School of Economics and Management
TECHNICAL UNIVERSITY OF LISBON

PERCEIVED QUALITY IN RURAL LODGINGS IN SPAIN AND PORTUGAL: THE *RURALQUAL* SCALE

Sandra Maria Correia Loureiro
Department of Economy, Management and Industrial Engineering – University of Aveiro

Francisco Javier Miranda González
University of Extremadura - Faculty of Economic and Managerial Sciences
Department of Applied Economy and Organization of Companies

Abstract

This work has two main goals. First we seek to start the validation process of the RURALQUAL scale as an instrument of evaluation of the quality of the service provided by rural lodgings in two border regions of the Iberian Peninsula: Extremadura (Spain) and the Alentejo (Portugal). Second, we aim to identify the most appropriate dimensions that integrate the variable service quality in this type of lodging. To do this we perform a factorial analysis. The paper ends with a set of recommendations for lodging managers in order to improve the quality of the service provided.

Key words: Perceived quality; SERVQUAL; Rural tourism; Satisfaction.

1. INTRODUCTION

Tourism has become one of the main sources of both employment and economic revenues worldwide. In fact, no town, region or State around the world, regardless of its development level, questions the need to foster the tourist sector as a base for its economic policy.

In the Iberian Peninsula, tourism plays an even more determining role. In fact during the year of 2005, Portugal and Spain together accounted for 10.6% of the total world income generated by tourism, in the order of 54,000 million Euros.

Correspondence Address: Sandra Maria Correia Loureiro – Department of Economy, Management and Industrial Engineering, Campus Universitário de Santiago, 3810-193 Aveiro – Portugal. E-mail: sandramloureiro@netcabo.pt.

33

Until the end of the XXth century tourism based on the "sun and beach" has been the star product of the Iberian Peninsula. Its excessive growth has forced tourism managers and other tourism professionals to search for new solutions and to develop new products or new tourism models. Among these new products is "rural tourism" (the Spanish designation) or "tourism in a rural space" (the Portuguese designation). Rural tourism is one of the tourism products that is able to satisfy the needs of a growing group of consumers that is looking for greater contact with nature and rural areas in their summer periods.

In the last few years rural tourism has experienced notable development in the Iberian Peninsula. According to the European Union, a quarter of the EU population moves to a rural space during their vacations. Yet, in Spain, in 2005 the number of rural lodgings still made up only 6.4% of the total of tourist lodgings and 4.8% of the total of available beds (data from the Instituto Nacional de Estadística of Spain). In Extremadura, still during the year of 2005, 70% of the offers of rural lodgings were called "Rural House".

In Portugal (data from 2005) 15.8% of rural lodgings were located in the Alentejo and more than two thirds were classified as "Rural Tourism" or "Agritourism". In fact, the Alentejo is one of the Portuguese regions that has experienced the most growth in the number of lodgings in the last 15 years (data from Direcção Geral do Turismo de Portugal).

Nowadays in the Iberian Peninsula, rural tourism is beset by a fundamental problem: the combination of some rural lodging agents' lack of management training together with inadequate time invested in the business by some owners who concomitantly hold other jobs can lead to an incorrect appreciation of the most important quality aspects that have to be addressed in order to improve the service delivered in the rural lodgings.

The introduction of a quality management strategy in the services sector is difficult due to problems stemming from the definition and measurement of quality in this sector. In light of this, this work seeks to measure the service quality delivered by the rural tourism of two border frontiers, traditionally agricultural regions, where the number of rural lodgings has experienced a considerable increase in the last few years: Extremadura (Spain) and the Alentejo (Portugal). To do this, we elaborate a scale of 22 items, called RURALQUAL, and we seek to validate the scale. We identify the most important dimensions that integrate variable service quality. We finish our study with a series of recommendations for agents of this type of lodging in order to improve the quality of their establishments.

2. SERVICE QUALITY EVALUATION

There are two important contributions to the definition of the service quality concept. They are centered in the perception that the client has of the quality delivered by the firm: the image model of Grönroos (1990, p. 41) and the gap model of Parasuraman *et al*, 1985. In both models, it is asumed that the perceived quality is the result of the comparison that client makes between the service expected and the service delivered. As such, expectations can be influenced by image, personal needs, friends' opinions and suggestions, the publicity policy operated by the firm, the customer's own experience, and so on. Usually for the same quality level of service delivered, the higher the customer's expectations, the lower the perceived quality.

Among all the models developed by researchers to measure service quality, the pioneer work of Parasuraman, Zeithaml and Berry (1985, 1988) can be considered as having had the biggest impact. Starting from the definition of service quality as the client's global vision about the excellence or superiority of the service, they develop an instrument to measure service quality, called SERVQUAL. The instrument is based on a comparison between the previous expectations of service users and their perceptions relative to the received service. The authors suggest that the reduction or the elimination of this difference, called GAP 5, depends on the management efficiency performed by the firm, and on four other deficiencies or discrepancies, namely:

- GAP 1: the manager perceives the customers' expectations differently from the customers ;
- GAP 2: the service quality specifications do not agree with management perceptions of quality expectations;
- GAP 3: a difference between quality specifications of the promised service and the final service delivered; and
- GAP 4: promises made by market communication activities are not met by the delivered service.

The SERVQUAL instrument has not been free from criticism. One concerns the role of expectations and its inclusion in the measuring instrument, in view of the fact that the model is based on a system of divergences (expectation-perceptions) and not on attitudes (Cronin and Taylor, 1992) and assumes that expectations are stable and not dependent on the specificity of service encountered. With this in mind, Cronin and Taylor (1992; 1994) propose an alternative model, called SERVPERF, which is made up of the same 22 items of the SERVQUAL scale but is used exclusively to measure service perceptions.

35

Regarding the dimensions of the service quality construct of Parasuraman et al, 1985, at first they specify 10 dimensions. Later Parasuraman et al, 1988,merge their ten original dimensions into five: reliability (ability to perform the promised service accurately and according to what was promised to customers); assurance (knowledge and courtesy of employees and their ability to inspire trust and confidence), responsiveness (willingness to help customers and provide prompt service), tangibility (physical facilities, equipment, and appearance of the personnel) and empathy (caring, individualized attention that the personnel provides to its costumers).

In spite of extensive use of the SERVQUAL instrument, the five dimension structure has not found general empirical support; only a few studies provide supporting evidence (e.g. Knutson et al, 1991; Patton et al, 1994). In most studies the use of the scale on different services and in different countries does not reproduce the original structure from Parasuraman et al, 1988, and different structures with a variable number of dimensions are found.

A literature review on different dimensional structures indicates that they differ mainly at the aggregation level (Brady and Cronin, 2001). Some authors suggest that service quality is a specific concept of the industry under study (Babakus and Boller, 1992), suggesting that the number and the nature of the dimensions of the service quality are directly related with the service analyzed.

Hence, many researchers have chosen to adapt the SERVQUAL scale to the tourism sector or to propose alternative measuring scales. As a result, sector scales have appeared, such as: LODGSERV for the quality of service in hotels (Knutson et al, 1990); LOGQUAL, which uses the 3 dimensions of tangibility, reliability and contact for hostelry (Getty and Thompson, 1994); DINESERV, made up of 29 items and 5 categories, for restaurants (Stevens et al, 1995); HOTELQUAL, 20 items and three dimensions for lodging services (Falces et al, 1999); HISTO-QUAL, 24 items and 5 dimensions for historical houses (Frochot and Hughes, 2000); and ECOSERV, 30 items and 6 dimensions for eco tourism (Khan, 2003). Although the above mentioned scales are all adapted from SERVQUAL, they all differ with regard to the number of items and dimensions.

In the studies about perceived quality in lodgings, a frequently recurring feature is the coalescence of the dimensions related to functional quality. Attributes that theoretically correspond to different dimensions of functional quality merge into a single dimension (Saleh and Ryan, 1992; Getty and Thompson, 1994; Díaz, 1997; Falces et al, 1999; and Aguilar and Moreno, 2002). On the other hand, inside the technical dimension, one can distinguish mainly tangibility and complementary offer (Saleh and Ryan, 1992; Díaz, 1997; and Albacete and Sources, 2002). The work of Albacete and Sources (2002) and the work carried out by Díaz (1997) about perceived quality in rural tourism incorporate a dimension (basic benefit) that includes attributes about tangible and/or non tangible

36

elements and another related to reliability (condition of the service). To a certain extent there is an overlap between the technical and functional dimensions.

The literature review also shows that some studies found empirical evidence for unidimensionality (Cronin and Taylor, 1992; Babakus and Boller, 1992; Brown et al, 1993; and Santiago, 2001); nevertheless, a great number of studies about the perceived quality have identified different dimensions.

In the field of the rural tourism, most of the works carried out about perceived quality are theoretical in character. However, there are some empirical studies about the quality of shared rent rural lodgings at a national level (Hernández et al, 2005), rural homes in the Asturias (Ruiz et al, 1995; Vázquez and Díaz, 1996; Díaz and Vázquez, 1998; Vázquez et al, 2000; Díaz et al, 2000), in Galilea and the regions center and south of Israel (Reichel et al, 2000), as well as of historical houses in Great Britain (Laws, 1998; Frochot and Hughes, 2000; Frochot, 2003).

In the scientific literature the judgment of satisfaction has often been used as a synonym for the judgment of quality. This may be because both concepts are traditionally based on a Disconfirmation Paradigm (applied to expectations). Still, Parasuraman, Zeithaml, and Berry (1985, p.42; 1988, p.15) attempt to distinguish between the two concepts: quality is defined as a form of attitude towards a service, evaluated over a period of time and involving the process of delivery while satisfaction is related to a specific encounter with a service. This distinction is corroborated by other researchers (e.g. Bitner, 1990; Bolton and Drew, 1991a, Cronin and Taylor, 1992; Oliver, 1993). The attempt to distinguish between quality and satisfaction extends beyond the cognitive to consider affective and emotional aspects. In this way, diverse researchers distinguish quality from satisfaction, considering the former to be more cognitive, and the latter, although cognitive, to include a predominant affective or emotional component (Cadotte et al, 1987; Mano and Oliver, 1993; Oliver, 1993; Westbrook and Oliver, 1991).

There is no agreement in the literature about the causal order relationship between quality and satisfaction. Nevertheless, the causal order from quality to satisfaction has been preponderant in several studies (e.g. Taylor and Baker, 1994; Getty and Thompson, 1994; Llorens, 1996; Spreng and Mackoy, 1996; Zeithaml et al, 1996; Muddy and Martin, 1999; Dabholkar et al, 2000; Cronin et al, 2000; Baker and Crompton, 2000; Bigné, Sánchez and Sánchez, 2001; Brady, Cronin and Brand, 2002; Setó, 2003; Appiah-Adu, Fyall and Singh, 2000; Heung and Cheng, 2000; Kozak and Rimmington, 2000).

Bigné et al, 2001 (p.613) refer that service quality has a positive influence on satisfaction. Since quality is an immediate antecedent of satisfaction that affects the intentions of returning to a specific touristic destination, its direct measurement through satisfaction and improvement are crucial for those responsible for the tourist destination (Bigné et al, 2000, p.614).

37

Bowen and Clarke (2002) carry out a reflection on the research on tourist satisfaction. In their study Bowen and Clarke (2002, p.298) affirm that there is an emerging consensus that satisfaction has a superior order to quality, which is a distinction itself, and, in general terms, satisfaction is judged as being more affective or emotional than quality.

In this study a 22 item scale is used to evaluate the service quality in rural lodgings and an exploratory factor analysis is performed to find the number of factors extracted from the sample of this study. Instead of surveying the clients about global satisfaction with only one item, seven items are used within a single dimension. In this way we expect to be able to gain a better understanding of the concept (Churchill, 1979).

3. METHODOLOGY

This study takes into account the paradigm of the development of scales of Churchill (1979), as well as studies of the adaptation of the SERVQUAL scale to different realities (e.g. Laws, 1998; Frochot and Hughes, 2000; Frochot, 2003; Ruíz et al, 1995; Falces et al, 1999).

Following a literature review, the different items proposed for the scale are based on the SERVQUAL scale (Parasuraman et al, 1985; 1988; 1991); the SERVPERF scale, because it uses a performance-only approach (Getty and Thompson, 1994; Cronin and Taylor, 1992; Firebrands, 1993; Carman, 1990); the change proposed for the tourist sector by Ruíz et al, 1995 (p. 19-25); and interviews with 49 owners and managers for rural lodgings in Extremadura and 36 in the Alentejo (almost one third of the total).These managers were contacted to know if the selection of the items was appropriate and if some aspect had been forgotten.

The use of a perception scale is justified by the dynamic character of the client's expectations and by the greater effort required by the tourist to complete two questionnaires, one before using the lodging (expectations) and another before leaving (perceptions). That would markedly reduce the number of tourists willing to collaborate in the study.

In this study satisfaction is also evaluated with the intention of analyzing its predictive validity, given that causal order from quality to satisfaction has been preponderant in several studies. A seven-item scale based on Bigné et al, 2001, Brady et al., 2002, and Setó (2003) evaluates the satisfaction of the experience of the service.

In the questionnaire the tourist is requested to evaluate the different items with a Likert scale of five points (1-strongly disagree, 5-strongly agree).

Paper-based questionnaires were distributed throughout the lodgings of the two regions. An online version of the questionnaire was also created for the clients

of the rural lodgings who preferred to fill it out by that means. The concern with stratification is justified by the need to ensure the representativeness of the people that use the lodging relative to the number, geographical localization and modality of the lodgings provided. (See Table 1.)

TABLE 1

Study Technical Sheet

Target Population	Geographical Area	Sample Size
Rural Tourism Lodgings Customers	Extremadura (Spain) and Alentejo (Portugal)	Extremadura (n = 344) Alentejo (n = 335)

The main characteristics of the client sample are listed in Table 2. The proportion of local clients is superior to that of foreigners in both regions. More than 60% of the sample in both regions fell in the age group 31-50 years, which corroborates the main statistics about rural tourism.

TABLE 2

Survey Customer Profile

	Gender	Age	Country of origin
Extremadura	Male: 52.9% Female: 47.1%	< 21: 2.6% 21-30: 18.6% 31-40: 31.7% 41-50: 35.2% 51-60: 9.3% > 60: 2.6%	Spain: 94.2% Portugal: 3.2% United Kingdom: 1.5% E.U.A.: 0.6% Holland: 0.6%
Alentejo	Male: 50.4% Female: 49.6%	< 21: 1.5% 21-30: 9.9% 31-40: 33.7% 41-50: 28.7% 51-60: 20.9% > 60: 5.4%	Portugal: 93.1% United Kingdom: 1.5% E.U.A.: 1.5% Germany: 1.2% Canada: 0.9% France: 0.6% Norway: 0.6% Japan: 0.3% Spain: 0.3%

39

4. RESULTS

Analysis of the data is centered on starting the validation process of the 22-item scale to measure perceived quality. It begins by analyzing content validity, internal consistency of the scale, factorial analysis, convergent validity, and the discriminant validity of the dimensions. Finally the relative importance of the different dimensions is identified. The values of AVE and the discriminant validity analyses are accessed using the PLS (Partial Least Squares) approach.

4.1 Content validity of the scale

As already stated, the RURALQUAL scale of perceived quality is based on scales presented in previous works (Parasuraman *et al*, 1985, p.42-47; 1988, p.14-20; 1991, p.422-430; Ruiz *et al*, 1995, p.19-25). Given that the RURAL-QUAL scale is applied in countries with different languages, the items were formulated in Spanish, Portuguese and English. In order to guarantee the full equivalence of the items, the translation was carried out by specialists of these three languages). Consequently, the content validity of the scale was guaranteed (see Table 3).

4.2 Internal consistency of the scale, factorial analysis, and convergent validity

To analyze the internal consistency of the scale the coefficient Cronbach's alpha is used. The value (0.894) of the Cronbach's alpha shows good internal consistency for the RURALQUAL scale since it is clearly above 0.8, the value recommended by several authors as a reference (Luque, 2000). Nevertheless, elimination of RQ13 item improves the consistency (0.896) while elimination of other items does not improve the quality of the results (Nunnally, 1978). Item RQ13 has the lowest correlation (0.338) with the RURALQUAL scale; therefore, it can be eliminated (Tian, Bearden, and Hunter, 2001).

The exploratory factor analysis of principal components enables us to identify the factors or dimensions of the scale, but before this it is necessary to verify the sample adequacy. The value of the Kaiser-Meyer-Olkin (KMO) indicates whether there is a good correlation among the items or not. KMO value increases when item RQ13 is not included (it changes from 0.836 to 0.846). Thus a good correlation between items exists, and it even shows a small improvement with the elimination of RQ13. On other hand, Bartlett's test of sphericity (6775.845), when the item RQ13 is excluded, has a level of significance of 0.000 ($p < 0.01$). Thus, we can reject the hypothesis that the matrix of the correlation of the population is the identity matrix. So, there is correlation among the variables.

40

TABLE 3

Items of the RURALQUAL scale

RQ1	The rural lodging facilities are in good state.
RQ2	The rural lodging facilities and rooms have comfortable furniture.
RQ3	The rural lodging has a pleasant temperature.
RQ4	The rural lodging facilities and rooms are clean.
RQ5	The rural lodging foods are well presented and flavoursome.
RQ6	The rural lodging employees have a clean and neat appearance.
RQ7	The clients are treated cordially and affably.
RQ8	Personalized attention is provided to each client.
RQ9	The lodging employees know the functions that they carry out.
RQ10	The clients are integrated in region's rural lifestyle.
RQ11	The lodging architecture has the region's style.
RQ12	The decoration uses materials and objects of local tradition.
RQ13	Access to the rural lodging is easy.
RQ14	The lodging offers easy parking.
RQ15	The lodging is located in an area of great natural beauty.
RQ16	The lodging is located in a calm place.
RQ17	Thypical gastronomy of the region is included on the lodging menu.
RQ18	Access to cultural, recreational and/or sports activities is facilitated.
RQ19	In the surrounding region there are fairs, local festivities and other aspects of cultural interest.
RQ20	Arrival schedules are established but they are quite flexible.
RQ21	Room reservation is easy to do.
RQ22	The reservation is confirmed in the most convenient way for the client, other information of interest is sent back too (e.g. access map).

For these reasons we decided to eliminate item RQ13 and to proceed with exploratory factor analysis. The five factors extracted by Kaiser's criterion (initial eigenvalue > 1) explain 63.286% of the total variance. Each factor extracted from exploratory factor analyses can be considered as a construct. A construct is a term specifically designed for a special scientific purpose, generally to organize knowledge and direct research in an attempt to describe or explain some aspect of nature (Peter, 1981). Ebel (1974) suggests that constructs in behavioral science provide only partial descriptions of behavior and not theoretical explanations. Thus, each factor is a construct in the behavioral science sense since it provides a description of quality dimension and can be operationalized by other observables variables.

41

One of the main objectives of factor analysis is to identify the factors that stand out and cause the common variation of the observed variables. The most delicate task in the analysis is the interpretation of the factors. To find a structure of factors whose interpretation is clear and more meaningful, factor rotation is applied. In our case we carry out an orthogonal rotation with the Varimax algorithm, which is the most commonly used method in prior studies (Cronin and Taylor, 1992; Otto and Ritchie, 1996; Díaz and Vázquez, 1998; Falces et al, 1999; Kastenholz et al, 1999; Frochot and Hughes, 2000; Grand et al, 2002; Aguiar and García, 2002; Witkowski and Wolfinbarger, 2002; Khan, 2003; Juwaheer and Ross, 2003; Setó, 2003).

In order to confirm an initial exploratory factor analysis, since a new sample was not collected, two sub-samples are randomly selected from the data obtained in Extremadura and the Alentejo. Since the communalities of the two sub-samples show similar values to those of the initial sample, the total variance explained is also similar, and the factor loading approach enough, we can accept an initial confirmatory factor analysis (Hair et al, 1998; Hill, 2000).

Table 4 shows the results after factor rotation. Items with a factor loading less than 0.4 should be eliminated. Preferably they should be above 0.7, but in new scales lower values can be accepted (Fabrigar, Wegener, MacCallum and Strahan, 1999; Netemeyer et al, 2003; Nunnally, 1978; Barclay et al, 1995). Item RQ10 has the lowest factor loading (0.458), but its correlation with the third dimension is higher than the correlation with each of the other dimensions and its communality (0.593) is not less than 0.3. Furthermore, elimination of this item reduces the value of Cronbach's alpha (0.757) for the third dimension. Because of this, RQ10 is not eliminated.

The first factor or dimension, Professionalism, has a good internal consistency (0.827), and aggregates aspects such as: cleaning of the facilities, cleaning, cordiality and personalized attention of the employees to the clients, as well as the knowledge of the employees about functions they carry out. This dimension has already been found in other studies carried out in the tourism sector (Falces et al, 1999; Vázquez and Díaz, 1996).

The second dimension, Basic Offers, has a reasonable internal consistency of 0.755. This dimension merges aspects related with the natural beauty and tranquility of the rural lodging setting, ease of parking, as well as access to cultural activities and recreational sports.

The third dimension, Rural and Regional Environment, has a Cronbach's alpha of 0.778. This dimension includes aspects related to the adaptation of the architectural design to the lodging from the style of the region, the existence of traditional local decorative objects, the presence of a typical regional gastronomy, as well as the presentation and quality of the gastronomic offer.

TABLE 4

Matrix of components after rotation, Cronbach's alpha, and AVE

Dimensions	Items	Factor loading	Cronbach's Alpha	AVE
1. Professionalism	RQ9	0.721	0.827	0.602
	RQ7	0.708		
	RQ8	0.663		
	RQ4	0.622		
	RQ6	0.597		
2. Basic Offer	RQ14	0.810	0.755	0.587
	RQ16	0.743		
	RQ15	0.707		
	RQ18	0.531		
3. Rural and Regional Environment	RQ17	0.797	0.778	0.532
	RQ5	0.697		
	RQ11	0.682		
	RQ12	0.545		
	RQ10	0.458		
4. Complementary Offer	RQ20	0.765	0.733	0.569
	RQ21	0.661		
	RQ19	0.630		
	RQ22	0.618		
5. Tangibility	RQ3	0.756	0.789	0.720
	RQ1	0.638		
	RQ2	0.538		

The fourth factor, Complementary Offer, includes items related to the existence of flexible arrival schedules, the ease with which reservations are made and the existence of trade fairs, local festivities and other aspects of cultural interest in the surrounding region.

Finally, the fifth dimension, Tangibility, aggregates items related to the well-kept maintenance of the facilities, and the existence of comfortable furniture and adequate air conditioning of the lodging. Therefore, it coincides with one of the five dimensions initially identified by Parasuraman, Zeithaml, and Berry (1985, 1988).

The average variance extracted (AVE) gives the amount of variance that a construct obtains from its indicators with regard to the amount of variance due to measure error (Fornell and Larcker, 1981, p.45-46). AVE should be above 0.5, which means that more than 50% of the variance of the construct is due to its

indicators (Fornell and Larcker, 1981; Barclay *et al*, 1995). The AVE value for each dimension is above 0.5. Since Fornell and Larcker (1981) suggest that adequate convergent validity measures should contain less than 50% error variance (i.e. AVE should be 0.5 or above), each dimension has adequate convergent validity.

4.3 Discriminant validity

Discriminant validity is the extent to which the measure is indeed novel and not simply a reflection of some other variable (Churchill, 1979, p.70). In order to analyze if each of the five dimensions of the RURALQUAL scale has discriminant validity, the average variance extracted of a given factor has to be greater than the squares of the correlations between this factor and the rest of the factors (Fornell and Larcker, 1981). Another equivalent form is to demonstrate that the correlations among the factors are lower than the square root of AVE (Table 5). In fact, in table 5 it can be observed that all five dimensions have discriminant validity.

TABLE 5

Discriminant Validity of the dimensions of the RURALQUAL

Factors of the RURALQUAL scale	Factor 1	Facctor 2	Factor 3	Factor 4	Factor 5
$AVE^{1/2}$	**0.776**	**0.766**	**0.729**	**0.754**	**0.849**
Factor 1	1.000	0.340	0.509	0.529	0.625
Factor 2	0.340	1.000	0.443	0.382	0.389
Factor 3	0.509	0.443	1.000	0.322	0.440
Factor 4	0.529	0.382	0.322	1.000	0.504
Factor 5	0.625	0.389	0.440	0.504	1.000

The second criterion for discriminant validity is that no item should correlate more highly with another construct than it does with the construct it purports to measure (Barclay *et al*, 1995, p.298). Correlations with other measures below |0.7| were usually accepted as evidence of measure distinctness and thus discrimimant validity (Ping, 2004, p.131). Table 6 shows the results for correlations between each item and the factor and cross-correlation. Discriminant validity is verified.

TABLE 6

Correlations between item and their factor and cross-correlation

Correlations		Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Factor 1	RQ9	**0.804**	0.308	0.393	0.435	0.511
	RQ7	**0.776**	0.172	0.439	0.420	0.407
	RQ8	**0.645**	0.118	0.295	0.403	0.390
	RQ4	**0.825**	0.410	0.526	0.398	0.639
	RQ6	**0.811**	0.343	0.461	0.457	0.490
Factor 2	RQ14	0.234	**0.799**	0.281	0.180	0.297
	RQ16	0.242	**0.715**	0.366	0.187	0.276
	RQ15	0.299	**0.829**	0.467	0.355	0.383
	RQ18	0.328	**0.699**	0.439	0.464	0.257
Factor 3	RQ17	0.351	0.346	**0.753**	0.234	0.274
	RQ5	0.405	0.291	**0.718**	0.201	0.338
	RQ11	0.361	0.317	**0.704**	0.323	0.387
	RQ12	0.477	0.425	**0.763**	0.303	0.358
	RQ10	0.406	0.493	**0.701**	0.296	0.240
Factor 4	RQ20	0.357	0.233	0.155	**0.711**	0.321
	RQ21	0.362	0.268	0.309	**0.701**	0.349
	RQ19	0.288	0.289	0.189	**0.666**	0.287
	RQ22	0.540	0.384	0.391	**0.873**	0.559
Factor 5	RQ3	0.512	0.251	0.326	0.411	**0.781**
	RQ1	0.513	0.362	0.356	0.476	**0.865**
	RQ2	0.595	0.404	0.436	0.482	**0.897**

4.4 Predictive validity

It is suggested in the literature that quality is an antecedent of satisfaction. In order to verify the predictive validity of the RURALQUAL scale, regression analysis is used, with satisfaction as the dependent variable.

To measure satisfaction, a scale of seven unidimensional items is used (see Table 7). The KMO value (0.940) and Bartlett's test of sphericity (5143.341; sig. 0.000) indicates a very good correlation among the items. The factor analysis indicates the existence of a single factor that explains 79.58% of the total variance. The results for the two sub-samples, randomly selected from data obtained in Extremadura and the Alentejo, reveal that the communalities, the explained total variance and the factor loadings of the sub-samples present similar values to those of the initial sample.

Table 7 shows factor loadings above 0.7, high correlation among items, very good internal consistency, and an AVE value above 0.5.

45

TABLE 7

Items of the satisfaction scale

Items of the Satisfaction scale	Factor loading	Cronbach's Alpha	AVE	Corrected Item-Total Correlations	Squared Multiple Correlation
The stay in this rural lodging has been very satisfactory	0.935			0.907	0.831
The rural lodging satisfies my necessities	0.917			0.881	0.813
The rural lodging facilities are worthy of highlighting	0.941	0.956	0.796	0.915	0.848
I find the lodging personnel pleasant	0.906			0.869	0.769
The rural lodging delivers the service that I expected to receive	0.868			0.819	0.708
The lodging rural delivers an excellent service	0.764			0.694	0.521
In general, my experience here is positive	0.901			0.862	0.754

Regression analysis reveals that the 5 dimensions of quality explain 78.6% of the variance of the satisfaction. As we can observe (Table 8), the values of the collinearity statistics, such as the values of tolerance (above 0.1) and the VIF (variance inflation factor below 10) reveal the nonexistence of multicollinearity.

The Professionalism factor ($\beta = 0.486$) has a higher weight. This indicates that the cleanliness of the facilities and rooms; the clean and neat appearance of the personnel and their knowledge of the functions they carry out; the way the clients are treated and the attention they receive are the most important aspects that make clients satisfied with the rural lodging. In second place comes the Tangibility factor, which includes items related to the well-kept state of the facilities, the existence of comfortable furniture and adequate air conditioning in the lodging.

The Complementary Offer factor has the smallest weight in satisfaction. This factor is made up of items related to arrival schedules, the ease with which reservations are made and confirmed, and the existence of fairs and local festivities.

46

TABLE 8

Predictive validity of the RURALQUAL scale

	Coefficients of the factors of the regression equation						
	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
	B	Standard Error	Beta (ß)	t	(sig.)	Tolerance	VIF
(Constant)	-1.715	0,120	–	-14.299	(0.000)	–	–
1. Professionalism (RQ: 4, 6, 7, 8, 9)	0.641	0,034	0.486	18.896	(0.000)	0.477	2.095
2. Basic Offer (RQ: 14, 15, 16, 18)	0.176	0,022	0.175	8.117	(0.000)	0.679	1.473
3. Rural and Regional Environment (RQ: 5, 10, 11, 12, 17)	0.139	0,027	0.120	5.182	(0.000)	0.592	1.689
4. Complementary Offer (RQ: 19, 20, 21, 22)	0.058	0,029	0.045	2.021	(0.044)	0.642	1.558
5. Tangibility (RQ: 1, 2, 3)	0.352	0,030	0.281	11.682	(0.000)	0.546	1.832

5. CONCLUSIONS

Our study enabled us to develop a new scale, called RURALQUAL, to evaluate perceived service quality and to start its validation process by applying it to the rural lodgings of two countries. Five dimensions of the perceived quality were identified: Professionalism, Basic Offer, Rural and Regional Environment, Complementary Offer, and Tangibility.

The five dimensions explain to a good extent (78.6%) the variance in client satisfaction with regard to the rural lodgings analyzed. The scales that measure each dimension have acceptable internal consistency.

The results indicate that the main decisive factors of client satisfaction about a rural lodging are: the cleanliness of the facilities and rooms, the clean and neat appearance of the employees and their knowledge of the functions that they carry out, the way that clients are treated, and the attention they receive.

Therefore, managers of rural lodgings should pay special attention to the skills of their personnel, how professionally they carry out their tasks, and their ability to treat the client in an appropriate way. Room comfort is also very important.

In addition, managers should not forget that one of the main attractions of rural destinations is the tranquility and beauty of the environment; many clients

go to these lodgings to escape from the stress and pollution of the big cities and they look forward to taking part in cultural, recreational and/or sporting activities that they can not usually do in their primary residence.

Managers should also attempt to perceive if the aspects related to arrival schedules, the ease with which reservations are made and confirmed and the existence of fairs and local festivities or other aspects of cultural interest should be reviewed. For example, tourists might consider that there are insufficient aspects of cultural interest in the area and it is necessary to increase the offer or propose alternatives.

The RURALQUAL scale can be a very useful tool for managers of rural lodgings for several reasons:

- The RURALQUAL scale is a very useful instrument for quality improvement since it is able to identify the strong and weak aspects of a lodging. Knowledge of the indicators and concrete dimensions of the quality perceived in the context of the rural lodging can help to define the specific actions needed to improve the perception of a certain dimension and in doing so the global quality.
- The scale can be used to compare the quality of different rural lodgings in the same or different regions. As such it could be a very useful tool to begin a benchmarking process.
- If it is used on a regular basis, the resultant time series can be used to analyze the existence of trends or patterns in the perceptions of the clients of a given rural establishment.

We cannot conclude this work without pointing out some of its main limitations:

- The research was carried out in only two regions of the Iberian Peninsula and we cannot generalize these results to other geographical areas.
- Given the seasonal nature of demand and the different nature of demand according to the origin of the tourists, the sample selected in our study can differ from one obtained if the study were carried out in the summer time.

Nevertheless, in spite of these limitations, the RURALQUAL scale constitutes a starting point to evaluate the quality of service delivery in rural lodgings in the two regions analyzed. It is now viable to enlarge and/or reorganize the scale to apply it in the whole Iberian Peninsula.

References

Aguilar, T. and García, J. (2002). Influencia de las variables demográficas de los hoteles en la calidad percibida por los clientes, *Estudios Turísticos*, Nº 154, 113-133.

Aguilar, T. and Moreno, S. (2002). *La Calidad Percibida en los Servicios Hosteleros: Un Enfoque desde los Encuentros de Recuperación de Servicios*. 5º Congreso de Turismo Universidad y Empresa, 23-25 (April), Benicàssim (Castellón).

Albacete, C. A. and Fuentes, M. M. (2002). *Calidad de Servicio en los Alojamientos Rurales. Un Instrumento de Medida*. 5º Congreso de Turismo Universidad y Empresa, 23-25 Abril, Benicàssim (Castellón).

Appiah-Adu, K.; Fyall, A. and Singh, S. (2000). Marketing culture and customers retention in the tourism industry, *The Service Industries Journal*, Vol. 20, Nº 2, 95-113.

Babakus, E. and Boller, G. W. (1992). An Empirical Assessment of the SERVQUAL Scale, *Journal of Business Research*, Vol. 24, 253-268.

Barroso, C. and Martín, E. (1999). Nivel de servicios y retención de clientes: el caso de la banca en España, *Revista Española de Investigación de Marketing ESIC*, 9-36.

Baker, D. and Crompton, J. (2000). Quality, Satisfaction and Behavioral Intentions, *Annals of Tourism Research*, Vol. 27, Nº 3, 785-804.

Bigné, J.; Sanchez, M. and Sanchez, J. (2001). Tourism image, evaluation variables and after purchase behaviour: interrelationship, *Tourism Management*, Vol. 22, Nº 6, 607-616.

Barclay, D.; Higgins, C. and Thompson, R. (1995). The Partial Least Squares (PLS) approach to causal modeling: Personal Computer adoption and use as an illustration, *Technology Studies-Special Issue on Research Methodology*, Vol. 2, Nº 2, 285-309.

Bitner, M. (1990). Evaluating Service Encounters: The Effects of Physical Surroundings and Employee Responses, *Journal of Marketing*, Nº 54 (April), 69-82.

Bolton, R. and Drew, J. (1991). A Longitudinal Analysis of the Impact of Service Changes on Customer Attitude, *Journal of Marketing*, Vol. 55, Nº 1 (January), 1-9.

Bowen, D. and Clarke (2002). Reflections on tourist satisfaction research: Past, present and future, *Journal of Vacation Marketing*, Vol. 8, Nº 4 (September), 297-306.

Brady, M.; Cronin, J. and Brand, R. (2002). Performance-only measurement of service quality: a replication and extension, *Journal of Business Research*, Vol. 55, 17-31.

Brown, T. J., Churchill, G. A. and Peter, J. P. (1993). Improving the Measurement of Service Quality, *Journal of Retailing*, Vol. 69, nº 1, 127-139.

Cadotte, E.; Woodruff, R. and Jenkins, R. (1987). Expectations and norms in models of consumer satisfaction, *Journal of Marketing Research*, Vol. 24 (August), 305-314.

Carman, J. M. (1990). Consumer Perceptions of Service Quality: an Assessment of Service Quality, *Journal of Retailing*, Vol. 66, Nº 1, 33-55.

Churchill, G. (1979). A Paradigm for Developing Better Measures of Marketing Constructs, *Journal of Marketing Research*, Vol. 16 (February), 64-73.

Cronin, J. and Taylor, S. (1992). Measuring Service Quality: A Reexamination and Extension, *Journal of Marketing*, Vol. 56 (July), 55-68.

Cronin, J. and Taylor, S. (1994). SERVPERF versus SERVQUAL: Reconciling performance-based and Perceptions-Minus-Expectations Measurement of Service Quality, *Journal of Marketing*, Vol. 58, Nº 1(January), 125-146.

Cronin, J.; Brady, M. and Hult, G. (2000). Assessing the Effects of Quality, Value, and Customer Satisfaction on Consumer Behavioral Intentions in Service Environments, *Journal of Retailing*, Vol. 76, Nº 2, 193-218.

Dabholkar, P.; Shepherd, C. and Thorpe, D. (2000). A Comprehensive Framework for Service Quality: An Investigation of Critical Conceptual and Measurement Issues Through a Longitudinal Study, *Journal of Retailing*, Vol. 76, Nº 2, 139-173.

Díaz, A.; Iglesias, V.; Vázquez, R. and Ruiz, A. (2000). The use of quality expectations to segment a service market, *The Journal of Services Marketing*, Vol. 14, Nº 2, 132-146.

Díaz, A. and Vázquez, R. (1998). La calidad del servicio percibida por los clientes y por las empresas de turismo rural, *Revista Española de Investigación de Marketing (ESIC)*, Vol. 2, Nº 1, 31-54.

Ebel, R. (1974). And Still the Dryads Linger, *American Psychologist,* 29 (July), 485-92.

Fabrigar, L.; Wegener, D.; MacCallum, R. and Strahan, E. (1999). Evaluating the Use of Exploratory Factor Analysis in Psychological Research, *Psychological Methods*, Vol. 4, Nº 3, 272-299.

Falces, C.; Sierra, B.; Becerra, A. and Briñol, P. (1999). HOTELQUAL: una escala para medir calidad percibida en servicios de alojamiento, *Estudios Turísticos*, nº 139, 95-110.

Fornell, C. and Larcker, D. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error, *Journal of Marketing Research*, Vol. 18 (February), 39-50.

Frochot, I. (2003). An investigation into the influence of the benefits sought by visitors on their quality evaluation of historic houses'service provision, *Journal of Vacation Marketing*, Vol. 10, Nº 3, 223-239.

Frochot, I y Hughes, H. (2000). HISTOQUAL: The development of a historic houses assessment scale, *Tourism Management,* Vol. 21, 157-167.

Gerbing, D. and Anderson, J. (1988). An Updated Paradigm for Scale Development Incorporating Unidimensionality and Its Assessment, *Journal of Marketing Research,* 25 (May), 186-192.

Getty, J.M. and Thompson, K.N. (1994). The Relationship Between Quality, Satisfaction and Recommending Behavior in Lodging Decisions, *Journal of Hospitality and Leisure Marketing*, Vol. 2, Nº 3, 3-22.

Grande, F.; Valejo, M. and Moya, D. (2002). Análisis de las expectativas de la oferta y la demanda relativas a la calidad del servicio en zonas turísticas de interior: implicaciones de gestión, *Estudios Turísticos*, Nº 154, 79-112.

Grönroos, C. (1990). *Service Management and Marketing: Managing the Moments of Truth in Service Competition*, Lexington, MA: Lexington Books.

Hair, J.; Anderson, R.; Tatham, R. and Black, W. (1998). *Multivariate Data Analysis*, 5th Ed., New Jersey: Prentice-Hall Inc.

Hill, M. (2000). *Investigação por questionário*, Lisboa: Edições Sílabo.

Heung, V. and Cheng, E. (2000). Assessing tourists'satisfaction with shopping in the Hong Kong special administrative region of China, *Journal of Travel Research,* Vol. 38, Nº 2, 396-404.

Hernández, R. M., Muñoz, P. A. and Santos, L. (2005). *El papel moderador de la familiaridad sobre la relación entre la actitud hacia el turismo rural y la calidad percibida en un establecimiento.* XV Simposio Internacional de Turismo y Ocio ESADE, Barcelona.

Juwaheer, Th. and Ross, D. (2003). A study of hotel guest perceptions in Mauritius, *International Journal of Contemporary Hospitality*, Vol. 15, Nº 2, 105-115.

Kastenholz, E.; Davis, D. and Paul, G. (1999). Segmenting tourism in rural areas: the case of north and central Portugal, *Journal of Travel Research*, Vol. 37, Nº 4, 353-363.

Khan, M. (2003). ECOSERV-Ecotourists'Quality Expectations, *Annals of Tourism Research*, Vol. 30, Nº 1, 109-124.

Knutson, B.; Stevens, P., Wullaert, C.; Patton, M. and Yokoyama, F. (1990). The Service Scoreboard: a service quality measurement tool for the hospitality industry, *Hospitality Research Journal*, Vol. 14, Nº 2, 413-420.

Kozak, M. and Rimmington, M. (2000). Tourist satisfaction with Mallorca, Spain, as an off-season holiday destination, *Journal of Travel Research,* Vol. 38, Nº 1, 260-269.

Llorens, F. (1996). Una evaluación de la relación entre calidad de servicio, satisfacción y actitudes del cliente, *Esic-Market,* Vol. 93, 121-132.

Laws, E. (1998). Conceptualizing visitor satisfaction management in heritage settings: an exploratory blueprinting analysis of Leeds Castle, Kent, *Tourism Management*, Vol. 19, Nº 6, 545-554.

Luque, T. (2000). Técnicas de análisis de datos en investigación de mercados. Madrid: Ed. Pirámide.

50

Mano, H. and Oliver, R. (1993). Assessing the dimensionality and structure of the consumption experience: Evaluation, feeling, and satisfaction, *Journal of Consumer Research*, Vol. 20, 451-466.

Netemeyer, R.; Bearden, W. and Y Sharma, S. (2003). *Scaling Procedures: Issues and Applications,* Thousand Oaks, CA.: Sage Publications.

Nunnally, J. (1978). *Psychometric theory*, New York: McGraw-Hill.

Oliver, R. (1993). A conceptual model of service quality and service satisfaction: compatible goals, different concepts, *Advances in Service Marketing and Management*, Vol. 2, 65-85.

Otto, J. and Ritchie, J. (1996). The service experience in tourism, *Tourism Management*, Vol. 17, N° 3, 165-174.

Parasuraman, A.; Zeithaml, V.A. and Berry, L. (1985). A Conceptual model of service quality and its implications for future research, *Journal of Marketing*, Vol. 49 (Fall), 41-50.

Parasuraman, A.; Zeithaml, V.A. and Berry, L. (1988). SERVQUAL: A Multiple-item Scale for Measuring Consumer Perceptions of Service Quality, *Journal of Retailing*, Vol. 64 (Spring), 12-40.

Parasuraman, A.; Zeithaml, V.A. and Berry, L. (1991). Refinement and Reassessment of the SERVQUAL Scale, *Journal of Retailing*, Vol. 67, N° 4, 420-450.

Patton, M., Stevens, P. and Knutson, B. J. (1994). Internationalizing LODGSERV as a Measurement Tool : A Pilot Study, *Journal of Hospitality and Leisure Marketing*, Vol. 2, N° 2, 39-55.

Peter, J. (1981). Construct Validity: A Review of Basic Issue and Marketing Practices, *Journal of Marketing Research*, 19 (May), 133-145.

Ping, R. (2004). On assuring valid measures for theoretical models using survey data, *Journal of Business Research*, 57, 125-141.

Reichel, A.; Lowengart, O. and Milman, A. (2000). Rural Tourism in Israel: service quality and orientation, *Tourism Management*, Vol. 21, N° 5, 451-459.

Ruiz, A.V.; Vásquez, R. and Díaz, A.M. (1995). La calidad percibida del servicio en establecimientos hoteleros de turismo rural, *Papers de Turisme,* N° 19, 17-33.

Saleh, F and Ryan, C. (1992). Client Perceptions of Hotels: A Multi-Attribute Approach, Tourism Management, Vol. 13, N° 2 (June), p.163-168.

Santiago, J. (2001). La Calidad de Servicio Bancario: Una Escala Específica de Medida, *ESIC Market*, septiembre-diciembre, 119-141

Setó Pamies, D. (2003). La Influencia de la Calidad de Servicio, la Imagen, la Satisfacción y la Confianza en la Fidelidad del Cliente, *Revista Española de Investigación de Marketing (ESIC)*, Vol. 7, N° 1, 27-55.

Spreng, R. y Mackoy, R. (1996). An empirical examination of a model of perceived service quality and satisfaction, *Journal of Retailing*, Vol. 72, N° 2, 201-214.

Stevens, P.; Knutson, B. and Patton, M. (1995). DINESERV: A Tool for Measuring Service Quality in Restaurants, *Cornell Hotel and Restaurant Administration Quarterly,* Vol. 36, N° 2, 56-60.

Taylor, S. and Baker, T.(1994). An Assessment of the Relationship Between Service Quality and Customer Satisfaction in the Formation of Consumers'Purchase Intentions, *Journal of Retailing*, Vol. 70, 163-178.

Teas, R. K. (1993). Expectations, Performance Evaluation, and Customers` Perceptions of Quality, *Journal of Marketing*, Vol. 57 (October), 18-34.

Tian, K.; Bearden, W.; and Hunter, G. (2001). Consumers' Need for Uniqueness: Scale Development and Validation, *Journal of Consumer Research*, 28 (1), p.50-65.

Vázquez, R.; Díaz, A. and Santos, M. (2000). Calidad de servicio y su influencia sobre la satisfacción: desarrollo de un enfoque fundamentado en el análisis conjunto para establecer estrategias de actuación en empresas de servicios turísticos, *Revista Europea de Dirección y Economía de la Empresa*, Vol. 9, N° 1, 39-56.

Vázquez, R. and Díaz, A. (1996). El conocimiento de las expectativas de los clientes: Una pieza clave de la calidad de servicio en el turismo, Documento de Trabajo, n° 114, Facultad de Ciencias Económicas y Empresariales, Universidad de Oviedo, 1-19.

51

Westbrook, R. and Oliver, R. (1991). The dimensionality of consumption emotion patterns and consumer satisfaction, *Journal of Consumer Research*, Vol. 18, 84-91.

Witkowski, T. and Wolfinbarger (2002). Comparative service quality: German and American ratings across service settings, *Journal of Business Research*, 55, 875-881.

Zeithaml, V.; Berry, L. and Parasuraman, A. (1996). The Behavioral Consequences of Service Quality, *Journal of Marketing*, Vol. 60, Nº 2 (April), 31-46.

Resumo

Este trabalho tem dois objectivos principais. Primeiro procuramos iniciar o processo de validação da escala *Ruralqual* como um instrumento de avaliação da qualidade do serviço prestado por alojamentos rurais em duas regiões fronteiriças da Península ibérica: Extremadura (a Espanha) e o Alentejo (Portugal). Segundo, visamos identificar as dimensões mais apropriadas que integram a variável qualidade do serviço neste tipo de alojamento. Para tal realizamos uma análise de factorial. O artigo termina com um conjunto de recomendações, para os gestores, no sentido de melhorar a qualidade do serviço provido.

Palavras-chave: Qualidade percebida; SERVQUAL; Turismo rural; Satisfação.