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An Empirical Study on Antecedents of Perceived Service Recovery Quality in E-banking Context

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Abstract

The wide usage of IT enabled options for service delivery has increased the occurrence of irrepressible service failures in the contemporary banking landscape. The enhanced service quality levels exhibited by the dedicated employees suffer badly due to ever-increasing number of tech-driven service failures. The purpose of this study was to examine the linkages among constructs such as perceived service quality, perceived organizational service orientation, perceived automation quality, perceived employee proficiency and perceived service recovery quality to recovery satisfaction in the E-banking context. This investigation examined the moderating role of perceived initial negative feelings of the customer due to service failures, on recovery satisfaction. Data collected from 248 banking customers were analyzed by structural equation modeling approach using, Smart PLS 2.0 M 3, software to identify significant linkages among variables under study. Apart from perceived employee proficiency, all other variables significantly developed perceived service recovery quality leading to recovery satisfaction. Initial negative feelings from a service failure failed to cause significant moderating effect on post

recovery satisfaction. The most disturbing service failures in the automated service delivery environment was identified as technical failures such as delay in online transactions, issues related to ATMs and interrupted connectivity. The study could establish that excellent service recovery quality develops service recovery satisfaction and customers gain more confidence in the bank and perceive higher value in their association with the bank.

INTRODUCTION

The banking sector is one that has undergone vibrant changes in all forms of customer service. The recent trends indicate a paradigm shift from widening the customer base to developing innovative strategies for minimizing customer defections. Service failures are omnipresent in every service setting and their frequencies are increasing due to over dependence on complex technological platforms for effective and fast service delivery. The emergences of tech-driven initiatives have created a wide spectrum of system related service failures. In addition, in many such exigencies, the service provider has limited control and hence effective service recovery strategies become critical in recouping customer satisfaction. Empirical evidences are available to conclude that service failure has adverse impact on customer loyalty intentions [1] customer satisfaction [2-6] and profitability of the service firm [7,8]. It is widely believed that cost to create a new customer is almost five times more than keeping existing customer satisfied [9] and therefore proper response to service failures are essential for customer retention [10].

Even when, firms adopt various efforts to improve service delivery and service quality standards [11] they face challenges in guaranteeing effective response to service failures. The classic SERVQUAL model [12] viewed service quality as a function of the gap between expectation and perceptions of the customer along certain quality dimensions. A major gap conceptualized in the SERVQUAL model dealt with service delivery and that occurs when conformity with service standards are not met. The service delivery gap is synonymous to service failure in the perspective of a customer and has the potential to re-define the service quality perceptions considerably. A sudden drop in customer satisfaction may result from a service failure. Service recovery refers to the actions taken by service provider in response to a service failure and these actions provide an extra opportunity for the service provider to recoup satisfaction, even to a higher level than would have been in the absence of a service failure. Literature support is available for factors such as compensation, employee behavior, promptness

[13-16] perceived managerial attitude and work environment perception [17] apology, recovery speed and recovery initiation [18] etc. to significantly influence service recovery performance. Such service recovery initiatives of a service firm create "moments of truth" and provide a unique opportunity for the customers to recognize the value of service offered by firms. Hence, a new perspective for research, to concentrate on customer's reactions to service failures and their satisfaction with service recovery strategies, has emerged. This paper is an effort in such a direction.

In contemporary banking context, three types of service encounters such as, the direct personal encounter, the indirect personal encounter and the remote encounter with no human interaction are used individually or in combination. Empirical research on service encounters were largely focused on personal encounters between the employee and customers [19] and a more detailed research, where both indirect and remote personnel involvement, are limited in the Indian context. Although prior research has comprehensively examined the impact of perceived service quality on satisfaction and behavioral intentions of a customer, only little effort to conceptualize service recovery quality as a different construct. Again, identifying the impact of perceived service recovery quality on satisfaction and loyalty will significantly help in understanding the consumer behavior in the context of a service failure. Perceived service quality overrides service recovery quality and the latter forms a natural consequence of the former. The multi-dimensional structure of perceived service quality construct, offer sufficient freedom to introduce a new dimension that can account for recovery effectiveness of service providers. However, the author prefers to differ from the above view and is inclined to consider both as different constructs with a significant causal linkage, especially in E-banking context.

The five dimensional structure containing tangibles, reliability, responsiveness, assurance and empathy [12] of service quality, effectively capture the perceptions of customers regarding routine activities related to a service process. A service failure and related recovery process are not part of routine activity performed by regular approaches. The nature of service failure and efforts for recovery are issue - specific that demands specialized attention and distinct skills from the service personnel. The ability of service provider to perform such procedures in a limited span of time imparts perception of service recovery quality in the minds of the customer. In addition, evaluating the service recovery ability of the firm purely based on overall service quality perceptions of the customer, may be catastrophic to the firm in their endeavor for competitive advantage. The critical questions posed to service providers in this scenario are 1. Whether the classical customer perceived service quality paradigm is sufficient to capture recovery quality perceptions of the customer.

2. Whether the assumption that service recovery quality is an outcome of overall service quality perceived by customer needs further empirical underpinning.

3. Do customers perceive service recovery quality as a different characteristic when compared with overall service quality of the firm?

In view of the above, this study explored perceptions of E- banking customers about service recovery quality after a service failure. The objectives of the study were two-fold.

1. To develop a theory that describes post service recovery satisfaction of banking customers mediated through perceived service recovery quality.

2. To identify certain critical antecedents to customer perceived service recovery quality and to examine their linkage with perceived service recovery construct and service recovery satisfaction among customers in the E- banking context.

LITERATURE REVIEW

Service failures are any service related problems that are real, perceived or combined, that occur during a consumer's experience with a firm [20]. In the perspective of a customer, a service failure implies a real or perceived service related problem [20,21] or certain outcomes that has happened in a service delivery against customer expectations. Every service is considered as a heterogeneous co-process and hence magnitudes of service failures are perceived differently depending on characteristics of individuals involved in service production and consumption [21-23]. The natural consequences of a service failure results in decline of customers' confidence with the service provider [24] and may lead to customer defections. The effective and immediate responses to such failures commonly referred as service recovery and will include all process by which a firm attempts to rectify a service delivery failure [25,26]. Service recovery procedures provides another opportunity for the firm to meet customer expectations and in turn, helps in retaining existing customers [26] and are bound to result in higher levels of satisfaction [27]. The clear understanding about potential areas of service failure in advance, may help the organizations to effectively handle such failures and to initiate service recovery strategies [20,28,29] that will develop loyalty intentions to a higher extent than in the absence of a service failure.

Service recovery forms an important consideration in assessing technical quality in the perceived service quality model proposed by Gronroos [30]. The SERVQUAL model also narrates the possibility of service failures, perceived as various gaps in the perspective of a customer. Efforts that bridge these gaps results in better perception of service quality. Every gap, pertaining to knowledge (gap between consumer expectation and management perception), specification (gap between management perception and service quality specification), delivery (gap between service quality specification and service delivery) and external communication (gap between performances to promises) are likely to translate

into a customer gap (gap between their expectations and perceptions) which can be perceived as a service failure by customers. Even though causal power of effective service recovery on better quality perceptions and satisfaction [9] has empirical evidences, the reverse linkage between perceived service quality and service recovery quality is worth evaluation for better understanding of the satisfaction framework.

An internal attribute that decides quality of service delivery is service orientation of the firm. Organizational service orientation is similar to the corporate culture concept that describes staff attitudes and behaviors that directly affect the quality of the service delivery process and determines the state of all interactions between an organization and its customers for maintaining quality in service delivery [31]. Service orientation has significant linkages with service quality, image, organizational commitment, and profitability in the banking sector [32]. A useful tool named "Serv*Or" was proposed by Lytle et al. [31] for measuring organizational service orientation. Serv*Or consists of different attributes related to four fields of practices such as service leadership practices, service encounter practices, service system practices and human resource management practices [31]. Organizational service orientation imparts customer centric approach among employees in handling recovery procedures and imparting favorable perceptions about recovery quality to them.

Even though automated service delivery options are increasing with the advent of technology, the human role dominates in front end and backside processes that enable uninterrupted service delivery. Hence individual personal skills, professional preparation, personality traits and many other personal factors affect customers' experiences of quality at service delivery and recovery operations. In the instances of service failure and recovery, employee's proficiency to adapt to the situation effectively [33] and pro-actively responding to customer queries are bound to develop positive perceptions. According to Lytle et al. [31], two critical factors for achieving a high service quality system are technology utilization and dissemination of policies related to service standards throughout an organization. The second factor above emanate from organizational service orientation, whereas the first factor point towards quality of E-infrastructure and its utilization in service delivery process. Customer service orientation was viewed as an essential pre-requisite that every organization should introduce by way of policies, practices and procedures for service excellence [31] and to motivate employees to deliver excellent service recovery [34,35]. The proficiency of the employees in routine work helps them in delivering excellent service and experience in dealing with service failures [34,36,37]. Nearly half of all unsatisfactory service encounters are often due to employees, who lack training or skills to deal effectively with complaining customers [11,35]. The importance of employee skill to maintain human relations with customers who come in direct contact was widely recognized in service recovery efficiency [9,16,38].

The "RECOVSAT" scale developed by Boshoff [13] identified tangibles as a critical factor among 5 other factors such as communication, feedback, explanation, atonement, and empowerment acting as drivers of service recovery satisfaction. The "tangibles" dimension included indicators pertaining to equipment, physical environment and appearance of employees. These indicators point towards technical infrastructure used for service delivery and therefore merit consideration in assessing recovery satisfaction of E-banking customers. The banks are facing diverse challenges in contemporary scenario due to their over dependence on remote service delivery options supported by technology platforms. Technological innovations have altered the landscape of customer-firm interactions and adequate policies and procedures to monitor and maintain such automated service delivery channels emerge as key criterion in evaluating service recovery quality. Even though widespread usage of technology created value perceptions to customers [39], it has increased the occurrence of service failures. There are generally four types of problems such as technology failures, process failures, system architecture deficiencies, and customer-driven failure [40] in the E-banking context. The recovery strategy may vary in each of the above situations and fast responses to such problems will increase the trust in service provider and develop service recovery satisfaction.

Literature explains various strategies adopted by organizations to achieve successful service recovery. Timely information about the service failure and then immediate response to it are viewed positively by the customers [23,41]. The communication about service failure and information about alternative options for emergency services, largely, prevent customer dissatisfaction. Andreassen [42] observed that satisfaction with service recovery is a function of 1) negative affect caused by initial service failure, 2) expectations of service recovery, 3) perceived quality of service recovery, 4) disconfirmation of expectations, and 5) perceived fairness of outcome of service recovery, i.e. equity. The concept of Service Recovery Paradox explains the transformation of a potential reason for customer dissatisfaction to a means for enhanced satisfaction by performing service recovery to the satisfaction of the customers. The paradox that post-failure satisfaction exceeds pre-failure satisfaction [43] by delivering excellent service recovery will offer the required motivation for the service provider to design and implement strategies to strengthen customer trust. Craighead et al. [29] have observed that the major antecedents of service recovery included the customer's degree of loyalty prior to the service failure, their perception of quality, the severity of the failure, and the service guarantee offered by the firm.

Keeping above observations in the backdrop, this study attempts to identify relative importance of certain antecedents on service recovery quality and to examine its linkage with service recovery satisfaction of the customer in the E-banking context.

THEORY DEVELOPMENT

The customer reaction to a service failure results in a sudden drop in satisfaction levels. However, effective recovery strategies provide an extra opportunity to the service provider to recoup satisfaction to a higher level than in the absence of a service failure. The positive perception of service recovery quality is likely to mediate service recovery satisfaction. However, certain service related attributes contribute perceived service recovery quality significantly. Nili [44] proposed that information quality (i.e., quality of the information the individual consumer receive through interaction with customer service staff), channel quality (quality of the channel of interaction that the consumer prefers to use), multi-channel interaction quality (quality with regard to effective mix of multiple channels of service delivery), and quality of staff performance (quality of employees in terms of their competence, integrity, commitment and empathy) are major antecedents of e-service recovery quality. These attributes become employee proficiency dimension and automation quality dimension of the service provider. The organizational service orientation acts as an important driver in such quality perceptions, developed from dimensions pertaining to employees and technical infrastructure. The service quality perceptions of the customer from prior experiences with the service provider also act as an important antecedent in this framework.

This study considered four antecedents such as customer perceived service quality, perceived organizational service orientation, perceived employee proficiency and perceived automation quality to service recovery quality. The following theoretical model as illustrated in Figure 1 explain research perspective. The initial negative feelings generated in the minds of the customer moderates the satisfaction feel developed from recovery quality. The hypotheses to be tested were about the relations between constructs in the model.
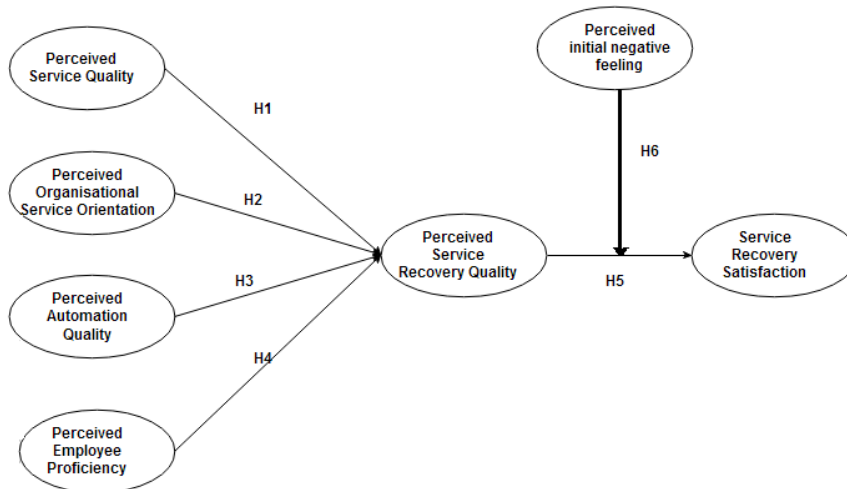

Figure 1: Theoretical Model

Experiences of the customer with the service provider results in multiple "moments of truth" about quality of service received. Service encounters profoundly influence customer perception about service quality and satisfaction [45]. This includes all features of service with which a consumer interact, from personal to physical facilitations, or even non-human interactions [46]. High levels of routine service quality offered by the service provider will certainly develop confidence in the minds of the customer and develop trust in the recovery efficiency of the service provider. Hence, the following hypothesis was proposed.

H1: There is a significant relation between perceived service quality and perceived service recovery quality.

The organizational service orientation narrates enduring organizational policies, practices and procedures to support and reward service-giving behaviors that create and deliver service excellence [31]. Organizational service orientation consists of fundamental elements that cover four crucial delivery fields of service such as service leadership practices, service encounter practices, service system practices, and human resource management practices [31]. Customer perceptions about positive aspects related to these attributes develops trust and favorable feel towards service recovery procedures. Hence, the following hypothesis was proposed.

H2: There is a significant relation between perceived organizational service orientation and perceived service recovery quality.

Empirical evidences are available to substantiate the importance of employees in delivering excellent service and following customer satisfaction [13]. However extra proficiency in certain key domains other than those required in routine customer contact points will certainly help in improving recovery performance in instances of service failure. These proficiencies include ability to understand the nature of service failure and to instill confidence in customers. Hence, the following hypothesis was proposed.

H3: There is a significant relation between perceived employee proficiency and perceived service recovery quality.

The perceptions about 'up to date' technology and user-friendly features always impart a feeling of quality about the E-infrastructure of the firm. In remote service delivery applications, the network quality, speed, safety features and easy maintenance aspects of the IT-infrastructure forms [44] a major antecedent to service recovery quality. Hence, the following hypothesis was proposed.

H4: There is a significant relation between perceived automation quality and

perceived service recovery quality.

Lii et al. [47] had found that proper service recovery develops positive disconfirmation and thus, become satisfied with the service provider. Post-failure satisfaction [43] an outcome of good service recovery and was found to be more than the satisfaction in the absence of a service failure [48]. However, this study has only attempted to examine the linkage between perceived service recovery quality and recovery satisfaction, and enquiry into service recovery paradox was not included. Hence, the following hypothesis was proposed.

H5: There is a significant relation between perceived service recovery quality and service recovery satisfaction among customers.

In this study, it was assumed that the initial negative feelings developed in the minds of the customer due to a service failure has the potential ability to moderate the linkage between perceived service recovery quality and service recovery satisfaction. Hence the following hypothesis was proposed.

H6: perceived initial negative feelings of the customer will significantly moderate service recovery satisfaction among customers.

EXPLANATION OF CONSTRUCTS AND THEIR MEASUREMENT STRATEGY

The most popular concept for measuring latent variables is by usage of observable reflective indicators that act as manifestations of latent phenomenon [49,50]. However, in many cases, the latent variables are formed by the joint influence of relevant indicators [51,52]. Automatic acceptance of reflective indicators [53] for measurement of latent constructs, in many cases, developed mis-specification [52]. Hence, this study used of more content based, theoretically supported indicators as per C-OAR-SE procedure [54]. This study employed both formative and reflective indicators for capturing the domain of interest contained in the constructs. Table 1 below provides definitions of different constructs used in this study.

Table 1: Definitions of Constructs used in the study

Construct	Definitions
Perceived Service Quality (PSQ)	The quality of service as perceived by the customers of E-banking, on dimensions related to tangibles, reliability, responsiveness, assurance and empathy, based on the strength of past experiences with the service provider.

Perceived Organizational Service Orientation (PSOR)	The degree to which the customer believes that the service provider has the orientation to offer excellent services through various policy initiatives
Perceived employee proficiency (PEMP)	The degree to which the customer believes in the skills and proficiency of the bank employees in providing quality recovery
Perceived automation quality (PAUQ)	The degree to which the customer believe that the E-infrastructure of the bank is superior and advanced to initiate fast recovery procedures
Perceived Service Recovery Quality (PSRQ)	The quality of service recovery as perceived by the customers of E- banking, in the event of a service failure
Perceived Initial Negative Feeling (PINF)	The level of initial negative feeling developed in the mind of the customer from their experience with a service failure
Service Recovery Satisfaction (R-SAT)	The degree of pleasure or happiness felt by the customer due to an effective service recovery experience

The formative indicators define and cause the latent variable and become antecedents and hence removing one antecedent would alter the meaning of the construct. For reflective measurement models, the indicators need to correlate highly with each other because changes in the latent variable are supposed to cause changes in all respective indicators. For formative measurement models, correlation are not, forbidden, but high correlations between two indicators would suggest that both cover a rather similar aspect and therefore could be redundant. A formative measurement is thus appropriate, using antecedents identified from literature review, to measure the variables of interest. In this study, to measure perceived service quality, five formative indicators pertaining to five facets of service quality such as tangibles, reliability, responsiveness, assurance and empathy [12] are used. On a similar logic, the construct of perceived organizational service orientation were measured using four formative indicators related to leadership practices, service encounter practices, service system practices, and human resource management practices [31]. The construct of

perceived service recovery quality was conceptualized as a formative one, having indicators pertaining to four different aspects of quality perception related to service recovery processes. For all other constructs, face and content validated reflective indicators were used. The details are elaborated in Appendix-A.

The purpose of this study was to analyze causal relationships between constructs mentioned above. Structural equation modeling is a statistical technique for testing and estimating causal relationships based on statistical data and qualitative causal assumptions. The decision to introduce formative indicators for measuring some of the constructs used in the study, necessitated the use of variance-based PLS (Partial Least Squares) for analysis because of its added capabilities to handle both formative and reflective indicators [55].

RESEARCH METHODOLOGY

The Research had two phases. The first phase was explorative in nature, ending with finalization of theory to be tested. A preliminary study conducted in this stage by way of interviews with experts to verify the relevance of indicators identified for measuring different constructs. The respondents were met in person and responses were collected after clarifying all doubts about the purpose of the study. This step helped in avoiding misinterpretation of the questions that may ultimately produce bias in responses.

Data from 248 respondents collected using a structured questionnaire in the second phase. The questionnaire was in three parts. The first part explained the purpose of the study. The second part requested respondents to furnish their personal details. The third section contained a detailed explanation about the inclusion of each set of questions. The questionnaire contained closed – ended questions, where the respondents have to make their response in a 5-point Likert scale, varying from "Strongly disagree" to "Strongly agree". A crosssectional study among State Bank of India customers in Cochin area of Kerala state in India was opted. The population included all E-banking customers of State Bank of India in the area. The sample selection was from the list of E-banking customers collected from different branches of the bank on a random basis. However, on enquiry, if the respondent had insufficient understanding about the topic of study, or had no experience of a service failure, he/she was excluded. To get usable responses of 248, a total of 325 persons were met. 78.1% of the respondents were male. 16.1% of the respondents were in the age group less than 20, 32.1% were in the age group 20-35, 36.2% were between 36-50 and 14.5% were above 50 yrs. 2.9% of the respondents were having length of association with their bank for less than 1 yr, 10.3% were between 1 yr and 3 yr, 16.6% were between 3 yr and 5 yrs and 70.1% were having above 5 yrs association. The average length of E-banking association of the respondents was 2.6.

DATA ANALYSIS

A partial least squares (PLS) path-modeling algorithm helped to identify the relationships between the constructs. Like covariance based structural equation modeling (CBSEM), PLS is a latent variable modeling technique that incorporates multiple dependent constructs and explicitly recognizes measurement error. However, unlike CBSEM, PLS is far less restrictive in sample size requirements or its distributional assumptions and does not require normally distributed data [56]. Smart PLS.2.0 M3 was found ideal for two important reasons as 1) it allows for estimation of both measurement model and structural model simultaneously and 2) it can handle both formative and reflective constructs together.

The significant indicators that measure the latent constructs were identified by bootstrapping procedure using 200 sub samples. The procedure resulted in elimination of one formative indicator pertaining to perceived organizational service orientation and one reflective indicator pertaining to perceived automation quality as "t" values were below the threshold limit of 1.96 for significance at 0.05 levels. The estimation of the resultant model having significant indicators by running PLS algorithm was conducted in the next stage. The estimated model is presented in Figure 2 and significance statistics are presented in Figure 3. All paths with "t" values more than 1.96 are treated as significant at 5% level and 1.65 were considered significant at10% level.
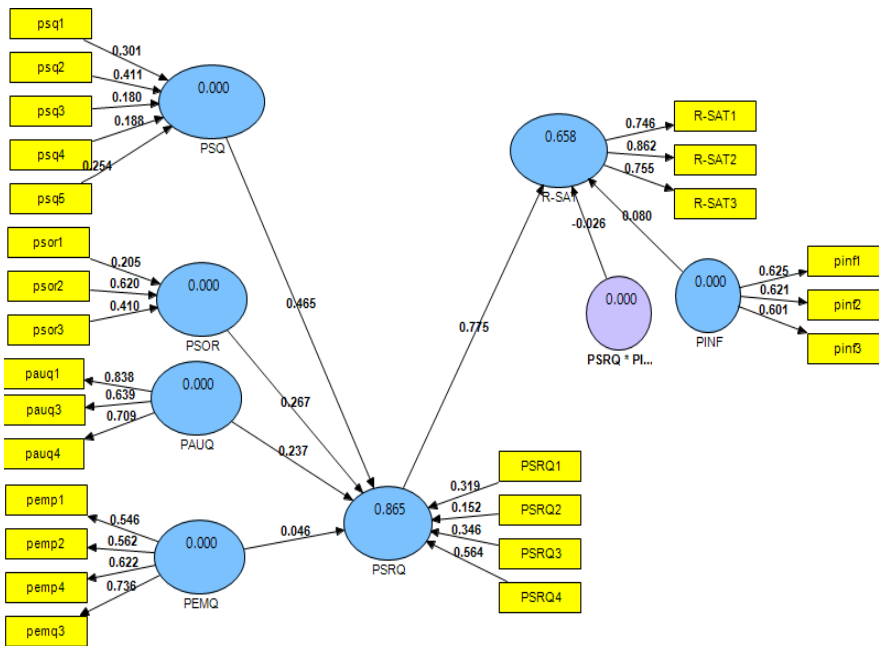

Figure 2: Standard Regression Co-Efficient of Significant Paths (Smart PLS output)

PLS path modeling, demands assessment of outer model i.e. the measurement models before proceeding to evaluate the structural model. Different criteria are suggested in PLS approach for assessing reflective constructs and formative constructs. Table 2 below provides criteria adopted for assessing reflective constructs.

Table 2: Criterion for Assessing Reflective Constructs (compiled by the author)

Criterion	Condition
Composite reliability	>0.7 (Nunnally & Bernstein,1994)
Indicator reliability	Standardized outer loadings should be >0.5(Hulland,1999)
Average variance extracted (AVE)	>0.5 (Fornell and Larcker, 1981)
Fornell-Larcker criterion	In order to ensure discriminant validity, the AVE of each latent variable should be higher than the squared correlations with all other latent variables
Cross-loadings	An indicator should not have higher correlation with another latent variable than with its respective latent variable (Chin, 1998)

Verification of quality consideration from the Smart PLS 2.0 M3 output revealed that the composite reliability of all reflective constructs were more than 0.7, demonstrating high levels of internal consistency. In addition, Convergent validity could be established as 'AVE' value for all the reflective constructs were above 0.5. The discriminant validity was established as Fornell-Larcker [57] criterion was met, as an indicator's loading on a construct was found higher than any of its cross loadings with other constructs. The indicator reliability was established since all the indicators were loading above 0.5 and no significant crossloadings were noticed. These observations confirmed adequate quality for all reflective constructs used in the study.

The concepts of reliability (i.e. internal consistency) and construct validity (i.e. convergent and discriminant validity) are not meaningful in the case of formative constructs [58,59]. It is the assumption of errorfree measures that renders the question of indicator reliability irrelevant [60] and that content and face validity

should be considered critical. The examination of the validity of formative indicators was assumed due to theoretical rationale [54] and on the strength of procedures adopted for face and content validation. The verification of significance of the estimated weights of formative indicators and absence of multicollinearity further supports the quality considerations in this regard. In this study, all formative indicators used in the estimated model were significant with "t" values more than 1.96 (Figure 3). In addition, the variance inflation factor (VIF), an indicator of absence of multicollinearity, was found less than the threshold limit of 3.3 [61], for all formative indicators, establishing required validity criteria for further analysis of the structural model.
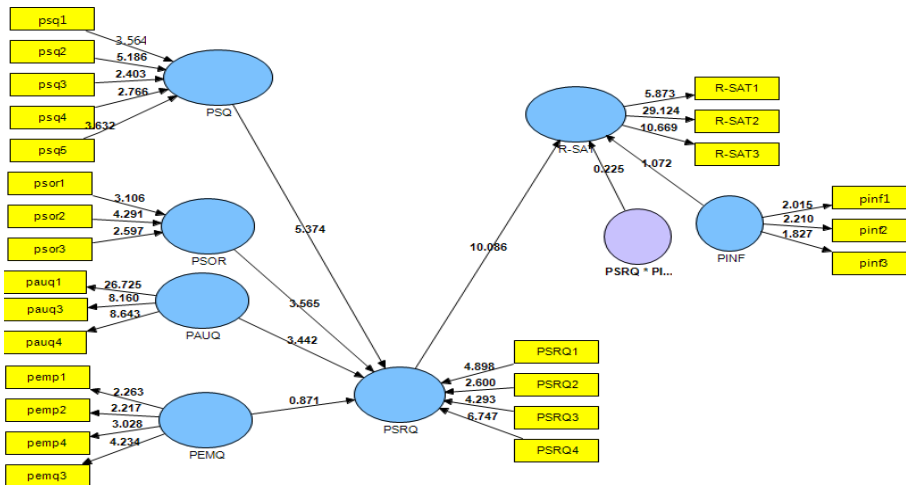

Figure 3: Significance Details of Indicators and Hypothesized Paths (Smart PLS output)

The structural model evaluation in PLS is based on predictionoriented measures that are non-parametric [62]. The PLS structural model is mainly evaluated by Goodness-of-Fit (GoF) [63] and by using the Stone-Geiser Q-square test for predictive relevance. Goodness-of- Fit judges the overall fit of the model and is calculated as the geometric mean of the average communality and the average R2 (Table 3). In this study, the obtained GoF value was 0.620 (GoF=√0.505*0.761=0.642) that exceeded the cut-off value of 0.36 for large effect sizes of R2. The comparison was made with the baseline values of GoF (small =0.1, medium =0.25, large =0.36) as suggested by Wetzels et al. [64] which provided evidence of adequate model validity.

Table 3: Goodness-of-fit parameters to assess quality of structural model

	Communality	Redundancy	R square
PAUQ	0.538057		
PEMQ	0.385592		

PINF	0.379128		
PSOR	0.594019		
PSQ	0.549213		
PSRQ	0.469004	0.166678	0.865478
PSRQ*PINF	0.183869		
R-SAT	0.622978	0.025765	0.658008

The predictive validity of the model was assessed using Stone– Geisser non-parametric test [56,61] by running the blindfolding procedure incorporated in Smart-PLS with an omission distance G=25. Blindfolding procedures remove some data based on omission distance and then estimate them as missing values and the procedure is repeated until every data point has been ignored and estimated. In PLS, two kinds of Q- square statistics such as, cross-validated communality and cross validated redundancy are estimated. The cross-validated redundancy measure can be a reliable measure of the predictive relevance of the model under investigation [57]. Positive values of these measures are considered as signs of predictive validity [57]. The results indicated positive cross-validated communality and redundancy establishing required predictive validity of the model (Table 4).

Table 4: Cross validated Communality and Redundancy (extract of Smart PLS 2.0 output)

Construct Crossvalidated Redundancy

Total	**SSO**	**SSE**	**1-SSE/SSO**
PSRQ	324.000000	189.314303	0.415697
R-SAT	243.000000	143.862058	0.407975

Construct Crossvalidated Communality

Total	**SSO**	**SSE**	**1-SSE/SSO**
PAUQ	243.000000	104.731720	0.569005
PEMQ	324.000000	191.451926	0.409099
PINF	243.000000	150.582314	0.380320
PSOR	243.000000	93.449937	0.615432
PSQ	405.000000	181.573036	0.551672

PSRQ	324.000000	200.277634	0.381859
PSRQ*PINF	972.000000	783.436633	0.193995
R-SAT	243.000000	86.382352	.644517

In Partial Least Squares (PLS) method, structural model and hypothesis were tested by computing path coefficients (β). The first item that PLS provides to determine how well the model fits the hypothesized relationship is, the squared multiple correlations (R2) for each dependent construct in the model. The R2 measures a construct's percent variation that is explained by the model [65]. As shown in Figure 2 above, the R2 value of the service recovery satisfaction was 0.658, indicating that 65.8% of the variance in the recovery satisfaction construct is explained by perceived service recovery quality. Also, the R2 value of perceived service recovery quality was 0.865 indicating that 86.5% of the variance is explained by perceived service quality, perceived organizational service orientation, perceived employee proficiency and perceived automation quality. Both values of R2 indicated the significant importance of the predictor variables to the respective criterion variable.

The perceived initial negative feelings were not found to significantly influence the recovery satisfaction of the customer. A positive interaction effect from initial negative feelings of the customer was expected to moderate the linkage between service recovery quality and recovery satisfaction. The results (Figure 2) showed a standardized beta of 0.775 from recovery quality to recovery satisfaction, 0.080 from initial negative feelings to recovery satisfaction, and an interaction effect of -0.026 with a total R-square of 0.658. Thus, these results imply that one standard deviation increase in initial negative feelings will not only impact intention by 0.080, but it would also decrease the impact of service recovery quality on recovery satisfaction from 0.775 to 0.749. The findings cannot be generalized as subsequent bootstrapping procedure could not prove significance at 0.05 level. Details of hypothesis tested are furnished in Table 5 below.

Table 5: Results of Hypothesis Testing

o	Hypothesis	Standard Regression co-efficient	"t" Value	Result
1	PSQ leads to PSRQ	0.465	5.37	supported
2	PSOR leads to PSRQ	0.267	3.56	supported
3	PAUQ leads to PSRQ	0.237	3.44	supported
4	PEMQ leads to PSRQ	0.046	0.87	rejected

| 5 | PSRQ leads to R-SAT | 0.775 | 10.08 | supported |
| 6 | PINF Moderates PSRQ to R-SAT linkage | 0.080 | 1.07 | rejected |

DISCUSSION, IMPLICATIONS AND SUGGESTIONS

The weights/loadings of indicators reveal the importance of each item in determining the associated latent variable. Thus reliability and trustworthiness in the service delivery procedures (β=0.411) are viewed by the respondent as the most important service quality criteria followed by physical aspects (β=0.301). Service encounter attributes (β=0.620) and service system features (β=0.410) impart feeling of organizational service orientation to customers. User friendliness of systems (β=0.838) and proper maintenance of systems (β=0.709) used for E-banking requirements are viewed as most important predictors of automation quality. Even though employee proficiency does not emerge as a significant factor in developing service recovery quality, confidence on handling service failures (β=0.736) and ability to instill confidence among customers (β=0.622) are viewed as important considerations that measures employee proficiency in service failures. Excellence of E-banking infrastructure (β=0.564) and committed personnel for its maintenance (β=0.346) emerged as critical indicators that decide service recovery quality during a service failure.

The service recovery quality was found to have strong association with service quality (β=0.465) when compared with organizational service orientation (β=0.267) and automation quality (β=0.237). The study could establish strong and significant linkage between service recovery quality and service recovery satisfaction (β=0.775). The indicators pertaining to service recovery satisfaction gave valid insights about customer feelings after a service recovery process. The agreement to statements on re-assessment of value delivered by the bank (Mean=4.12) and enhancement in confidence with the bank (Mean=4.36) can be considered as a support to the paradox that an effective service recovery takes customer satisfaction to a higher level than that in the absence of a service failure. Satisfied customers join with the firm for value co-creation by positive word of mouth about the service recovery quality [66,67]. Further customers' intention to future value co-creation efforts (i.e., collaboration activities) is improved if they perceive e-service recovery processes quality satisfactorily [44]. The findings of this research corroborate above observations and support the argument that banks should consider service failures as an opportunity to regain loyalty.

The emergence of automation quality as a significant factor and non-significance of employee proficiency in development of service recovery quality reveals the emerging trends in customer perceptions on service delivery procedures. This finding prolongs further from the evidences that technology interfaces dimensions significantly affect the service quality in retail banking [68] and establish that in service recovery quality also technology play a significant role. The present day customer believes that rather than employee proficiency, the automation quality is more critical for un-interrupted services. A possible explanation for such an outcome may be because about 70% of the respondents were having more than five years of association with the bank and might have a better perception of employee quality. Hence, they may consider automation quality more important in rectifying a service failure. The experts also suggested in the initial stages of the study that most of the customer complaints in the current scenario are related to technical issues and complaints regarding employee behavior and attitude are relatively less. In many occasions, the frontline staff passes on the responsibility of service failures to complexity in technological platforms and expresses their inability to rectify issues immediately. The customers in turn tend to believe that in modern banking context automation quality is more vital. However, importance perceived to organizational service orientation supports the observation that policies and procedures that support behaviors of employees geared toward delivering service excellence forms part of the organizational culture [31] and such an environment will positively influence employee commitment [69] to customer service.

In this study, the respondents ranked some of the common service failures based on the gravity of inconveniences caused to them. Table 6 below illustrates the relative ranks for each type of service failures.

Table 6: Relative ranks of most disturbing service failures

Most disturbing Service failures	Mean Rank	Test Statistics[a]	
Delay in online transactions	3.96	N	248
Inadequate information supplied on request	4.14	df	6
Employee behavior and attitude	4.16	Asymp. Sig.	.046
Internet banking not working	3.78	a. Friedman Test	
ATMs being out of order	3.99		
Interrupted connectivity	3.92		
Procedural mistakes from organization	4.07		

Assigning more importance to factors related to technological aspects rather than conventional employee related issues, confirms the importance of automation quality in E-banking context. The strong agreement to specific questions on service recovery satisfaction supports the paradox that post failure satisfaction is likely to exceed satisfaction in the absence of a failure. Thus the empirical evidences shows that customers are likely to react positively to an amiable service recovery [11] and successful service recovery can improve positive word of mouth, good customer relationship and customer loyalty [70] are further established. The service providers need to maintain and update their E-infrastructure on a regular basis to minimize failures. A perfect co-ordination among technical support team may be viewed as an essential pre-requisite for responding, attending and rectifying service failures at the earliest. Proper communication and quickness in recovery are essential in developing recovery satisfaction and to reverse customer dissatisfaction, if any, developed from initial negative feelings about service failures. A point of relief to service providers, in this context, is regarding insignificant linkage of initial negative feelings with recovery satisfaction. This observation will encourage service providers to develop strategies for better customer orientation by effective communication with customers for guaranteeing recovery satisfaction during service failures.

This study had several limitations including time constraint, geographical coverage and absence of variety in customer demographic profiles. Even though this study introduced a new way to define service recovery quality in a service context, psychographic profile of the customer that develop cognitive competence to analyze various recovery measures were not considered this time. In addition, an effort to identify a universally accepted dimensional structure for service recovery quality and a scale validation for the same can be considered as a potential area for future research.

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