IMPACT OF SERVICE QUALITY, CUSTOMER COMPLAINT HANDLING AND BANKING INNOVATION ON LOYALTY WITH THE MEDIATING ROLE OF CUSTOMER SATISFACTION

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ABSTRACT

In the current competitive environment, banks considered customer satisfaction as a big challenge. Globally every firms try to satisfy its customer through quality services, which is essential to retain its customers. The purpose of the research is to study the factors' impact like "Quality Service, Complaint Handling & Banking Innovation" on Customer Loyalty taking Customer Satisfaction as a mediator in the Pakistani banking context like MCB. In this study the conventional banking sector of Pakistan like MCBhas been taken. It is a quantitative based research. The population of the study was the walk-in customer of the bank. It was a survey base research in which "questionnaires" have been used, based on 5 point Likert scale. The data collection instrument has been checked before testing the hypothesis. Simple linear regression, SEM model and SPSS used for the data analysis. The result of the research has concluded as follows: There is a positive and significant influence exists between Service Quality and Customer Loyalty. The relationship between Complaint Handling and Customer Loyalty is positive and significant. Banking Innovation and Customer Loyalty showed a positive and significant relationship. Customer Satisfaction has a positive and significant effect directly on Customer Loyalty. Service Quality has a positive, significant and direct impact on the level of Customer Satisfaction. Complaint Handling has positive, significant and direct effects on Customer Satisfaction. Banking Innovation has a positive, significant and direct impact on Customer Satisfaction. Service Quality has an indirect effect but with a positive and significance influence on Customer Loyalty via Customer Satisfaction.

Key words: Service Quality, Complaint Handling, Banking Innovation, Customer Loyalty and Customer Satisfaction.

INTRODUCTION

Globally, in financial sector a bank is an essential financial-body which perform a vital part in a country's economic growth. Recently Banking sectors have developed rapidly which modified customer dynamical financial needs. Banking sector is considered the main factor of the economic system of a country. The basic goal of banking sector is to provide a broad, perfect diverse and arranged activities. Banking business is a service providing sector that is working on the principle of trust & belief. Many literatures demonstrate that SERQUAL leads to CSATISF and CSATISF leads to CLOYAL (Yilmaz, Ari, & Gurbuz, 2018). Some literatures' review confirmed the substantial constructive consequences of SERQUAL on variables of CSATISF and CLOYAL, (Anwar et al., (2019). Based on the study of Arifin (2020), reported that SERQUAL & CSATISF put effects on CLOYAL. According to Mahsyar, and Surapati, (2020), who studied and brought an opposite result said there is no significant effect in SERQUAL and CSATISF. Ground on Alam, (2021) study, he noted SERQUAL has an effect on CSATISF, but

CSATISF doesn't affect CLOYAL, further he says that SERQUAL has greater influence towards CLOYAL. Clara et al. (2022), quality is a set of merits of service-product and be capable to fix or exceed demands of buyers, and has a mutual agreement or accuracy, maintenance, reliable, easiness in operation, repairable and appreciated characteristics. The existing customer can be lost by miss-management and poor COMHAND, which create an anti-spoke man and can be causes of distortions for firm reputation, (Suleman et al., 2020). It has been known from the previous research that all those organizations who probably experience more loyalty from their customers is due to proper complaint handling from company side, (as cited in Ahmed, et al., (2020). Day by day a new bank gives entry in to the market, swift expansion and diversification of financial services and products offered by banks due to product/service innovation and technological developments (Süer, Keser, & Kocakoç, (2019). It has been confirmed by researchers that novelty, innovation and modernization is crucial for the development and economic richness for each and every organization and nation, Joghee, & Alzoubi, (2022). For survival of a bank CSATISF plaid an important role which cannot be ignore (Nwankwo, & Ndubisi, 2019). According to Jasin, and Firmansyah, (2023), it has been observed that when customer fully satisfied from the service or product for the first time, it became a loval customer and visited again to the shop.

Literature review Service Quality

In the globalization era when the competition was getting too tough, it has become the goal of all companies in service industry to deliver high quality services to their consumers because high quality service was a source of CSATISF and high profit. (Suleman et al., 2020c). Here SEROUAL considered a prime competitive-weapon on the basis of a banks compete in marketplace with generally undifferentiated and similar products, (Herawaty, et al., 2022). The overall characteristics of service is called SERQUAL and it influences their capability to full fill both kinds of needs which is explicit and implicit, (Sitio & Pradita, 2020). According to Uzir, et. al, (2021), SERQUAL is a complex concept, and researchers always keep it as center of focus during their research. Further Jasin, & Firmansyah, (2023), defined SERQUAL remained the main part of customer valuation analysis.

Complaint Handling

Customer complaining behavior arouse due to creation of dissatisfaction with products and services, which attract companies' attention to remove the flaws from the system, because it may become detrimental for companies, (Lolo, 2020). The existing customer can be loss by mismanagement and poor COMHAND, which create a bad WOM plus firm's reputation can be badly damage, (Hoang, 2020). Previous researches proves that a proper COMHAND behavior put an optimistic influence on the satisfaction of the customer and thus customer committed to purchase again and it is consequence for firm financial performance (Diputra, & Yasa, 2021). Previous researches proves that a proper COMHAND behavior put an optimistic influence on the satisfaction of the customer and thus customer committed to purchase again and it is the consequences for firm financial performance (Diputra, & Yasa, (2021).

Banking Innovation

The most important tool of attractiveness in organizations has been considered to innovation, Hollebeek et al., (2018). It has been confirmed by researchers that innovation in each and every sector is crucial for the economic prosperity, growth & development for any organization and nation. (Chen et al., 2018). Innovative, latest and updated technologies adopted via banks and other organizations give stimulus for optional customers' service and products. (Sugiat. et. al. (2021). YuSheng, & Ibrahim, (2019), also define BANKINNO in product or service (technical) or in process (administrative) that help organization to point out the customer needs and wants and deliver CSATISF at a profit base. As per Hurley and Hult (1998), (as cited in YuSheng, & Ibrahim, (2019), is a part of firm philosophy to create something new ideas, methods and thoughts.

Customer Loyalty

Increasing graph of CLOYAL consider a serious driver of a firm in long-term financial performance (Apriliani, 2019), (Suleman et al., 2020). According to Apriliani, (2019), Suleman et al.,

(2020), and Puspitasari, (2021), profit increased by 25 % to 125 %, when a firm tried to holds just 5 % more of its current customers. According to researchers, a new customer is costlier than to retain the old customers (Fornell, et. al, (2020). The bank understand that customers try to retain and do not switch to other bank, if a bank gives them a higher value compare to competitors. Puspasari, et al., (2022), defined in their research article that a satisfied and happy customer has the capability to keep a repetitive purchasing behavior in the long term future and refer the brand to others with respect to the service he/she felt.

Customer Satisfaction

CSATISF is one of the most widely debating topic in marketing all over the world. Satisfaction is basically related to mental or psychological position of a human body, so cares is the vital element to take in quantitative measurement to measure the satisfaction of a human. For the purpose of creating high degree of CSATISF, "variations in the behavior of customers" is a factor that cannot be eliminated in decision making process using a service or a product, while these factors are considered as an "environmental influences". "individual features" and "psychological phenomena", (Setiadi & SE, 2019)." Peoples are the targeted customers of companies and performance is evaluated on the basis of satisfaction, Puspasari, et al., (2022). To make satisfied customers is the main goal of the company and such kind of customers' needs and desires should be fulfilled, Puspasari, et al., (2022).

Research Hypothesis:

As per literature review, theoretical review, theoretical frameworks and prior research outcomes, researcher formulates the following hypothesis for current research such as

H₁: SERQUAL (X_1) has a positive and significant impact on the level of CLOYAL (Y).

 H_{1a} : SERQUAL (X₁) has a positive and significant impact on the level of CSATISF (M).

H₂: COMHAND (X₂) positively plus significantly affects CLOYAL (Y).

 H_{2a} : COMHAND (X₂) has positive plus significant effects on CSATISF (M).

H₃: BANKINNO (X₃) positively plus significantly affects to CLOYAL (Y).

H_{3a}: BANKINNO (X₃) has a positive plus significant impact on CSATISF (M).
H₄: CSATISF (M) mediate the relationship in both SERQUAL (X₁) and CLOYAL (Y).
H₅: CSATISF (M) mediates the relationship in both COMHAND (X₂) and CLOYAL (Y).
H₆: CSATISF (M) mediates the relationship in both BANKINNO (X₃) and CLOYAL (Y).
H₇: CSATISF (M) puts a positive plus significant effect on CLOYAL (Y).

Research Methodology Research Design

Here, the researcher's aim is to know positive or negative relationship or no relationship between dependent and in-dependent variables. The current research based on testing of hypothesis. It is a survey based research in which questionnaires have to use. The study aims to formulate hypotheses built on existing theory and making a research strategy for testing the hypotheses, Gilgun, (2019). In methodological choice mono method have to use, due to quantitative base approach. It is a cross-sectional survey, and design of sampling of probability have to use. Further primary dataareused in this study. As the research is based on banking sector so the population of the study is walk-in customer. The G*Power software have to use to estimate sample size. It is a "Post-Positivist" base approach and its methodology is quantitative, Qualitative or mixed method.Sekaran and Bougie (2016), suggested two key approaches business research *"deductive"* for and inductive". The evident proved from the literatures that the deductive approach is suitable for postpositivist philosophy, Pearse, (2021).For study purpose a design of probability sampling have beenchoosing which is simple random sampling method. During the data collecting process "questionnaire" for survey will be formally pretested or pilot testing on various respondents. The purpose of interview is to gain feedback on reimbursement specific items classification feedback on recommended changes and bundle of additional items etc. Based on the simple random sampling technique, the sample have to choose from the population of the study or targeted population. The researcher used formula approach of Cochran (1963:75)¹, for unknown bank customers. Simple linear regression, structure equation model (SEM) or path analysis technique

has to use to analyze the collected data and get result to reach on some conclusions. Reliability, validity test of the questionnaire has to conducted and also *pilot study*too.

RESULT AND DISCUSSION Test Instrument Data:

On the basis of overhead description, to define whether the (IV) as SERQUAL, COMHAND, BANKINNO and CSATISF as a mediator can be used as a measure of (DV) of CLOYAL at banking sector of Pakistan. However, the collected data was managed first and tested on independent and dependent variables used, to find out the reliability and precision of the data used.

Validity Test

The purpose of the current validity test is to trial, whether each statement's parts are representative of the indicators which have being studied. if correlation coefficient among items of the statement with a total score of greater than r = 0.30,

Table 1. Variable Reliability Test Results

then the items in the selected instrument considered as valid. (Sugiyono, 2018).

Variable Instrument Validity Test

Validity refers to the accuracy of a measured data (whether the results represent what they are supposed to measure). sample size N, 220, DF=N-2, 220-2= 218, (Critical Values for Pearson's Correlation Coefficient table= (218 DF (0.05) =0.123). Table. obtained value > critical value in the table. r-count > r-table, 0.594 > 0.123, it is a valid question now check all items of the questionnaire one by one. Minimum and acceptable condition has to valid up to r =0.30.

Reliability Test

The purpose of reliability test is to find out how far the measurement results are consistent and reliable. If the variables' alpha values are above than 0.6, then all selected variables in the current study will be reliableand shows strong relationship. Value of Cronbach's alpha > (0.60).

Table 1. Variable Kenability Test Kesults				
Variable	Cronb <mark>ach's</mark> Alpha	Information		
SERQUAL	0.88 International Journal of Contemporary	Reliable		
COMHAND	0.847	Reliable		
BANKINNO	0.772	Reliable		
CSATISF	0.919	Reliable		
CLOYAL	0.874	Reliable		

Rely on Table 1, it can be some up that the Cronbach's Alpha values for all variables are positive, which is greater than 0.6, it is the reliability coefficient's minimum limit.

Analysis of Research Results Table 1.1: Correlation Analysis

		SERQUAL	CSATISF	
SERQUAL	Pearson Correlation	1	.634**	
	Sig. (2-tailed)		.000	
	N	220	220	
CSATISF	Pearson Correlation	.634**	1	
	Sig. (2-tailed)	.000		
	Ν	220	220	

**. Correlation is significant at the 0.01 level (2-tailed).

Based on result of Table # 1.1, Connectivity in both these two variables is strong and positive (unidirectional). It is proved that if the variable such as SERQUAL is good, then the variable as CSATISF is also reasonable. Measurement of correlation is significant at 0.00 < 0.05, as

significance number (Sig) is less than 0.05. Relationship between these two variables can consider to be significant. (0.00 more superior than 0.05).

Path Analysis

Substructure 1a: $M = PMX1 + \in$ **Table 1.2**

Correlation Analysis COMHAND CSATISF COMHAND Pearson Correlation .573** Sig. (2-tailed) .000 Ν 219 219 Pearson Correlation .573** CSATISF 1 Sig. (2-tailed) .000 219 Ν 220

**. Correlation is significant at the 0.01 level (2-tailed).

Based on the result of Table # 1.2, the correlation in between two variables such as COMHAND plus CSATISF is 0.573, which (correlation of 0.573) means that connectivity in both these two variables is moderate and positive (unidirectional). It is proved that if the variable such as COMHAND is good, then the variable as CSATISF is also significant plus reasonable.

Path Analysis

Substructure 1b: M = PMX2 + € **Table 1.3** *Correlation Analysis*

CSATISF **BANKINNO** BANKINNO Pearson Correlation .443** 1 Sig. (2-tailed) .000 Ν 220220 CSATISF Pearson Correlation .443** 1 Sig. (2-tailed) .000 220 220 Ν

**. Correlation is significant at the 0.01 level (2-tailed).

Based on the result of Table # 1.3, correlation in between two variables such as BANKINNOand CSATISF is 0.443, which (a correlation of 0.443) means that connectivity in both these two variables is moderate to low and positive (unidirectional).

Path Analysis = Substructure 1c: $M = PMX3 + \in$ **Table 1.4**

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.634a	.402	.399	.559

a. Predictors: (Constant), SERQUAL

Here, the value of R square (degree of variance) is 0.402, it means that SERQUAL contribute to CSATISF around 40%, although 60% contributed

by other variables not included in this research model. R squared values of 40% indicate that the model is moderate.

Table 1.5 : Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.573ª	.329	.326	.594

b. Predictors: (Constant), COMHAND

Here, 0.329 is the R square value, it means that variables of COMHAND contribute to variables of CSATISF in banking environment around to

32.9%, though the remaining 67.1% contribution executed by other variables, and the model is moderate.

Table 1.6: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.443 ^a	.196	.192	.648

c. Predictors: (Constant), BANKINNO

Here, 0.196 is R square value, it means that the variables of BANKINNO contribute to variables of CSATISF in banking environment around to

19.6%, though the remaining 80.4% contribution execute by other variables, and R squared values of 19.6% indicate that the model is weak.

Table 1.7

	Coefficients (hypo	thesis testing)				
		Unstandardiz	zed Coefficients	Standardized Coefficients		
	Model	В	Std. Error	Beta	t	Sig.
1	(Constant)	.848	.255		3.322	.001
	SERQUAL	.760	.063	.634	12.099	.000

a. Dependent Variable: CSATISF

To find out linear effectsbetween SERQUAL and CSATISF and to check the intensity effects of variables. Beta is used here (to see the magnitude of the influence of these variables) plus the analysis steps are:

No 1). Fix hypothesis $H_{1a:}$ a). Ho: In SERQUAL and CSATISF, here is no linear effects exists. b). Ha: In SERQUAL and CSATISF, here is linear effects exists.

No 2). t-count value, from the table is 12.099.

No 3). t-table scale, 0.05 is significant level and (DF) according to condition of 2-tier

DF = N-2 or 220-2=218, the value taken out from the t-table is 1.984.

No 4). Define hypothesis if t-count > t-table, then reject (Ho) and accept (Ha). if t-count < t-table

No 5). Conclusion, t-count value is 12.099 > t-table of 1.984. Thus, (Ho) rejected and (Ha) accepted. Its proved that an optimistic plus significant relationship exists in both variable of SERQUAL plus CSATISF.

Magnitude or intensity of variable's influences of SERQUAL on the mediator CSATISF is 0.634 or 63.4% which is defined by beta taken from coefficient table. SQ significant influence on CS. H_{1a} : SERQUAL (X₁) has a positive and significant impact on the level of CSATISF (M).

SERQUALX ₁ X ₁ M0.634 Figure 1: Substructure Path Analysis Results						
Substructure 2a: $Y = PY$	$YX_1 + PYM + \in$					
Table 1.8 Coefficients(hypothesis testing)						
_	Unstandardized Co	oefficients	Standardized Coefficients			
Model	В	Std. Error	Beta	t	Sig.	
1 (Constant)	1.690	.219		7.730	.000	
COMHAN	.563	.055	.573	10.306	.000	
D						

a. Dependent Variable: CSATISF

analysis steps are expressed as: No 1). To determine hypothesis: a). Ho: In COMHAND and CSATISF there is no linear effect exists in banking sector of Pakistan. b). Ha: There is a linear impact exist between the both as COMHAND and CSATISF. No 2). Now t-count, depend on t-value from the table is 10.306. No 3). Seeing t-table scale, significant level is 0.05 plus (DF) according to condition of 2-tier DK= n-2 or 220-2=218, the value taken out from the t-table is1.984. No 4).

Define hypothesis testing standards, a). According to the principal if t count > t-table, then reject null hypothesis (Ho) plus alternative hypothesis (Ha) will accepted. 5). Thus, t-count value is 10.306 > ttable of 1.984. Thus, null hypothesis (Ho) rejected and alternative (Ha) accepted. Its proved that a positive and significant relationship exists in both variable. The magnitude of the influence of variables is 0.573 or 57.3%.

H_{2a}: COMHAND (X₂) has a positive and significant impact on the level of CSATISF (M).



Figure 2: Substructure Path Analysis Results 2 Substructure 2b: $Y = PYX_2 + PYM + \in$

Table 1.9

Coefficients (hypothesis testing)

Unstandardized Coef	fficients Coefficients	
Model B Std.	l. Error Beta t Sig	3.
1 (Constant) 2.096	.252 8.321 .00	0
BANKINNO .464 .0	.064 .443 7.288 .00	0

a. Dependent Variable: CSATISF

Analysis steps are expressed as: No one). To determine hypothesis: a). Ho: In BANKINNO and CSATISF there is no linear effect exists. b). Ha: There is a linear impact exist between the both as BANKINNO plus CSATISF. No 2). Look up the

scale of value of t-count, depend on co-efficient table, t-value from the table is 7.288. No 3). Seeing t-table scale, significant level is 0.05 plus (DF) according to condition of 2-tier DK= n-2 or 220-2=218, the value taken out from the t-table is 1.984.

No 4). Define hypothesis testing standards, a). As t-count > t-table, then reject null hypothesis (Ho) alternative hypothesis (Ha) will accept. 5). Thus, t-count value is 7.288 > t-table of 1.984. Thus, (Ho)

rejected and (Ha) accepted. Level of influence is 0.443 or 44.3%.

H_{3a}: BANKINNO (X₃) has a positive and significant impact on the level of CSATISF (M).



Figure 3: Substructure Path Analysis Results 3 Substructure 2c: $Y = PYX_3 + PYM + \in$

Table 2

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.797 ^a	.636	.632	.339

a. Predictors: (Constant), SERQUAL, CSATISF

R square of 0.636 specifies that the calculated data perfectly fit linear model. Proportion of variance in the dependent variable that can be explained by the independent variable.(r2) is 0.636, meaning that

the SERQUAL and CSATISF variables contribute to the CLOYAL variable amounted to 63.6% while the remaining 36.4% contributed by other variables not examined here.

Table 2.1

Mod	lel Summary			
				Std. Error of the
Model	R	R Square	Adjusted R Square	Estimate
1	.807ª	.651	.648	.331

a. Predictors: (Constant), COMHAND, CSATISF

Same explanation is here too for R square.

Table 2.2

Model Summary

				Std. Error of the
Model	R	R Square	Adjusted R Square	Estimate
1	.798ª	.636	.633	.338

a. Predictors: (Constant), BANKINNO, CSATISF

Table 2.3

Coeffici	ients (hypothesi	s testing)			
	Unstanda	rdized Coefficients	Standardized Coefficients		
Model	В	Std. Error	Beta	t	Sig.
(Constant)	1.079	.158		6.812	.000
SERQUAL	.312	.049	.336	6.339	.000
CSATISF	.419	.041	.541	10.216	.000
	<i>Coeffici</i> Model (Constant) SERQUAL CSATISF	Coefficients (hypothesiUnstandarModelB(Constant)1.079SERQUAL.312CSATISF.419	Coefficients (hypothesis testing)Unstandardized CoefficientsModelBStd. Error(Constant)1.079.158SERQUAL.312.049CSATISF.419.041	Coefficients (hypothesis testing)Unstandardized CoefficientsModelBStd. ErrorBeta(Constant)1.079.158SERQUAL.312.049.336CSATISF.419.041.541	Coefficients (hypothesis testing)Unstandardized CoefficientsModelBStd. ErrorBetat(Constant)1.079.1586.812SERQUAL.312.049.3366.339CSATISF.419.041.54110.216

a. Dependent Variable: CLOYAL.

Find out linear effect between SERQUAL &	(Beta) Level of influence of variable of SERQUAL
CLOYAL at banking sector. To find out effect's	plus CLOYAL is 0.336 or 33.6%. (one unit change
magnitude and independent, dependent influences,	in IV the beta unit will change in DV.)
analysis steps are mentioned bellow:	Further, linear effect between CSATISF and
No 1). Fix 1 st hypothesis H ₁ : such as SERQUAL	CLOYAL. analysis steps are
and CLOYAL,	No 2). Fix 4 th hypothesis H ₄ : such as CSATISF and
a). Ho: There, does not exist any linear influence in	CLOYAL, a).
both SERQUAL (IV) plus CLOYAL (DV), b). Ha:	Ho: There, does not exist any linear effect in both
There, is a linear influence exist in both SERQUAL	CSATISF and CLOYAL. b). Ha: No 2). t-value
(IV) and CLOYAL (DV).	from the Coefficients table is 10.216.
No 2). depend on co-efficient table, t-value from	No 3). Seeing t-table scale, significant is 0.05 plus
the Coefficients table is 6.339.	(DF) 2-tier N-2 or 220-2=218, t-table is 1.984.
No 3). Seeing t-table scale, significant level is 0.05	No 4). As hypothesis testing standards,
plus (DF) of 2-tier N-2 or 220-2=218, the value	a). t-count value is $10.216 >$ t-table of 1.984. Thus,
from the t-table is 1.984.	(Ho) rejected and (Ha) accepted.
No 4). hypothesis testing standards, a). if t count $>$	Its proved that optimistic plus significant
t-table, then reject (Ho) and accept (Ha).	relationship exists in both the variable of CSATISF
5). As t-count value is $6.339 > t$ -table of 1.984.	(M) plus CLOYAL. (Beta) Level of influence of
Thus, (Ho) rejected and (Ha) accepted.	variable of CSATISF and CLOYAL is 0.541or

Table 2.4

	Coefficients (hypothesis testing)						
	<u>.</u>	Unstanda	rdized Coefficients	Standardized Coefficients	_		
	Model	В	Std. Error	Beta	t	Sig.	
1	(Constant)	1.984	.154		12.920	.000	
	COMHAND	.505	.038	.666	13.152	.000	

54.1%.

a. Dependent Variable: Customer Loyalty

It is proved that positive and significant

relationship exists in SERQUAL and CLOYAL.

Fix 2nd hypothesis such as COMHAND & CLOYAL, a). Ho, b). Ha

T-count value is 13.152 > t-table of 1.984. Thus, Ho rejected plus Ha accepted. Its proved that positive and significant relationship exists in both variable. Level of the influence is 66.6%. **Table 2.5**

Coefficie	nts (hypothesis t	esting)			
	Unstandardi	zed Coefficients	Standardized Coefficients		
Model	В	Std. Error	Beta	t	Sig.
1 (Constant)	2.173	.179		12.139	.000
BANKINNO	.460	.045	.567	10.172	.000

a. Dependent Variable: CLOYAL

Same explanation is here too,

Conclusion, t count value is 10.172 > t-table of 1.984. Thus, (Ho) rejected and (Ha) accepted. Thus a positive and significant relationship exists between the variable of BANKINNO (IV) and CLOYAL (DV). The level of the influence of variable is 0.567 or 56.7%



Figure 4: Substructure Path Analysis Results 4

Acco	ording to Andrew .	F. Hayes mo	odel: PR	OCESS Procee	lure for SPS	SS Version 4.2

H ₅ : CSATISF (M) mediate the	H ₆ : CSATISF (M) mediate the	H ₇ : CSATISF (M) mediate the
relationship in both SERQUAL	relationship in both COMHAND	relationship in both BANKINNO
(\mathbf{x}_1) and CLOYAL (Y).	(x_2) and CLOYAL (Y).	(x_3) and CLOYAL (Y).
Total effect of X on Y	Total effect of X on Y	Total effect of X on Y
Effect se t	Effect se t	Effect se t
p LLCI ULCI	р	p LLCI ULCI
.6301 .0462 13.6442	LLCI ULCI	.4600 .0452 10.1721
.0000 .5391 .7212	.5050 .0384 13.1520	.0000 .3709 .5491
Direct effect of X on Y	.0000 .4294 .5807	Direct effect of X on Y
Effect se t	Direct effect of X on Y	Effect se t
p LLCI ULCI	Effect se t	p LLCI ULCI
.3117 .0492 6.3386	p LLCI ULCI	.2356 .0370 6.3643
.0000 .2148 .4086	.2635 .0372 7.0817	.0000 .1626 .3086
Indirect effect(s) of X on Y:	.0000 .1902 .3369	Indirect effect(s) of X on Y:
Effect	Indirect effect(s) of X on Y:	Effect
BootSEBootLLCIBootULCI	Effect	BootSEBootLLCIBootULCI
C_Sat .3184 .0563	BootSEBootLLCIBootULCI	C_Sat .2244 .0423 .1501
.2174 .4371	C_Sat .2415 .0435 .1637	.3159
• Indirect effect is greater	.3353	• Direct effect is greater
than direct effect then we	• Direct effect is greater	than indirect effect it
can say that mediation	than the indirect effect	means that mediation
effect of CSATISF is	then we can say that the	effect does not exist
exist in both SERQUAL	mediation effect of	between BANKINNO
plus CLOYAL.	CSATISF is not exist in	plus CLOYAL.
• 0.3184 > 0.3117	both COMHAND plus	• 0.2356 > 0.2244
	CLOY	
	• 0.2635 > 0.2415	

If LLCI (Lower level confidence interval) or ULCI both are with either in positive sign or both are with in negative sign, then it is said that they are in significance. As here, in direct effect, indirect effect plus total effect both values are in same sign thus it can say that our values are significance. Based on calculated results of path diagram mentioned above, it can be elaborated as follow:

Direct Effect	Direct Effect	Direct Effect
For calculation of direct effect,	For the calculation of direct	For the calculation of direct
following formula is used.	effect, following formula is used.	effect, the following formula
1) Total effect of SERQUAL	1) Total effect of COMHAND	used.
(X1) on CSATISF (M)	(X2) on CSATISF (M)	1) The total effect of
$X1 \rightarrow M = 0.634$	$X2 \rightarrow M = 0.573$	BANKINNO (X3) on CSATISF
2) Total effect of SERQUAL	2) The total effect of	is (M)
(X1) on CLOYAL (Y)	COMHAND (X2) on CLOYAL	$X3 \rightarrow M = 0.443$
$X1 \rightarrow Y = 0.336$	(Y)	2) The total effect of
3) Total effect of CSATISF (M)	$X2 \rightarrow Y = 0.666$	BANKINNO (X3) on CLOYAL
on CLOYAL (Y)	3) The total effect of CSATISF	(Y)
$M \rightarrow Y = 0.541$	(M) on CLOYAL (Y)	$X3 \rightarrow Y = 0.567$
	$M \rightarrow Y = 0.541$	3) The total effect of CSATISF
		(M) on CLOYAL (Y)
		$M \rightarrow Y = 0.541$
Indirect Effect	Indirect Effect	Indirect Effect
For the calculation of indirect	For calculation of indirect effect,	For calculation of indirect effect,
effect, the following formula	following formula used.	the following formula used.
used.	$X2 \rightarrow M \rightarrow Y = (0.573 \text{ x } 0.541)$	$X3 \rightarrow M \rightarrow Y = (0.443 \ge 0.541)$
$X1 \rightarrow M \rightarrow Y = (0.634 \ge 0.541)$	= 0.31	= 0.24
= 0.343		
Total effect	Total effect	Total effect
Effect of SERQUAL on	Effect of SERQUAL on	Effect of SERQUAL on
CLOYAL via CSATISF	CLOYAL via CSATISF	CLOYAL via CSATISF
$X1 \rightarrow M \rightarrow Y = (0.634 + 0.541)$	$X2 \rightarrow M \rightarrow Y = (0.573 + 0.541)$	$X3 \to M \to Y = (0.443 + 0.541)$
= 1.175	= 1.114 International Journal of Contemporary	= 0.984
Structural equation for structural	Structural equation for structural	Structural equation for structural
equation model (SEM) is:	equation model (SEM) is:	equation model (SEM) is:
Equation of sub structure 1:	Equation of sub structure 1:	Equation of sub structure 1:
$M = 0.634 X1 + \epsilon 1$	$M = 0.573 X2 + \epsilon 1$	$M = 0.443 X3 + \varepsilon 1$
Equation of sub structure 2:	Equation of sub structure 2:	Equation of sub structure 2:
$Y = 0.336X1 + 0.541M + \epsilon 2$	$Y = 0.666X2 + 0.541M + \epsilon 2$	$Y = 0.567X3 + 0.541M + \epsilon 2$

Hypothesis test

(H₁): SERQUAL has a positive and significant impact on the level of CLOYAL, (X₁Y)

Calculated results elaborate the direct effect of SERQUAL (X₁) and CLOYAL (Y). According to model, $Y = 0.336 X_1$, coefficient value of SERQUAL is 0.336 defining that all the time there is observed an improvement in SERQUAL, same with CLOYAL. Take as a basis to significance test results, a value of 0.000 achieve as a significance value which is less than 0.05. it elaborates that null hypotheses (H₀) is rejected plus alternative hypothesis (H_a) is accepted. It elaborated to all of the above explanation that SERQUAL has a positive as well as significant influence on CLOYAL.

(H₂): COMHAND positively plus significantly affects CLOYAL, (X₂Y)

According to the model, $Y = 0.666X_2$, coefficient of COMHAND (X₂) is 0.666 defining that all the time there is an improvement in COMHAND, as a result CLOYAL will increase too. 0.000 taken as a significance value which is less than 0.05. it elaborates that (H₀) is rejected plus(H_a) is accepted. Thus COMHAND has a positive as well as significant influence on CLOYAL.

(H₃) BANKINNO positively plus significantly affects to CLOYAL, (X₃Y)

model, $Y = 0.567 X_3$, coefficient of BANKINNO is 0.567, 0.000 taken as a significance value which is less than 0.05. thus (H₀) is rejected and (H_a) is accepted.

(H₄) CSATISF puts a positive plus significant effect on CLOYAL, (MY)

model, Y = 0.541 M. defining that all the time there is an enhancement in CSATISF, as a result CLOYAL increased too. Significance test results proved that, (H₀) is rejected plus (H_a) is accepted.

(H_{1a}) SERQUAL has a positive and significant impact on the level of CSATISF, (X_1M)

The calculated results show off direct effect between SERQUAL (X_1) and CSATISF (M) according to model, M = 0.634 X₁. Coefficient of SERQUAL is 0.634 defining that all the timethere is seen an increase in SERQUAL, as a result CSATISF will increase too amounted to 0.634. Use as a basis to significance test results, a value of 0.000 taken as a significance value which is less than 0.05. it elaborates that null hypotheses (H₀) is rejected and alternative hypothesis(H_a) is accepted. It elaborated to all of the above explanation that SERQUAL has a positive as well as significant influence on CSATISF.

(H_{2a}) COMHAND has positive plus significant effects on CSATISF, (X_2M)

Same explanations =model, $M = 0.573X_2$, significance test results, a value of 0.000 < 0.05. Thus (H₀) is rejected plus (H_a) is accepted. It elaborated to all of the above explanation that COMHAND has a positive, significant and direct influence on CSATISF.

(H_{3a}) BANKINNO has a positive plus significant impact on CSATISF, (X₃M)

Same explanations = model, $M = 0.573X_3$. significance test results, a value of 0.000 < 0.05.

(H₈) CSATISF mediate the relationship in both SERQUAL plus CLOYAL, (X₁MY)

Consequences of the analysis to find out the "indirect influence" of SERQUAL (X₁), CLOYAL (Y) via CSATISF (M), make the following path model. $X_1 \rightarrow M \rightarrow Y = (0.634 \times 0.541) = 0.343$, (Indirect effect=0.343) Depend on above calculation and result, direct effect of (X₁) on (Y) taken from coefficient beta value is 0.336. To discuss it further, SERQUAL on CLOYAL via CSATISF is 0.343, it means that direct effect is less than indirect effect, 0.343> 0.336, thus null hypothesis (H₀) is rejected and alternative hypothesis (Ha) is accepted. It has clarified from above explanation that SERQUAL (X₁) puts significant effect on CLOYAL (Y) through CSATISF (M). In other words, CSATISF puts mediation influence between SERQUAL plus CLOYAL.

(H₉) CSATISF mediate the relationship in both COMHAND plus CLOYAL, (X₂MY)

 $X_2 \rightarrow M \rightarrow Y = (0.573 \text{ x } 0.541) = 0.31$, (indirect influence=0.31)

coefficient beta value is 0.666. (it means that direct effect is greater than indirect effect, 0.31 < 0.666, thus null hypothesis (H₀) is accepted and alternative hypothesis (Ha) is rejected.

(H₁₀) CSATISF mediate the relationship in both BANKINNO plus CLOYAL, (X₃MY).

 $X_3 \rightarrow M \rightarrow Y = (0.443 \text{ x } 0.541) = 0.24,$ (Indirect influence=0.24) coefficient beta value is 0.567. 0.24 < 0.567 CSATISF does not put mediation effect in both BANKINNO and CLOYAL.

Direct Effect

The influence of SERQUAL (X₁) on CLOYAL (Y) at banking sector of Pakistan.

The study result, indicates that high level of SERQUAL encourages CLOYAL. SERQUAL is to deliver services on right time and right place, As per Suslistyawati's& Putra (2018).

Influence of COMHAND (X₂) on CLOYAL (Y) at banking sector of Pakistan.

The overall study indicates that sufficient level of COMHAND will boost CLOYAL. The focus of companies to build a sense of security for their customers, comprehend customer service related issues. (Borah, Prakhya& Sharma,McQuilken et al., 2020), Cheng et al., 2019.

Influence of BANKINNO (X₃) on CLOYAL (Y) at banking sector of Pakistan.

From the above analysis it has been proved that bank's innovative practices can effects the customers positively to persists loyalty with the specific brand or bank. that BANKINNO has an optimistic plus significant effect on CLOYAL, Aramburu et all., (2019).

Effect of CSATISF (M) on CLOYAL (Y) at commercial bank of Pakistan.

The result indicates that high level of CSATISF encourage CLOYAL. Turkyilmaz, (as cited in Wijaya,2020), there is a strong relationship exists between CSATISF and CLOYAL.

Effect of SERQUAL (X₁) on CSATISF (M) at commercial bank of Pakistan.

The study result indicates that high level of SERQUAL will encourage CSATISF. Mostly

related scholars' work has demonstrated clearly that there is a positive effect exist in both SERQUAL plus CSATISF related to catering services industries, (Hsieh et al., 2018).

Effect of COMHAND (X₂) on CSATISF (M) at commercial bank of Pakistan.

The study's explanations and result indicate that sufficient level of COMHAND will encourage CSATISF. COMHAND is a process which ultimately leads to CSATISF and it is the outcome of a successful service recovery. Shams, et all., (2020).

Effect of BANKINNO (X₃) on CSATISF (M) at commercial bank of Pakistan.

The overall study proved that BANKINNO will boost CLOYAL. Latest technology gives effective and fast services in order to gain CSATISF, Agolla, et all., (2018). Finding of Kanwall & Yousaf1, (2019), BANKINNO puts straight effects on CSATISF.

Indirect effect:

Effect of SERQUAL on CLOYAL through CSATISF at commercial bank of Pakistan.

According to hypothesis testing results by path analysis, the eighth hypothesis in this study is accepted. Indirect effect between SERQUAL (X_1) and CLOYAL (M) is greater than direct effect.Solimun&Fernandes (2018), and found that the variable of CSATISF (M) acts as a strong mediator. Hence, the null hypothesis (H₀) is rejected and alternative hypothesis (H₁) is accepted.

Effect of COMHAND on CLOYAL through CSATISF at commercial bank of Pakistan.

According to hypothesis testing results by path analysis, ninth hypothesis in this study is rejected which shows a direct effect.

Effect of BANKINNO on CLOYAL via CSATISF at commercial bank of Pakistan.

Tenth hypothesis in this study is rejected which shows a direct effect. Hence, null hypothesis (H_0) is accepted and alternative hypothesis (H_1) is rejected.

Conclusion

Based on analysis plus outcomes derived from current work that has been done, at commercial bank of Pakistan. SEROUAL, COMHAND and BANKINNO has an optimistic, significant plus direct impact on the level of CLOYAL, at commercial bank of Pakistan like MCB. CSATISF puts an optimistic, significant plus direct effect on CLOYAL. SERQUAL, COMHAND and BANKINNO has a positive, significant plus direct impact on level of CSATISF. SERQUAL variable has a positive, significant plus indirect effect on the variable of CLOYAL via CSATISF, at commercial bank of Pakistan. There is no direct effect or no mediator role exist between variable of COMHAND plus BANKINNO to the variable of CLOYAL through CSATISF, at commercial bank of Pakistan.

Recommendations

Based on the judgement, conclusion and decision above, a no of suggestions and recommendation can be derived, at commercial bank of Pakistan. I) For a commercial bank it is most important to improve and update the SERQUAL by more excellent way. The existing services and facilities should be more well managed and well maintained. Make sure that your customers should be in most comfortable zone. Do not compromise on work time discipline and try to improve it further, and on time delivery of services to customers not to be delay. The manager and other workers should be honesty interested in helping in resolving complaints. MCB should avoid miss-management and poor complaint handling, which create an antispoke man and can be causes of distortions for firm reputation. The speed of problem solving must be high. The bank staff should give to customer's sufficient time for solving a problem. The banking system should install latest version (anything) for the comfort of their customers. The innovation should be easy and user friendly. Mobile app should be easy, fast, and futuristic. The system should be fully computerized, fast and efficient. Q-Matic machine system should be installed in branches, ATM machine should be fast and user friendly, MCB SMS system must be efficient and user friendly. MCB should add more features in MCB live app like, turn a card on and off by customer in case a card is lost or stolen. Biometric feature should add on MCB live app that a person

can do any time from abroad without visit to branch.

Future Directions:

For future research more certain factors should be included, the range of sample data should increase from current selected data which were 220. I encourage scholars to replicate this research with huge sample size based on different cities of Pakistan. Further Research should be based on public and nonpublic banks and smart PLS should use in future research.

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