“Service quality and customer satisfaction in banks during an economic recession and banking crisis period: the critical case of a Greek cooperative Bank”

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Service quality and customer satisfaction in banks during an economic recession and banking crisis period: the critical case of a Greek Cooperative Bank

Abstract

The authors tested a modified SERVQUAL scale based on a survey of Pancretan Cooperative Bank’s customers – in terms of a critical case study – in order to identify any differences in service quality satisfaction and its impact on the behavioral intentions of the bank’s customers. Considering the BANKZOT model, the research intention was to: (1) identify the zone of tolerance (ZOT) of bank’s services performance and customers’ satisfaction level; (2) examine which of the service quality dimensions of the adapted SERVQUAL model contributed significantly to overall customer satisfaction and loyalty; and (3) examine if the ZOT of bank’s services performance might successfully predict customer loyalty, market share and financial performance in an economic and debt crisis period. The data were collected by means of a structured questionnaire answered by 150 bank’s customers from all over Crete (island of Southern Greece). Based on the research results, the authors were leaded to the conclusion that the ZOT of Bank’s services performance might successfully predict customer loyalty, contribute substantially to the increase of the market share, and increase bank’s financial performance, in an economic recession and banking crisis period. Research, practical and policy implications are summarized in the discussion section.

Keywords: service quality, customer satisfaction, ZOT, Greek cooperative banks, Pancretan Cooperative Bank, economic crisis.

JEL Classification: M31, M37, M39, G20.

Introduction

History taught us that periodically recessions afflict the world economies and the world economy is likely to worsen because of the consumer’s fears created by a cascade of financial and business catastrophes (e.g., Grossberg, 2009) including bank’s customers. In order to deepen our understanding about the unique characteristics of the current economic crisis in Greece, first of all we have to keep in mind that the heart of the problem is that Greece is a “relatively closed economy” (as characterized by the European Commission). This means that the most significant problem of the Greek economy the last decades is the “deficit” of marketing know-how and the shortage of marketing experts because of the low level of marketing orientation of Greek companies. The characterization of the Greek economy as “relatively closed economy” is strongly supported by empirical works that show the low levels of export performance and marketing orientation of Greek companies from most economic sectors (e.g., Theodorakiglou and Wright, 1998; Halikias and Panayotopoulou, 2003; Gounaris, Avlonitis and Papastathopoulos, 2004; Brouthers and Nakos, 2005) including the banking sector (e.g., Lewis and Spyroupopulos, 2001; Angelis, Lympepopoulos and Dimaki, 2005; Mavri and Ioannou, 2008). Therefore, we have a strong logical explanation about the roots of the current Greek economic crisis.

In order to deepen our understanding how the current economic recession and banking crisis period created complex socio-economic problems that confuse more and more the political and entrepreneurial leaders and senior marketing executives, let’s see the evolution of the Greek GDP from 1980 till now. Generally, in order economists to achieve a stable economic growth, they look to annual goals of GDP growth of 2.5-3 percent, an inflation rate of 3-4 percent, and an unemployment rate of approximately 5 percent. It is quite easy to see through the evolution of Greek GDP (1980-2014) compared to other EU countries and US (based on tools like IMF DataMapper) that there are no classical cycles of recessions and peaks for the Greek economy (in accordance to the classical technical analysis by measuring the distance from peak to peak etc.). Greece has only experienced very small recessions (2.3% at 1986 and 1.6% at 1993) and not such a great recession. Consequently, we must realize that in order the Greek senior marketing executives to adapt their marketing approach, policies and strategies they need special guidance how to respond to the sea change in the attitudes of individual customers during this current recession period. Moreover, this seems not to be very easy if we consider that the strategy orientation of most Greek service firms are “confused strategists” (Salavou, 2010).

There is no doubt that the banking institutions in Greece are facing the greatest challenge and threat
in their history due to the current economic crisis, considering the strongest social perception that connects the failure and the contribution of the Greek banking system on the economic and debt crisis (e.g., Popescu, 2012). For this reason, we found interesting to focus on the activities – actions that the banks adopt in order to provide sound quality of their services to their customers in this period. The co-operative banking model was initially and it seems that it is still based on ‘relationship banking’. The customer has always been and is still at the core of bank’s operations. The cooperative banks are characterized by a large degree of commonality for its members. The majority of cooperative banks were found to be on members’ capital contribution and in return, of this contribution the bank’s members receive a vote and therefore say how the co-operative was managed. In addition, the members of the cooperative banks have quick and flexible service, better deposit and loan records as well as advisory service for every possible investment plan (Wyman, 2008).

During the 90s’ in rural areas of Greece, a new form of cooperative activity appeared with significant dynamism. In early 90s there were two credit cooperatives operating in Greek territory (Lamia and Ioannina) and at the end of the decade there were fifteen cooperative banks located in provincial cities around Greece (Alexopoulos and Davis, 2007). The basic difference between cooperative and commercial banks is the fact that cooperative banks primary aim is the support and growth of local economy. In cooperative banks, customer’s deposits and capital are recycling within the local economy. Cooperative banks have better knowledge of local economy and they are having great deal of soft information (which is hard to collect) about the creditworthiness of customers, so less lending mistakes. Cooperative banks generally support new enterprising efforts and small and medium-sized businesses have easier access in financing their scopes. Flexibility and low functional cost is another difference of cooperative banks relative to commercial banks. Moreover, cooperative banks have larger capital base and capital adequacy than commercial banks (Fiordelisi and Mare, 2013). Moreover, membership in cooperative banks is not tradable as in commercial banks. Finally, in co-operative banks, members, who are also customers of the bank, control the management in principle. Although cooperative banks may pay dividends based on profitability, the distribution of profits is more limited relative to commercial banks (Wyman, 2008).

Banking institutions in Greek territory occupy a pivotal position in country’s economic life. The banks in Greece have historically played a dominant role in channeling financial savings from surplus to deficit economic units, whereas the relative importance of other financial institutions, was until recently very limited, but is currently increasing (Frangos et al., 2012). Over the last two decades, the Greek banking industry has undergone substantial changes. Deregulation came as an outcome of the international trends towards globalization and liberalization of financial markets. Newly introduced banking products and services, technological advances, intense competition and recently mergers and acquisitions between institutions, have transformed the structure and performance of banks in Greece (e.g., Alexiou and Voyazas, 2009). Prior to the economic crisis, the banking sector was highly competitive by international standards, with sound fundamentals. The sovereign crisis put the sector under stress as banks experienced substantial deposit outflows, became cut off from capital markets, and took sharp losses on Greek sovereign bonds (Wall Street Journal, 2012). In the business finance magazines, it is generally implied that in post-crisis environment the banks have adopted “customer-centric” strategies (e.g., Businessfinancemag.com, 2012). Those strategies may include segmentation of bank’s customers, needs and behavior analysis, renewal of products, sales and service process design and maybe new pricing strategies (e.g., Businessfinancemag.com, 2012).

The research aim of this study is to test a modified SERVQUAL scale based on a questionnaire survey of Pancretan Cooperative Bank’s customers. In addition, the critical case study examines the differences in service quality satisfaction and its impact on the behavioral intentions of the bank’s customers. Our research intention is to: (1) identify the zone of tolerance (ZOT) of bank’s services performance and customers’ satisfaction level; (2) examine which of the service quality dimensions of the adapted SERVQUAL model contributes significantly to overall customer satisfaction and loyalty; and (3) examine if the ZOT of bank’s services performance might successfully predict customer loyalty, market share and financial performance in an economic and debt crisis period.

1. Theoretical framework and literature support

According to the international literature, customer satisfaction is a primary organizational goal for any business (e.g., Mangold et al., 1999), including the organizations of the financial and banking sectors (Page and Luding, 2003) and definitely a goal in quality management literature (Newman, Cowling and Leigh, 1990). Customer satisfaction is the result of purchasers’ perceptions of service quality (Parasuraman et al., 1985), and a satisfied customer is the best ambassador and salesperson for a retail bank (Gupta and Dev, 2012). Kaboli, Fathi and Azizi (2011) argued that customer satisfaction is the
key to the profitability of retail banking and that customers’ retention for the long-term may well be less expensive compared to attracting new ones. Hansemark and Albinsson (2004) pointed out that one of the critical points on retail bank’s profit is customer satisfaction and retention. In several other works (e.g., Anderson et al., 1994; Ittner and Larcker, 1998; Zeithaml, 2000) it is emphasized the substantial positive relationship of customer satisfaction on firm’s profitability. Siddiqi (2011) characteristically underlined that the customer is the king and high customer satisfaction is important in maintaining a loyal customer base. Customer loyalty is a prime determinant of long-term financial performance of firms, in accordance with McDougall and Levesque (2000). Customer loyalty can lower costs and/or increase company’s profitability (Kotler et al., 1999). Zeithaml Berry and Parasuraman (1996) stated that loyalty is a multi-dimensional construct and includes both positive and negative responses. However, a loyal customer may not necessarily be a satisfied customer.

Based on Oliver’s disconfirmation model (1980) and the “Expectancy Disconfirmation Theory” (which is upon the basis of Festinger’s (1957) “Cognitive Dissonance Theory”) in which had been proposed that satisfaction is a function of the disconfirmation of performance from expectation, Parasuraman et al. (1985) developed the SERVQUAL model in order to measure the quality of services that customers perceived. The theoretical foundations of SERVQUAL model were based on the performance to expectations gaps on the characteristics that customers use to evaluate service quality. When performance exceeds expectations, quality increases; on the contrary, when performance falls short of expectations, quality decreases (Chen et al., 2009). Zeithaml, Parasuraman and Berry (1990) developed the “gaps model” of service quality. Since its inception has become a very popular method for measuring service quality (Greenland, Coshall and Combe, 2006). The model examined services in a structured and integrated way. More specifically, it was emphasized that the shrinkage of the gap between what customers expect and what they finally perceive from the consumption of a service, is critical to delivering quality service and ensuring customer satisfaction and retention (Chen et al., 2009). According to Siami and Gorji (2012), the model tries to clarify the reasons that quality of services cannot meet customer’s demand. Delivering appropriate service quality plays a pivotal role in service industries such as banking, as it is critical to the profitability and more generally to the survival of service organizations (e.g., Siami and Gorji, 2012).

One of the models for the investigation of the role of expectations in customer and organization outcomes is the zone of tolerance model (Stodnick and Marley 2013). The zone of tolerance model is a useful tool of analysis, in order to deepen the understanding of customer perceptions of quality and their impact on customers’ satisfaction and loyalty with service (Chang et al., 2012). The bank zone of tolerance (BANKZOT) model was adopted for the needs of this study that may deepen our understanding of how Pancretan Cooperative Bank customers’ perceptions of quality impact their satisfaction for the bank’s services. Many researchers and practitioners (e.g., Nadiri, Kandampully and Hussain, 2009; Hu, Lee and Yen, 2010; Yilmaz, 2010) evidenced the significant impact of the zone of tolerance theory. The studies, however, have yielded mixed results (Stodnick and Maley, 2013).

2. Research methodology

2.1. Research method and reasoning for the selection of the critical case. This study examined the critical case of the biggest cooperative bank in Greece, Pancretan Cooperative Bank, in order to examine the differences in service quality satisfaction and its impact on the behavioral intentions of the bank’s customers, using a modified SERVQUAL scale based on customers’ questionnaires. The use of the critical case study was considered to be of high value in marketing case studies (e.g., Spais, 2010; Spais, 2011) and in our analysis because in general, many phenomena examined in empirical studies were not always very well understood, in accordance with Cutler (2004). The research method of critical case study was introduced in order to reveal new constructs and to attempt to establish an initial understanding of the constructs and their relationship with other constructs (Yin, 1994). We believe that the critical case of Pancretan Cooperative Bank gave us valuable information on about customers’ perceptions of service quality, the identification of their zones of tolerance, and the measurement of customers’ satisfaction and loyalty in this banking institution. Thus, the phenomenon studied can become more visible.

The Pancretan Cooperative Bank was evaluated as an interesting critical case for the measurement of the above issues since in its 20 years of operation, succeeded to become the biggest cooperative organization in Greece, numbering more than 81,000 active members (from 157,835 members of all ten Greek cooperative banks) and 211,031 customers from 385,571 customers of all ten Greek cooperative banks (Association of Cooperative Banks of Greece – ACBG, December 2013). It is the biggest co-operative bank with 1,639,776,000 total loans compared to 2,857,289,000 of all ten Greek
cooperative banks and 1,336,270,000 total deposits compared to 2,607,020,000 of all ten Greek cooperative banks (Association of Cooperative Banks of Greece – ACBG, Dec. 2013). It is the third bigger bank in Crete (island of Southern Greece), possessing more than 16% of total deposits and the 20% of the total loans, in the island (Pancretan Bank, 2012). Regarding to cooperation with main trade sectors (on total portfolio) at December 2012 63.9% were enterprises compared to 48.3% of the banking system, 16.6% were professionals and farmers compared to 6.2% of the banking system. Moreover, the critical case of Pancretan Cooperative Bank was considered as quite important for the measurement of the above issues because the administration of the bank claimed continuously that Pancretan Cooperative bank is a different bank, managing its customers with clarity and accountability.

2.2. Research instrument and data collection. The research instrument was a structured questionnaire including forty-six (46) questions, the majority of them measured by likert-type scales. The questionnaire is in Greek language and it is organized in three parts. The first part aims to collect all the necessary demographic data. The second part of the questionnaire includes a three-column format that generates separate ratings of desired, adequate, and perceived service using three identical, side-by-side scales. The variables measured in the two sections of the questionnaire follow (see Table 1 and Table 2):

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAN1</td>
<td>Functionality and comfortability of the branch.</td>
</tr>
<tr>
<td>TAN2</td>
<td>Modern branch.</td>
</tr>
<tr>
<td>TAN3</td>
<td>Neat branch.</td>
</tr>
<tr>
<td>TAN4</td>
<td>Documents visually appealing.</td>
</tr>
<tr>
<td>REL1</td>
<td>Minimum error service.</td>
</tr>
<tr>
<td>REL2</td>
<td>Quick problem solving.</td>
</tr>
<tr>
<td>REL3</td>
<td>Employees promises.</td>
</tr>
<tr>
<td>RES1</td>
<td>Employees skills necessary.</td>
</tr>
<tr>
<td>RES2</td>
<td>Employees are sincere.</td>
</tr>
<tr>
<td>RES3</td>
<td>Employees have knowledge.</td>
</tr>
<tr>
<td>RES4</td>
<td>Employees have knowledge.</td>
</tr>
<tr>
<td>RES5</td>
<td>Employees inform exactly when service perform.</td>
</tr>
<tr>
<td>ASS1</td>
<td>Employees service quickly.</td>
</tr>
<tr>
<td>ASS2</td>
<td>Bank service quick.</td>
</tr>
<tr>
<td>ASS3</td>
<td>Employees willing to help.</td>
</tr>
<tr>
<td>ASS4</td>
<td>Safe transactions.</td>
</tr>
<tr>
<td>EMP1</td>
<td>Employees understand my needs.</td>
</tr>
<tr>
<td>EMP2</td>
<td>Employees give individual attention.</td>
</tr>
<tr>
<td>EMP3</td>
<td>Convinient open hours.</td>
</tr>
<tr>
<td>EMP4</td>
<td>Tills open in busy hours.</td>
</tr>
<tr>
<td>EMP5</td>
<td>ATM have always money.</td>
</tr>
<tr>
<td>EMP6</td>
<td>Not long queues.</td>
</tr>
<tr>
<td>EMP7</td>
<td>Products according to my needs.</td>
</tr>
<tr>
<td>SAT1</td>
<td>Satisfaction from bank.</td>
</tr>
</tbody>
</table>

Table 1. Variables measured in Section 2 of the questionnaire

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>K1</td>
<td>Good relation with the manager and the employees.</td>
</tr>
<tr>
<td>K2</td>
<td>Competitive interest rates.</td>
</tr>
<tr>
<td>K3</td>
<td>Wide range of services.</td>
</tr>
<tr>
<td>K4</td>
<td>High response to expectations.</td>
</tr>
<tr>
<td>K5</td>
<td>Switching cost.</td>
</tr>
</tbody>
</table>

The respondents evaluated a twenty-four (24) items measured in seven-point scales. The items of the SERVQUAL dimensions were customized to evaluate Pancretan’s Cooperative Bank customers’ expectations and perceptions. In the third part of the questionnaire, the respondent was asked to evaluate twenty items. Those items ask the respondents about their experience and beliefs on the banking sector and their feelings about Pancretan Cooperative Bank respectively. During the period of data collection, 190 questionnaires were distributed to the bank customers and 178 questionnaires were returned. In all 150 questionnaires were found to be useful which represent a 79% response rate from the original sample of 190. A pilot study of the questionnaire was employed amongst 10 customers of the bank resulting that some of the words were difficult to understand by customers. Those words were eliminated and straightforward words were included.

The respondents of our study were asked to estimate and evaluate the quality of Pancretan Cooperative Bank’s services, in accordance with their minimum and maximum service quality expectations that they have when they complete a bank transaction. In addition, they were asked to evaluate their level of satisfaction in Pancretan Cooperative Bank as well as their level of loyalty in this banking institution. In this study, the population consists of all customers of the Pancretan Cooperative Bank, aged 18 until 70 who are living in the 4 big cities of Crete (Heraklion, Chania, Rethimnon and Agios Nikolaos). The sampling unit is the bank’s customers that they had at least one transaction with Pancretan Bank in the previous month of the survey. Based on a convenience sampling, the survey was conducted in the big four cities of Crete due to the fact that more than eighty (80%) of the bank’s operations is conduct in those four counties of Crete. Moreover, the choice of the four big cities of Crete for performing this statistical analysis is crucial because 48 out of 55 of the bank’s branches are located in those counties. Data collection was over the period of 1 month (from April 5-May 3, 2013), at different times, with a view to sampling a wide range of customers. In order to secure high response rate, the questions were structured in such way, in order to be sure that customers with different educational backgrounds can understand the measured items and fill the questionnaire in fast and reliable way.

3. Research results and discussion

3.1. Sample characteristics and descriptive statistics. The questionnaire administered to the custo-
mbers was designed in order to identify bank customer’s satisfaction and to measure customer’s zone of tolerance in Pancretan Cooperative Bank. A sample frame of 150 customers of the bank participated in this research, 90 of them was conducted in Heraklion (60% of the sample) and the remaining 60 participants were conducted in the rest 3 big cities of Crete (Rethimnon, Agios Nikolaos and Chania, 20 participants in each city, 13.33% of the sample). The sampling technique employed was a probability sampling technique and more specifically a convenience sample. Intercept interview technique was used in order the participants to be conducted by the researcher in the bank’s branches, just after they had completed their transactions with the bank. In our sample, the 55.33% of the participants were male and the remaining 44.67% were female. The age of the majority of the sample was between 26-44 years with 63.33% of the participants. The most participants of our sample were married with children (55.33%) and only 3.33% were divorced or widowers. With respect to the participant’s place of living, 54.67% of the participants were living in a big metropolitan city and only 5.33% were living in a small city (5000-19,999 citizens). With respect to the participants occupation, 36.67% were self-employed, 31.33% were employees in the private sector and only 0.67% were farmers and housewife-housekeeper. In terms of duration – usage of Pancretan Cooperative Bank services, 36.67% have cooperation from 6-10 years and only 7.33% cooperative with the bank for less than 2 years. In terms of respondents’ current cooperation with other banks (simultaneously with their cooperation with Pancretan Bank), 88.67% of the sample used more than 1 bank to keep their bank accounts and 11.33% of the sample exclusively use Pancretan Bank for their every day transactions.

The largest mean values were observed in the dimension of assurance and more specifically in variable ASS3 (Employees are willing to help) with a mean value 6.22 out of 7 and the variable ASS1 (employees service quickly) with a mean value of 6.01 out of 7. We are 95% confident that the true value of the parameter is in our confidence interval. Because of the non-normality of the distributions, there was evidence to believe that the mean value of the variables might be affected by the very high or the very low values of the sample, which in turn resulted the value of the sample mean, lost its ability to provide the best central location for the data. The difference between the mean and the media values were not essential. Therefore, regardless the non-normality of the sample we considered the values of the arithmetic mean as reliable.

3.2. The ranking of the SERVQUAL five dimensions. The respondents ranked the importance of the five dimensions of the SERVQUAL model. This question was answered on a 5-point scale, where 1 means very important and 5 means least important. Consequently, the dimension that has the smaller score is the most important according to respondents’ opinions. The most important dimension was reliability in services with total score 241 points mean 1.61 and standard deviation 0.948. Second most important dimension based on sample opinion is responsiveness with total score 387 points mean 2.58 and standard deviation 1.107. A moderately important dimension was assurance with total score 434 points, mean 2.89 and standard deviation 1.112. A dimension of little importance was empathy total score 508 points, mean 3.39 and standard deviation 1.060. Finally the least important dimension was tangibility with total score 679 points mean 4.53 and standard deviation 0.96.

The respondents ranked the importance of the five dimensions of the SERVQUAL model exclusively for Pancretan Cooperative Bank. The results seem to be quite different with respect to the previous analyzed question. The dimension that had the higher score was the dimension in which Pancretan Bank was more powerful, according to the respondents and contributed significantly to overall customer satisfaction. The respondents evaluated Pancretan Bank as good in dimension of assurance (sum of 600 points, mean 4 and standard deviation 0.835). Empathy is the second best dimension with a total score of 556 points, mean 3.71 and standard deviation of 0.902. Dimension of Responsiveness was following with a total score of 546 points, mean equals 3.64 and standard deviation equals 0.854. Tangibility is the fourth dimension with a total score of 544 points, mean value equals 3.63 and standard deviation equals 0.916. Finally, the dimension was Reliability with the total score of 542 points, arithmetic mean 3.61 and standard deviation 0.858.

At this point, we have to mention that the results were very close to each other. If we round the value of the arithmetic mean to the closer integer, we will have a common result for all the SERVQUAL dimensions. All the assessed dimensions of the SERVQUAL model in Pancretan Cooperative Bank were in good performance level (mean value equals to 4). This result indicated the seriousness of which the bank attached to its service delivery to be able to compete keenly in the market for expansion of customers. This result is aligned with Beeri, Martin and Quintana’s (2004) customer satisfaction description who described customer satisfaction as the measure of the extent a bank fulfills the general expectations of a customer and how far and/or close does the existing bank come to the customers’ ideal bank in his/her mind. The dominant dimension of the SERVQUAL for the customers of Pancretan
Bank was assurance, with all the other dimensions to be very close to each other (see Table 3).

Table 3. Classification of SERVQUAL dimensions for Pancretan Bank compared to general classification

<table>
<thead>
<tr>
<th>Classification of SERVQUAL dimensions in general terms</th>
<th>Classification of SERVQUAL dimensions for Pancretan Bank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reliability</td>
<td>Assurance</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>Empathy</td>
</tr>
<tr>
<td>Assurance</td>
<td>Responsiveness</td>
</tr>
<tr>
<td>Empathy</td>
<td>Tangibility</td>
</tr>
<tr>
<td>Tangibility</td>
<td>Reliability</td>
</tr>
</tbody>
</table>

3.3. Factor analysis. In order to investigate the dimensionality of our data set, we present an explanatory factor analysis using varimax rotation. In this analysis all the 23 items were analyzed. From the rotated component matrix, the factors are three components extracted. For the first component there are 12 out of 23 factor loadings that are greater than 0.50. Those variable loadings are:

- Dimension of responsiveness: RES2 = 0.831, RES5 = 0.814, RES3 = 0.791, RES4 = 0.703, RES1 = 0.677.
- Dimension of assurance: ASS1 = 0.79, ASS3 = 0.785, ASS2 = 0.731.
- Dimension of empathy: EMP2 = 0.752, EMP1 = 0.683.
- Dimension of reliability: REL3 = 0.710, REL2 = 0.522.

For the second component there are 4 out of 23 factor loadings greater than 0.50. Those variable loadings belong to the dimension of Tangibles and more specifically: TAN2 = 0.818, TAN4 = 0.773, TAN3 = 0.747, TAN1 = 0.577. For the third component there are 5 out of 23 factor loadings greater than 0.50. Those variable loadings belong to the dimension of Empathy and more specifically: EMP5 = 0.756, EMP4 = 0.691, EMP3 = 0.638, EMP6 = 0.619, EMP7 = 0.558.

The items ASS4 and REL1 were deleted due to inadequate factor loadings < 0.50. Based on the results above, our data set failed to provide BANKZOT model’s five distinct dimensions. The factor loadings of those dimensions were found to be three-dimensional. This factor analysis proved that SERVQUAL model was not a good measure of service quality because we expected to see similar items fall under the same factor showing that they measure the same thing, as identified for tangible dimension. Eigenvalue for the above mentioned three components are 11.94, 1.776 and 1.173 for the first, second and third component, respectively. The percentage of the variance explained is 32.94% for the first component, 16.06% for the second component and 15.73% for the third component, having an aggregate 64.73%, which means that these three dimensions account for 64.73% of the total variation. The Kaiser Meyer-Olkin statistic was found to be 0.934. The Kaiser-Meyer-Olkin statistic measures the sample adequacy and more specifically, whether the partial correlations among variables are small. The value of the statistic should be greater than 0.5 in order to have a satisfactory factor analysis. In our case, the large value of the statistic shows that the factor analysis of the variables is a good idea and the results are appropriate. Further, the value of Bartlett’s test of sphericity is 2572.68 with significance (0.000). Bartlett’s test of sphericity tests whether the correlation matrix is an identity matrix, which would signify that the factor model is inappropriate. In our sample, Bartlett’s test of sphericity is significant, meaning that the correlation matrix is not an identity matrix, and so strength of the relationship among variables is strong.

3.4. Reliability analysis, model’s dimensions and the ZOT for Pancretan Cooperative Bank. In order to generate complex scales or indices an evaluation of the psychometric properties of the questions in our questionnaire was conducted using Cronbach’s alpha coefficient of reliability. This coefficient varies from 0 to 1.0 and a common rule of thumb is that the indicators should have a Cronbach’s alpha of 0.7 to judge the set as reliable (Hair et al., 1995). Moreover according to Hair et al. (1995), the use of Cronbach’s Alpha does not ensure unidimensionality but instead assumes it exists. Cronbach’s alpha coefficient for each level of service and for each dimension of the SERVQUAL exceeded the suggested level of 0.70. Explanatory factor analysis using varimax rotation was adopted in order to investigate the dimensionality of the BANKZOT instrument. It was proved that our data set failed to provide BANKZOT model’s five distinct dimensions. The factor loadings of those dimensions were found to be three-dimensional. The eigenvalue for the three components had an aggregate 64.73%, which means that these three dimensions account for 64.73% of the model’s total variation. Further, the Meyer-Olkin statistic was found to be 0.934 showing that variable’s factor analysis is a good idea and the results are appropriate. Finally, the value of Bartlett’s test of sphericity is 2572.68 with significance (0.000) meaning that the correlation matrix is not an identity matrix, and so strength of the relationship among variables is strong.

As a measure of service expectations and service perceptions, we calculated the Bank zone of tolerance based on the difference between customers’ desired service and adequate service. Subsequently, we calculated the measure of service superiority (MSS) and measure of service adequacy (MSA) in...
order to determine Pancretan’s Bank competitive position for services standpoint. The mean value of the desired level of service (6.25) was higher than the mean value of the adequate level of services (5.20). Furthermore, the mean value of the perceived level of service (5.68) was higher than the mean value of the adequate level of services (5.20). Moreover, the mean value of the predicted service is calculated and it is equal to 5.63. Based on the above we concluded that the service was within the ZOT.

Examining the width of the zone of tolerance, the results revealed a situation of a narrow zone of tolerance for the customers of the bank (see Figure 1). The width of zone of tolerance was found to be less than 20% of the point-of-scale used (7-point Likert scale). Perceived service level is found to be close to the desired service level, which reflects the proposition of Zeithaml, Berry and Parasuraman (1993) which states that “the higher the level of predicted service, the higher the level of adequate service and narrower zone of tolerance” (Nadiri et al., 2011, p. 118). Moreover the MSS is positive and within the zone of tolerance, but the MSA is negative and below the zone of tolerance.

![Fig. 1. The width of the zone tolerance for Pancretan Cooperative Bank](image)

The same relationship was found in terms of the dimensions of tangibles, reliability, responsiveness, assurance, and empathy. Therefore, we concluded that the respondents had a narrow zone of tolerance on each dimension of BANKZOT. It was also observed that the zone of tolerance was not the same for every dimension. We observed that the zone of tolerance was narrower in dimensions of “Reliability”, “Responsibility” and “Assurance” and wider in the case of “Empathy” and “Tangibles”. Further, the mean value of predicted service level was higher than the mean value of adequate service level, and this explained customer satisfaction in the BANKZOT model.

We observed the high expectation scores for all the dimensions of the SERVQUAL. The maximum expectation mean value was observed for the “Assurance” Dimension (6.48) and the lower for the “Tangibles” Dimension (5.80). As far as the perception mean values were concerned, the maximum perception mean value was observed for the “Assurance” Dimension (5.93) and the minimum was observed for the “Tangibles” Dimension (5.43). Moreover, the mean values of the expectation scores in all dimensions of the model were higher than the corresponding perception values, meaning that all service items suffered from service quality shortfall. However, all the associated perceptions were having values of more 5.0 indicating a better service delivery for the dimensions. The values of gap scores for every dimension of the model were close to each other.

We conducted paired-samples T test for the values of expectation and perception means of all SERVQUAL dimensions. Based on the research results, we observed that the values of the expectation and perception means were significantly different (reject the null hypothesis). We also observed that the negative gap indicated that the expected service quality was not achieved by the bank and the expectations of the Pancretan Bank customers were not met. However, this deficit in the quality of services seems not to affect the general image of the bank (as shown by the level of customer satisfaction). Further, we calculated the perception mean of customer satisfaction, which was equal to 5.63 and it was therefore, concluded that the dimensions of the BANKZOT was a good predictor of customer satisfaction for Pancretan Cooperative Bank. The narrow zone of tolerance for the customers of Pancretan Cooperative Bank indicated that customers did not accept heterogeneity in their services quality. The narrow zone of tolerance was driven mainly by heightened expectations of the customers and generally, those customers were more sensitive to satisfaction changes. This might reduce the explanatory power of satisfaction on customer’s loyalty. The dimension with the widest zone of tolerance was “Tangibles” (1.18) with the other dimensions to be close to 1. The dimension with the lowest zone of tolerance was “Reliability” (0.96). These research results were consistent with the studies of Liljander and Strandvick’s (1993), Walker and Baker (2000), proving that the narrow zone of tolerance was driven mainly by heightened expectations of the customers. Moreover, Hu, Lee and Yen (2010) suggested that items with the smaller ZOT should have a higher priority for improvement.

### 3.5. Correlation and regression analysis

One of the research questions of this study was to identify which service quality dimension of the adapted SERVQUAL model contributed significantly to customer satisfaction and loyalty of Pancretan Cooperative Bank. Using the Spearman’s rho statistical criterion, we observed that the relationship between
customer satisfaction (as a dependent variable) and the 22 independent variables of the SERVQUAL model was positive. The values of the Spearman's rho statistic were not extremely high and so our data set was not facing the problem of multicollinearity between the variables. Concluding the strength of the relationship between customer satisfaction and all the SERVQUAL dimensions in the sample was positive and strong. More specifically, we observed higher correlation values between customer satisfaction and the dimensions of Empathy, Assurance and Responsiveness. The results of a multiple regression analysis produced five alternative models, and we adopted the following model:

$$ SAT1 = -0.757 + 0.499K10 + 0.242EMP7 + 0.26ASS2 + 0.159EMP1 + 0.13EMP4 $$

The results of the autocorrelation and multicollinearity tests showed that our results are free from these errors. Based on the above, only variable K10 (General image of the bank) essentially influence the dependent variable of perceived customer satisfaction in Pancretan bank. For every unit increase of K10 there was an increase in the perceived value of customer satisfaction equal to 0.499. The t-statistics for the intercept and the regression coefficients were: -2.613, 5.440, 4.603, 4.002, 2.836, 2.831 accordingly. The constant and the regression coefficients were statistically significant for both $a = 5\%$ and $a = 1\%$. The Adjusted Coefficient of Determination ($R^2_{adj}$) value was 0.787, which meaning that proposed model accounted for 78.7% of the variance in satisfaction.

$$ K8 = -0.062 + 0.684K9 + 0.180EMP7 - 0.145TAN2 + 0.156K1 $$

The K9 variable (“strong possibility of continuing the cooperation in the future”) influenced the customers’ intention to increase the level of cooperation with the bank. For every unit increase of K9 there is an increase in customers’ intention to increase the level of cooperation with Pancretan Bank equal to 0.684. The t-statistics for the intercept and the regression coefficients were 0.213, 9.991, 3.876, -3.057 and 2.575 accordingly. The regression coefficients were statistically significant for both $a = 5\%$ and $a = 1\%$, apart from the variable K1 which is significant only in $a = 5\%$. The constant was not significant neither in $a = 5\%$ nor in $a = 1\%$. The Adjusted Coefficient of Determination ($R^2_{adj}$) value was 0.669, meaning that proposed model accounted for 66.90% of the variance in satisfaction. Based on the ANOVA analysis, we rejected the null hypothesis of non-difference in the variation of the independent variables ($\text{sig} = 0.000$). Concluding, the research results showed us that the Dimensions of empathy and assurance were the only two dimensions that were significant predictors of perceived customer satisfaction in Pancretan Cooperative Bank. A stepwise multiple regression analysis was performed to test the relationship between the dependent variable – loyalty (K8: “increase of the level of cooperation with bank”) – on sets of independent variables. The results produced four alternative models and we adopted the following model:

$$ K8 = -0.062 + 0.684K9 + 0.180EMP7 - 0.145TAN2 + 0.156K1 $$

3.6. ZOT for Pancretan Cooperative Bank and its impact on customer loyalty, market share and financial performance. Based on the above research results, we observed that customers’ expectations for service quality were higher than their perceived service level provided by Pancretan Bank, for every dimension of SERVQUAL. Consequently, the bank had failed to meet their customer’s expectations. The theory stated that customers were delighted and thus loyal to the service provider, if they experience a reasonable level of satisfaction, which was achieved when their perceptions for service exceed their expectations. This clearly was not the case for Pancretan Cooperative Bank’s customers. Customers’ perceived level of service lied within the zone of tolerance, which meant that Pancretan Bank customers were not delighted with the bank’s services. The customers were not frustrated or dissatisfied with the provided services, but on the other hand, they were not delighted regarding the level of services, because their expectations were not met. Further, we observed that 88.67% of the sample cooperate with more than one bank and only 11.33% used exclusively Pancretan Cooperative Bank for their everyday banking transactions. As far as market share and financial performance of the bank was concerned, the perceived financial and banking crisis in Greece seems to have fewer effects in Pancretan Cooperative Bank’s balance sheet as we observed (see Figure 2 and Figure 3). This is resulted because of customers’ good opti-
The bank’s customers were in general terms satisfied from the bank’s services and they supported the institution with their trust. Indeed, the percentage of deposit losses and loans delays over the 90 days was smaller against the other banks for the years 2010-2012.

Consequently, Pancretan Bank in order to remain competitive and financially sound should continue to keep its customers satisfied, to develop more the provided services, to educate more its personnel and to take all the necessary actions on order the provided services to be reliable and simple.

4. Implications

4.1. Theoretical, managerial and practical implications. We assumed for this study that the assessment of desired and adequate expectations are valuable in determining and monitoring service performance and customer satisfaction for a cooperative bank operating, in an lengthy economic recession and banking crisis period, we intended to test a modified SERVQUAL scale as a valuable strategic tool for cooperative banks. The theoretical approach of Nadiri, Kandampully and Nadiri (2009), is particularly valuable in determining and monitoring service performance and the level of satisfaction for the customers of a cooperative bank has become one of the most important factors for survival and success, especially during the economic recession and banking crisis periods. Delivery of high-quality service aids in meeting several important, for every banking institution, requirements such as customer satisfaction and its consequent loyalty and market share, soliciting new customers, financial performance, and profitability (Cui, Lewis and Park, 2003).

Therefore, the assumptions regarding our study stem from the theoretical approach of Nadiri Kandampully and Nadiri (2009), and their conceptual model BANKZOT that customers’ expectations can be classified into categories when they evaluate the quality of bank services. The desired service is the level of service that customers hope to receive and the adequate service expectation is the lower level of performance that customers will accept. It was also presumed that customer expectations could be considered from narrow and broad perspectives. As far as narrow perspective is concerned customer, expectation is a belief in the future performance of a product. According to broad perspective, expectation is multidimensional and it is associated with different levels of performance. In accordance with Hu (2010), the smaller the difference between desired and adequate service the smaller there will be the range of service performance of the feature, which is acceptable to the customers of a cooperative bank even during an economic recession period. Therefore, items with the lower ZOT should have a higher priority for being improved than others. Zone of tolerance conditions are bound to be changeable. Cooperative banks’ customers may update their le-
levels of satisfaction and adjust the width of their zone of tolerance by using the information gathered during new interaction experiences with the bank over time.

Cooperative banks operate in a very competitive and complex marketing environment. It is more than essential for a cooperative bank to provide superior services quality, in order to reach service excellence. A key question for marketing managers of a cooperative bank in an economic recession period is whether they should focus their marketing strategy on SERVQUAL dimensions considered as more important by customers or they should focus on the dimensions that appear to drive customer satisfaction?

The findings of this study (based on the interpretation of the research results) are very important for the marketing managers of cooperative banks during an economic recession and banking crisis period. A vital issue of a cooperative bank (with a strong local orientation, as raised from their missions) is to understand that customers in economic recession periods are becoming more demanding especially when the customers consider the level of bank services as adequate. The zone of tolerance of a cooperative bank’s services performance may successfully predict customer loyalty, market share and financial performance. When cooperative banks’ customers have a general good opinion about their bank, then perceptions of customers for the economic crisis may have not a significant impact on bank’s market share and financial performance. When customers are in general, satisfied from the bank’s services, then they support the institution with their trust. Customers with wide zone of tolerance are easier satisfied than other with narrow zone of tolerance. Therefore, cooperative banks in economic recession periods have to manage effectively their customers’ zone of tolerance, especially in an adequate level, in order to prevent at least customer’s frustration and dissatisfaction.

Cooperative banks’ customers are not likely to accept heterogeneity in services quality. Further, if the zone of tolerance is narrow or nonexistent the marketing management seems to have very few degrees of freedom for tactical moves in order to keep the customers satisfied. Marketing managers of cooperative banks must keep in mind that the customers have narrower zone of tolerance widths in attributes that they consider most important. For the customers reliability and responsiveness are the most important attributes and the bank should develop corporate approaches in order to improve the level of reliability and responsiveness to their customers. The cooperative banks should take measures in order to provide the promised services dependently and accurately, as well as to provide prompt service and to be willing to help their customers, especially in periods where its customers face huge economics problems. When cooperative banks in economic recession periods cannot respond to customers’ expected service quality levels (perceived service lie within the zone of tolerance and not above it) this does not necessarily affect significantly the general image of the bank, and customers are satisfied in general terms. Therefore, BANKZOT dimensions are good predictors of customer satisfaction for cooperative banks during economic recession periods.

Marketing managers of cooperative banks must seriously consider the high positive correlation values between customer satisfaction and the dimensions of Empathy, Assurance and Responsiveness and the low correlation values between the customer satisfaction and Tangibles dimension. Regarding to customer loyalty at cooperative banks there is a significant positive influence with Empathy dimension and a significant negatively influence with Tangibles dimension. Consequently, dimensions of Empathy and Assurance contribute significantly to overall customer satisfaction and the dimensions of Empathy and Tangibles contribute to the customer loyalty at cooperative banks during economic recession periods.

Cooperative banks must focus on their employees as they are very close to their customers and they care about them. This relationship between customers and employees is ideal and it is still effective because of the small size of a cooperative bank. Customer service can be improved by training staff to treat customers with respect and by providing them with helpful services. It may also be recommended that cooperative banks should and have the competency to respond effectively to the questions that arise from the customers in emails or through complaints. This raises the critical role of CRM and cooperative banks have to improve and strengthen this relationship even more with the adoption of a clear Customer Relationship Management (CRM) policy.

4.2. Policy-making implications. Recessions are certainly a sobering period for many people, requiring changes in habitual spending and consumption patterns (Kay, 2010; Polat and Nergis, 2011). It is hard to change our spending habits. However, there are more effects of recession on customers and consumers. Recessions are leading to unemployment problems, therefore, incomes fall in general, consumer confidence decreases, and all these lead to a raise in uncertainty about the future (Kay, 2010). The new market situation is characterized as the “age of thrift” which has radically changed customer purchase behavior, and provides an environment dominated by public skepticism and lack of trust in business and in marketing offers (Pieryc, Cravens and Lane, 2010) and especially banks’ offers – as it is widely believed in Greece and in all western so-
cieties that banks played a central role in the current great recession.

In previous great recessions, such as the one of 1929 in US, economists relied on the Classical Theory of Economics, stated that the economy would self-correct, if government did not interfere. The recession deepened into the Great Depression without interferences and corrections led the economists to rethink the existed theories (EconEdLink, 2015). Therefore, governments of countries facing the catastrophe of the current economic recession must try to correct inflation and recession, in accordance with Keynes’ theory known as the “government intervention” to correct economic instability.

First, let’s keep in mind that every central bank, has three primary tools in recession periods (a. buy bonds on the open market, b. lower discount rates and c. reduction of reserved requirements/funds) available to change the money supply and they must realize the role of cooperative banks for the successful implementation of those tools, in order to lead the EU problematic economies to an exit from recession. Secondly, if fiscal policy and monetary policy plays a crucial role to correct the economic problems raised by the current economic recession, then the banking sector and especially cooperative banks (because of their local focus, the high knowledge of the characteristics of the local economies they market and social orientation) may definitely have a protagonist role to the “economic performance”. The economic performance can be illustrated through the concepts of aggregate supply and aggregate demand and we strongly believe that cooperative banks may play a significant role on the above concepts that are influenced by the level of banks’ marketing orientation and marketing performance. The total supply of goods and services produced in the nation’s economy is the aggregate supply. It is upward sloping because at higher prices of businesses have an incentive to produce more, and at lower prices they are likely to produce less. It is downward sloping because at higher prices, customers, consumers, organizations, businesses and foreign customers are less willing to buy, while they will likely buy more at lower prices. Changes in the performance of an economy can be illustrated by supply and aggregate demand curves (EconEdLink, 2015).

The unique contribution of cooperative banks in the local economies is raised by the ability to secure the stability of their customers’ confidence (by influencing their expectations and offering customized products) and this means that local economies’ consumers avoid to reduce their spending, aggregate demand will not fall, increasing real output and exit the country from recession. However, if the money supply is too large, excessive consumer demand can push up the aggregate demand, raising real output and prices and possibly pushing the country into serious inflation and here is one of the contributions of cooperative banks in the national economy through the differentiated product-mix offered to its local customers (compared to the lack of local market knowledge from the big commercial banks). The demand for money consists of customers, consumers, organizations, businesses and the government borrowing. It is widely known that the supply of money in Europe is set by the ECB (in US by the Federal Reserve Board of Governors). Supply and demand for money determine the interest rate that must be paid for the use of borrowed money. Therefore, if central banks increase the money supply, interest rates will fall, making it less expensive to borrow money. In that case, those wishing to borrow money will be more likely to do so – and be more likely to spend that money on customized products and services (EconEdLink, 2015). Moreover, this can be achieved by a differentiated product-mix that only small and local banks such as co-operative banks can offer. If the central banks reduce the money supply, interest rates will rise; therefore, less will be borrowed and spent.

Conclusions, limitations, and further research

Based on the research results, we were led to the conclusion that the ZOT of Pancoran Bank’s service performance might successfully predict customer loyalty, contribute substantially to the increase of the market share, and increase bank’s financial performance, in an economic recession and banking crisis period. Although due care was taken regarding methodological considerations, there were some limitations. Considering that, the chosen service company was a bank, created bureaucratic issues, concerning trust and privacy of the bank’s insight information. Further, because of the conditions of face-to-face interviews with the customers, the time pressure led to a significant rate of denial to take part in the survey. The customers’ sample was not considered as representative, as the study was focused only on one branch. This study discovered many issues that may provide a basis for more studies on service quality and customer satisfaction at the banking sector during an economic recession and banking crisis period. It is the first time where such study is conducted during the current economic recession and banking crisis period. It would be of high research value a future study to compare all the products of cooperative banks and commercial banks to rank their performance on service quality delivery and the levels of customer satisfaction. Further, future research tries must focus on Greek banks’ products that are considered as more dangerous and those that are the safest. Our study tried to
References


