

# *Development, Validity and Reliability of Perceived Service Quality in Retail Banking and its Relationship With Perceived Value and Customer Satisfaction*

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Despite its popularity, the concept of service quality in the marketing literature is still ambiguously and vaguely defined. Several measurement scales have been proposed, but some of these take into account only the method of measurement and ignore the idea that the same instrument may not be able to be automatically applied in different industries or in different cultures. Therefore the purpose of this paper is twofold: first to validate the perceived retail banking service scale in the case of a small transitional economy of Europe, and second to research service quality-customer satisfaction relationship and the role of perceived value within it. Content validity, face validity, construct validity, convergent validity, discriminant validity as well as nomological validity were assessed with EFA, CFA and SEM. The present research is the first attempt to measure the relationships among the concepts researched in the retailing banking industry in transitional economies in Europe. Therefore, its major finding, that the perceived value variable has a potential to be mediating variable between perceived quality and customer satisfaction relationship in retail banking settings, could be of interest also for other researchers in transitional economies in Europe and also for researchers from other environments.

*Key Words:* perceived quality, perceived value, satisfaction, retail banking services

*JEL Classification:* M30, M31

## **Introduction**

The world economy is rapidly becoming intensely service-oriented, which trend is reflected in the vast number of marketing research projects

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focused on services (Carrillat, Jaramillo, and Mulki 2007). The service industry in the US contributes more than 75% of that country's GDP and employs more than 80% of its entire workforce (Malhotra et al. 2004). In most OECD countries the service now account for well over 60% of total gross value added, and expenditures for services in OECD countries clearly outperform expenditures for physical products (OECD 2009). The globalization of services marketing represents a great challenge for academic researchers, as well as practitioners (Javalgi, Martin, and Young 2006).

Perceived quality and perceived value play important roles in industries with high customer involvement, such as the banking industry (Angur, Natarajan, and Jahera 1999). Therefore, it is important to identify dimensions of these constructs correctly and to find out how the constructs are perceived by customers (Glaveli et al. 2006).

Several research projects concerning the relationship between perceived quality and customer satisfaction and loyalty have been conducted, although the majority have been implemented in developed economies, especially the US (Yavas, Benkenstein, and Stuhldreider 2004). In Europe, research projects investigating the quality of banking services for customers have been done in Greece (Athanasopoulos, Gounaris, and Stathakopoulos 2001) and Germany (Yavas et al. 2004), but few research projects have dealt with the perceived value of banking services as a central concept in more sophisticated models of relationships.

Research on perceived quality and its relationship to customer satisfaction and loyalty in the banking services industry has been performed in Taiwan (e.g., Chiu, Hsieh, and Lee 2005; Chen, Chang, and Chang 2005), South Africa (Bick, Brown, and Abratt 2004), and Great Britain (Devlin 2000), and on a sample of employees in Spain (Fandos Roig et al. 2006) and Greece (Angelis, Lymperopoulos, and Dimaki 2005), but no such project has been implemented in a country in transition in Europe until now.

In the early days after Slovenia attained independence, banks were preoccupied with reconstruction of core business processes, so they have only recently started to focus on their activities with customers. The intensification of competition from foreign banks has forced domestic banks in Slovenia to pay closer attention to customer satisfaction and loyalty, which are becoming the key factors of success (Bick, Brown, and Abratt 2004).

## **Theoretical Background**

### SERVICE QUALITY

The unique characteristic of services (more precisely, service elements in products) is that they are processes and not tangible things (Grönroos 2001). This characteristic is at the root of all other service elements characteristics. The two other generic characteristics of service elements are intangibility and perishability (Snoj 1998; Grönroos 2001). However, authors in their research usually treat services as bundles of intangible and tangible elements and this approach is seen also in the research dealing with services quality measurement.

The fundamentals of theory on service quality originate from the literature on product quality and customer satisfaction. According to the majority of authors who have explored the subject, perceived service quality is the result of customers' subjective judgment of the level of the service offering and its delivery. While researchers agree that perceived service quality is a multidimensional construct, no consensus has been reached about its generally valid, generic dimensions. As researchers continue to debate the determinants of service quality a few important issues remain unanswered e. g., (a) the universality of service quality determinants across a section of services; (b) the importance and nature of operating characteristics of determinants as they together constitute the service quality; (c) whether the service characteristic gets reflected in what customers expect out of delivery of a particular service (Chowdhary and Prakash 2007; Pal and Choudhury 2009).

Early conceptualizations of perceived service quality (e. g., Parasuraman, Zeithaml, and Berry 1988) were based on the disconfirmation paradigm, according to which quality is the result of the comparison of expected versus perceived performance of service. Accordingly, Grönroos (2000) identified two dimensions of service quality: functional quality and technical quality. Functional quality reflects the 'how' of service performance, while technical quality defines the results of service or 'what' the customer receives from the service experience. This conceptualization is known as the Nordic model (figure 1).

According to the model, customers perceive what they get out of the service process, but even more important is their perception of the way the service was delivered. The important limitation of the Nordic model is that it is relatively difficult to define the technical quality or result of some services (Kang and James 2004). In defining service quality, Grön-

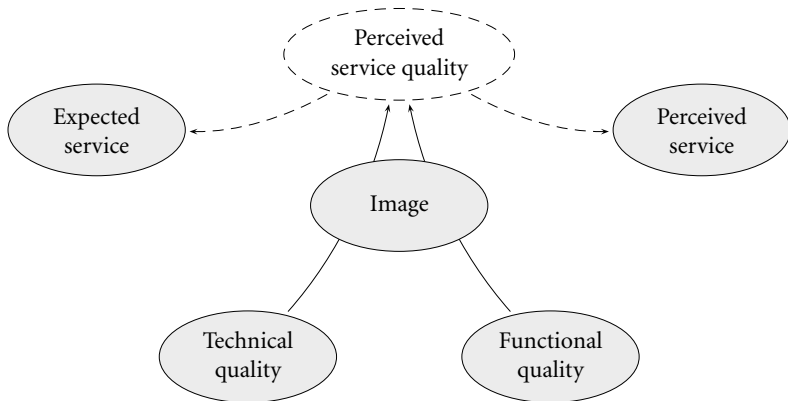


FIGURE 1 Nordic model of perceived service quality (adapted from Grönroos 1984, 40)

ross (1982) also stressed the importance of the dimension of company image, which relates to customers' awareness of their previous experiences with the company and their overall perceptions of its service; this, in turn, influences their perceptions of current service quality.

The proponents of the US school of service quality, who define service quality as a judgment about overall excellence, also understand service quality as a customer's comparison of expectations versus performance. One of the contributions of this school of thought is the SERVQUAL model (figure 2). In the SERVQUAL model (Parasuraman, Berry, and Zeithaml 1988), service quality is measured by identifying the gaps between customers' expectations of the service to be rendered and their perceptions of the actual performance of the service. SERVQUAL is based on five dimensions of service:

- tangibles – the physical surroundings, represented by objects (e. g., interior design) and subjects (e. g., the appearance of employees);
- reliability – the service provider's ability to provide accurate and dependable services;
- responsiveness – a firm's willingness to assist its customers by providing fast and efficient service performance;
- assurance – features that give customers confidence (e. g., the firm's specific service knowledge and polite and trustworthy behavior from employees);
- empathy – the firm's readiness and ability to provide each customer with personal service.

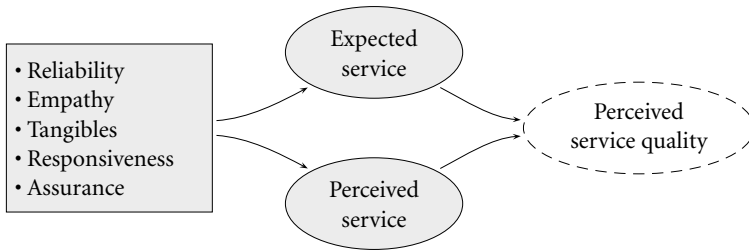


FIGURE 2 SERVQUAL Model (adapted from Parasuraman, Zeithaml, and Berry 1988)

In both the Nordic and the US schools, the contact personnel play a crucial role in customers' perception of service quality. However, Edvardsson (2005) argued that, in studying perceived service quality, authors have failed to pay enough attention to customers as 'prosumers' (producer and user) – that is, one who participates in producing the service – in the process of service development and delivery. The customer as service co-creator sees service quality as the consequence of his or her experiences with service development, delivery and use.

#### OPERATIONALIZATION AND MEASUREMENT OF PERCEIVED SERVICE QUALITY

The concept of quality is difficult to define (Cronin and Taylor 1992; Parasuraman, Berry, and Zeithaml 1993; Brady and Cronin 2001), and any generally valid definition is still far away (Athanasopoulos 2001). Some authors (e. g., Grönroos 2000) have even proposed to leave the assessment of perceived quality to customers themselves.

The most frequently used scales in the measurement of perceived service quality are SERVQUAL (Parasuram, Zeithaml, and Berry 1988) and SERVPERF (Cronin and Taylor 1992). Both are the result of research work from the US school of quality. SERVPERF directly measures the customers' perceptions of service performance and assumes that respondents automatically compare their perceptions of the service quality levels with their expectations of those services. The SERVPERF scale is identical to the SERVQUAL scale in its dimensions and structure. Both scales have also been used in numerous research projects concerning banking services (e. g., Athanasopoulos 1997; Angur, Natarajan, and Jahera 1999; Lassar, Manolis, and Winsor 2000; Gounaris, Stathakopoulos, and Athanasopoulos 2003; Yavas et al. 2004; Yap and Sweneey 2007).

Despite their advantages and popularity, however, both scales have de-

iciencies. The main empirical problem is their unstable dimensionality (Van Dyke, Kappelman, and Prybutok 1997), which could differ depending upon the service industry to which the scale was applied (Babakus and Boller 1992). The use of these scales in the hotel industry in Great Britain indicated that variables form three, and not the proposed five, dimensions (Ekinici, Dawes, and Massey 2008). Furrer et al. (in Petridou et al. 2007) warned that, because of differences in the level of social and economic development, service customers in different countries differently perceive the concept of service quality itself. Consequently, Babakus and Boller (1992) proposed that a quality measurement scale should be adapted to the specifics of an individual service industry or even an individual service, and that a general scale shouldn't be used at all. Discussion has also been held on the suitability of using differences (between expectations and perceptions in SERVQUAL scale) in multivariate analyses. Some authors (e. g., Babakus and Bollen 1992) have proposed using only the perceived quality assessment (SERVPERF), which correlated better with independent variables in their research findings than did an aggregate assessment from the SERVQUAL scale.

### **Development of the Conceptual Model and Hypotheses**

Some authors have equated the concept of perceived quality with that of perceived value, but this conflation was due to inadequate understanding of the concepts (Caruana et al. 2000). The fusion of both concepts is the so-called 'integrative approach' (Klaus 1985). With the basic definition of perceived value in mind, it is clear that the unification of these two concepts is not appropriate. Perceived service value is the function of customers' comparison of all the benefits derived from the purchase and use of a service, along with all the costs (sacrifices) associated with the purchase and use of the service. Therefore, many authors conclude that the concept of perceived service quality is a similar but different concept from perceived service value (Bolton and Drew 1991; Wang, Lo, and Yang 2004; Sanchez-Fernandez and Iniesta-Bonillo 2007). Perceived service value could be one of the important sources of a company's competitive advantage and is also an important predictor of customer satisfaction, loyalty (McDougall and Levesque 2000; Cronin, Brady and Hult 2000), and financial performance (Khalifa 2004).

There are also similarities concerning the concepts of customer satisfaction and perceived service value. Since customer satisfaction could be defined as fulfilment of customer expectations, the affinity between

customer satisfaction and perceived value lies in their subjectivity and also in their use of comparison: in the case of perceived value, customers compare benefits and sacrifices, while, in the case of customer satisfaction, they compare expected value with the actually delivered (perceived) value. However, authors have speculated that customer satisfaction depends on the actually delivered value of products or services (e. g., Howard and Sheth in Oliver 1997). Thus, actually, the two concepts are different but complement one another (Woodruff and Gardial 1996; Eggert, Ulaga, and Schultz 2006). Authors have also suggested that customer satisfaction as a construct could be assessed only by current customers, while perceived value could be estimated not only by past customers but also by future customers.

The majority of authors who have contributed to the marketing literature by researching the relationships in the models of perceived service value have ascertained that higher perceived service quality leads to higher perceived service value (e. g., Sweeney, Soutar, and Johnson 1999; Teas and Agarwal 2000). Some have also found that perceived service quality is a direct predecessor of and the best predictor of perceived service value (Petrick 2004). Therefore, we speculate that the relationship between perceived quality and customer satisfaction will also be positive in the case of retail banking services.

The authors who have explored the direct relationship between perceived quality and customer satisfaction can be divided into two groups: (a) those who have explored the direct relationship between perceived quality and customer satisfaction without taking into account the mediating role of perceived value and who consider perceived quality to be the direct predecessor of customer satisfaction (e. g., Jamal and Nasser 2002; Yavas et al. 2004); and (b) those who have explored the relationship of the concepts and have included perceived value, finding that, in addition to its direct influence on perceived value, perceived quality also exerts direct and indirect influences (via perceived value) on customer satisfaction (e. g., Cronin, Brady, and Hult 2000; Chen and Chang 2005; Glaveli et al. 2006; Ladhari and Morales 2008).

According to the results of previous research on the relationships between perceived quality and satisfaction, we propose the following hypotheses:

- H<sub>1</sub> *The higher the perceived quality of banking services, the higher will be their perceived value.*

H<sub>2</sub> *The higher the perceived quality of banking services, the higher will be customer satisfaction with these services.*

Authors have also explored the direct impact of perceived quality on customer satisfaction (without taking into account the relationship between perceived quality and perceived value); however, these models produced only a partial picture (McDougall in Levesque 2000). For example, in such a case, customers assess their satisfaction with a certain product or service, but there are no data on their assessment of the benefits compared with their efforts and sacrifices. It is clear that it is important to include perceived value as the predecessor of customer satisfaction because perceived quality is an important predecessor of perceived value, which, in turn, reflects on customer satisfaction and loyalty (Gallarza and Saura 2006).

Representative research has projected that higher perceived product (or service) value leads to higher levels of customer satisfaction (Moliner et al. 2007) and loyalty (Lin, Sher, and Shis 2005) and contributes to better financial performance (Ulaga 2001; Cronin, Brady, and Hult 2000). We speculate that customer satisfaction with banking service is the consequence of its perceived value and so propose the following hypothesis:

H<sub>3</sub> *The higher the perceived value of banking services, the higher will be customer satisfaction with these services.*

With the empirical exploration of these hypotheses, we attempt to show the mediating role of perceived value of banking services in the study of the relationship between perceived quality of retail banking services and customer satisfaction in Slovenia.

### **Methodology**

The measurement instrument for the empirical study was developed in three phases. First, some of the relevant items for the questionnaire were taken from the literature. This preliminary phase also included a focus group with the purpose of developing and generating an initial pool of items. The result of this phase was a wide range of 33 service quality items, 4 perceived value items and 6 items for measuring satisfaction. Items from the original SERVPERF scale (Cronin and Taylor 1992) were used and modified to measure perceived quality, items for the measurement of perceived value were adopted from Cronin, Brady, and Hult (2000), and Oliver's (1997) scale was adopted for measurement of customer satisfaction. In the second phase, in-depth interviews with 8 banking managers and 4 experts from the marketing field were conducted to



evaluate the initial pool of items. Then the questionnaire was examined by 6 specialists (4 academics and 2 in the field of marketing research methods) to determine content validity and help avoid redundancy. In the third phase, to test for internal consistency of the scales used in the final study and to further reduce the number of items, a pilot survey with exploratory factor analysis, more precisely principal component analysis with Varimax rotation was conducted on a sample of 234 retail banking customers, mostly in the Styria region of Slovenia.

In the final study, the items in the questionnaire were measured on a 5-point Likert scale (from 1 = 'strongly disagree' to 5 = 'strongly agree'). From 33 initially perceived service quality items, eleven items with 67.4% of total variance explained, were finally chosen to measure perceived quality. Further, all four initially generated perceived value items with 68.7% of total variance explained were chosen, and four out of six items with 73.9% of total variance explained were chosen to measure satisfaction.

Data for the main research were collected from 700 retail banking customers in Slovenia in June 2007 by means of a telephone interview. The stratus sample framework was used with random (systematic) sampling to improve the representativeness regarding retail banking customers structure by the number of inhabitants in each Slovenian region. The final structure of the sample is also in accordance with the market shares of retail banks in Slovenia.

## **Results**

### RELIABILITY AND VALIDITY OF THE SCALES

First, we assessed the dimensionality of perceived quality by performing exploratory factor analysis (EFA) (table 1).

Results showed that communalities of all items were relatively high and exceeded the value of 0.40, so a three-factor solution was proposed: core service with items SQ1, SQ3 and SQ5; physical evidence, with items SQ6, SQ7, SQ8 and SQ9; and factor safety and confidence with items SQ24, SQ27, SQ28 and SQ29. Total variance extracted was 65.82%, with 12.66% for core service, 42.60% for physical evidence and 10.55% for safety and confidence. Cronbach Alpha coefficients were relatively high and indicated good measurement reliability.

Second, confirmatory factor analysis (CFA) was performed. Two measurement models were compared: (a) a one-factor model, where perceived quality was conceptualized as uni-dimensional and where the co-

TABLE 1 Communalities and factor loadings of perceived quality

Items of perceived quality		Comm.	Factors		
			1	2	3
sq1	This bank offers me a complete range of products.	0.783		0.840	
sq3	This bank is innovative.	0.828		0.865	
sq5	This bank matches my specific needs.	0.702		0.811	
sq6	Employees in this bank are neat in appearance.	0.614	0.607		
sq7	This bank has up-to-date facilities and equipment.	0.780	0.863		
sq8	The outdoor facilities of my bank are visually appealing.	0.786	0.868		
sq9	Informative materials (website, advertisements, brochures, etc.) are visually appealing.	0.479	0.596		
sq24	The employees in this bank are well educated and professional.	0.512			0.562
sq27	In this bank my money and savings are safe.	0.559			0.699
sq28	Using services at outside bank facilities (ATM, telephone banking, e-banking) is safe.	0.547			0.737
sq29	Recommendations of employees in this bank are trustworthy.	0.650			0.736
Variance extracted in %			42.60	12.66	10.55
Cronbach Alpha			0.795	0.838	0.712
K-M-O measure: 0.839					
Total variance extracted: 65.82%					

NOTES Varimax rotation was used.

variance for all the items could be accounted for by a single factor and (b) a multi-factor model, where perceived quality was conceptualized as multi-dimensional and where covariation among the items could be accounted for by several restricted first-order factors. Summary statistics for both models are shown in table 2. Concerning the perceived quality of retailing banking services, the multi-factor model was found to outperform the one-factor model on absolute measures ( $\chi^2$ , GFI, and RMSEA), incremental fit measure (CFI), and parsimonious fit measures ( $\chi^2/df$ ). The majority of the fit indices were within the suggested interval.

In addition to Cronbach Alpha, construct reliability measures were used to assess reliabilities of the perceived quality subscales. The reliabil-

TABLE 2 Summary statistics for one-factor and multi-factor models (perceived quality)

One-factor model	Multi-factor model*
$\chi^2/df = 266.61/44$	$\chi^2/df = 125.5/41$
RMSEA = 0.099	RMSEA = 0.094
NFI = 0.92	NFI = 0.97
CFI = 0.93	CFI = 0.97
SRMR = 0.184	SRMR = 0.028
GFI = 0.83	GFI = 0.97

NOTES \* Core service, safety and confidence and physical evidence.

TABLE 3 Items, standardized loadings, construct reliabilities and average variance extracted

Dimension	Item	Std. loadings	CR	AVE
Core service	SQ1	0.800	0.867	0.687
	SQ3	0.795		
	SQ5	0.888		
Safety and confidence	SQ24	0.610	0.838	0.568
	SQ27	0.829		
	SQ28	0.684		
	SQ29	0.864		
Physical evidence	SQ6	0.873	0.883	0.653
	SQ7	0.822		
	SQ8	0.755		
	SQ9	0.776		

NOTES \* Items as in table 1. CR – construct reliability, AVE – average variance extracted.

ity coefficient of the three subscales ranged from 0.84 to 0.89 (table 3), which met the standard of 0.7 suggested by Nunnally (1978).

Next, construct validity of single subscales was assessed by examining convergent and discriminant validity. Evidence of convergent validity in the single constructs was determined by inspection of the variance extracted for each factor, as shown in table 3. CFA results showed that, in all cases, the average variance extracted reached the suggested value of 0.50 (Diamantopoulos and Siguaw 2000), and the *t*-test results of all correlations between suggested dimensions were statistically significant (table 4).

TABLE 4 Correlations among dimensions of the perceived quality construct

Dimension	Core service ( <i>t</i> -value)	Physical evidence ( <i>t</i> -value)	Safety and confidence
Core service	1.00		
Physical evidence	0.87 (19.58)	1.00	
Safety and confidence	0.89 (21.63)	0.90 (27.82)	1.00

TABLE 5 Items, construct reliabilities and average variance extracted

Construct	Dimensions and items	CR	AVE
Perceived value $\alpha = 0.78$	<ul style="list-style-type: none"> <li>• This bank offers me a lot of benefits.</li> <li>• In this bank the ratio between give and get components is very fair.</li> <li>• In relationship with this bank I perceive more positive than negative things.</li> </ul>	0.77	0.53
Perceived quality $\alpha = 0.86$	<ul style="list-style-type: none"> <li>• Core service</li> <li>• Physical evidence</li> <li>• Safety and confidence</li> </ul>	0.79	0.55
Satisfaction $\alpha = 0.87$	<ul style="list-style-type: none"> <li>• Services of this bank meet my expectations.</li> <li>• With this bank I have good experiences.</li> <li>• I am satisfied with this bank.</li> </ul>	0.81	0.59
Global fit indices: $\chi^2 = 299.91/df = 100$ , RMSEA = 0.052, standardized RMR = 0.04, NFI = 0.940, NNFI = 0.938, CFI = 0.955, GFI = 0.944, IFI = 0.955			

Next, discriminant validity was assessed for the subscales of perceived quality of retail banking. Several CFAs were run for each possible pair of constructs, first allowing for correlation between the two constructs and then fixing the correlation between the constructs at 1. In every case, the chi square differences between the fixed and free solutions were significant at  $p < 0.05$  or higher.

Finally, reliability, convergent validity and discriminant validity for all constructs in the conceptual model (perceived quality, perceived value and satisfaction) were tested, as shown in table 5.

#### THE ROLE OF PERCEIVED VALUE IN THE PERCEIVED SERVICE QUALITY-CUSTOMER SATISFACTION RELATIONSHIP

In the final stage of the research, the proposed conceptual model was tested with structural equation modeling. The overall structural model is shown in figure 3. The final result at this stage is a perceived value factor as a uni-dimensional construct, customer satisfaction with retailing

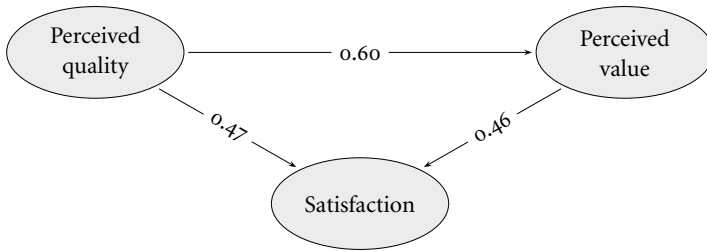


FIGURE 3 Standardized path estimates (All paths significant at  $p < .01$ ;  $\chi^2 = 205.56/df = 41$ ; RMSEA = 0.076; NFI = 0.935; NNFI = 0.927; CFI = 0.945; SRMR = 0.049; GFI = 0.939)

banking services as a uni-dimensional construct, and perceived quality as a multi-dimensional construct with three indicators. Since two new constructs had been computed, once again a discriminant analysis was performed. Pairs of constructs involving all possible combinations were assessed in series of two-factor CFA models using LISREL. A chi-square difference test was then performed on the tested models to assess if the  $\chi^2$  values were significantly lower for the unconstrained models (Anderson and Gerbing 1988). The critical value ( $p < 0.05$ ) was exceeded in every case.

With respect to the overall model fit, the chi-square statistic indicated some discrepancies between the data and the proposed model ( $\chi^2 = 205.56/df = 41$ ;  $p < 0.05$ ). A significant chi-square indicated a non-perfect fit of the model to the data. However, other global fit indices suggested an adequate fit of the model. The RMSEA index of the model was 0.076, which is close to the range for a good fit but still suggested a reasonable fit. Also, the majority of other fit indices suggested that the global model fit was acceptable (NFI = 0.935; NNFI = 0.927; CFI = 0.945; SRMR = 0.049; GFI = 0.939).

Regarding the selected hypotheses, table 6 provides an overview of

TABLE 6 Estimated effects within the causal model

Relationships	(1)	(2)	(3)
H <sub>1</sub> : Perceived quality – perceived value	$\gamma = 0.600$	11.210	$p < 0.01$
H <sub>2</sub> : Perceived quality - Customer satisfaction	$\gamma = 0.469$	9.296	$p < 0.01$
H <sub>3</sub> : Perceived value - Customer satisfaction	$\beta = 0.460$	8.328	$p < 0.01$

NOTES Column headings are as follows: (1) standardized regression coefficient, (2) *t*-value, (3) significance.

the estimated effects within the causal model. As predicted by  $H_1$ , perceived retail banking service quality is strongly positively related to perceived value ( $\gamma = 0.600$ ;  $p < 0.01$ ). The relationship between perceived quality and customer satisfaction with retail banking services is weaker ( $\gamma = 0.469$ ;  $p < 0.01$ ) and significant. Therefore, it can be assumed that the relationship between perceived quality and customer satisfaction is direct, but also indirect through perceived value. As expected, positive and significant findings were also returned for the path from perceived value to customer satisfaction ( $\gamma = 0.460$ ;  $p < 0.01$ ). According to these findings, we confirm both hypotheses  $H_2$  and  $H_3$ . The indirect effect of perceived quality on customer satisfaction through perceived value was also significant with a regression coefficient of 0.276 ( $t$ -value = 7.598). The results showed that the total effect of perceived quality on customer satisfaction (0.745) was much greater than the direct relationship (0.469).

### Conclusions and Managerial Implications

Many authors found out the importance of perceived quality for service organizations. The results of contemporary research projects suggest that higher levels of perceived service quality, and especially perceived value of organizations offerings lead to greater levels of customer satisfaction, loyalty and higher performance results. Therefore it is critical that marketers have a clear understanding of the role of the perceived service quality and its key determinants.

Perceived service quality, perceived value and customer satisfaction are interlinked, intangible, complex and relatively vague, but also strategically important concepts in the retail banking industry.

The research demonstrates that the perceived service quality concept with three factor solution (safety, confidence and physical evidence) is valid and reliable for retail banking organizations that operate in a small transition economy. In the empirical study of retail banking services, we linked perceived service quality directly and indirectly to customer satisfaction. The perceived value variable was found out to be a mediating variable between perceived quality and customer satisfaction, as is often the case in other industries (Cronin, Brady, and Hult 2000; Lin, Sher, and Shih 2005; Lai, Griffin, and Babin 2009).

The results show that the total effect of perceived quality on customer satisfaction (0.745) is much greater than just the direct relationship (0.469), so it is important for managers to consider the total effects because, otherwise, the relationship can be understood as much

weaker. Therefore, managers' decisions regarding their activities towards customer satisfaction should be holistic and systematic, taking into account both direct and indirect effects of perceived quality on customer satisfaction. The measurement of customer satisfaction without bearing in mind the importance of the concept of perceived value may produce misleading results. Further, it is important for managers in retail banks to consider perceived quality as a multi-dimensional construct, where safety, confidence in employees and physical evidence are important, because focusing only on core service quality is too narrow approach.

In assessing the implications of this study, its limitations must be acknowledged. Because the results are directly relevant only to customers of retail banking services, generalizations of the findings beyond the immediate population observed should be made with caution. One of the limitations is the fact that the causes of differences between the original SERVPERF and service quality scale used in the present research were not identified, another is that common method bias was not tested, still another limitation is that the causes of differences between the SERVPERF scale and the service quality scale used in present research project were not researched.

Since our model is very limited and simple, more expanded models with more indicators and moderators of perceived value and customer satisfaction (e. g., image, reputation, perceived price, perceived risks, the size structures of banks, bank ownership) should be developed. The consequences of the perceived quality-satisfaction relationship (e. g., loyalty, WOM, commitment) should also be examined. By testing the model in other countries in transition, researchers may develop deeper understanding of the perceived quality-customer satisfaction relationship in retail banking services.

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