

Investigating Drivers of Loyalty: A Case of Rural Retail Banks in India

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Abstract

The aim of the present study is to explore customer's perceived service quality and also attempts to determine the most significant predictor of customer loyalty. It also aims at developing a comprehensive model by integrating service quality and customer loyalty particularly for Indian rural banks. For the study, five dimensional 22 item SERVPERF scale was adopted. Questionnaire developed in English was translated into Hindi by employing back translation method. Data were collected from 394 patrons of rural banks, on a 7-point Likert scale through researcher's controlled sampling technique. To extract relevant factors of service quality, exploratory factor analysis (EFA), mean, standard deviation and structural equation model technique (SEM) were carried out.

Keywords: service quality, loyalty, rural bank, structural equation modelling (SEM), India

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Introduction

Interest in service quality has grown in leaps and bounds as the economic importance of service products and the value added by service to physical goods continue to increase over the years (Cronin, 2003). It is regarded as an important concept in services sector specially in banking industry where it is considered as a driver of financial performance, corporate marketing and success (Landrum *et al.*, 2009). However, owing to intangibility, heterogeneity, and inseparability characteristics of services, service quality is difficult to measure and define (Parasuraman *et al.*, 1985; Zeithaml *et al.*, 1985). Whilst, there has been considerable progress as to how service quality should be measured, there is little advancement as to what should be measured. Curiosity over the measurement of service quality is therefore high and researchers have devoted a great deal of attention to service quality research (Abdullah, 2006). The literature regarding the conceptualization and measurement of the service quality construct has so far been dominated by two models namely, SERVQUAL and SERVPERF introduced by Parasuraman *et al.* (1988) and Cronin & Taylor (1992), respectively. Notwithstanding the present popularity of SERVPERF scale both in developed and developing nations across the globe (Murwani, 2007), empirical studies focusing on service quality at Indian rural retail banks are few and far between. Most of the useful evidences regarding the subject, primarily, delve into service quality attributes important for urban consumers. Thus, there is a pressing need to bridge this gap by carrying out studies encompassing rural consumers of an emerging economy like India which witnessed a sustained growth in income of rural consumers in the past few years. To overcome the

limitation, the present study tries to measure perceived service quality and customer loyalty at Indian rural banks and also attempts to explore the relationship between the two variables through a research model conceptualized by the researcher for the present study.

Literature Review

Financial services, like any other services are intangible, difficult to evaluate, and rest on experience and high credence quality (Zeithaml *et al.*, 1985), making service quality investigation difficult as well as interesting.

Service Quality

The conceptualization and measurement of service quality perceptions have been among the most debated and controversial subject in the services marketing literature. This debate continues till date, as is evident from the ongoing and largely failed attempts either to integrate the SERVQUAL and SERVPERF conceptualization into new industries (e.g. Kettinger *et al.*, 1995; Dean, 1999) or to replicate its conceptual structure (e.g., Van Dyke *et al.*, 1997; Robinson, 1999). Indeed, perceived service quality has proved to be a difficult subject to understand. It has been referred to as "*elusive*" (Parasuraman *et al* 1985), and research related to its dimension is still considered "*unresolved*" (Caruana *et al.* 2000) and "*far from conclusive*" (Athanasopoulos 2000).

Service Quality in Banking Industry

Within the past three decades or so, a large number of researchers attempted to assess service quality encompassing almost every facet of banking industry such as- retail banks (Parasuraman *et al.*, 1988; Babakus & Mangold,1992; Narang, 2010; Adil, 2011; Adil & Khan, 2011 and Khan & Adil, 2011), internet banking (Downes & Mui, 1998; Sohail & Shaikh,

2008; Malhotra & Singh, 2010; Lin & Chang, 2011; Khare *et al.*, 2012; Patsiotis *et al.*, 2012; Adil, 2013a; Adil, 2013b, Adil *et al.*, 2013b), automated teller machine (ATMs) (Sureshchandar *et al.*, 2002; Singh & Komal, 2009; Kumar *et al.*, 2010; Khan & Adil, 2010; Gbadeyan, 2011) and tele-banking (Chang, 2003; Agboola, 2006). A prompt review of the above studies suggest various measurement instruments, latent constructs, research models, tools and techniques for assessing service quality, which could be helpful from practical as well as academic perspectives.

Relationship with Customer Loyalty

The theories of service quality which were first developed, considered either customer satisfaction or customer loyalty as a key dependent variable. However, a stream of research has explored the relationship considering customer loyalty as the key dependent variable (e.g. Chao, 2008; Chen *et al.*, 2011). There even appears to be a consensus among researchers advocating for such kind of relationship between service quality & loyalty (Adil & Ansari, 2012).

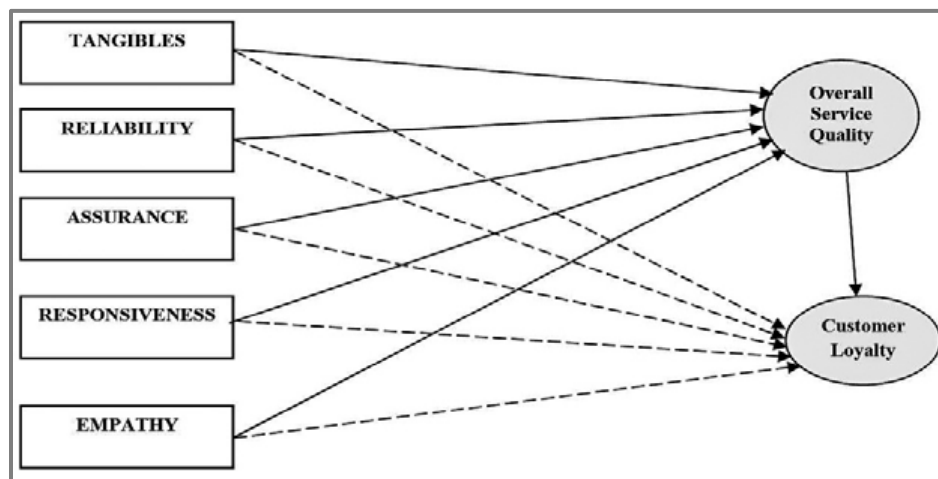


Figure 1. Research model

Key: —> represents the preliminary relationship, - -> represents the hypothesized relationship

However, owing to scant empirical research explicitly focusing on the relationship between the individual dimensions of service quality perceptions and customer loyalty, Zeithaml *et*

al. (1996) and Bloemer *et al.* (1999) suggested that it would be of both theoretical and managerial interest to see how service quality and service loyalty are related at the level of individual dimensions, rather than the perspective of their overall assessments. Thus, on the basis of theoretical and empirical justification in favour of the above relationship, a research model was conceptualized as shown in Figure 1.

Research Methodology

Objectives

- To determine customer perceived service quality at Indian rural banks.
- To examine the contribution made by each SERVPERF dimension in predicting customer's loyalty.
- To fit the proposed model into empirical data in order to draw statistical inferences.

Keeping in mind the primary objective of the study, the following hypotheses were formulated:

- H₁₋₅: Service quality dimension (1) *Tangible*, (2) *Reliability*, (3) *Assurance*, (4) *Responsiveness* and (5) *Empathy* has a significant, direct and positive impact on overall service quality.
- H₆: '*Tangible*' has significant, direct and positive relation with loyalty.
- H₇: '*Reliability*' has significant, direct and positive relation with loyalty.
- H₈: '*Assurance*' has significant, direct and positive relation with loyalty.
- H₉: '*Responsiveness*' has significant, direct and positive relation with loyalty.
- H₁₀: '*Empathy*' has significant, direct and positive relation with loyalty.
- H₁₁: '*Overall service quality*' has a significant, direct and positive impact on loyalty.

The Research Instrument

In line with the recommendation of Jain & Gupta (2004), Kumar & Gulati (2010), Adil & Khan (2011) and Khan & Adil (2011), SERVPERF instrument developed by Cronin & Taylor (1992) was adopted and used in the present study. The research instrument consisted of structured questionnaire and the respondents were required to indicate their level of agreement with the help of a seven-point Likert scale where 1= Strongly Disagree and 7= Strongly Agree.

Initially, the research instrument was developed in English and given independently to three subject experts from the subject area to obtain feedback regarding the content, layout, wording and ease of understanding the measurement items. In general, the comments were positive with some suggestions which were taken into account while revising the questionnaire to ensure content validity. The English version of the research instrument was later translated into Hindi which is commonly spoken in Uttar Pradesh (area where the respondents were located). As an additional precaution, the Hindi version was first pre-tested on a representative sample of 10 customers of rural banks; and further tested for originality by “*back-translation*” method (McGorry, 2000).

Pilot Test

During pilot administration of the questionnaire on 36 rural respondents, it was observed that some of the respondents were randomly indicating their responses on the traditional ‘grid’ that is generally placed alongside the items of the scale. Thus, to increase the reliability of the responses it was decided to request the respondents to indicate their level of agreement by writing the appropriate scale point (for literate respondents) in the research instrument or the same was shared with the researchers (for semi and illiterate respondents).

The Sampling Plan

The '*population*' of interest for the present study comprised all villagers of India. However, as it was not feasible to cover each village of the country, it was decided to select Uttar Pradesh (U.P.) state as a useful starting point. A sample frame comprising 71 districts of U.P. was generated from the *Provisional Population Totals* section of Census of India (2011) with unique district code assigned to each of them. Three districts were randomly picked with the help of random number generator module of IBM SPSS 21.0. The three districts, thus identified were Aligarh (code 12), Kanpur (code 33), and Allahabad (code 44). Due care was taken while administering the questionnaire in order to prevent bias from the point of view of any particular demographic group as also a particular bank. Absence of a reliable sampling frame necessitated the adoption of a non-probability based purposive sampling procedure for the current study (Adil, 2012; Adil, 2013a; Adil *et al.*, 2013a).

Data Collection

The data were collected from August to November, 2011. The Hindi version of the questionnaire was personally administered on roughly 450 respondents having their bank accounts in designated rural bank branches located around Kanpur, Aligarh and Allahabad city. The researchers made it a point to personally fill up the questionnaire in case of the illiterate respondents after explaining to them the purpose of the study and questionnaire's content. In all, 406 completed questionnaires were returned; of these 394 responses were found suitable for further analysis giving a satisfactory response rate of 87.5 percent. The rest of the questionnaires had to be discarded as they were incomplete in various respects such as missing information pertaining to critical questions.

The demographic profile of the respondent shows that out of the total sample size of 394

participants, majority were male 232 (59.0%), young adults (44.4%) and single (67.4%). 150 (31.0%) respondents were between the age brackets of 20-30. Almost 53% respondents belonged to student community, 19.2% to business class while about 13.9% were farmers.

Analysis & Discussions

Exploratory Factor Analysis (EFA)

As shown in Table 1, pre-analysis testing for the suitability of the entire sample for factor analysis was computed as recommended by Kratepe *et al.* (2005), Khan *et al.*, (2013), Khan & Adil (2013). The Kaiser-Meyer- Olkin measure of sampling adequacy was above 0.500 for all the dimensions and the Bartlett's test of sphericity was significant at $p=0.001$. Consequently, factor analysis was conducted on SERVPERF using principal component method and varimax rotation. On the basis of Hair *et al.* (2006) study criterion, factors with eigen values greater than 1.0 and factor loadings that are equal to or greater than 0.50 were retained. In all 13 items loaded cleanly onto the five dimensions of service quality as suggested by Cronin & Taylor (1992). Nine items were dropped altogether due to high cross loadings, creating sub-constructs or failed to load on their respective latent variables.

Performance Mean and Standard Deviations

As is evident from the Table 1 that on a 7-point scale performance mean scores of all the five dimensions of service quality were on the higher side (i.e. in positive) meaning thereby that respondents perceived high level of service quality across all the five dimensions. Highest importance was attached to *tangibles* dimension (5.08) followed by *responsiveness* (5.01). Least mean score emerged out to be on *empathy* dimension (4.83) meaning thereby that bank has to take a serious note of this and put an extra effort in enhancing empathy at their premises.

Standard deviation (SD), across all the five dimensions, ranged between 0.97 (assurance) and 1.23 (reliability) which is considered to be within the permissible range.

Table 1
Results of Exploratory Factor Analysis

Variable	Loading ^a	KMO	α^b	Loading ^c	Mean	S.D.	Variance Explained (%)
TANGIBILITY		0.663	0.694		5.08	1.08	49.8%
Up-to-date equipment	0.675			0.735			
Neat Employees	0.386*			X ^d			
Physical Facilities	0.652			0.820			
Visual Service Material	0.551			0.806			
RELIABILITY		0.500	0.613		4.80	1.23	46.3%
Provides services at promised time	0.643			0.803			
Bank provides services as promised	0.671**			X			
Error free records	0.647**			X			
Service right at the first time	0.727			0.803			
Solving customer's problem	0.505*			X			
ASSURANCE		0.500	0.639		4.88	0.97	48.1%
Trustworthy	0.587			0.801			
Safe in Transaction	0.772			0.801			
Courteous	0.352*			X			
Knowledgeable	0.373*			X			
RESPONSIVENESS		0.687	0.779		5.01	1.05	39.3%
Prompt service	0.687			0.792			
Customer request	0.610			0.805			
Tells in advance	0.648			0.727			
Willing to help	0.457**			X			
EMPATHY		0.743	0.693		4.83	1.13	39.8%
Individual attention	0.320*			X			
Specific needs	0.665			0.678			
Personal assistance	0.717			0.989			
Operating hours	0.402**			X			
Best interest	0.790			0.880			
LOYALTY		0.500	0.837		5.13	0.92	68.7%
First choice	0.832			0.832			
Recommendation	0.815			0.815			

Key. *a* = factor loading of all items. *b* = Cronbach's alpha coefficient. *c* = factor loading of retained items only. X= item dropped. *= item deleted in first run. ** = item deleted in second run

Reliability

A scale is considered to have good reliability if it has an alpha value greater than 0.60 (Schuessler, 1971). As evident from the Table 1, the reliability coefficients of all the five dimensions were between 0.613 to 0.779 and thus, were within the acceptable range of 0.6, while alpha value in case of loyalty was quite high (0.837).

Construct Validity

Construct validity involves the measurement of the degree to which an operationalization

correctly measures its targeted variables (O’Leary-Kelly & Vokurka, 1998; Seth *et al.*, 2008). According to O’Leary-Kelly & Vokurka (1998), establishing construct validity involves the empirical assessment of unidimensionality, reliability, and validity (convergent and discriminant validity).

Convergent Validity

Convergent validity is the degree to which multiple methods of measuring a variable provide the same results (O’Leary-Kelly & Vokurka, 1998). It can be established using a coefficient called Bentler-Bonett coefficient (Δ). Scale with values $\Delta \geq 0.90$ shows strong evidence of convergent validity (Bentler & Bonett, 1980). The values for Δ are summarized in Table 2. All the five dimensions had a value of more than 0.90, thereby demonstrating strong convergent validity.

Table 2
Results of Bentler-Bonett Coefficient and Comparison of Models

Dimensions		Bentler-Bonett Coefficient (Δ) ² <i>Convergent</i>	Comparison of Models	Discriminant Model		
				Model 1	Model 2	Model 3
Tangibles	TAN	0.983	χ^2	186.91	91.05	80.63
Reliability	REL	0.969	<i>df</i>	35	24	21
Assurance	ASU	0.918	Difference of χ^2	186.91 – 91.05	–	–
Responsiveness	RES	0.906	Difference of χ^2	–	91.05 – 80.63	–
Empathy	EMP	0.990	Difference of <i>df</i>	35 – 24	–	–
			Difference of <i>df</i>	–	24 – 21	–

Note. Δ of 0.9 predicts strong convergent validity (Bentler & Bonett, 1980).

Discriminant Validity

In order to test the discriminant validity of the present scale, three chi-square comparison models procedure suggested by Seth *et al.* (2008) was adopted. The three comparison models, referred as Model 1, Model 2, and Model 3, are shown in Figure 2. Model 1 comprises a structure consisting of no traits *i.e.* 13 unique factors; Model 2 proposes a structure consisting of a single trait (overall service quality, OSQ) with 13 unique factors. Finally, Model 3 comprises a structure

corresponding to research model that consists of five traits and 13 unique factors. The comparison of chi-square statistic for Model 2 and Model 3 provides support for discriminant validity (refer Table 2).

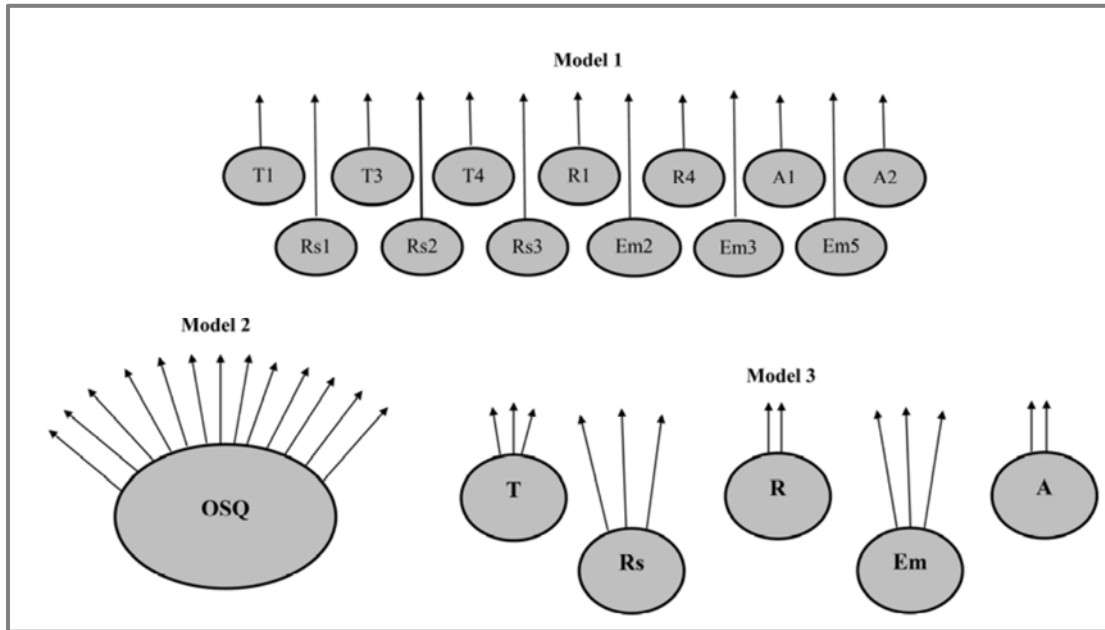


Figure 2. Discriminant validity analysis result

Structural Equation Modeling Technique (SEM)

Since other multivariate techniques such as multiple regression, factor analysis, discriminant analysis etc. suffer from one common limitation of examining only a single relationship at a

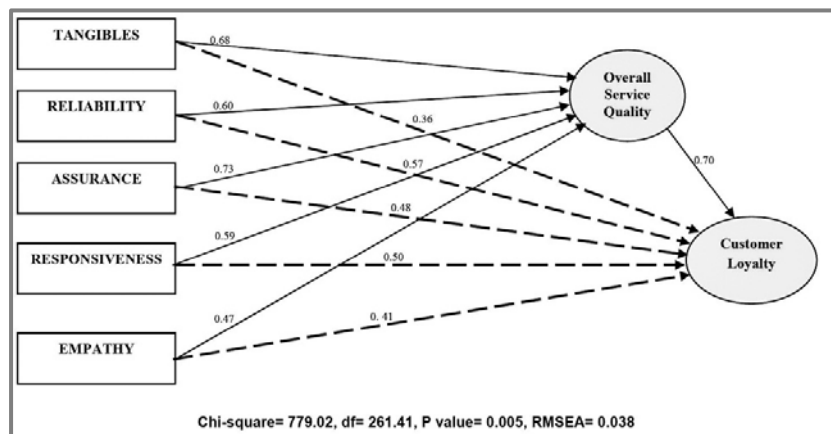


Figure 3. Structural model

time, the technique of structural equation modeling (SEM) is recommended (Hair *et al.*, 2006). The present study used the methodology to assess the measurement model as suggested by Gerbing and Anderson (1988). In this procedure examination of structure of interrelationships are expressed in a series of equation depicting all the relationships among constructs involved in the analysis. The relationship in the proposed research model was, thus, translated into a series of structural equations for criterion variable (see, Figure 3).

Table 3 contains an overall summary of the key fit statistics for the proposed model. Except, the AGFI value which was less than the desired minimum of 0.9 i.e. 0.875, rest of the indices fell within the permissible range. The GFI, CFI and IFI values were higher than required minimum of 0.9, $CMIN/df = 3.693$, $RMSEA = 0.038$. χ^2 values were significant at 2.980 and thus acceptable. The above results suggest that measurement model provides a reasonably good fit. Once the overall model was found acceptable, each of the constructs was evaluated separately by examining the indicator loadings for statistical significance. The results of the analysis show that all standardized factor loadings were over 0.5 (see Table 1) and significant at the $p = 0.01$ level.

Table 3

Fit Indices for SEM

<i>Fit Indicators</i>	<i>CMIN/df</i>	<i>GFI</i>	<i>AGFI</i>	<i>CFI</i>	<i>IFI</i>	<i>RMSEA</i>	<i>χ^2/df</i>
<i>Recommended Value</i>	2.5 – 4.5	≥ 0.90	> 0.90	> 0.90	> 0.90	< 0.08	< 5.0
<i>Observed Value</i>	3.693	0.922	0.875	0.941	0.938	0.038	2.980

Source. Hair *et al.* (2006), Byrne (2001) and Kline (1998)

Key. GFI= Goodness of Fit Index. AGFI= Adjusted Goodness of Fit Index. CFI= Comparative Fit Index. IFI= Incremental Fit Index. RMSEA= Root Mean Square Error of Approximation

Thus, the data structure supported the conceptual model of the study. The standardized factor loadings as presented in Table 1 and the standardized path coefficients of the structural

model in Figure 3 indicated that there existed strong evidence in support of the hypotheses considered for study.

Conclusions & Implications

The present study set out to measure perceived service quality and customer loyalty at Indian rural banks of a developing economy like India and also explored the relationship between the two variables through a conceptual research model. Exploratory factor analysis (EFA) revealed that 22 item standard SERVPERF scale failed in the test of universal applicability due to high cross loadings and that items were creating sub- dimensions, leading to the elimination of nine items. Thus, the original scale was reduced to 13 items giving five dimensions in Indian rural context. The five dimensions were explanatory variables in predicting customer loyalty.

For structural equation modelling technique, previous researchers have advised that areas of greater focus should typically be CMIN/*df*, GFI, AGFI, CFI, RMSEA, χ^2/df , composite reliability, variance extracted, convergent and discriminant validity and finally, coefficient alpha. Thus, the more robust model with five dimensions and 13 items was found to be possessing better fit indices and hence satisfactory psychometric properties. The dimensions identified in this study were retained as it is from the existing SERVPERF scale, as past study suggests that there may be some potentially universal facets of service quality that, perhaps, we may not need to develop specific measures from scratch for each context (Kratepe *et al.* 2005

Table 4 shows the standardized path coefficient of each construct along with their respective level of significance and critical ratio. The standardized paths coefficient were found to be significant and positive at $p < 0.001$ and $p < 0.005$. Critical ratio ranged from 12.561 and 4.826 which was greater than prescribed limit of 1.96 (Hair *et al.*, 2006) and thus indicated

satisfactory support for hypotheses H0₁ to H0₁₁.

Table 4

Results of Model and Hypothesis Testing

<i>Hypothesis</i>	<i>Dimensions</i>	<i>β value</i>	<i>P</i>	<i>Critical Ratio</i>	<i>Hypotheses Findings</i>
H ₁	TAN→OSQ	0.68	***	10.824	✓
H ₂	REL→ OSQ	0.60	***	9.936	✓
H ₃	ASU→ OSQ	0.73	***	12.561	✓
H ₄	RES→ OSQ	0.59	***	9.769	✓
H ₅	EMP→ OSQ	0.47	**	6.762	✓
H ₆	TAN→LOY	0.36	***	4.826	✓
H ₇	REL→ LOY	0.57	***	8.662	✓
H ₈	ASU→ LOY	0.48	**	6.938	✓
H ₉	RES→ LOY	0.50	**	7.690	✓
H ₁₀	EMP→ LOY	0.41	**	5.162	✓
H ₁₁	OSQ→LOY	0.70	***	11.234	✓

Notes. (✓) Supported. (X) Not Supported.

= p < 0.005 level (two tailed). * = p < 0.001 level (two tailed)

The identification of significant dimensions of service quality, with varying importance attached to each of them, provides a unified framework from which more focused and synergistic research can be conducted. While much of the previous research has been made taking disaggregated service quality framework, the present proposed model can help in gaining deeper insights into the subject area. It is expected that the suggested framework will help in better understanding of relationship between academic and strategic aspects of service quality and customer loyalty. Thus, the findings of the study, apart from bridging the gap in extant literature, are also expected to provide valuable insights to both academicians and marketing practitioners from banking industry relationship between service quality and loyalty along with measures of service quality and other critical underlying factors in the context of banks operating in rural India.

Limitations & Future Research

First, the limitation associated with this study is that the sample is taken only from a particular region, i.e. selected districts of Uttar Pradesh owing to which generalization of the findings should be done with caution. Secondly, the sample size is 394, which also in some way a small number in contrast to the actual number of bank patrons reside in rural India. Future researchers need to examine a wider sample covering rural customers from all walks of life. Thirdly, this study considered the influence of service quality factors on customer loyalty in rural banks. There might be other situational factors such as advertising, satisfaction, re-purchase intention and word-of-mouth recommendation etc. which subsequent empirical research should look at the impact of these factors on customer loyalty. Lastly, the results obtained through the study relate to only those respondents chosen through researcher controlled sampling, hence this study should be seen as giving a direction for future research and generalization from this study to a wider population of rural banking industry should be done with some caution.

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