MEASURING SERVICE QUALITY AND SATISFACTION IN GREEK COOPERATIVE BANKING: AN EXPLORATORY STUDY

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ABSTRACT

A review of the literature has revealed that perceived quality has a direct and positive impact on overall customer satisfaction. It has also been made clear that the number and nature of underlying service quality determinants are contingent both upon country- and business-specific considerations.

In this context, and in order to identify the major determinants affecting customer satisfaction deriving from service delivery in a large cooperative bank in Greece, the present study attempts to develop a customized scale to measure service quality. Accordingly, based on relevant research findings and the views of both the customers and executives of the researched bank, a preliminary 38-item scale was developed and the corpus of data was collected from a sample comprised of this large cooperative bank's customers in Crete, Greece. The combination of exploratory and confirmatory factor analysis, following a scale purification process, which resulted in a reduced 21-item scale, has yielded seven determinants: *Communication for Building up Trust, Personnel Relationship, Quality-Price Relationship, Understanding and Consulting, Bank Set of Values, Serviceability,* and *Educational Support*. The results of regression analysis indicated that customer satisfaction with the cooperative bank is mostly affected by: *Bank Set of Values, Quality-Price relationship, Understanding and Consulting, and Communication for Building up Trust*.

Keywords: ***service quality, customer satisfaction, measurement scale, cooperative banking in Greece.***

INTRODUCTION

In the face of a fiercely competitive and unpredictable global environment, the delivery of excellent or superior quality services has commonly been viewed as a strategic component of paramount importance (Maddern, Maull, Smart and Baker 2007). Service quality has often been related to its impact on the financial performance of the organization (Rust and Zahorik 1993; Rust, Zahorik and Keiningham 1995), consumer satisfaction (Spreng and Macoy 1996), and behavioral standards (Cronin and Taylor 1992; Reichheld 1993; Zeithaml, Berry and. Parasuraman 1966). Indeed, scholars have demonstrated that particularly in financial service organizations, in which any new product is quickly matched by competitors, enhancing service quality is crucial to business success (Allred and Addams 2000).

In the financial services industry, service quality has been found to be strongly related to customer satisfaction (Akviran 1994; LeBlanc and Nguyen 1988; Blanchard and Galloway 1994). High quality services and customer satisfaction have frequently resulted in repurchase and increase in market share (Buzzell and Gale 1997); consequently, enhancing service quality seems to be particularly emphasized by managers, and certainly so in the banking sector (Soteriou and Stavrinides 2000; Newman 2001; Wang, Lo and Hui 2003).

A review of the relevant literature reveals that recent research has focused on identifying service quality dimensions as well as developing instruments for measuring service quality. According to Chumpitaz and Swaen (2002), the number and nature of service quality dimensions seem to be differentiated across businesses and countries (Jabnoun and Khalifa 2005); the application, therefore, of a business- and country-specific measure is claimed to be more effective than a universal scale (Babakus and Boller 1992; Van Dyke, Kappelman, and Prybutok 1997; Caro and Garcia 2007). Especially in the banking sector, scholars have demonstrated that quality measures should not rely exclusively on "global standards" (Athanassopoulos 1999) since even subcategories of the specific sector, namely private and state banks, are likely to be greatly

differentiated. Therefore, despite any similarities among different systems, measurement should be adjusted according to country- or organization-specific standards.

With regard to cooperative banks, which seem to be greatly differentiated - both by nature and status - from state and private banks, service delivery is based on a different philosophy, due to the special cooperative culture and cooperative values (self-help, self-responsibility, democracy, equality, equity, and solidarity) it entails, and also in view of the principles followed and established, which are pertinent to the bank and its customers. In effect, their structural characteristics, guiding principles and member-driven orientation make cooperative banks fundamentally different from other types of banks.

A distinguishing feature of cooperative banking is the fact that this type of banking principally caters to small businesses and individuals, and serves a niche market. Compared with others, cooperative banks are rather small-sized and the main advantage they enjoy over other types of banks is the fact that they have a deeper knowledge of local markets, they foster a closer relationship with people and are perhaps more conscious of the special needs of local communities. Decentralized networks and greater flexibility in decision making processes, as a result of their autonomy, confers upon them the significant privilege to deliver services/products tailored to specific local conditions and needs thus removing various barriers or lack of mutual understanding during service delivery.

Notably, a significant distinction between cooperative and other types of banks is that, under the umbrella of cooperative principles, cooperative bank customers are also 'bankers'-negotiators/suppliers and customers-consumers or investors. Cooperative banks tend to form their own pricing, investing and working policies on the basis of the concept of membership and the respective fundamental cooperative principles (voluntary and open membership, democratic member control, members' economic participation, autonomy and independence, education, training and information, cooperation among cooperatives, concern for community), and they mainly aim at maximizing the benefits of their partners, who are owners and customers at the same time. Typically, the concepts of *membership* and *member* in cooperative banking imply benefit expectations generated by each customer's different economic or ideological needs and affect not only customers' attitudes, emotions and beliefs about the delivery of bank services but also biases, consumer maturity and range of knowledge concerning banking.

Cooperative bank customers are involved in the process of "expecting to receive or receiving benefit from" the business philosophy it entails via the type and process of the delivered services, focusing mostly on the dimension of cooperative "corporate quality," which, according to the definition given by Harrison (2000), applies to the general image and perception concerning banks. As the existing indicators for measuring perceived service quality and bank customer satisfaction, as researched either in or outside Greece, have not been specifically explored in cooperative bank settings, the question still remains: which are the major quality determinants of cooperative bank customer satisfaction, according to customers' needs and the objectives-standards set by cooperative banking? In effect, the relevant research questions addressed in the present study are:

> ***Research Question 1***: What are the determinants/dimensions of service/product quality in cooperative banking?
>
> ***Research Question 2***: Which determinants/dimensions are most crucial to overall customer satisfaction deriving from the services delivered by cooperative banks?

Thus, based on the previous assumptions, the primary objective of the research presented in this article is to identify, from the customers' perspective, the potential determinants of service quality affecting customer satisfaction in cooperative banking, and, once identified, enabling managers to focus on designing activities that would ensure meeting or exceeding customer expectations.

The article is organized as follows: first, it provides an overview of the background literature regarding service quality, customer satisfaction and cooperative banking in Greece.

Next, it describes the objectives of the research and the methodology employed in the study, and then discusses the results of an empirical study. Finally, the article concludes by identifying managerial implications and study limitations and the author proposes future research directions.

BACKGROUND LITERATURE

Service Quality and Satisfaction

Service quality, the effective delivery of which has sometimes been disputed (Voss, Roth, Rosenzweig, Blackmon and Chase 2004), commonly has been viewed as an elusive and complicated construct. In terms of Howcroft (1991), high quality service is generally defined as a constant process of predicting and satisfying customers' requirements and expectations. Oakland (1986), in addition, states that banking quality service implies the degree to which a specific type of service meets customers' expectations.

Satisfaction is sometimes defined as an end-state resulting from a consumer's purchasing experience, which can either emerge as a cognitive reward or an emotional response to an experience. Customer satisfaction has been investigated as a 'perceptual, evaluative and psychological process' taking place during service delivery (Vavra 1997). It may derive from any dimension relevant or irrelevant to quality, and judgments may be formed by non-quality components; it also requires experience for its delivery (Taylor and Baker 1994). Scholars have identified customer- and situational-specific determinants that affect overall satisfaction (Zeithaml and Bitner 2000). In relation to high -quality confidence - related services such as those provided in the context of banking, functional quality is emphasized as the most vital driver for customer satisfaction (Shemwell, Yavas and Bilgin 1998).

Service quality and overall satisfaction have been found to be closely related (Anderson and Sullivan 1993; Babakus, Bienstock and Van Scotter 2004). The distinction and coherent relationship between service quality and satisfaction has been a pivotal concern in marketing literature and in academic- as well as practitioner-oriented relevant research (i.e. Anderson and Fornell 1994; Spreng and Mackoy 1996). Although numerous empirical works have concentrated on the causal order of the constructs at issue, there is little consensus as to whether expectations for the delivery of a specific service directly affect satisfaction or whether perceived quality is the main antecedent of satisfaction (Bahia, Paulin and Perrien 2000; Churchill and Surprenant 1982).

Bahia et al. (2000) suggest that in case of multidimensional, regularly-performed and high-contact services, such as those delivered in banking settings, service quality is most likely to affect satisfaction. Similarly, Papasolomou (2002) advocates that service quality in the banking sector, viewed as a multivariate construct encompassing dimensions, such as convenience, reliability, service portfolio and service personnel, has had a substantial impact on customer satisfaction. Overall, researchers have emphasized that perceived quality, assumed as an antecedent of customer satisfaction, has a direct and positive impact on overall satisfaction (Hume and Mort 2008).

Quality Dimensions in Banking

A comprehensive literature review has revealed that quality, on account of the rather intricate and elusive conceptualization it encompasses, has often involved -inter alia- measurement discrepancies (Sureshehandar, Rajendran and Anatharaman 2002). In this respect, no universal scale standard, particularly in the banking sector, can ensure valid and reliable measurement of perceived quality (Wang, et al. 2003). Overall, research has revealed explicit country- and culture-specific discrepancies in banking services as regards quality expectations, importance and perceptions. Snow, Bartel and Cullen (1996) have investigated ethnicity-specific customer expectations in the Canadian retail banking sector and identified several differentiating components in retail banking service expectations, depending on ethnic group. Additionally, Furrer, Liu, and Sudharshan (2002) emphasized that service quality importance and perceptions are highly contingent upon customers' values and beliefs, which are culture-specific.

Since the mid 90's, research has been focused on various quality determinants, among which the ten major determinants indicated by

Parasuraman, Zeithaml and Berry (1985) are considered more likely to generate high levels of customer satisfaction in the banking sector of various countries.

To provide a comprehensive discussion of the potential quality determinants affecting satisfaction, Akviran's (1994) BANKSERV, a versatile instrument employed for measuring perceived service quality delivered to Australian commercial banking customers, comprises four discriminating factors (totalling 17 items), namely: 1. staff conduct; 2. Credibility; 3. Communication; and 4. access to teller services. In addition, Bahia and Nantel (2000), in their research into a National Bank of Canada in Montreal, investigated customer expectations and perceptions and developed the Bank Service Quality (BSQ) measure. They applied an exploratory factor analysis and identified six dimensions (totalling 31 items), that is, 1. effectiveness and assurance; 2.access; 3. Price; 4. Tangibles; 5. service portfolio; and 6. reliability. Aldlaigan and Buttle (2002), by investigating quality in various British banks, employed principal component factor analysis and developed SYSTRA-SQ, which measured customer perceptions only; thus, they proposed four dimensions (totalling 21 items) : 1. service system quality; 2. behavioral service quality; 3. machine service quality; and 4. service transactional accuracy. Similarly, Jabnoun and Khalifa (2005) by using principal component extraction with an orthogonal rotation measured only customer perceptions in various banks in the Arabian Emirates that concluded in four dimensions (totalling 29 items): 1. personal skills; 2. Reliability; 3. Image; and 4. Value. Multiple regression analysis results demonstrated that, despite the fact that all four dimensions were indicative of determining quality in conventional banks by emphasizing value and image, quality in Islamic banks was determined only by personal skills and values. In addition, Athanassopoulos, Gounaris and Stathakopoulos (2001) highlighted six country-specific dimensions (totalling 25 items) in Greece: 1. employee competence to deliver bank services; 2. bank reliability; 3. product innovation; 4. Pricing; 5. physical evidence of the delivered services; and 6. consumers' convenience provided by the bank network.

Finally, the research conducted by Mihelis, Grigoroudis, Siskos, Politis and Malandrakis (2000), which involves measuring satisfaction in private banking in Greece, was based on the assumption that customer satisfaction represents a modern approach for quality based on the preference disaggregation model MUSA, and identified five dimensions (totalling 23 items): 1. bank personnel; 2. bank products; 3 bank image; 4. service delivery; and 5. access.

In conclusion, the various research efforts made in industry-specific contexts with a view to identifying quality determinants have demonstrated that service quality may be determined by the individual or aggregate perceptions of (1) the technical and functional quality of an organization, (2) service products, service delivery, and service environment, (3) reliability, response, empathy, safety and physical evidence associated with service delivery, and (4) image, value, pricing and social responsibility.

Cooperative Banks in Greece

Cooperative institutions in Europe were founded 150 years ago and it is now estimated that they are widely represented with approximately 65,000 outlets throughout the EU-27. According to the European Association of Cooperative Banks, cooperative banking in Europe enjoys a market share of 20%, representing 50 million members and 750,000 employees (EACB 2010).

In Greece, the first cooperative banks, which date back to the early 1990s, were forced to encounter a number of problems associated with customers, such as difficulty in accessing the banking system and high interest rates on loans during that period.

In Greece, the cooperative banking system, based on locally operating credit institutions, is mainly characterized by autonomy and non-homogenous development, which is due to the legal restrictions on capital and customers imposed on its credit system and which has hindered growth (Karafolas 2007).

According to the Assoc. of Greek Co-op Banks (http://www.este.gr/index.asp), until 2011 the total number of cooperative banks was 13, with a total network of 165 branches, 1,126 employees and 184,614 members (**Table 1**). Of these, 6 are locally-operated (within a prefecture), 4 were allowed to extend operation

in neighboring local areas (within a region) and only three were eligible to run a network of branches on the state level (ACBG 2011).

In addition, 8 credit cooperatives in Greece offer only a small number of services to their members until they manage to collect the required capital and become eligible for operating as cooperative banks. In combination with credit cooperatives, cooperative banks in Greece have established a nation-wide bank (Panhellinia Bank), which operates as a central bank providing network and service support. Note: 10% of the share capital of Panhellinia Bank is held by the German DZ Bank.

Typically, cooperative banks provide financial services only to members and can perform all types of banking operations except for underwriting. But they can also provide certain services to non-members, in case of secondary banking transactions or when a member takes part in secondary transactions. Until September 2006, cooperative banks were eligible to deliver services only to members, other credit institutions and the Greek State. Since then regulations have become less rigid and cooperative banks are also eligible to deliver services amounting to 50% of its loans or deposits to non-members (Karafolas and Katarachia 2009).

TABLE 1

Greek Cooperative Banks: Operational Level, Branches, Personnel and Members in 2011

Cooperative Bank Co-op. LL	*Level*	*Branches*	*Personnel*	**Members**
1. CO-OP BANK OF DRAMA	Prefecture	3	20	4,690
2. CO-OP BANK OF DODECANESE	State	20	134	21,886
3. CO-OP BANK OF EVROS	Prefecture	5	28	5,585
4. CO-OP BANK OF EVIA	Prefecture	10	55	8,285
5. CO-OP BANK OF IPEIROU	Region	8	68	9,280
6. CO-OP BANK OF KARDITSA	Prefecture	2	20	4,448
7. CO-OP BANK OF WEST MACEDONIA	Region	5	35	5,863
8. CO-OP BANK OF PELOPONNISOS	Region	14	68	4,947
9. PANCRETAN CO-OP BANK (CRETE)	State	60	401	80,150
10. CO-OP BANK OF PIERIA	Prefecture	2	14	3,500
11. CO-OP BANK OF SERRES	Prefecture	2	17	4,078
12. CO-OP BANK OF THESSALY	Region	10	72	9,701
13. CO-OP BANK OF CHANIA (CRETE)	State	24	194	22,201
13 Total	**Total**	**165**	**1126**	**184,614**

METHODOLOGY

In reviewing the relevant literature, the most common instruments used to measure service quality and customer satisfaction are SERVQUAL and SERVPERF scales. The SERVQUAL framework (Parasuraman, et al. 1985) is based on the theory of disconfirmed expectations, wherein consumers, depending on their own needs and experience, form specific expectations about the quality of the service / product delivered. Thus, on completion of their transactions, consumers tend to compare the delivered services / products on the basis of their own previous expectations. Despite the fact that SERVQUAL has been the most common instrument employed by researchers, it has been frequently criticized both theoretically and operationally (*see, e.g.* Babakus and Boller 1992; Carman 1990; Cronin and Taylor 1992; 1994). Teas (1993) raised questions about validity and expectations index specification, whereas Chiou and Spreng (1996) argued that the use of difference scores, as a psychometric issue, has fueled controversies concerning statistical validity in customer satisfaction surveys. The difference between SERVPERF**,** proposed by Cronin and Taylor (1992), and SERVQUAL lies in the fact that SERVPERF suggests that the concept of service quality should rely on customers' attitudes towards service delivery after the specific services have been used rather than on the disconfirmed expectations approach.

Since the early 1980s it was suggested that the concept of "quality" and "satisfaction" are interrelated. Based on this premise and on the dimensions introduced via SERVQUAL by Parasuraman et al. (1988), Cronin and Taylor (1992) investigated the measure of quality as a component of the degree of customer satisfaction in four different service industries (banks, fast food, cloth cleaning services, pest control companies). The results demonstrated that the SERVPERF model explained more of the variance in an overall measure of service quality than SERVQUAL and that SERVPERF is more efficient than SERVQUAL, as it can provide a better description of the concept of service quality and also a more reliable forecast of consumers' purchase intentions. Their study was replicated and extended by Brady, Cronin and Brand (2002) and the replication findings suggest that in a number of industries the performance-only measurement of service quality outperforms SERVQUAL. Similarly, Quester, Wilkinson and Romaniuk (1995) examined the same service quality models in the Australian advertising industry. The results demonstrated that, despite any minor differentiations, SERVPERF is more efficient than SERVQUAL. In addition, Pizam and Ellis (1999) advocate that the conceptual basis of SERVQUAL enhances its efficiency mostly as a measure of satisfaction.

With a view to identifying the principal components of perceived service quality and their impact on customer satisfaction, and also assuming that decision-making is based on an intricate combination of emotional and cognitive processes, the present research adopted the rationale of the SERVPERF scale (the Perceived Performance model): to wit, that "Perceived quality is best conceptualized as an attitude" for statistical validity and reliability reasons (Cronin and Taylor 1992; 1994; Teas 1993).

Due to the fact that no commonly accepted scale has been established to measure perceived quality in the banking sector, the author of this article developed a questionnaire based on banking service and cooperative literature as well as on focused interviews of cooperative bank customers.

This first step of the project employed a convenience sample of customers/members and customers/non-members and was based on 8 in-depth personal interviews (five customers/members and three customers/non-members of the ccooperative bank). Eight personal interviews were deemed to be sufficient on account of the fact that after six interviews it was clear that the elicited answers were convergent rather than adding to research insights (Patton, 1990; Marshall, 1996). In detail, a set of graded open-ended questions was used and participants were initially asked to determine the perceived characteristics that differentiate cooperative and other types of banks. Subsequently, each characteristic was elaborated on, with a view to exploring both customers' total requirements from the Cooperative Bank and also the concepts associated with them. The interviews were focused on the cooperative bank customers' individual knowledge, perceptions and experiences concerning the corporate identity of

the bank and, particularly, the three distinct operating philosophies compatible with the cooperative principles and values inherent in the cooperative model - communication, information, education. The specific considerations enabled both investigating the determinant quality variables for cooperative bank customers and the emergence of unpredicted or un-expected answers.

The focused customers' interviews demonstrated a person-centered and parochial perception of cooperative banks. Despite considering that the relationship between customers and a bank even of their own choice is – to a greater or lesser extent - rather imposed and inevitable, customers tend to trust a cooperative bank more than other any type of bank. To illustrate, the interviews revealed views a) of customers/members who characterized cooperative banks as '*our own bank'*, or argued that '*you can ask for any advice you need on your own financial matters*', '*they have a personal relationship with you and they try to help any time you need for it even if you are not an important customer*', '*they are not greater thieves than other banks because they try to work out the most suitable solution for you*', and b) of customers/non-members who claimed that '*they deliver services although you are not a member*', and '*lending procedures are easier*'.

In effect, customers prefer transactions in cooperative banks as they trust them more and consider them 'more fair' and 'honest', emphasizing that confidence is greater in case of borrowing rather than saving transactions, an issue which has to be further researched. Notably, all subjects evaluate delivered services in various banks using phrases such as '*cooperative banks ought to -have to…*' '*private banks should…*', as they are possibly influenced by social norms concerning private organizations and cooperatives. The specific norms are likely to affect customers/members' and non-members' level of expectations and requirements.

It is also worth pointing out that the distinctive cooperative identity and purpose, in the way it is communicated by the bank and is perceived by customers, have an impact on perceived banking service quality and customer satisfaction. Thus, in order to operationalize quality in cooperative bank service, the present study, in addition to items representing facets of the SERVQUAL'S five service quality dimensions, includes items which derived from the personal in-depth interviews, without incorporating, however, expectation measures which may attract a social desirability response bias (Babakus and Inhofe 1991).

A questionnaire comprised of 42 items conceptually associated with 9 quality determinants: (identity/image of cooperative bank, social responsibility/values, membership, banking products/services – pricing, service delivery, consulting services, relation with personnel, communication, and confidence) was then developed. Additionally, and in order to ensure face and content validity, the questionnaire was examined both by 6 banking research executives in Greece and several cooperative bank executives, who were able to express their own views about item relevance, ambiguity, necessary reclassifications, possible redundancy, or even make further additions (Athanassopoulos 1997; Bahia and Nantel 2000). This process generated a 38-item questionnaire, which was employed to measure service quality in cooperative banks.

Notably, the present research includes both functional and technical quality variables, the effectiveness of which is conceived on the basis of the wide range of both emotional and cognitive responses resulting from customer satisfaction for the service quality delivered by the Cooperative Bank at issue. Therefore, a non-comparative Likert-type numeric 10-point scale with anchored endpoints was employed, with a view to the fact that it demonstrates covariance among key variables (Allen and Rao 2000; Allen and Wilburn 2002; Wittink and Bayer 1994) and is also considered an appropriate scale for research in Greece, where typically evaluation systems in primary and secondary education are based on a ten-point scale. Overall satisfaction is operationalized in terms of three measures, namely overall satisfaction, expectations - disclaim, ideal service, and is measured on the basis of a ten-point Likert-type scale (e.g., 1 *completely dissatisfied* – 10 *completely satisfied*).

To ensure scale validity, a pilot survey carried out prior to the main research involved nineteen customers representing the population of interest. The nineteen pilot interviews, which tested questionnaire cohesion and coherence, did

not demonstrate that any changes or intervention to the topic and measurement method were required.

The corpus of data was obtained by conducting personal interviews with customers who had already carried out a transaction in branches of the cooperative bank and was based on a constructed questionnaire requiring ~ 12-15 minutes to be answered. The sample was comprised of 486 customers (**Table 2**) in 22 randomly selected branches of the single biggest cooperative bank in Crete, Greece. The sampling was proportionate to the number and distribution of branches of this largest Greek cooperative bank in Crete and included 22 out of 49 branches. The initial sample was comprised of 519 customers: 339 respondents from the county of Heraclion (14 branches), 70 from the county of Rethymno (3 branches), 65 from the county of Lassithio (3 branches), and 45 from the county of Chania (2 branches). During the analysis of results 33 questionnaires were rejected as it was made evident that the respondents were basically ignorant of cooperative bank transactions; thus, the final sample was comprised of 486 respondents. To achieve representation of the actual distribution of transactions, the interviews were organized on specific working days and hours: Monday to Friday 8:00 - 10:00a.m, 10:00a.m. - 12:00p.m., and 12:00 - 4:00p.m.

TABLE 2. Demographic Information of Sample (n=486)

Demographic variable	**Customers** n=486	**Coop-Bank as Central Bank** n=347	**Members** n=376	***Non Members*** n=110
Gender				
Male	61%	73%	64%	51%
Female	39%	69%	36%	49%
Age				
< 24 years	4%	52%	2%	11%
25 – 34	20%	67%	18%	24%
35 – 44	23%	73%	23%	20%
45 – 54	25%	73%	26%	22%
55 – 65	16%	75%	17%	15%
> 65	12%	73%	14%	8%
Member	77%	78%		
Non-member	23%	49%		

As shown in **Table 2**, in terms of *gender*, the sample was comprised of 61% male and 39% female subjects aged up to 24 years (4%), 25-34 years (20%), 35-44 years (23%), 45-54 years (25%), 55-64 years (16%), and finally, over 65 years (12%).

The majority (77%) are customers/*members* of the cooperative bank, whereas 23% are customers/*non-members*. Of these, 78% of the members and 49% of the non-members carry out their main transactions in the researched cooperative bank; in addition, the majority of customers/members are male (64%) and the (very slight) majority of customers/non-members are also male (51%). In terms of the life cycle of the relationship-co-operation between the bank and its customers, it becomes evident that as customers/members (78%) carry out most or all of their transactions in the specific bank, where they are also members,

their relationship with the bank, according to Zineldin (1996), falls into the long-term stage, in which perceived quality is largely contingent upon the quality of interactivity and interaction.

It is important to note that although the present study is a pilot research aimed at results which will generate a substantiated basis for further investigation and validation of an explicit structure of the factors measuring cooperative bank service quality, data analysis was based on a two-stage "hybrid" approach comprised of exploratory and confirmatory factor analyses. During the first stage, a principal axis factoring method (PAF) was employed on the total research sample. As it is not possible to cross validate the obtained results on a second sampling, in the second stage the research employs both Exploratory and Confirmatory factor analysis dividing the total sample into two random samples of equal size (DeCoster, 1998).

In order to obtain a parsimonious model, which could also be convenient for managers, the research employed principal component factor analysis (PCA) on one half of the data (split 0) and, subsequently, tested the generality of the extracted factors with confirmatory factor analysis (CFA) on the second half of the data (split 1). The use of multiple regression analysis with the stepwise method examined the significance of the seven factors derived from the PCA for measuring overall customer satisfaction.

ANALYSIS AND RESULTS

Stage 1

Exploratory factor analysis (PAF) was used to explore the possible underlying factor structure of the set of 38 observed variables.

Initially, the suitability of the data set for the performance of exploratory factor analysis was tested through the estimation of the Kaiser-Meyer-Olkin (KMO) and Bartlett's Test of Sphericity. KMO was 0.951 and Bartlett was significant $p<0.01$, indicating that the data set can be used for the analysis. All the responses to the 38 items concerning service quality were factor analyzed using principal axis extraction with an orthogonal (equamax) rotation (Vavra 1997). Due to the exploratory nature of the analysis for the extraction of factors, eigenvalues greater than 1.0 and factor loadings 0.40 or above were retained (Jabnoun and Khalifa, 2005; Caro and Garcia, 2007). Using these criteria, the analysis resulted in seven factors totaling the 38 items, which explained 68.60 of the variance. All the items and factor loadings included in the principal axis factor analysis are presented in the **Appendix**. The factors are labeled as *Bank Set of Values*, *Support, Quality-Price Relationship, Serviceability, Understanding and Consulting, Personnel Relationship, and Communication for Building up Trust*. Reliability analysis was conducted for the items comprising each of the seven factors and the Cronbach alphas were 0.900, 0.846, 0.869, 0.891, 0.958, 0.923, 0.940 respectively (the alpha's are included in **Table 3**).

TABLE 3
Factors Items and Reliability Estimates

	Factors	***Items***	**Cronbach's alpha**
1.	bank set of values	(7)	.900
2.	support	(5)	.846
3.	quality-price relationship	(5)	.869
4.	serviceability	(5)	.891
5.	understanding and consulting	(2)	.958
6.	personnel relationship	(6)	.923
7.	communication for building up trust	(8)	.940

TABLE 4: Principal Component Analysis Results

items	Factor loadings						
	F1	F2	F3	F4	F5	F6	F7
Communication for building up Trust							
1. Information about the time needed for the approval of a product	.688						
2. Full information about the documents needed for a product	.652						
3. Detailed information about prices/ products/terms by the personnel which makes me trust them	.647						
4. Employees' behavior makes me feel secure	.617						
5. I feel secure about my transactions with the bank	.609						
Personnel relationship							
6. Friendly/polite behavior of personnel		.810					
7. Personnel willing to serve the customer		.800					
8. They work on the customer / they dedicate time		.768					
Quality-Price relationship							
9. Better loan interest rates and beneficial loan terms			.764				
10. No charge for expenses and commissions			.691				
11. Deposit interest rates compared to other banks			.675				
12. Number/range of products and services			.629				
Understanding and consulting							
13. Consulting support for any financial matter				.765			
14. Right diagnosis of customer's needs				.706			
Bank Set of Values							
15. Operates with transparency					.715		
16. Is really concerned with its customers' needs					.614		
Serviceability							
17. Promptness and speed of service						.787	
18. Speed of response to requests						.710	
19. Uses new technologies and modern systems						.624	
Educational Support							
20. Implements programs of training/ information to its customers							.794
21. Invests in personnel's training							.720
Alpha coefficient	*0.951*	*0.898*	*0.869*	*0.971*	*0.885*	*0.867*	*0.780*

Stage 2

For the performance of factor analysis, on one half of the random sample (split 0, n=243) in the pre-analysis testing Kaiser-Meyer-Olkin was 0.946 and Bartlett was significant p<0.01, demonstrating the adequate representation of the sample. Principal component analysis was used with equamax rotation. In the analysis the factors with eigenvalue greater than 1.0 and factor loadings equal or greater than 0.60 were retained (Dimitriades 2006). Analysis of communalities ranging from 0.616 to 0.908 is considered satisfactory and confirms an acceptable level of interpretation.

The analysis derived seven factors, which include the 21 variables that account for 79.099 of the total variance. The scales were assessed for reliability and, as the test indicated, the variable "*Sufficient information about the products, services offered by the bank*" (factor load 0.617) was excluded from factor F1 increasing reliability from 0.946 to 0.951; in addition, the variable "*Trained personnel/experts*" (factor load 0.606) was excluded from factor F4 increasing reliability from 0.916 to 0.971. Scale reliability for the seven factors including 21 variables (see **Table 4**), ranges from Cronbach alpha of 0.780 up to 0.971, indicating scale internal reliability, since 0.7 and above is usually acceptable (Nunnally 1978).

The factors derived from PCA on the half randomly selected sample verify the measurement construct which resulted from the initial exploratory (PAF) analysis. Then, Confirmatory factor analysis was employed on the second half of the sample (split 1, n=243) in order to assess the convergent and discriminant validity of the measurement model.

The procedures used to measure the fit of the model were x^2 statistics CMIN/DF and NNFI, CFI, RMSEA, and SRMR, the adequacy of which can offset the contribution of x^2 statistics, since it is sensitive to multivariate normality violations.

The results of the CFA on the second half split using AMOS 7, which are based on the reliable test statistics CMIN/d.f.=1.96, NFI=.911, CFI=,954 RMSEA=0.063, SRMR=0.055, demonstrate a good fit.

Furthermore, **Table 5** demonstrates that all loadings are significant as required for convergent validity. Scale reliability ranging from 0.78 τo 0.93 and the average variance extracted (AVE) from .56 to .86 indicate adequate convergence.

In addition, the author estimated the discriminant validity of the service quality dimensions based on Fornell and Larker's (1981) criterion, according to which evidence of discriminant validity is shown if the AVE is greater than the square of the construct correlations (see **SIC**, in **Table 6**) with the other factors and the value of AVE for each construct should be at least 0.50.

All variance (AVE) estimates extracted in the study (**Table 7**) are larger than the corresponding **S**quared **I**nterconstruct **C**orrelation estimates (**SIC**) despite the fact that the difference between factor F7 and factor F5 is marginal. Therefore, the seven construct CFA model demonstrates discriminant validity.

TABLE 5
Convergent Validity

	F1	*F2*	*F3*	*F4*	*F5*	*F6*	*F7*	*Item Reliabilities*	*delta*
F1	.667							0.444	0.55
	.798							0.636	0.36
	.771							0.594	0.40
	.850							0.772	0.23
	.796							0.633	0.36
F2		.853						0.727	0.27
		.892						0.795	0.20
		.901						0.811	0.18
F3			.593					0,351	0.64
			.819					0.670	0.33
			.749					0.561	0.43
			.875					0.765	0.23
F4				.944				0.891	0.10
				.915				0.837	0.16
F5					.873			0.762	0.24
					.796			0.633	0.37
F6						.736		0.541	0.46
						.673		0.453	0.55
						.836		0.698	0.29
F7							.861	0.741	0.27
							.732	0.535	
									0.46
V.E.	62.%	84.%	59.%	86.4%	69.8%	56.5%	63.8%		
C.R.	0.89	0.91	0.85	0.93	0.82	0.79	0.78		

Notes: VE = variance extracted; CR = construct reliability

$$VE = \frac{\sum_{i=1}^{n} \lambda_i^2}{n} \qquad CR = \frac{(\sum_{i=1}^{n} \lambda_i)^2}{(\sum_{i=1}^{n} \lambda_i)^2 + (\sum_{i=1}^{n} \delta_i)}$$

-

λ represents the standardized factor loading and i is the number of items
(δi) = the sum of the error variance terms for a construct (delta)

TABLE 6

Factor Correlations

	IC	SIC
F1<--> F2	.755	.700
F1<--> F3	.408	.1664
F1<--> F4	.628	.3943
F1<--> F5	.617	.3788
F1<--> F6	.662	. 4382
F1<--> F7	.424	.1797
F2<--> F3	.214	.0457
F2<--> F4	.499	.2490
F2<--> F5	.554	.3069
F2<--> F6	.633	.4006
F2<--> F7	.321	.1030
F3<--> F4	.545	.2970
F3<--> F5	.461	.2125
F3<--> F6	.481	.2313
F3<--> F7	.539	.2905
F4<--> F5	.666	.4435
F4<--> F6	.669	.4475
F4<--> F7	.531	.2819
F5<--> F6	.685	.4692
F5<--> F7	.798	.6368
F6<--> F7	.467	.2180

TABLE 7

Discriminant Validity

	AVE	SIC
(F1) Communication for building up Trust	.6158	.5700, .1664, .3943, .3788, .4382, .1797
(F2) Personnel relationship	.8376	.5700, .0457, .2490, .3069, .4006, .1030
(F3) Quality-Price relationship	.5867	.1664, .0457, .2970, .2125, .2313, .2905
(F4) Understanding and consulting	.8640	.3943, .2490, .2970, .4435, .4475, .2819
(F5) Bank set of values	.6975	.3788, .3069, 2125, .4435, .4692, .6368
(F6) Serviceability	.5646	.4382, .4006, .2313, .4475, .4692, .2180
(F7) Educational Support	.6380	,1997, .1030, .2905, .2819, .6368, .2180

A review of the specific framework follows, employing the 1-factor hypothesis of deriving satisfaction (Athanassopoulos et al. 2001). The outcomes of the two different tests were compared (**Table 8**) and demonstrated that applying one factor was not recommended.

TABLE 8

Summary Statistics of Model Fit

	7 factors	**1** factor
CMIN(chi-square x^2)	318.4	708.8
Degrees of freedom (d.f)	162	175
CMIN/ d.f	1.96	4.05
NFI [1]	0.911	0.803
CFI[1]	0.954	0.842
RMSEA [2]	0.063	0.112
SRMR	0.055	0.094

[1]NF1 and CFI values close to 1 indicate a good fit
[2] The lower the RMSEA and SRMR values, the better the model is considered to be.

In addition, although retests were carried out, by reducing one factor at a time and applying its determinant variables on the other factors, the procedure did not indicate a good fitting model compared to the 7-factor model.

According to two-step analysis results, the proposed bank service quality dimensions, which are operationalized by 21 variables for the Greek cooperative bank sector, are as follows:

***Communication for Building up Trust*:** Communication and sufficient information concerning the terms of cooperation, the offered products and services, the time required for transactions etc., produce a conscious or unconscious feeling of cognitive trust (Johnson and Grayson 2005) in the customers' relationship with the bank, and makes customers ex ante consider the specific type of bank as more honest, fair and safer compared with other bank types.

Personnel relationship involves the interaction between the bank personnel and customers, from the perspective of the cooperative bank customers, who perceive the bank personnel's friendly attitude, willingness and loyalty as key qualities for developing strong interpersonal bonds among all those involved.

Qu*ality-Price relationship* implies the relationship between quality/price and range of delivered services by the bank, according to its set objectives and corporate identity.

Understanding and Consulting is interpreted as the complete, clear and in-depth diagnosis of customers' needs and consulting support for any financial matter in order to help or guide cooperative bank customers to pursue the best course of action.

Bank Set of Values involves the principles and values set by a cooperative bank. In accordance with their value system, customers expect cooperative banks to focus on their customers and aim at satisfying customers' needs impartially.

Serviceability is perceived as the ability to deliver banking products or services which meet customers' needs promptly and quickly and maximize utility using modern methods and procedures.

Educational Support implies social awareness and responsibility of the cooperative bank stakeholders, which is principally manifested both in the customers' and employees' education/training programs.

Following Jabnoun and Khalifa (2005), based on the seven factors derived from the principal component factor analysis, the research described in this article employed a multiple regression analysis in order to determine the relative importance of service quality dimensions in predicting overall customer satisfaction with a view to examining dimensionality. The formula of the regression model is:

OVERALL SATISFACTION=
***f* (Communication for Building up Trust, Personnel Relationship, Quality-Price Relationship, Understanding and Consulting, Values of the Bank, Serviceability, Educational Support)**

The results (**Table 9**) indicate that overall customer satisfaction is mostly affected by four out of seven service quality dimensions: ***Bank Set of Values, Quality-Price relationship, Understanding and Consulting, Communication for Building up Trust.*** These empirical results demonstrate that the value system of the bank and the manifestation of emotional proximity are likely to differentiate customers' quality requirements and satisfaction from a cooperative bank more than the aspects of satisfaction from any other type of bank.

TABLE 9

Predicting Customers' Overall Satisfaction: Multiple Regression Analysis

Model	***Beta***	***t***	**Sig. Level**
1 (constant)	1.196	3.842	.000
Bank Set of Values	0.310	8.720	.000
Quality-Price relationship	0.207	6.859	.000
Understanding and consulting	0.178	4.946	.000
Communication for building up trust	0.187	4.074	.000

Notes: adjusted *R* square = 0.617, F = 196.440, $p < 0.05$

To conclude, cooperative banks, either consciously or unconsciously, are conceived by customers as organizations generating 'cognitive trust' and are, therefore, viewed as more equitable and honest than other types of banks. The specific perception seems to be prevalent in forming customers' expectations and is instrumental to generating satisfaction concerning customer relationship with the Bank.

DISCUSSION

In the services-sector, delivery of high quality service has long been recognized as a critical factor for developing and maintaining long-term, satisfying relationships with customers. Various authors have commented on what constitutes service quality claiming that the application of a business- and country-specific measure is more effective than a universal scale since the number and nature of service quality dimensions seem to vary across different service settings and countries.

In the financial services industry, bank institutions are distinguished in various categories, among which a vital and growing type pertains to socio- economic initiatives which belong to neither the public sector nor the private profiteering sector. Such an alternative form is cooperative banking. The fundamental difference between cooperative banks and other banks is the member- versus investor-driven orientation, which affects its operating philosophies and its relationship with customers.

The purpose of the study discussed and described in this article was to identify the dimensions of perceived quality of bank services by cooperative bank customers and to explore whether those or some of those affect overall satisfaction with a cooperative bank.

The empirical findings of our study support and extend prior research in that we demonstrated that service quality is a multidimensional construct, the dimensions of which tend to be industry- as well as country-specific and also that service quality could be a factor that leads to satisfaction (*see* Cronin and. Taylor 1992; Spreng and Macoy 1996; Babakus and Boller.1992). The results indicate that, despite the fact that service quality that satisfies cooperative bank customers' needs is rendered by several universal dimensions, the meaning and importance-hierarchy of those dimensions vary.

The empirical results of the present research, apart from providing additional insights into the possibility of establishing specific measures for service quality and customer satisfaction deriving from service delivery, demonstrate the realistic possibility of developing special scales for business-specific settings, such as cooperative banks.

In this respect, the pilot research revealed seven service quality dimensions (i.e. Communication for Building up Trust, Personnel Relationship, Quality-Price Relationship, Understanding and Consulting, Bank Set of Values, Serviceability, and Educational Support), four of which (i.e. Bank

Set of Values, Quality-Price Relationship, Understanding and Consulting and Communication for Building up Trust) seem to have a significant effect on customer satisfaction in the context studied.

Bank managers and marketers wishing to increase their customers' overall satisfaction should definitely be aware of the components inherent in service quality and of how service quality can be measured. Toward these ends, the present study can offer useful guidance to managers since it provides an efficient approach to developing an instrument for measuring service quality and the target factors which are pertinent to satisfaction and, consequently, to the priorities set for taking action to improve quality.

In terms of the customer-bank relationship, the present study demonstrates that cooperative banks tend to foster a conscious or unconscious feeling of cognitive trust among customers and anticipate a perception of being fair and more honest institutions compared with other bank types. This perception appears to affect customers' quality requirements from a bank and is crucial to fostering customer satisfaction. The components affecting customer satisfaction deriving from the perceived service quality in cooperative banks are particularly congruent with the meaning of the term '*cooperative*' itself, and they appear to imply the manifestation of bank emotional 'proximity' and image ('person-centered', mutual relationship and support). Constant and free communication with customers, mutual trust and interests, focus on customers' problems and concerns, as well as fair and consistent behavior influence customer satisfaction and, according to the findings of this study, they should be viewed as the cornerstone of established principles and practices for cooperative bank managers.

In addition, determining and understanding the specific major determinants of customer satisfaction are bound to be the basis of developing a cooperative bank differentiation strategy. The determinants "*Bank Set of Values*" and *"Understanding and Consulting",* which encompass bank identity and social responsibility features, in addition to eliminating information asymmetry ensued by the "*Communication for Building up Trust*" should be viewed as indispensable to bank policies by all those involved in cooperative bank administration and can be employed as a competitive advantage. Provided that cooperative banks invest in communication and build their communication policies focusing on the determinants at issue, they can enhance perceived customer value and, in turn, enhance bank potential to attract cooperative assets, which are crucial to bank sustainability and growth. In addition, "*Quality-Price Relationship"* is directly associated with affective satisfaction, and appears to be instrumental to affecting customer perceptions about cooperative banks when service delivery is assessed.

LIMITATIONS

It is important to point out the several limitations of the present study and, thus, place an emphasis on the need for further research. Given that the current study is exploratory and the sample is limited to customers only of a single cooperative bank in a specific part of Greece, much additional research would be needed to ascertain validation of the approach taken and generalizability of the results.

Recent studies have focused exclusively on the effect of customer profile on the measurement of customer attitudes and perceptions (Athanassopoulos and Lamproukos 1999; Yavas, Benkenstein and Studhldreier 2004) in the context of banking.

The study described in this article took advantage of the fact that cooperative bank customers are categorized in two distinct groups, as members or non-members. However, the small size of the non-member group (n = 110) in this study was certainly problematic in terms of conducting factor and regression analyses. Consequently, the differentiation of ranking and conceptualization of the quality dimensions involved for different groups of customers in cooperative banks (customers-members / non-members or depositors / borrowers) should be further researched considering that the focus on the distinction of members – non-members is merited if for no other reason than empirical research has demonstrated that members carry out more transactions in various sectors with '*Their own bank*' than ordinary customers and also that members are more important customers

than non-members as they are more loyal (Greve. 2005).

Further research should also be expanded and focus on cooperative banks in other countries, with a view to confirming the multidimensional nature of the proposed model. Future research should also test for factors which can possibly *moderate* Cooperative Bank customers' emotions, attitudes and behaviors.

REFERENCES

ACBG -Association of Cooperative Banks of Greece- (2011), "Cooperative Credit in Greece," available at: http://www.este.gr/en/index.html (accessed February 2011).

Akviran, K. Necmi (1994), "Developing an instrument to measure customer service quality in branch Banking," *International Journal of Bank Marketing*, 12, (6), 10-18.

Aldlaigan, H. Abdullah and Francis A. Buttle (2002), "SYSTRA-SQ: a new measure of bank service quality," *International Journal of Service Industry Management*, 13, (4), 362-381.

Allen, R. D. and T. R. Rao (2000), *Analysis of Customer Satisfaction Data*, ASQ Quality Press, Milwaukee, WI.

Allen, R. Derek and Morris Wilburn (2002), *Linking customer and employee satisfaction to the bottom line*, ASQ Quality Press, Milwaukee.

Allred, T. Anthony and Lon H. Addams (2000), "Service quality at banks and credit unions: what do their customers say?" *Managing Service Quality*, 10, (1), 52-60.

Anderson, W. E. and C. Fornell (1994), "A customer satisfaction research prospectus," in Rust, Roland T. and Richard L. Oliver (Eds), *Service Quality: New Directions in Theory and Practice*, Sage Publications, Thousand Oaks, 241-268.

Anderson, W. E. and M. Sullivan (1993), "Anteced-ents and consequences of customer satisfaction for firms," *Marketing Science*, 12, 125-43.

Athanassopoulos, D. Antreas (1997), "Embodying Service Quality into Operating Efficiency for Assessing the Effort Effectiveness in the Provision of Financial Services," *European Journal of Operational Research in Financial Services*, 98, 300-313.

Athanassopoulos, D. Antreas and Nikos S. Labroukos (1999), "Corporate customer behaviour towards financial services: empirical results from the emerging market of Greece," *International Journal of Bank Marketing*, 17, (6), 274 – 285.

Athanassopoulos, D. Antreas (1999), "Customer satisfaction cues to support market segmentation and explain switching behaviour," *Journal of Business Research*, 47, (3), 191-207.

Athanassopoulos, D. Antreas, Spiros Gounaris and Vlassis Stathakopoulos (2001), "Behavioural responses to customer satisfaction: an empirical study," *European Journal of Marketing*, 34, (5/6), 687-707.

Babakus, Emin and Molly Inhofe (1991), "The Role of Expectations and Attribute Importance in the Measurement of Service Quality," in Gilly, M.C. *et al.* (Eds), *Proceedings of the Summer Educators' Conference*, American Marketing Association, Chicago, IL, 142-144.

Babakus, Emin and Gregory W. Boller (1992), "An empirical assessment of the SERVQUAL scale," *Journal of Business Research*, 24, 253-68.

Babakus, Emin, Carol C. Bienstock and James R. Van Scotter (2004), "Linking perceived quality and customer satisfaction to store traffic and revenue growth," *Decision Science*, 35, (4), 713-737.

Bahia, Kamilia and Jacques Nantel (2000), "A reliable and valid measurement scale for perceived service quality of bank," *International Journal of Bank Marketing*, 18, (2), 84-91.

Bahia, Kamilia, Michèle Paulin and Jean Perrien (2000), "Reconciling literature about client satisfaction and perceived service quality," *Journal of Professional Services Marketing*, 12, (2), 21-41.

Blanchard, F. Robert and Les R.Galloway (1994), "Quality in retail banking," *International Journal of Service Industry Management*, 5, (4), 5-23.

Brady, K. Michael, Joseph J. Cronin and Richard R. Brand (2002), "Performance only measurement of service quality: a replication and extension," *Journal of Business Research*, 55, (1), 17-31.

Buzzell, Robert and Bradley T. Gale (1997), *The PIMS Principles: Linking Strategy to Performance*, Free Press, New York, NY.

Carman, M. James (1990), "Consumer perceptions of service quality: an assessment of the SERVQUAL dimensions," *Journal of Retailing*, 66, 33-35.

Caro, Laura Martínez and Jose Antonio Martínez García (2007), "Measuring perceived service quality in urgent transport service," *Journal of Retailing and Consumer Services*, 14, (1), 60-72.

Chiou, Jyh-shen and Richard A. Spreng (1996), "The reliability of difference scores: A re-examination," *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, 9, 158-167.

Chumpitaz, C. Ruben and Valérie Swaen (2002), "Service quality and brand loyalty relationships: investigating the mediating effect of customer satisfaction" in *31st European Marketing Academy Conference in Braga, Portugal 2001*.

Churchill Jr, A. Gilbert and Carol Surprenant (1982), "An investigation into the determinants of customer satisfaction," *Journal of Marketing Research*, 19, 491-504.

Cronin Jr, Joseph and Steven A. Taylor (1992), "Measuring service quality: a re-examination and extension," *Journal of Marketing*, 56, July, 55-68.

Cronin Jr, Joseph and Steven A. Taylor, (1994), "SERVPERF versus SERVQUAL: Reconciling performance-based and perceptions-minus-expectations measurement of service quality," *Journal of Marketing*, 60, 31-46.

DeCoster, Jamie (1998), "Overview of Factor Analysis," available at: http://www.stat-help.com/notes.html (accessed 10 January 2012).

Dimitriades, S. Zoe (2006), "Customer Satisfaction, Loyalty and Commitment in Service Organizations-Some evidence from Greece," *Management Research News*, 29, (12), 782-800.

EACB (European Association of Cooperative Banks) (2010), Press Release EACB, Cooperative Banks: "Thinking beyond the public company," available at: http://www.eacb.eu/ en /press. html?cat=& MaxR=15&p=2 (accessed March 2011).

Fornell, Claes and David F. Larcker (1981), "Evaluating Structural Equation Models with Unobservable Variables and Measurement Error," *Journal of Marketing Research*, 18, (1), 39-50.

Furrer, Olivier, Ben Shaw - Ching Liu, and Devanathan Sudharshan (2000), "The relationship between culture and service quality perceptions," *Journal of Service Research*, 2, (4), 355-370.

Greve, Rolf (2005), "The German Cooperative Banking Group as a Strategic Network: Function and Performance," *Working articles of the Institut für Genossenschaftswesen (Münster)*, 29.

Harrison, Tina (2000), *Financial Services Marketing*, Prentice-Hall, Edinburgh Gate, Marlow, Essex.

Howcroft, John Barry (1991), "Customer Satisfaction in Retail Banking," *Service Industries Journal*, January, 11-17.

Hume, Margee and Gillian Sullivan Mort (2008), "Satisfaction in performing arts: the role of value?" *European Journal of Marketing*, 42, (3/4), 311-326.

Jabnoun, Naceur and Azaddin Khalifa (2005), "A customized measure of service quality in the UAE," *Managing Service Quality*, 15, (4), 374-388.

Johnson, Devon and Kent Grayson (2005), "Cognitive and affective trust in service relationships," *Journal of Business Research*, 58, 500–507.

Karafolas, Simeon (2007), "The Cooperative Credit System in the Greek banking market: structure and potential," Economics of Cooperative Banking, *Workshop, Helsinki, 7-8 December 2007*.

Karafolas, Simeon and Androniki Katarachia (2009), "Legislative framework on agriculture and credit cooperatives in Greece," in D. Hiez, *Droit comparé des coopératives européennes*, Larcier, Collections de l' Université de Luxembourg, 95-114.

LeBlanc, Gaston and Nha Nguyen (1988), "Customers' perceptions of service quality in financial institutions," *International Journal of Bank Marketing*, 6, (4), 7-18.

Maddern, Harry, Roger S. Maull, Andi Smart and Paul Baker (2007), "Customer satisfaction and service quality in UK financial services," *International Journal of Operations & Production Management*, 27, (9), 998-1019.

Marshall, N. Martin (1996), "Sampling for qualitative research," *Family Practice*, 13, (6), 522-525.

Mihelis, Georgios, Evagelos Grigoroudis., Yiannis Siskos, Yiannis Politis, and Yiannis Malandrakis (2001), "Customer satisfaction measurement in the private bank sector," *European Journal of Operational Research*, 130, (2), 347–360.

Newman, Karin (2001), "Interrogating SERVQUAL: a critical assessment of service quality measurement in a high street retail bank," *International Journal of Bank Marketing*, 19, (3), 126-139.

Nunnally, Jum C. (1978), *Psychometric theory* (2nd Ed.), New York: McGraw-Hill.

Oakland, John S. (1986), "Systematic quality management in banking," *Service Industries Journal*, 193-205.

Papasolomou-Doukakis, Ioanna (2002), "The Role of Employee Development in Customer Relations: The Case of UK Retail Banks," *Corporate Communication*, 7, (1), 62-77.

Parasuraman, "Parsu", Valarie A. Zeithaml and Leonard L. Berry (1985), "A conceptual model of service quality and its implications for future research," *Journal of Marketing*, 43, Fall, 41-50.

Parasuraman, "Parsu" A., Valarie A. Zeithaml and Leonard L. Berry (1988), "A multiple-item scale for measuring consumer perceptions of service quality," *Journal of Retailing*, 64, (1), 12-40.

Patton, Michael Quinn (1990), *Qualitative Evaluation and Research Methods*, 2nd ed. Sage, Newbury Park, California.

Pizam, Abraham and Taylor Ellis (1999), "Customer satisfaction and its measurement in hospitality enterprises," *International Journal of Contemporary Hospitality Management*, 11, (7), 326-339.

Quester, Pascale, John W. Wilkinson and Simon Romaniuk (1995), "A test of four service quality measurement scales: the case of the Australian advertising industry," *Working Article 39, Centre de Recherche et d'Etudes Appliquées, Group esc Nantes Atlantique, Graduate School of Management*, Nantes, France.

Reichheld, F. Frederick (1993), "Loyalty-Based Management," *Harvard Business Review*, 71, (2), 64–73.

Rust, T. Roland and Anthony J. Zahorik (1993), "Customer satisfaction, customer retention, and market share," *Journal of Retailing*, 69, 193–216.

Rust, T. Roland, Anthony J. Zahorik and Timothy L. Keiningham (1995), "Return on quality (ROQ): making service quality financially accountable," *Journal of Marketing*, 59, (2), 58-70.

Shemwell, J. Donald, Ugur Yavas and Zeynep Bilgin (1998), "Customer-service provider relationships: an empirical test of a model of service quality, satisfaction and relationship oriented outcome," *International Journal of Service Industry Management*, 9, 155-168.

Snow, Kim, Henry Bartel and Tony Cullen (1996), "How ethnicity influences service expectations: a Canadian perspective," *Managing Service Quality*, 6, (6), 33-37.

Soteriou, C. Andreas and Yiannos Stavrinides (2000), "An internal customer service quality data envelopment analysis model for bank branches," *Interlocal Journal of Bank Marketing*, 18, (5), 226–52.

Spreng, A. Richard and Robert D. Mackoy (1996), "An empirical examination of a model of perceived service quality and satisfaction," *Journal of Retailing*, 72, 201-214.

Sureshchandar, G.S., Chandrasekharan Rajendran and Reddiyoor N. Anatharaman, R.N. (2002), "The relationship between service quality and customer satisfaction: a factor specific approach," *Journal of Services Marketing*, 16, (4), 363-379.

Taylor, A. Steven and Thomas L. Baker (1994), "An assessment of the relationship between service quality and customer satisfaction in the formation of consumers' purchase intentions," *Journal of Retailing*, 70, (2), 163-178.

Teas, Kenneth R. (1993), "Expectations, performance evaluation and consumers' perceptions of quality," *Journal of Marketing*, 57, (4), 18-34.

Van Dyke, Thomas, Leon A. Kappelman, and Victor R. Prybutok (1997), "Measuring information systems service quality: Concerns on the use of the SERVQUAL questionnaire," *MIS Quarterly*, 21, (2), 195–208.

Vavra, Terry (1997), *Improving Your Measurement of Customer Satisfaction: A Guide to Creating, Conducting, Analyzing, and Reporting Customer Satisfaction Measurement Programs*, ASQ Quality Press, Milwaukee, WI.

Voss, Christopher A., Aleda V. Roth, Eve D. Rosenzweig, Kate Blackmon and Richard B. Chase (2004), "A tale of two countries' conservatism, service quality, and feedback on customer satisfaction," *Journal of Service Research*, 6, (3), 212-23.

Wang, Yonggui, Hing-P. Lo and Yer V. Hui (2003), "The antecedents of service quality and product quality and their influences on bank reputation: evidence from the banking industry in China," *Managing Service Quality*, 13, (1), 72-83.

Wittink, Dick R. and Leonard R. Bayer (1994), "The measurement imperative," *Marketing Research*, 6, (4),14-22.

Yavas, Ugur, Martin Benkenstein and Uwe Studhldreier (2004), "Relationships between service quality and behavioral outcomes: a study of private bank customers in Germany," *International Journal of Bank Marketing*, 22, (2), 147-57.

Zeithaml, A. Valarie, Leonard L. Berry and "Parsu" A. Parasuraman (1996), "The behavioral consequences of service quality," *Journal of Marketing*, 60, April, 31-46.

Zeithaml, A. Valarie and Mary Jo Bitner (2000), "*Services Marketing, Integrating Customer Focus Across the Firm*," 2nd Edition, Irwin/McGraw-Hill, Boston.

Zineldin, Mosad (1996), "Bank-corporate client "partnership" relationship: benefits and life cycle," *International Journal of Bank Marketing*, 14, (3), 14-22.

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APPENDIX A

Principal Axis Factor Analysis-Scale Items

Items	*Factor loadings*						
	F1	F2	F3	F4	F5	F5	F7
***F1 Bank set of Values** (alpha = **0.900**)*							
1. Operates with transparency						**,669**	
2. Is really interested in its customers' needs						**,579**	
3. Invests in personnel's training							**,586**
4. Has as a goal the mutual benefit of the bank, its customers, the employees and the society						**,444**	
5. You feel that it is "your own bank"						**,462**	
***F2 Support** (alpha = **0.846**)*							
6. Treats all its customers/members in the same way						**,524**	
7. Offers to its customers more than expected			,467				**,434**
8. Provides good services at a reasonable cost						**,425**	
9. Has a wide network of branches in distant areas							**,526**
10. Helps with the development of local societies						**,441**	
11. Implements programs of training/information to its customers							**,780**
12. Helps its customers cope with financial difficulties							**,436**
***F3 Quality price reltionship**(alpha = **0.869**)*							
13. Deposit interest rates compared to other banks			**,631**				
14. Better loan interest rates and beneficial loan terms			**,741**				
15. No charge for expenses and commissions			**,717**				
16. Other services (fixed commands, bill settlements, insurance services)			**,539**				
17. Number/range of products and services			**,571**				
***F4 Serviceability** (alpha = **0.891**)*							
18. Products adapted to customers' needs				,463	**,409**		
19. Uses new technologies and modern systems	,410				**,473**		
20. Promptness and speed of service					**,684**		
21. Speed of response to requests					**,789**		
22. Effectiveness of problems solutions					**,605**		
***F5 Understanding and consulting** (alpha = **0.958**)*							
23. Consulting support for any financial matter				**,703**			
24. Right diagnosis of customer's needs				**,743**			
***F6 Personnel relationship** (alpha = **0.923**)*							
25. Trained personnel/experts	**,567**			,497			
26. Personnel willing to serve the customer	**,803**						
27. They work on the client / they dedicate time	**,784**						
28. They understand the customer's needs	**,642**			,458			
29. Friendly/polite behavior of personnel	**,788**						
30. Well done appearance of the personnel	**,525**						
***F7 Communication for building Trust** (alpha = **0.940**)*							
31. Clear communication with the terms of cooperation with the cooperative bank		**,655**					
32. Sufficient information about the products, services offered by the bank		**,612**					
33. Information about the time needed for the approval of a product		**,638**					
34. Full information about the documents needed for a product		**,664**					
35. Employees' behavior makes me feel secure	,410	**,593**					
36. The Bank has no secret charges and obscure wording of terms		**,562**					
37. Detailed information about prices/ products/terms by the personnel which makes me trust them		**,639**					
38. I feel secure about my transactions with the bank		**,564**					

Extraction Method: Principal Axis Factoring. Rotation Method: Equamax with Kaiser Normalization