)	Foreign	UBA Plc.
National Financial Credit Bank(NFC)	Local-Private	Awanga Zachariah
Ecobank Cameroon	Foreign	Ecobank Transnational Incorporated (ETI)
Union Bank of Cameroon(UBC PLC)	Foreign	Oceanic Bank International Plc.
Commercial Bank of Cameroon(CBC)	Foreign	CFH Luxembourg
Citibank	Foreign	Citibank NA New York
Societe General de Banques au Cameroun (SGBC)	Foreign	Societe General
Credit Agricole-Commercial Bank Corporation (SBC-CA)	Foreign	IUB Holding



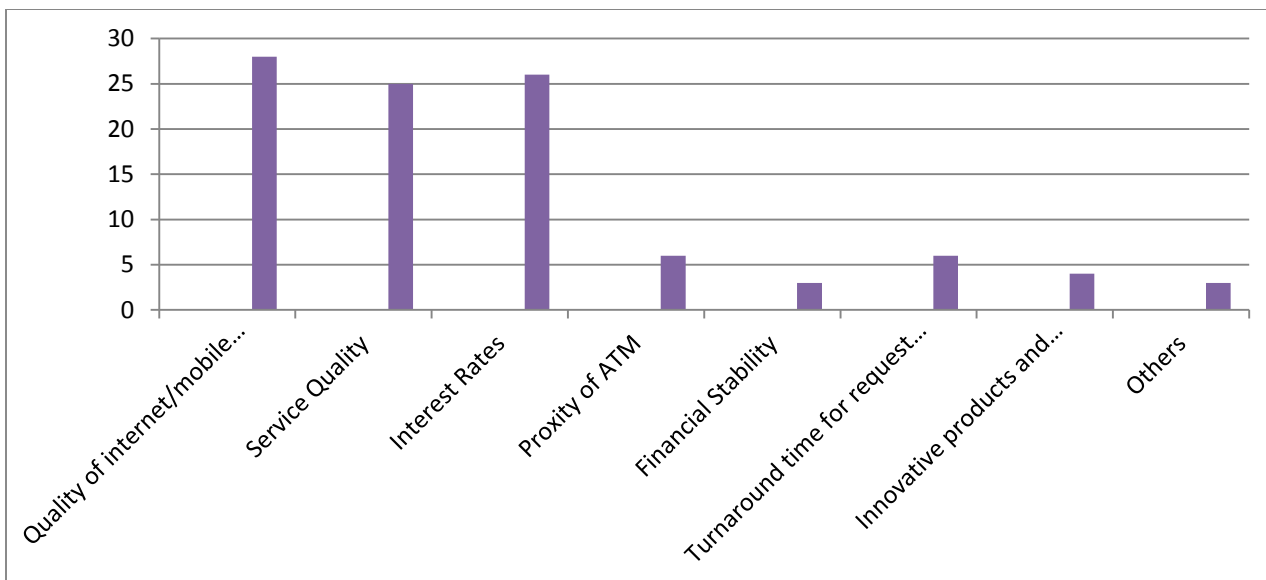
Standard Chartered Bank Cameroon (SCBC)	Foreign	Standard Chartered Bank Plc.
Crédit Communautaire d’Afrique (CCA Bank S.A)	Local-private	N/A
Banque Camerounaise des Petites et Moyennes Entreprises (BC-PME)	Local-public	The state of Cameroon

**Source; BEAC COBAC (2019)**

Furthermore, according to retail customer satisfaction survey involving 33000 retail-banking customers across 18 Sub-Saharan African Countries of which Cameroon was one of them, the results revealed that one-in-five of those interviewed in Cameroon said they would consider

switching banks from domestic to foreign owned banks (KPMG, 2016). A summary of the reasons why retail banking customers in Cameroon would switch banks are shown below:

**FIGURE 2: PRIMARY REASONS FOR BANKS SWITCH IN CAMEROON**



**Source: KPMG (2016)**

**1.2 Purpose of the Study**

This study aimed at examining the impact of Service Quality (SQ) on Customer Satisfaction (CS), and Service Loyalty (SL) in selected mainstream commercial banks in Cameroon with the intention to generate a competitive market model based on customers’ perspective. To this effect, the research objectives are: to examine the impact of Service Quality (SQ) on Service Loyalty (SL), to assess the effect of Service Tangibles (ST) on Service Loyalty (SL), to examine the effect of Service Empathy (SE) on Service Loyalty (SL) in selected commercial banks in Cameroon, to evaluate the impact of Service Quality (SQ)

on Customer Satisfaction (CS) ,to assess the effect of Service Tangibles (ST) on Customer Satisfaction (CS), to evaluate the impact of Service Empathy (SE) on Customer Satisfaction (CS) , and to examine the mediating impact of Customer Satisfaction (CS) in the relationship between Service Quality (SQ) and Service Loyalty (SL) in selected commercial banks in Cameroon

**2.0 Literature Review and Hypotheses formulation.**

**2.1 Relationship between service quality and service loyalty:**

Service quality is one of the key parameters to evaluate firms’ performance (Gronroos, 1982; Parasuraman, Zeithaml, & Berry, 1988). The relationship between



overall service quality and individual service loyalty dimensions was examined by (Boulding et al. 1993) who found strong evidence of positive relationships between service quality and repurchase intentions, and readiness to recommend. Equally, (Zeithaml et al., 1996) also found statistical evidence of positive connections between service quality, the willingness to pay a premium price and to remain loyal to service providers even when prices are increased. Empirical evidence from other studies as conducted by (Parasuraman, Zeithaml, & Berry, 1988; Zeithaml, 2000; Ranaweera & Neely, 2003; Simon, Seigyoung & Karen, 2005; Arun et al., 2010) suggest that service quality is significantly related to service loyalty. This study therefore hypothesises that; **H<sub>1</sub>**: Service quality has a direct positive effect on service loyalty in selected commercial banks in Cameroon

### **2.2 Relationship between service tangible and service loyalty:**

The physical facilities, equipment and appearance of personnel in an organization attract and build confidence in customers. To this light, (Parasuraman, Zeithaml, & Berry, 1988) defined service tangibles as physical facilities, equipment, and appearance of personnel in the provision of services. In the bank environment, this relates to visual appeal, the neatness associated with employees dressing, the appearance of the physical facilities and the updates of the equipment used. Bloemer, Ruyter, & Wetzels (1998) in a study found that service tangibles have positive impact on service loyalty in the entertainment industry. Similarly, (Sureschander et al., 2003) concluded that service tangibles are significantly related to service loyalty. Based on the aforementioned, this study hypothesises that; **H<sub>2</sub>**: service tangibles have positive impact on service loyalty in selected commercial banks in Cameroon.

### **2.3 Relationship between service empathy and service loyalty:**

Parasuraman, Zeithaml, & Berry (1988) refer to empathy as caring. In bank environments, it includes understanding

and having the interest of customers, operating at convenient hours for all clients and providing individualized attention to each client's needs. Ehigie (2006) in a study suggest that, empathy have positive effect on service loyalty in selected banks in Nigeria. In a study of four different service type industries as concluded by (Bloemer, Ruyter & Wetzels, 1998), the results revealed that, empathy has positive effect on service loyalty. To this effect, this study hypothesised that; **H<sub>3</sub>**: Service empathy has positive effect on service loyalty in selected commercial banks in Cameroon.

### **2.4 Relationship between service quality and customer satisfaction:**

Satisfied customers are more likely to engage in positive utterances relating to the activities of the firm (Reichheld & Sasser, 1990). Firms that achieve high customer satisfaction are more likely to enjoy superior economic returns and market share. According to (Caruana, 2002), customer satisfaction involves post-purchase summary responses which occur when customers are questioned about service experience. Cronin & Taylor (1992) in a study suggest that service quality has an impact on customer satisfaction. In addition, (Arasli et al., 2005) found that service quality has positive effect on customer satisfaction in the Greek-Cypriot banking sector. Similar outcomes have been concluded in scholarly research indicating that service quality is an antecedent of customer satisfaction (Churchill & Surprenant, 1982; Bearden & Teel, 1983; Woodside et al., 1989; Anderson & Sullivan, 1993). Based on the aforementioned dispositions, this study hypothesised that; **H<sub>4</sub>**: Service quality has a positive impact on customer satisfaction in selected commercial mainstream banks in Cameroon

### **2.6 Relationship between service tangible and customer satisfaction:**

The physical facilities, equipment, and appearance of personnel of any organization are strong cues to build customer's confidence and satisfaction. Service tangible refers to the physical facilities, equipment, and



appearances of personnel (Parasuraman, Zeithaml, & Berry, 1988; Elissavet, Lazaros, Dimitrios, & Eleftherios, 2013) suggest that tangible have positive effect on customer satisfaction. Siddiqi (2011) examined the applicability of service quality in the retail banking industry in Bangladesh and found that tangible positively affects customers' satisfaction. Jamal & Ananstasiadou (2009) also suggested that tangible have a significant impact on customer satisfaction. Other empirical studies appear to suggest the same results like those concluded by (Levesque & McDougall, 1996). To this effect, this study therefore hypothesized that; **H<sub>5</sub>**: service tangibles have positive significant impact on customer satisfaction in selected commercial banking institutions in Cameroon

**2.7 Relationship between service empathy and customer satisfaction**

Good treatment encourages customers to want to stay with a particular organization for a long time. Parasuraman, Zeithaml, & Berry (1988) refer to empathy as caring, and providing individualized attention to customers. Siddiqi (2011) in a study of service quality of the retail banking

industry in Bangladesh suggest that empathy has a positive impact on customer satisfaction. Similar empirical studies seem to confirm this (Ladhari et al., 2011). To this effect, this study therefore hypothesized that; **H<sub>6</sub>**: Empathy has a positive impact on customer satisfaction in selected commercial banks in Cameroon.

**2.8 The mediating role of customer satisfaction between service quality and service loyalty**

Caruana (2002) in a study found that customer satisfaction mediates between service quality and service loyalty. Ehigie (2006) in a study of customer loyalty suggested that customer satisfaction mediates between service quality and service loyalty. Other empirical researches have also expressed similar results like those concluded by (Butcher, 2001; Lam & Burton, 2006). This study therefore hypothesized that; **H<sub>7</sub>** customers' satisfaction significantly mediates the relationship between service quality and service loyalty in selected commercial banks in Cameroon. Based on the aforementioned empirical evidence, the following indicators were identified for the respective research constructs.

**Table 2: Research constructs and indicators**

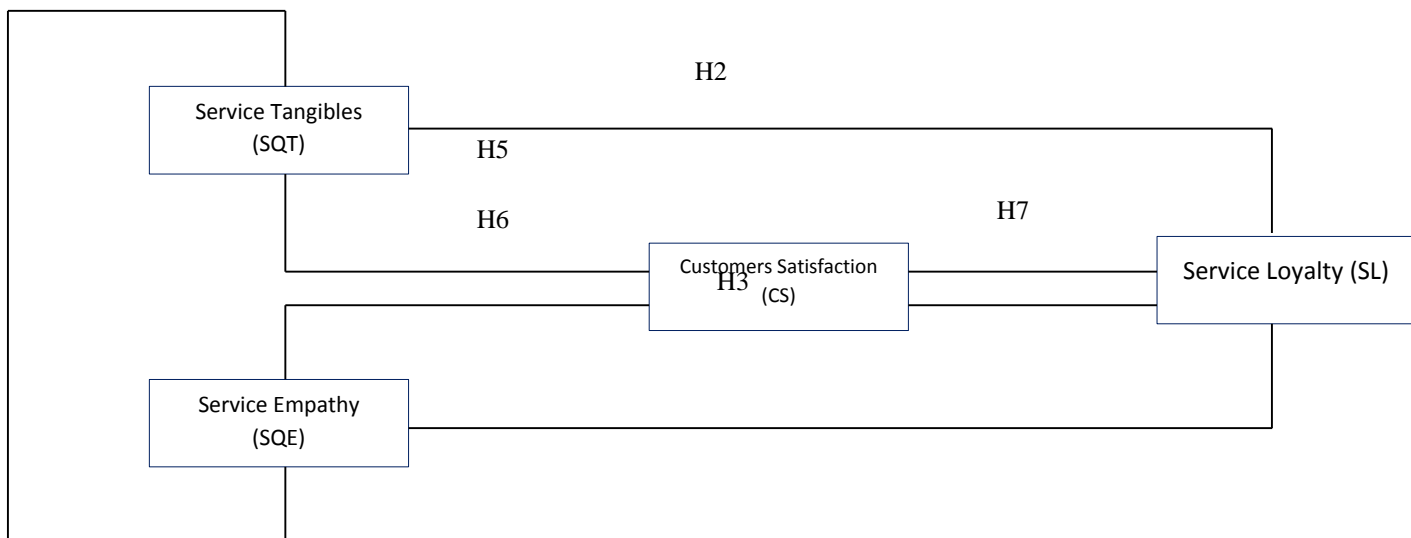
Latent Constructs	Indicators	Sources
Service Tangible	Up-to-date equipment, Visually appealing physical facilities, Neat and well-dressed employees, A perfect match between the appearance of physical facilities and the type of services provided	Parasuraman, Zeithaml, & Berry, 1988; Bloemer, Ruyter, & Wetzels, 1998; Sureschander et al., 2003; Elissavet, Lazaros, Dimitrios, & Eleftherios, 2013; Levesque & McDougall, 1996
Service Empathy	Individual attention customers, Know the needs of the customer, Convenient operating hours, Have customers interest at heart, Expect to give personal attention to customers	Butcher, 2001; Ndubisi, 2006; Siddiqi, 2011; Ladhari et al. 2011



Service Loyalty	Say positive things about the bank to others, Recommend the bank to someone who seeks advice, Encourage friends and relatives to do business with the bank, Consider the bank first choice to buy services, Do more business with the bank in the next few years	Jain, Pinson, & Malhotra, 1987; Dick & Basu, 1994
Customer satisfaction	Overall satisfaction from the experience, Personal satisfaction, General satisfaction	Giese & Cote, 2000; Caruana, 2002; Reichheld & Sasser, 1990; Cronin & Taylor, 1992 ; Arasli et al., 2005 ; Anderson & Sullivan, 1993; Parasuraman, Zeithaml, & Berry, 1994; Taylor & Baker, 1994; Levesque & McDougall, 1996; Johnston, 1997 ; Athanassopoulos, 2000

The conceptual framework of this study is developed based on the above discussion

**Figure 3: Conceptual Framework**



**3.0 Methodology**

A conclusive case study design (Gomm, Hammersley, & Foster, 2000; Yin, 2009) was adopted and supported by the philosophical orientation of positivism epistemology

(Crotty, 1998; Richards, 2003; William, 2015), objectivism ontology (Younkins, 2012; Smith, 2013), and value-free axiology (Khan & Mubashera, 2012). Data was primarily sourced using structured questionnaires survey



(Wiseman-Orr, 2006) and operationalized using five Likert scales (Mogey, 2007). The research approach is deductive (Burneyl, Saleem, & Hussain, 2008) and the sampling strategy was purposive (Tongco, 2007). Data was analyzed using Amos24 and SPSS 23 statistical packages. The analysis for missing data was completed using the Little’s MCAR test (Little, 1988; Nishimura, Wagner, & Elliott, 2015) and the Expectation-Maximization Algorithm (Moon, 1996) was used to generate complete data set. Parametric assumptions for model fitness (Garson, 2012) were conducted and data was cleaned using Exploratory Factor Analysis (Williams, Brown, & Onsmann, 2010) and Confirmatory Factor Analysis (Prudon, 2013). Constructs were tested for validity using the construct validity test (Strauss, Milton & T Smith, Gregory, 2009). The reliability of the research instrument was completed using alpha Cronbach (Bonett, Douglas & A. Wright, Thomas,

2014) and composite reliability test (Don, Paul, & Murray, 1995). Structural Equation Modeling was done based on goodness of fit parameters supporting the analysis (Joop & Timo, 1999).

**4.0 Data Analysis and presentation of results**

The Little’s MCAR test was conducted to analysis missing data and the result is as follows: Little's MCAR test: Chi-Square ( $X^2$ ) = 20.830, DF = 34, Sig. = .963. Complete dataset for missing data with less than 5% was done using the Expectation-Maximization Algorithm. Exploratory Factor Analysis was conducted to remove irrelevant indicators from the analysis. Exploratory Factor Analysis for service loyalty construct shows adequacy in sampling size (KMO) and significant inter-correlation between sampled items (Bartlett's Test of Sphericity) as shown on the table below:

**Table 3: Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett's Test of Sphericity**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.693
Bartlett's Test of Approx. Chi-Square	606.995
Sphericity Degree of Freedom (DF)	3
Sig.	.000

In addition, Principal Component Analysis (PCA) was used with extraction of Eigen value of at least 1 and rotated using Promax. Three new components were extracted with 80.65% of total variance explained as shown below.

**Table 4: Total Variance Explained**

Com P	Initial Eigenvalues			Sums of Squared Loadings			Sums of Squared Loadings <sup>a</sup>
	Total	% of Variance	Cum %	Total	% Var	Cum%	Total
1	2.419	80.649	80.649	2.419	80.649	80.649	2.267
2	0.429	14.299	94.948	0.429	14.299	94.948	1.792
3	0.152	5.052	100				

Extraction Method: Principal Component Analysis.





a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

Total retained indicators for service loyalty construct are shown below

**Table 5: Retained constructs and indicators**

Pattern Matrix <sup>a</sup>	
Indicators	Component 1
SL1	.983
SL4	.906
KMO	0.693
Bartlett's Test of Sphericity	0.000 < 0.01
Total Variance extracted	80.67%
Discriminant	0.157 > 0.01

Extraction Method: Principal Component Analysis. Rotation Method: Promax with Kaiser Normalization.

Exploratory Factor Analysis was conducted for all observed Independent Latent Constructs; Service Empathy (SE), Service Tangible (ST), and Customer Satisfaction (CS). The assumptions of sampling adequacy (KMO) and inter-correlation (Bartlett's Test of Sphericity) were tested with results of 0.554 and  $X^2 = 1061.5$ ,  $DF = 21$  and  $P\text{-Value} = 0.00$  respectively. For both tests, the sampling size is adequate and also, there exist at least 1 significance correlation amongst items. In addition, new components were extracted based on Eigen value of at least 1. Three components were extracted as shown below:

**Table 6: Total Variance Explained**

Com p	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings <sup>a</sup>
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	2.372	33.885	33.885	2.372	33.885	33.885	2.352
2	2.035	29.073	62.958	2.035	29.073	62.958	1.98
3	1.071	15.306	78.265	1.071	15.306	78.265	1.287
4	0.789	11.276	89.541				
5	0.435	6.209	95.75				
6	0.164	2.339	98.089				



7	0.13 4	1.911	100				
Extraction Method: Principal Component Analysis.							
a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.							

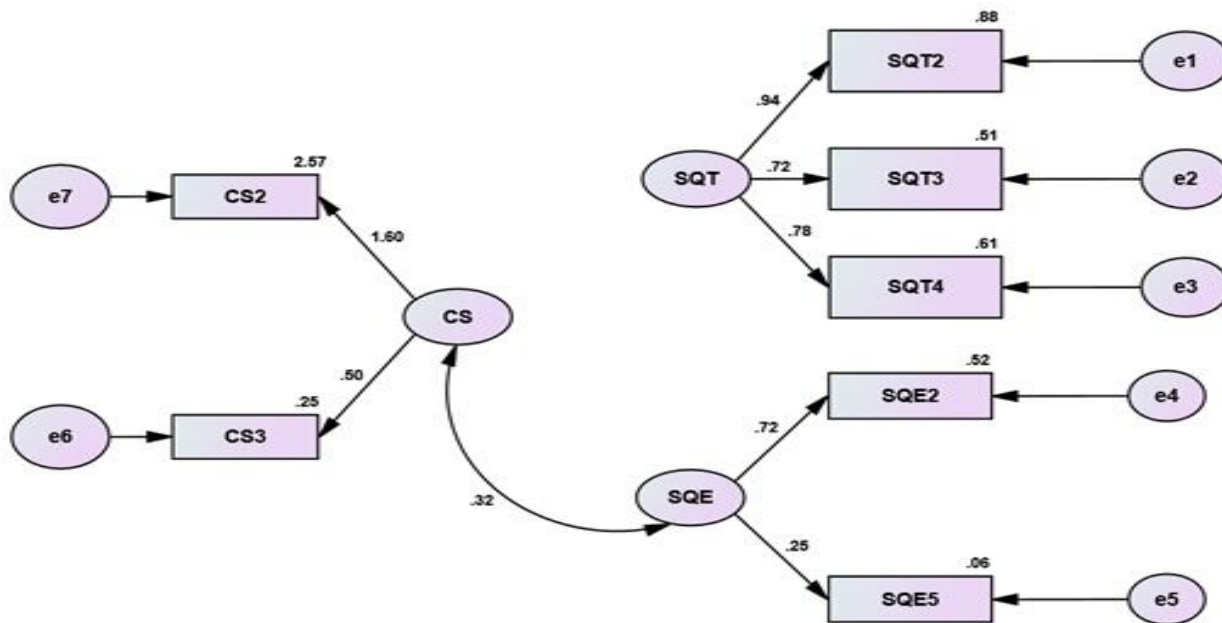
Retained constructs for the analysis using pattern matrix for Service Tangible, Service Empathy, and Customer Satisfaction are shown below:

**Table 7: EFA**

	Component		
	1	2	3
SQT2	.927		
SQT3	.832		
SQT4	.858		
SQE2			.631
SQE5			.869
CS2		.925	
CS3		.945	
Eigen Value	2.372	2.035	1.071
Variance extracted			
KMO			0.554
Bartlett's Test of Sphericity			0.000
Total variance extracted	33.885	29.073	15.306
Extraction Method: Principal Component Analysis. Rotation Method: Promax with Kaiser Normalization.			
a. Rotation converged in 5 iterations.			

Furthermore, CFA was used based on SEM specifications including; GFI, CFI, IFI, TLI, RMSEA, SRMR and the chi-square value of significance as shown below;

**Figure 4: Confirmatory Factor Analysis**



**THREE FACTORS CORRELATED CONFIRMATORY FACTOR ANALYSIS**

CHI-SQUARE = 185.7, DF =12, P-Value = 0.000, SRMR = 0.0946,  
GFI = 0.882, TLI = 0.734, CFI = 0.836, RMSEA = 0.2

#### 4.1 Validity and Reliability Measurement (VRM)

To ensure that all retained indicators and constructs are valid, construct validity test was conducted with an acceptable threshold of validity at 0.5. Results of the analysis of construct validity are shown below:

**Table 8: Construct validity**

Latent Constructs	Indicators	Factor Loadings	Squared of Factor Loading
Service Loyalty (SL)	SL1	0.983	0.966289
	SL4	0.906	0.820836
	SUM	1.889	1.787125
	Average	0.9445	0.8935625
Status		Approved	Approved

The results of construct validity for Service Tangible, Service Empathy and Customer Satisfaction are shown below:

**TABLE 9: CONSTRUCT VALIDITY (CV) FOR INDEPENDENT LATENT CONSTRUCTS**

Latent Constructs	Indicators	Factor Loadings	Squared of Factor Loading	Status
Service Tangible (SQT)	SQT2	0.927	0.859329	
	SQT3	0.832	0.692224	
	SQT4	0.858	0.736164	



	SUM	2.617	2.287717	
	Average	0.872	0.762572	Valid:0.76 > 0.5
Service Empathy (SQE)	SQE2	0.631	0.398161	
	SQE5	0.869	0.755161	
	SUM	1.500	1.153322	
	Average	0.750	0.576661	Valid : 0.58 > 0.5
Consumers Satisfaction (CS)	CS2	0.925	0.855625	
	CS3	0.945	0.893025	
	SUM	1.870	1.748650	
	Average	0.935	0.874325	Valid : 0.87 > 0.5

The decision of construct validity revealed that for all three specific independent latent constructs were admissible as their respective coefficients were above the required threshold of 0.5 as shown above. Both the alpha and composite reliability tests were conducted to verify the internal consistency and results revealed that the threshold of reliability was admissible for both alpha and composite reliability as shown below:

**TABLE 10: CRONBACH'S ALPHA**

Latent Constructs	Cronbach's Alpha	Threshold	No of Indicators	Status
SL	0.916	0.6/0.7	2	Reliable
SQT	0.846	0.6/0.7	3	Reliable
SQE	0.708	0.6/0.7	2	Reliable
CS	0.886	0.6/0.7	2	Reliable

**TABLE 11: COMPOSITE RELIABILITY (CR) TEST**

Latent Constructs	Indicators	Factor Loadings ( $\lambda$ )	Squared of Factor Loading ( $\lambda$ )	Error Term (1- $\lambda$ )
SQT	SQT2	0.927	0.859329	0.140671
	SQT3	0.832	0.692224	0.307776
	SQT4	0.858	0.736164	0.263836
	Sum	2.617	2.287717	0.712283
SQE	SQE2	0.631	0.398161	0.601839
	SQE5	0.869	0.755161	0.244839
	Sum	1.5	1.153322	0.846678
CS	CS2	0.925	0.855625	0.144375
	CS3	0.945	0.893025	0.106975
	Sum	1.87	1.74865	0.25135
SL	SL1	0.983	0.966289	0.033711



	SL4	0.906	0.820836	0.179164
	SUM	1.889	1.787125	0.212875

#### 4.2 Structural Equation Model Development and Specifications

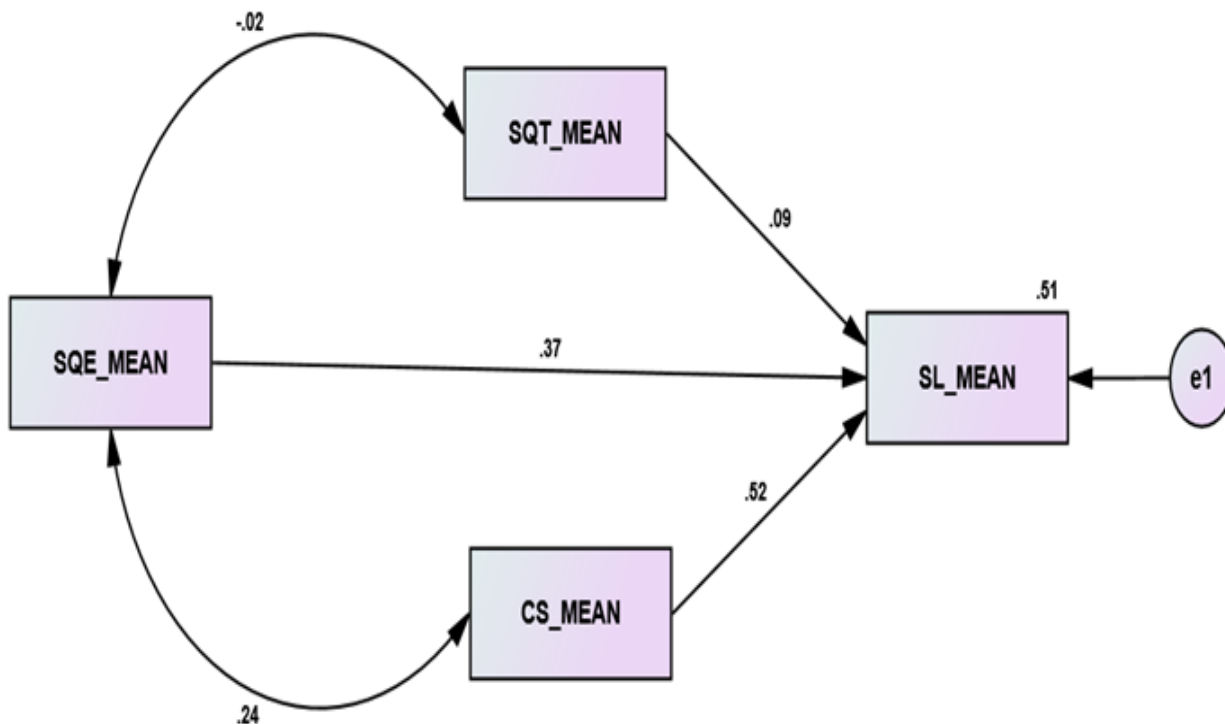
The hypotheses for the three predictors of Service Loyalty were tested using the specification of SEM and the results are shown on the table below:

**Table 12: Standardized regression outputs**

			Estimate	S.E.	C.R.	P	Label
SL_MEAN	<---	SQT_MEAN	.095	.049	2.464	.014	par_1
SL_MEAN	<---	CS_MEAN	.521	.050	13.153	***	par_2
SL_MEAN	<---	SQE_MEAN	.375	.057	9.459	***	par_3

The combined effects of Service Tangibles, Service Empathy and Customer Satisfaction account for 51.3% of Service Loyalty in the selected commercial banks in Cameroon. The Structural Equation Model with all specifications of goodness fits are as shown below:

**Figure 5: Structural Equation Model**



**SEM WITH SPECIFICATIONS:**

**Chi Square = 1.9, DF = 1, P-Value = 0.17, SRMR = 0.0285, GFI = 0.997, IFI = 0.997, TLI = 0.979**

**CFI = 0.997, AGFI = 0.972, RMSEA = 0.052**

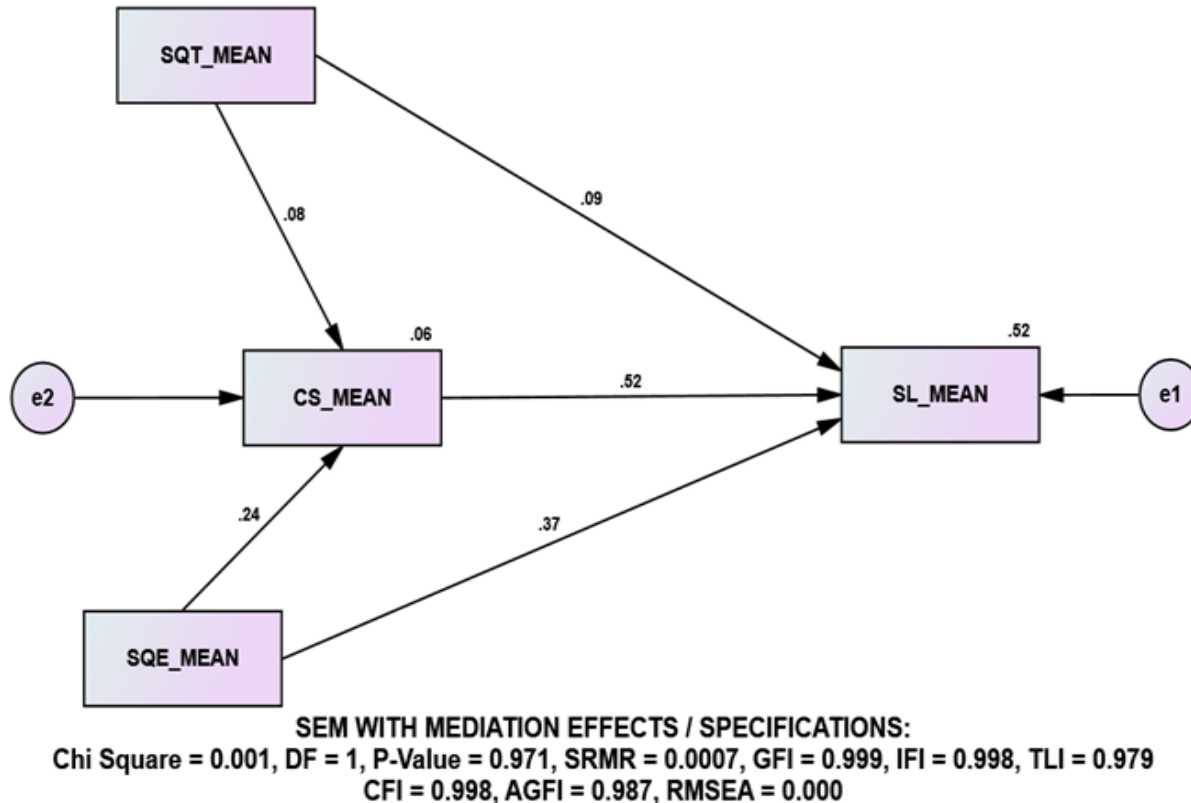
The aforementioned model is statistical appropriate for the measurement of Service Loyalty and the hypothesized model fits the literature as revealed by the model specification of GFI, CFI, IFI, TLI, RMSEA, and SRMR.

**4.3 Modified Model with Mediation Effects**

Furthermore, a modified model was created and tested for suitability using the specified parameters of SEM indicating mediating effects of customer satisfaction on the relationships between Service Tangible and Service Empathy.



Figure 6: Modified Structural Equation Model



These results are shown on the table below:

Table 13: Regression outputs

			Estimate	S.E.	C.R.	P	Label
CS_MEAN	<---	SQT_MEAN	.076	.054	1.425	.154	par_3
CS_MEAN	<---	SQE_MEAN	.239	.060	4.494	***	par_4
SL_MEAN	<---	SQT_MEAN	.094	.049	2.457	.014	par_1
SL_MEAN	<---	CS_MEAN	.519	.050	13.118	***	par_2
SL_MEAN	<---	SQE_MEAN	.373	.057	9.459	***	par_5

Table 14: Harmonized Test of Hypotheses

Hypotheses	P-Value at 95% Confidence Interval (CI)	Decision/conclusion
Service Tangibles(SQT) has a positive impact on Service Loyalty(SL) in selected commercial banks in Cameroon	P-V = 0.014 < 0.05 (significant)	Reject the null hypothesis



(SQT_MEAN on SL_MEAN)		
Service Empathy(SE) has a positive impact on Service Loyalty (SL) in selected commercial banks in Cameroon (SQE_MEAN on SL_MEAN)	P-V = 0.000 < 0.05 (significant at 1%, 5% and 10%)	Reject the null hypothesis
Service Empathy(SQE) has a positive impact on Customer Satisfaction (CS) in selected commercial banks in Cameroon (SQE_MEAN on CS_MEAN)	P-V = 0.000 < 0.05 (statistically significant at 1%, 5% and 10%)	Reject the null hypothesis
Service Tangibles (SQT) have a positive effect on Customer Satisfaction (CS) in selected commercial banks in Cameroon (SQT_MEAN on CS_MEAN)	P-V=0.154>0.05 (statistically insignificant)	Decline to reject the null hypothesis
Customer Satisfaction (CS) has a positive mediating impact in the relationship between Service Quality(SQ), and Service Loyalty in selected commercial banks in Cameroon (CS_MEAN on SL_MEAN)	P-V=0.00<0.05 (significant at 1%, 5% and 10%)	Reject the null hypothesis
Service quality has a positive impact on customer satisfaction in selected commercial banks in Cameroon (CS MEAN on SL MEAN)	PV=0.000<0.05(significant at 1%, 5% and 10%)	Reject the null hypothesis

#### 4.4 Discussions and Conclusion

This study is design to contribute to literature on service quality regarding the application of the SERVQUAL Model developed by (Parasuraman, Zeithaml, & Berry, 1988 & 1993) by testing series of hypotheses in the commercial banking sector of Cameroon. The results are discussed below in juxtaposition with the findings of other scholars. Regarding, the hypothesized relationship between service tangible and service loyalty, the result of the study opined that service tangible has a statistically significant positive impact on service loyalty. This result confirms the finding by (Bloemer, Ruyter, & Wetzels, 1998) who concluded that service tangibles at the level of individual dimensions in four different service types industries has positive impact on service loyalty. Besides, it equally supports results by Sureschander et al. (2003) who opined that tangibles have a significant impact on service loyalty. However, the result of the research

contradicts Kheng et al. (2010) who found no such relationships.

With respect to the relationships between service empathy and service loyalty, this study found positive significant impact on the hypothesized relationship between service empathy and service loyalty. This result concord with Ehigie (2006) who revealed that empathy has a positive effect on service loyalty in Nigeria commercial banking sector. The result is equally supported by (Bloemer, Ruyter, & Wetzels, 1998) who in a study of four different service industries suggested that empathy is positively related to service loyalty.

Regarding service empathy and customer satisfaction, the study revealed that service empathy has statistically significant positive effect on customer satisfaction. The findings corroborate the research by (Siddiqi, 2011) who opined that empathy is positively related to customer satisfaction in the Bangladeshi retail banking industry Bangladesh, and those concluded by (Ladhari et al., 2011).





Furthermore, results from the study opined that service quality has a statistically significant impact on customer satisfaction. This result supports findings by (Cronin & Taylor, 1992). In the context of Greek-Cypriot banking sector, (Arasli et al. 2005) revealed that service quality has positive effect on customer satisfaction (Bloemer, Ruyter, & Wetzels, 1998). This similar to studies concluded by (Churchill & Surprenant, 1982; Bearden & Teel, 1983; Woodside et al., 1989; Anderson & Sullivan, 1993). Similar results have been suggested (Parasuraman, Zeithaml, & Berry, 1994; Taylor & Baker, 1994; Levesque & McDougall, 1996; Johnston, 1997).

Another finding of the study suggests that service tangible has an insignificant effect on customer satisfaction. This result supports the findings of other scholars such as (Kheng et al., 2010; Ladhari et al., 2011). However; the result contradicts findings by (Elissavet, Lazaros, Dimitrios, & Eleftherios, 2013) in a study involving the Greek banking sector which suggests that tangibles have a positive effect on customer satisfaction. Siddiqi (2011) examined the applicability of service quality in the retail banking industry in Bangladesh and found that tangibles positively affect customer satisfaction. In addition, this study contradicts findings by (Jamal & Ananstasiadou, 2009) who opined that tangibles have a significant impact on customer satisfaction.

In addition, this study found a positive mediating impact of customer satisfaction in the relationship between service quality and service loyalty. The result of this research supports the conclusion by (Caruana, 2002) in a study involving retail banking customers. The result also supports findings reported by (Ehigie, 2006) in a study of customer loyalty in banks in Nigeria and equally corroborated with results published by (Butcher, 2001; Lam & Burton, 2006).

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