Impact of Service Quality on Customer Satisfaction and Loyalty towards Flexible Management in the German Banking Sector

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ABSTRACT

Background: The introduction of advanced types of banking networks such as Online banking, Automated Teller Machines (ATM), telephone banking, as well as mature capital markets and global competition have prompted bankers to explore the value of consumer loyalty. Top companies know that the path to growth goes through their clients. Therefore, this research focuses on finding the impact of service quality, customer satisfaction and loyalty programs on customer's loyalty in banking sectors of Germany.

Methods: The questionnaire was developed and polled to gather data from 331 clients with bank accounts in various banks in Germany. The five-dimensional model of SERVQUAL (Parasuraman et al., 1988, Kasiri et al., 2017) is used in this paper. Additionally, customer satisfaction was utilized to mediate the influence of service quality on customer loyalty among banking customers in Germany.

Results: We suggested a new model that incorporates the direct impact of technology on consumer satisfaction. Analysis concluded that service quality, consumer retention and loyalty programs are essential aspects that can boost customer loyalty. So banks must concentrate on offering loyalty programs to their loyal consumers.

Conclusion: Analysis suggests that banks should concentrate on enhancing the efficiency of their offerings in order to increase consumer retention and customer loyalty.

Keywords: Service Quality, Customer Satisfaction, Loyalty Programs, Customer’s Loyalty, Banking Sector, Germany
**Introduction**

Effectiveness of a service provider relies on a high-quality relationship with customers that drives customer retention and loyalty (Slack and Singh, 2020, Siddiqui and Sharma, 2010, Jones, 2002, Panda, 2003, & Lymperopoulos et al., 2006). In today’s world, the economy is one of the main issues for the growth of every society, and thus the financial sector plays a crucial role as money is transferred further into the banking sectors (Raju, 2021). Banking is an evolutionary phenomenon that is continually expanding in terms of its diverse operations and roles.

Germany’s financial structure consists of three main components — commercial banks, public sector banks and cooperative banks — differentiated by management and business emphasis.

In comparison to past years, there has been little change in the top group of German savings banks. Hamburger Sparkasse (Haspa) is on top, followed by Sparkasse KölnBonn, Stadtsparkasse München, Frankfurter Sparkasse, Sparkasse Hannover, Mittelbrandenburgische Sparkasse, Sparkasse Pforzheim Calw, Ostsächsische Sparkasse Dresden, and Nassauische Sparkasse (DSGV, 2021).

The classification of German savings banks is only marginally correlated with regional economic dynamics, but it is highly correlated with the size of the population of the majority of metropolitan business districts (Kholiqov Firdavsi & Ramzani, 2017). If the list is expanded by three or four rankings, it almost precisely matches to the list of the biggest German cities (zeb.research 2019). Germany’s number of banks has shrunk dramatically in recent years, falling by 52% since 1995. Consolidation has primarily occurred within the current pillars in order to obtain economies of scale. Consolidation has been the outcome of strain rather than proactive commercial reasons in the savings bank and cooperative sectors in contrast to mergers in the private sector (Torkayesh et. al. 2021).

The success of a service provider is dependent on a high-quality connection with consumers (Panda, 2003), which influences customer satisfaction and loyalty (Jones, 2002) as quoted by Lymperopoulos et al. (2006) and Kasiri et al. (2017). Service quality is an important component of service marketing (Kushwah and Bhargava, 2014). Due to the strong competition in the market, establishing long-term relationships has become a requirement, and customer loyalty has become a growing concern.

In 2018, Landesbanken performed a research to analyze customers’ expectations and satisfaction with the quality of goods and services supplied by banking institutions, which was shared with the industry in order to enhance the sector’s service quality. As a result, the objective of this study is to investigate the influence of service quality on customer relationship management and loyalty.

![Figure 1. The ten largest savings banks in Germany as of December 31, 2019 (by total assets in EUR billion).](image-url)
draw practitioners’ attention to the need of improving service quality in order to decrease customer attrition, and to provide recommendations for improving service quality. The study’s findings aid in determining which aspects of service quality (empathy, reliability, assurance, tangibility, and responsiveness) should be prioritized when developing customer relationship management strategies that persuade consumers to stay longer. This may also aid in the formulation of tactics to keep satisfied consumers (Slack and Singh, 2020).

**Review of Literature**

Once it comes to a dynamic environment, banks need to plan their policies to differentiate them from other industries. This can be done by providing a better quality of service (Kungu, Desta, & Ngui, 2014).

Throughout the twentieth century, banks controlled Germany’s financial system. Furthermore, a series of steps have recently been launched to boost the role of markets within this bank-based financial system, including changes to the law, enhancements in corporate governance, and a pension system transformation (Sigurt, 2019). The greatest for-profit banks, including Deutsche Bank and Dresdner Bank. Throughout the post war period, these banks made the majority of their earnings from the interest rate gap, or the difference between the interest they charged on deposits (mainly from consumers) and the interest they received on loans (most of these were made to the company sector).

Although it is often assumed that reducing the employee-customer contact reduces service quality (Rexha et al, 2003), Mols (1999) discovered that many users of electronic (online) banking have grown even more happy overall with their bank, presumably owing to the availability of a new service delivery alternative. Others (Uppal 2006) claim that fully computerized banks provide superior customer service than partially or non-computerized banks.

Munari, Ielasi, & Bajetta (2013) analysed the organizational and operative evolution of the activities that oversee the customer satisfaction in the banks in Italy. A questionnaire was developed, and 92 banks responded in which they represent 92 percent of total assets of Italian Banks. The findings revealed that customer satisfaction is no longer a staff activity but instead a management activity. It in fact involves top management to define the satisfaction within the staff incentives schemes.

Powers and Jack (2008) examined how healthcare organizations deploy flexible strategies to respond to the demand fluctuations using interviews with hospital administrators and academic medical centers in USA. The results reveal a positive relationship between use of internal flexible strategies, customer satisfaction, and organizational performance.

As previously stated, the deceleration of economic expansion in the 1980s and 1990s (resulting in lower demand for bank loans from businesses) and more competitive pressure among banks led in a shortening of this rate fluctuation. Fee-based revenues, such as investment banking and asset management, is a major alternative to interest-based income for banks. However because these activities, are essentially market-based, and so require expanding financial markets to enhance revenue. As a result, inside the German financial system, these banks became the primary proponents of strengthening markets.; Customer satisfaction has a significant impact on customer loyalty, as demonstrated by the history of improved service efficiency (Sowlati & Paradi, 2004; Carwana, 2002; Caruana et al., 2000). To analyze customer loyalty, the current study utilizes the SERVQUAL indicator. Parasuraman et al (1988) have proposed many criteria for assessing service quality. This scale has undergone a few modifications throughout time, and the measuring instrument is now known as SERVQUAL.

The following are the five components: 1) Tangibles — Physical items such as equipment and other elements of existence. 2) Reliability - Providing consistent services. 3) Responsiveness - An interest in the needs of customers and prompt service delivery. 4) Assurance - The perception of courteous, security, and competence assurance offered by personnel. 5) Empathy — How companies and their staff show that they understand their consumers’ requirements.

**Customer Loyalty**

The effect of satisfaction on loyalty is discussed and evaluated in broad aspects. Many research suggests that, if there is satisfaction, clients are loyal and if clients are disappointed, their loyalty is not assured. in the literature loyalty is defined as a behavioural desire (Heskett et al., 1994). Management should also pay particular attention to the satisfaction of the customer and play a critical role in ensuring the consistency of the service (Akbar and Parvez et al., 2009). Customer Loyalty and satisfaction are greatly influenced by the cooperation of the brand...
name, and customer loyalty and satisfaction are mutually related. If the client is satisfied, his loyalty will raise Colgate et al. (1996). Also, while Levesque and McDougall (1993) suggested that “even if a problem is not solved, approximately half of the customers would remain with the firm”. This might be due to switching costs, a lack of perceived distinction between options, location restrictions on choice, time or money constraints, habit or inertia, and other factors unrelated to loyalty (Bitner, 1990; Ennew & Binks, 1996; Slack and Singh, 2020; Tee, Gharleghi, Chan, 2013).

Service quality

As time progresses, Since the 1990s, many companies have incorporated quality concepts such as Total Quality Management (TQM) and New Public Management (NPM). The primary goal of NPM, for example, is to enhance service quality by using a customer-oriented approach (Yilmaz, Ari, & Gürbüz, 2018; Mwita, 2000). To investigate relative branch efficiency, Wu et al. (2006) uses a combination of data envelopment analysis (DEA) and neural networks (NNs). The DEA technique evolved from relative performance benchmarking in terms of transaction efficiency (service quality) and profitability to performance assessment of banking sector (Manandhar & Tang, 2002, Slack and Singh, 2020).

SERVQUAL, a well-known scale established by Parasuraman et al. (1985, 1988) is the most prominent model for evaluating service quality among general instruments. The following characteristics were mentioned by (Parasuraman et al., 1985; Murari 2018; Shams et al., 2020): “tangibles, reliability, responsiveness, competency, courtesy, assurance, credibility, security, access, and comprehension”. Using a component analysis, Parasuraman et al. (1988) reduced these 10 dimensions to five. A 22-item survey instrument for assessing service quality has been designed based on the five aspects.

SERVQUAL’s five dimensions are as follows:

- **Physical facilities, equipment and appearance of personnel are all tangibles.**
- **Reliability** - The capacity to deliver on a promise consistently and precisely.
- **Responsiveness** - Ability to assist customers and offer fast service.
- **Assurance** (encompassing competence, courtesy, credibility, and security) - Employee knowledge and courtesy, as well as their capacity to inspire trust and confidence.”
- **Empathy** (including access, communication, understanding the customer) - Caring and individualized attention that the firm provides to its customers. Although there has been criticism from some other researchers to SERVQUAL instrument (Johnston, 1995),” However, SERVQUAL is the most commonly used tool for its confirmatory factor analyses. As a result, SERVQUAL has shown to be a cost-effective model that has been used to assess service quality in a variety of service organizations and sectors, including financial institutions (Mc Alexander et al., 1994; Cowling & Newman, 1996; Levesque & McDougall, 1996; Caruana et al., 2000; Caruana, 2002; Sureshchandar et al., 2004; Paswan et al., 2004; Seth et al., 2005; Lymperopoulos et al., 2006; Samadi, Gharleghi, & Syrymbetova, 2015).

Mediation of Customers’ Satisfaction

When customers give priority to areas that encompass the fulfillment of their demands, such as responsiveness, and are less driven to tangible areas, they have a certain sort of action in numerous ways. Bank managers should establish lines of work on which the quality of service is improved to improve customer satisfaction in order to achieve a better rate of service quality (Islam et al., 2021 & Khalid et al., 2011). Perceived service quality is a global decision or mindset surrounding the superiority of the service, whereas satisfaction is linked to a particular transaction (Parasuraman et al., 1988). Customer satisfaction has repeatedly been proposed as the primary factor of loyalty (Lam & Burton, 2006). According to Ehigie (2006), consumer satisfaction and customer loyalty/retention have a substantial positive connection. As a result, in this study, customer pleasure serves as a mediator between service quality and customer loyalty.

Research theoretical model

The theoretical model directing the research is represented in the figure below, which was modified from Agus et al. (2007) and Caruana (2007). This study will look at five aspects of service quality, which were modified from Agus et al. (2007): tangibles, reliability, responsiveness, assurance, and courtesy. This study’s theoretical framework was developed from a number of previous research (Parasuraman et al., 1988; Agus et al.,...
Hypotheses development

Tangibles have been defined as physical facilities, equipment and appearance of personnel (Parasuraman et al., 1988). Issues related to the branches such as access to the facilities, safety and convenience are on tangible basis (Castro, 1997 as cited by Bellini et al., 2005, Pakurár et al., 2019). Thus, the following hypotheses are proposed:

H1: Tangibility is positively associated with customer satisfaction.
H2: Tangibility is positively linked to customer loyalty.
H3: Reliability is positively associated with customer satisfaction.
H4: Reliability is positively linked to customer loyalty.
H5: Responsiveness is positively associated with customer satisfaction.
H6: Responsiveness is positively linked to customer loyalty.
H7: Assurance is positively associated with customer satisfaction.
H8: Assurance is positively linked to customer loyalty.
H9: Empathy is positively related with customer satisfaction.
H10: Empathy is positively associated with customer loyalty.
H11: Technology is positively related with customer satisfaction.
H12: Technology is positively related with customer loyalty.
H13: Customer satisfaction predicts customer loyalty positively.

Research Methodology

The purpose of the study was to consider the impact of service quality on customer loyalty development, as well as the mediating role of customer satisfaction in this connection. To do so, convenience sampling was used, in which data was obtained from a variety of banks using self-administered questionnaires. In this research we use the convenience sampling in situations where additional

Figure 2. Theoretical model of the Impact of service quality on customer satisfaction and customer loyalty.
inputs are not necessary for the principal research, that involves the participants being drawn from a close population group.

The questionnaire was developed and polled to gather data from 331 clients with the ten largest savings banks in Germany accounts in various branches in Germany. The banks were including; Hamburger Sparkasse (Haspa) leads the field, followed by Sparkasse KölnBonn, Stadtsparkasse München, Frankfurter Sparkasse, Sparkasse Hannover, Mittelbrandenburgische Sparkasse, Sparkasse Pförzheim Calw, Ostschäsische Sparkasse Dresden, and Nassauische Sparkasse. A survey was conducted to test the hypotheses generated for this research. The population frame is customers of various local banks in Germany. sample of 331 customers of different banks completed the questionnaires concerning the customer satisfaction and loyalty in banks in Germany. By doing so, this research methodology ensures that the objectives of the research is met and can be assessed.

**Measurements**

In this study, the unit of analysis was the individual, as a customer of the ten banks. SERVQUAL, developed by Parasuraman et al. (1988), was modified as the instrument for measuring service quality, and Caruana’s method for measuring customer loyalty is being used (2002). All questionnaire items were graded using a five-point Likert scale ranging from 1 = “Strongly disagree” to 5 = “Strongly agree.” The survey questionnaire consisted of 33 items split into four sections. The first section contained six quality of service dimensions, of which five were derived according to prior research (Parasuraman et al., 1988; Wong et al., 2008, Hapsari et al., 2017), as well as an additional component, technologies, introduced to the underpinning theory (Ganguli and Roy, 2011, Pakurár et al., 2019).

The surveys were pre-tested with 10 chosen bank customers having branch banking experience. The participants were asked to comment on the questions’ vagueness and organization. The original questions were improved and certain adjustments were made with the support of the pre-test. The questionnaire’s second and third parts, adapted from Mohsan et al. (2011), Customer satisfaction and loyalty were both on the priorities (Vasiljeva, 2021 Grigoroudis et al., 2013). The final section of the questionnaire asked respondents for demographic information. Data was collected from various bank clients using a self-administered questionnaire. At the conclusion of the data gathering procedure, 331 answers were received.

**Results**

The data was verified for, multi-collinearity, autocorrelation, linearity, heteroskedasticity, outliers and normality, before hypothesis testing. The data were found to be linear, normally distributed, and devoid of multi-collinearity, heteroskedasticity, and outliers, all of which might affect the regression findings. Cronbach’s alpha coefficients were calculated for consistency reliability of all variables utilized in the research questionnaire, and the questionnaire was then evaluated for validity and reliability.

The following are the Cronbach’s alpha values: reliability (.85), tangibility (.82), empathy (.81), responsiveness (.81), technology (.89), assurance (.87), customer satisfaction (.87), and customer loyalty (.83). These values were determined to be acceptable, given the Cronbach’s alpha lower limit is .70 (DeVellis, 2003; 2012, Pakurár et al., 2019). All values in our analysis exceeded this criterion, indicating that all items had strong internal consistency.

The regression tests were performed out from the technique indicated by Baron & Kenny (1986), with four different phases of analysis: Step 1: Use customer loyalty as a dependent variable and service quality characteristics as independent variables. Step 2: Using customer satisfaction as a dependent variable and service quality characteristics as independent variables, Steps 3 & 4: Customer loyalty is a dependent variable, whereas customer satisfaction and service quality dimensions are independent variables.

**Respondents Profile**

The questionnaire’s final section gathered demographic data (age, gender, qualification, and occupation). Table 1 shows the demographic characteristics of the respondents. The majority of the sampled individual bank customers are male undergraduate students aged 17 to 26 years old, according to respondent data.

**Descriptive Analysis**

Descriptive statistics are presented in Table 2.
Hypotheses Testing

Impact of service quality on customer satisfaction and loyalty

The theoretical framework’s hypothesized direct links were examined using regression analysis, and the findings of all suggested correlations are presented in Table 3. Overall, the regression data show that all service quality characteristics have a substantial positive and moderate to strong influence on customer satisfaction and loyalty. These findings give strong support for H1 through H13. Empathy, for example, has been proven to have a significant beneficial impact on customer satisfaction (Pearson r value = 0.61, p = .05). Customer satisfaction (r = 0.538, p = .05) and loyalty (r = 0.48, p = .05) are both moderately influenced by technology. Customer loyalty is not influenced more by reliability than by quality. This is perhaps because the German banking system is itself reliable and therefore reliability is not the concern of customers.

According to the tested hypotheses, if a bank’s workers in Germany provide high-quality service in each category, consumer satisfaction with that bank would be high. Customers are more loyal when the quality of service given by bank staff is improved. As a result, hypotheses H1, H2, H4, H5, H6, H7, H8, H9, H10, H11, H12 & H13 are statistically significant (p < .00).

Effect of satisfaction of customers on loyalty of customers

We examined the direct influence of customer satisfaction on customer loyalty before evaluating the data for a mediating effect of customer satisfaction. Table 4.3 shows the regression findings, which demonstrate that customer service satisfaction is a significant predictor of customer loyalty (r = .78, p = .01). It may be concluded that customers who find banking services pleasant are more likely to use them again. Repeated involvement is most often attributable to a customer’s loyalty to a certain product or service. As a result, H13 (customer satisfaction has a positive and large impact on customer loyalty) is approved (Table 4.4).

Mediation of Customer Satisfaction

Following that, we investigated if consumer satisfaction with a product or service can have a mediating impact, which we assessed using Hayes’ PROCESS method (2012;
The findings (Table 4.4) show that customer satisfaction has a moderating impact on the connection between tangibility and loyalty ($r = .10$). Customer satisfaction was also shown to have a mediating impact on the connections between dependability and loyalty ($r = .08$), assurance and loyalty ($r = .10$), empathy and loyalty ($r = .15$), and technology and loyalty ($r = .09$). Reliability is positively linked to customer satisfaction has been rejected through these research.

### Discussion

The findings of this study demonstrate that all components of service quality boost customer loyalty significantly. That is, the procedures of the service quality model enhance customer retention through tangibility, consistency, responsiveness, assurance, engagement, and technology (Sureshchandar et al., 2003, Pakurár et al., 2019, Zhuo, 2019). This inspired businesses (particularly banks) to focus on these characteristics in order to build loyalty. Additionally, customer satisfaction influences loyalty through the five aspects of service quality (tangibility, reliability, assurance, empathy, and technology). These findings are similar with earlier research findings (Glaveli et al., 2006; Ndubisi, 2006, Indimas & Fachira, 2017), which claimed that when these service quality attributes are adopted by employees, they immediately increase consumer loyalty and satisfaction, which leads to their loyalty towards a certain banks. In this research we proposed six dimensions effect on customer loyalty and we discovered customers with higher levels of satisfaction with various level of technology report higher levels of satisfaction with the banking sectors in Germany. These findings indicate that those dimensions continue to be important tools in terms of achieving and maintaining higher levels of customer satisfaction.

When bank employees provide customers with assurance, reliability, and tangibility of service, their experience and engagement with the bank improves, and exceptional experiences lead to customer satisfaction and loyalty. In addition, in line with prior research, this study found a substantial relationship between empathy, customer loyalty, and customer satisfaction (Ndubisi, 2006, Thai, 2016, Indimas & Fachira, 2017). Similarly, technological advancements have an impact on consumer satisfaction and loyalty. These findings are in line with previous research (Ganguli and Roy, 2011; Ehigie, 2006, Pakurár et al., 2019). Customer satisfaction does not mediate the link between responsiveness and customer loyalty, despite the fact that responsiveness directly promotes customer loyalty. When responding to consumer inquiries about goods or procedures, providing immediate responses and superior problem-solving solutions can enhance customer loyalty. Customer satisfaction, on the other hand, has no impact on their loyalty. This conclusion is in direct contradiction to Glaveli et al findings’ (2006). It is critical that banks place a high priority on the establishment of service policies and procedures that respond to consumer demands for high-quality service (Ndikubwimana & Berndt 2016). This might result in better levels of consumer satisfaction and loyalty.

### Conclusions

According to previous studies, service quality has a direct impact on consumer loyalty. However, there is still a

<table>
<thead>
<tr>
<th>Relationship (Direct effects)</th>
<th>Coefficient (done)</th>
<th>S.E (Done)</th>
<th>Hypotheses support</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: Tangibility → customer satisfaction</td>
<td>0.586</td>
<td>0.127</td>
<td>Yes</td>
</tr>
<tr>
<td>H2: Tangibility → customer loyalty</td>
<td>0.473</td>
<td>0.022</td>
<td>Yes</td>
</tr>
<tr>
<td>H3: Reliability → customer satisfaction</td>
<td>0.541</td>
<td>0.029</td>
<td>Not Supported</td>
</tr>
<tr>
<td>H4: Reliability → customer loyalty</td>
<td>0.541</td>
<td>0.028</td>
<td>Supported</td>
</tr>
<tr>
<td>H5: Responsiveness → customer satisfaction</td>
<td>0.526</td>
<td>0.020</td>
<td>Yes</td>
</tr>
<tr>
<td>H6: Responsiveness → customer loyalty</td>
<td>0.508</td>
<td>0.026</td>
<td>Yes</td>
</tr>
<tr>
<td>H7: Assurance → customer satisfaction</td>
<td>0.593</td>
<td>0.019</td>
<td>Yes</td>
</tr>
<tr>
<td>H8: Assurance → customer loyalty</td>
<td>0.553</td>
<td>0.028</td>
<td>Yes</td>
</tr>
<tr>
<td>H9: Empathy → customer satisfaction</td>
<td>0.618</td>
<td>0.015</td>
<td>Yes</td>
</tr>
<tr>
<td>H10: Empathy → customer loyalty</td>
<td>0.510</td>
<td>0.028</td>
<td>Yes</td>
</tr>
<tr>
<td>H11: Technology → customer satisfaction</td>
<td>0.538</td>
<td>0.018</td>
<td>Yes</td>
</tr>
<tr>
<td>H12: Technology → customer loyalty</td>
<td>0.482</td>
<td>0.028</td>
<td>Yes</td>
</tr>
<tr>
<td>H13: Customer satisfaction → customer loyalty</td>
<td>0.673</td>
<td>0.026</td>
<td>Yes</td>
</tr>
</tbody>
</table>
lack in the research that examines various mediation processes in this interaction. Although customer service has been examined for a long time, banks must continue to undertake research in order to keep up with improvements in the banking sector. The goal of this study, which was based on expectation disconfirmation theory, was to see if customer satisfaction mediates the link between service quality and customer loyalty.

The search has highlighted the positive relationship between customer loyalty and the five service quality characteristics of tangibility, reliability, assurance, empathy, and technology in the banking operations of Germany. We had discovered the new model related to technology as a main component in evaluating service quality. We also discovered that Reliability is not positively associated with customer satisfaction (Hypothesis 3 has been rejected). Meanwhile the reliability is positively linked to customer loyalty (Hypothesis 4 has been accepted).

A deeper knowledge of the link between service quality, customer satisfaction, and customer loyalty can help to assure better customer targeting with limited marketing resources. Future studies must include new technology as a component in evaluating service quality. According to this study, Customer satisfaction significantly mediates the relationship between customer loyalty and the five service quality characteristics of tangibility, reliability, assurance, empathy, and technology in the banking operations of Germany. We discovered that responsiveness had a direct impact on customer loyalty, rather than being mediated through customer satisfaction.

Limitations

The authors tried to minimise the limitations of the study; however, it should be noted that this study is only bound to the scope of Germany and only in the banking sector. One should be careful in interpreting and generalising these findings to other countries in the region or other sectors. This is because the characteristics of each context are unique and different.

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