



# Measuring food and beverage service quality in spa hotels

## A case study in Balıkesir, Turkey

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### Abstract

**Purpose** – The aim of this study was three-fold: first, to develop an instrument to evaluate food and beverage service quality in spa hotels; second, to identify aspects of food and beverage service quality of which customers had the highest expectations, i.e. the key dimensions of food and beverage service quality in spa hotels; third, to measure customer perceptions of the spa hotels in this study and to identify those dimensions with the largest gap between customer expectations and perceptions.

**Design/methodology/approach** – A self-administrated questionnaire was distributed to 331 customers at four different spa hotels in Balıkesir, Turkey. Exploratory and confirmatory factor analysis was used to identify service quality dimensions. Cronbach Alpha indicated the reliability of the factors identified. Customer expectations, perceptions and gaps between expectations and perceptions for each dimension were measured.

**Findings** – Factor analysis revealed six quality dimensions: “assurance and employee knowledge”; “healthy and attractive food”; “empathy”; “tangibles”; “responsiveness of service delivery”; “reliability”. Customer expectations were highest for “tangibles” and “assurance and employee knowledge”. The largest gaps between perceptions and expectations were for “healthy and attractive food” and “tangibles”.

**Practical implications** – Key dimensions for food and beverage service quality in spa hotels were identified and a reliable instrument for measuring provision was developed. This should be applied by managers on an ongoing basis to evaluate their performance and give them a better understanding of food and beverage service quality in spa hotels. The study provides specific information on the performance of Turkish spa hotels in relation to food and beverage service quality.

**Originality/value** – This research addresses the paucity of research on customer perspectives of food and beverage provision in spa hotels and contributes to enhanced understanding of spa tourists and their expectations and perceptions of the service quality of food and beverage service quality.

**Keywords** Hotel, Service quality, Food and drink, Consumer attitudes, Hospitality services

**Paper type** Research paper



### Introduction

The pressure associated with modern lifestyles can negatively impact on health and may result in high stress levels from which individuals seek relaxation opportunities. Health tourism, particularly spa tourism, is one of the major choices for people who

want to counter the stress of their daily lives or treat specific illnesses (Vajirakachorn, 2004). Demand for spa tourism has been increasing globally for over 20 years (Gligorijevic and Petrovic, 2010; Madanoglu and Brezina, 2008). Spa tourism is currently one of the fastest-growing sub-sectors of health tourism (Mak *et al.*, 2009).

Turkey is a country which is rich in the hot spring resources on which spa tourism is traditionally based. According to the Turkish Health Tourism Association, Turkey has more than 1,500 hot springs. However, despite this richness, Turkish spa tourism is poorly developed. Of the 40,000 beds offered to tourists in spa destinations, only 15,000 are in accredited facilities (Avcikurt *et al.*, 2011; Sayili *et al.*, 2007). Quality of accommodation and other services are important to this type of tourism. A study by Mak *et al.* (2009) indicated that understanding customer expectations and meeting or exceeding these expectations is critical for spa hotels. Spa hotel managers must ensure that the services they provide satisfy customers. Food and beverage services are one of the most important services in these hotels and must complement the other health services on offer and be tailored to meet individual customers' specific dietary requirements for health and well-being reasons (Bennett *et al.*, 2004; Deng, 2007; Keskin, 2008; Lebe, 2006).

The current study focuses on measuring the service quality of food and beverage provision in spa hotels in Turkey. Although there have been several studies in health tourism and its demand perspective (e.g. Connell, 2006; Garcia-Altes, 2005), there is a paucity of research on spa tourism and spa hotels in the literature (Koh *et al.*, 2010; Mak *et al.*, 2009; Sayili *et al.*, 2007). To do this, this study answered four questions:

- (1) What are the key dimensions relating to the service quality of a spa hotel's food and beverage provision?
- (2) Can a reliable instrument be developed to measure spa hotel food and beverage service quality?
- (3) What are customers' expectations of spa hotel food and beverage service quality dimensions?
- (4) How do the Turkish spa hotels in this study perform in relation to the service quality of their food and beverage service provision?

### **Literature review**

#### *Food and beverage service and its characteristics in spa hotels*

Spa is one of the fastest-growing tourism market segments (Mak *et al.*, 2009). The number of spa locations has grown at an annual average of 20 per cent and there are more than 100 million active spa-goers worldwide (Kim *et al.*, 2010, Saar, 2010). This sector continues to grow in terms of demand and economic potential and has led to the opening of more spa-related enterprises (Madanoglu and Brezina, 2008). One of the most important enterprise types in the spa industry is spa hotels (Hsieh *et al.*, 2008) which aim to promote overall well-being through a variety of professional services that encourage the renewal of mind, body and spirit (Keskin, 2008; Saar, 2010). The quality of some non-health services is as important as the specific health services provided in ensuring guest satisfaction and in differentiating a hotel from its competitors (Bennett *et al.*, 2004; Keskin, 2008; Lebe, 2006; Williams *et al.*, 1996).

One such service is the food and beverage service which is seen as being as important as the medical services provided to guests (Bennett *et al.*, 2004; Lebe, 2006).

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Spa hotel guests have expectations of receiving freshly-prepared, healthy, organic foods rather than artificial, pre-prepared foods (Bastic and Gojcic, 2012; Mueller and Kaufmann, 2001; Saar, 2010). Individual guests have different physiological problems and health agendas (Deng, 2007; Emir and Saraçlı, 2011; Keskin, 2008; Saar, 2010) and spa hotels must ensure that their food and beverage provision responds to each individual guest's particular requirements (Bennett *et al.*, 2004, Saar, 2010). Spa hotels provide their guests with personalised dietary programmes to ensure a healthy spa experience (Hsieh *et al.*, 2008; Monteson and Singer, 2004; Saar, 2010). More vegetarian food is being offered and food nutrition and calorific values are carefully considered in these hotels (Goodrich and Goodrich, 1987; Medvene Sbazed, 2010; Mielniczak and Sinaga, 2005).

Due to the highly-personalised nature of the food and beverage provision in spa hotels, employees are a particularly important factor in relation to service provision (Emir and Saraçlı, 2011; Hsieh *et al.*, 2008; Snoj and Mumel, 2002). In addition to the ubiquitous need across the hospitality sector for food and beverage staff to be friendly and courteous in their interactions with guests, there is a need for food and beverage staff in spa hotels to be well-educated/experienced and have a positive attitude towards the special needs of guests on dietary programmes (Deng, 2007; Saar, 2010; Sekliuckiene and Langviniene, 2009).

#### *Service quality and its measurement in service companies*

Service products have four well-documented characteristics which differentiate them from physical products: intangibility (service products are intangible and cannot be evaluated before purchase); heterogeneity (performance varies from producer to producer); inseparability of production and consumption (production and consumption take place simultaneously); perishability (the product cannot be stored for use later) (Antony *et al.*, 2004; Parasuraman *et al.*, 1985). Nowadays, quality is considered a major driver in enhancing the business performance of companies (Cronin and Taylor, 1992; Sureshchandar *et al.*, 2002) and is variously defined as "value, conformance to requirements, fitness for use and meeting customers' expectations" (Lin *et al.*, 2001, p. 59). Quality is critical to gaining competitive advantage today's business world (Sureshchandar *et al.*, 2002).

In the service industry, definitions of service quality tend to focus on meeting customer expectations and how well the services delivered match their expectations (Parasuraman *et al.*, 1985, 1988; Munhurrin *et al.*, 2009). However, due to the intangible nature of service products, measuring service quality may be more difficult than measuring the quality of physical products (Babakus and Manngold, 1992; Bouranta *et al.*, 2009; Cronin and Taylor, 1992; Karatepe *et al.*, 2005). One of the most widely-used instruments for measuring service quality is SERVQUAL, developed and later refined by Parasuraman *et al.* (1988, 1991). In 1985, Parasuraman *et al.* began to study service quality using disconfirmation, i.e. focusing on the gap between customers' expectations and perceptions. Service quality was perceived to be higher when the gap between customer expectations and perceptions of performance was small or nonexistent (Barringer, 2008; Parasuraman *et al.*, 1985). Parasuraman *et al.* (1985) identified ten dimensions in assessing service quality which were later reduced to five dimensions: tangibles; reliability; responsiveness; assurance; empathy (Barringer, 2008; Parasuraman *et al.*, 1988). In SERVQUAL, 22 statements measure performance

across these five dimensions. For each statement, customer expectations and perceptions of the experience are determined on seven-point Likert scales and the gap between perceptions and expectations is determined (Briggs *et al.*, 2007; Iwaardeen *et al.*, 2003; Parasuraman *et al.*, 1988). According to the SERVQUAL model, customer satisfaction results from services where customer perceptions of the service experience exceed customer expectations; customer dissatisfaction results from services performing less well than expected (Parasuraman *et al.*, 1988).

Since the development of the SERVQUAL model, a number of researchers have developed alternative service quality measurement models for specific service contexts (Callan, 1998; Cronin and Taylor, 1992; Getty and Getty, 2003; Knutson *et al.*, 1990; Mei *et al.*, 1999; Nadiri and Hussain, 2005; Parasuraman *et al.*, 1985; Stevens *et al.*, 1995). SERVPERF measures the performance of services and has the same dimensions as SERVQUAL (Cronin and Taylor, 1992). LODGSERV measures service quality of hotel enterprises (Knutson *et al.*, 1990). DINESERV was developed specifically for the restaurant industry and its reliability confirmed in several studies (e.g. Bougoure and Neu, 2010; Kim *et al.*, 2003; Stevens *et al.*, 1995; Tang and Bougoure, 2011).

#### *Measuring service quality in hotels*

The hotel sector is a major element in the flourishing tourism industry and is extremely competitive (Shi and Su, 2007). In this competitive arena, service quality has become a critical success factor (Avcikurt *et al.*, 2011; Saez *et al.*, 2007). Thus, it is imperative that hotel managers get ongoing feedback from their customers about the quality of their services so they can continuously enhance them (Braunlich *et al.*, 1995; Briggs *et al.*, 2007; Nadiri and Hussain, 2005; Yilmaz, 2009).

Researchers continue to focus on measuring service quality in hotels (Akan, 1995; Akbaba, 2006; Ekinci *et al.*, 2003; Fowdar, 2007; Juwaheer, 2004; Markovic and Raspor, 2010; Mei *et al.*, 1999; Nadiri and Hussain, 2005; Saez *et al.*, 2007). Most recent studies employ a modification of SERVQUAL to address criticisms that the original SERVQUAL's five dimensions (tangibles, reliability, empathy, assurance and responsiveness) do not fit the accommodation sector well (Akbaba, 2006; Fowdar, 2007; Juwaheer, 2004). The modifications have changed the number of dimensions of service quality in hotels as summarised in Table I where each model has similar but not identical dimensions. All the modifications include tangibles, five include reliability, four include empathy, three include assurance and two include responsiveness. It is clear that there is still no consensus on the number of dimensions of the hotel service quality construct (Akbaba, 2006; Fowdar, 2007; Juwaheer, 2004; Saez *et al.*, 2007; Salazar *et al.*, 2010) and that more studies are needed to address this.

#### *The importance of this study*

This study makes important contributions to theory and practice. The study makes an important contribution to the limited spa hotel literature (González and Brea, 2005; Kim *et al.*, 2010; Mak *et al.*, 2009; Sayili *et al.*, 2007), particularly in relation to the critical service quality dimensions of food and beverage provision in spa hotels (Hsieh *et al.*, 2008; Lebe, 2006). The study also makes a contribution to practice through the development of a scale for the evaluation of the service quality of food and beverage provision in spa hotels which can be used by spa hotel managers to enhance

	Alkan (1995)	Mei <i>et al.</i> (1999)	Ekinci <i>et al.</i> (2003)	Juwaher (2004)	Nadiri and Hussain (2005)	Akbaba (2006)	Fowdar (2007)	Saez <i>et al.</i> (2007)	Markovic and Raspor (2010)
Number of dimensions	7	3	2	9	2	5	7	7	4
Tangibles (Parasuraman <i>et al.</i> , 1988)	X	X	X	X	X	X	X	X	X
Responsiveness (Parasuraman <i>et al.</i> , 1988)	X						X		
Assurance (Parasuraman <i>et al.</i> , 1988)				X		X	X		
Reliability (Parasuraman <i>et al.</i> , 1988)		X		X		X	X		X
Empathy (Parasuraman <i>et al.</i> , 1988)				X		X	X	X	
<i>Extra Dimension</i>	Courtesy and competence of the personnel	Employees	Intangibles	Extra room amenities	Intangibles	Convenience	Core hotel benefits	Personnel response	Accessibility
<i>Extra Dimension</i>	Knowing and understanding customers			Staff communication and additional amenities			Hotel technologies	Complementary offer	Empathy and competence of the staff
<i>Extra Dimension</i>	Accuracy and speed of service			Staff outlook and accuracy				Tourist relations	
<i>Extra Dimension</i>	Solution to problems			Food and beverage service-related factors				Basic demands	
<i>Extra Dimension</i>	Accuracy of hotel reservations			Hotel surrounding and environmental factors				Security	

**Table I.**  
Comparing modified  
SERVQUAL models with  
the original five  
dimensions of  
Parasuraman *et al.* (1988)

understanding of their guests' expectations of the service quality of food and beverage provision in their hotels and their hotels' performance on these critical dimensions providing evidence on which to develop strategies about how the service quality of food and beverage provision in their hotels can be improved. This study also provides some insight into the performance of Turkish spa hotels in relation to the service quality of their food and beverage provision.

### **Methodology**

#### *Development of an instrument to evaluate service quality of spa hotel food and beverage provision*

An instrument for the evaluation of service quality of spa hotel food and beverage provision was developed in three distinct phases (see Table II). In phases one and two, a panel of experts was used. This method has been used by other studies when the subject has not been studied extensively in the literature. Experts attending these panels were expected to have a good understanding of the area under consideration (Hyrkas *et al.*, 2003; Lawrenz *et al.*, 2012). The authors invited four academicians to identify the fitness of previously-developed scales (SERVQUAL and DINESERV) for the spa hotel context. Two of the academicians were experts on spa hotels and resort marketing, the other two were experts on service quality. All four experts were well-known in their fields. The researcher introduced the aim, content and planned methods of the study to the panel and answered the experts' questions. In phase one, the experts considered the original SERVQUAL items and criticisms of SERVQUAL raised in the hospitality literature. The experts identified that 17 of the 22 SERVQUAL items were suitable for measuring the service quality of food and beverage provision in spa hotels and discarded five as being unsuitable. In phase two, the experts considered the DINESERV model and the fitness of its scale items for measuring the service quality of food and beverage provision in spa hotels. Eight items from the DINESERV model were added to the 17 SERVQUAL items. In phase three of the study the researchers interviewed four spa hotel managers which resulted in the addition of nine new items and resulted in a 34-item instrument to measure the service quality of food and beverage provision in spa hotels. The instrument was piloted with 40 hotel customers at two different spa hotels and the items were re-ordered in response to the piloting. Exploratory factor analysis resulted in the discarding of five items with low factor loadings and the final instrument comprised 29 items in two parts: the first part measured customer expectations of an aspect of the service and their perceptions of that aspect of the service received; the second part collected data relating to the guest's demographic profile using six questions about gender, age, educational status, marital status, length of stay and whether he/she was a repeat visitor.

The 34 food and beverage items were listed in the middle column of the questionnaire with one five-point Likert scale on each side of the item column – expectations on the left and perceptions on the right. This format, which was found to be more appropriate than the original SERVQUAL questionnaire (e.g. Akbaba, 2006; Saez *et al.*, 2007), was chosen as it overcomes the boredom and confusion caused by two administrations in SERVQUAL. A five-point scale rather than a seven-point scale was selected to increase response rates (Akbaba, 2006; Babakus and Manngold, 1992; Yilmaz, 2009). The five-point scale for expectations went from 1 (very low) to 5 (very high) and for perceptions went from 1 (definitely not met) to 5 (definitely met).

*Phase one – consideration of the original SERVQUAL items*

Original SERVQUAL items

XYZ has modern-looking equipment  
 XYZ's employees are neat-appearing  
 When you have a problem, XYZ shows a sincere interest in solving it

XYZ performs the service right the first time  
 XYZ provides its services at the time it promises to do so  
 XYZ insists on error-free records  
 Employees of XYZ tell you exactly when services will be performed  
 Employees of XYZ give you a prompt service  
 Employees of XYZ are always willing to help you  
 Employees of XYZ are never too busy to respond to your requests  
 The behavior of employees of XYZ instills confidence in customers  
 Employees of XYZ are consistently courteous with you  
 Employees of XYZ have the knowledge to answer your questions  
 XYZ employees give you individual attention  
 XYZ has operating hours convenient to all its customers  
 XYZ has your best interests at heart

Employees of XYZ understand your specific needs

*Phase two – consideration of the original DINESERV items*

Original DINESERV items

X restaurant has a visually attractive dining area  
 X restaurant has dining areas that are thoroughly clean  
 X restaurant serves you in the time promised  
 X restaurant serves your food exactly as you ordered it  
 X restaurant gives extra effort to handle your special requests  
 X restaurant has employees who can answer your question completely  
 X restaurant has personnel who seem well trained, competent and experienced  
 X restaurant has employees who are sensitive to your individual needs and wants, rather than always relying on policies and procedures

*Phase three – items added by the spa hotel managers*

Menu cards have information about nutrition and caloric values of the food and beverages  
 Room services is offered to guests who have physical disabilities  
 Food and beverage units have customised diets and healthy menus for customers  
 Organic food and beverages are presented at these units  
 Food and beverage units present personalized services to respond to customers' illnesses  
 The food and beverage offer looks good at this unit  
 The services completely fulfills the customers' requirements  
 Traditional food and beverages are served at this unit  
 Food and beverage employees have know the contents and methods of preparation of food and beverages on the menu

Modified items

The food and beverage unit has modern tools and equipment  
 Employees look good and are appropriately dressed  
 When customers are faced with a problem in this unit employees show an interest in finding a solution to the problem

Services are done correctly the first time  
 The unit provides services as promised  
 Records and accounts (reservation, bills, etc.) are kept accurately  
 Employees tell guests exactly when services will be performed  
 Employees provide quick service to customers  
 Employees are always willing to help customers  
 Employees are not busy when they meet the needs of customers  
 Customer's feel personally safe and secure when food and beverage services are offered  
 Food and beverage employees behave with courtesy and respect to customers  
 Employees have enough information when responding to customers' queries  
 Employees give individual attention to customers  
 The operating hours of food and beverage units are convenient for all customers  
 Employees put their customers' interests ahead of anything else  
 Employees understand the specific needs of customers

Modified items

The food and beverage halls have a nice appearance  
 The food and beverages halls are clean  
 Food and beverage orders are served to customers at the time promised  
 Food and beverages are served to customers according to their orders  
 Employees put in extra effort to handle customers' special requests  
 Employees give complete answers to customers' questions  
 Employees have experience in the field  
 Employees use personal initiative to fulfil customer requests

**Table II.**  
 The development  
 processes of the  
 instrument

#### *Data collection*

The sample comprised hotel customers staying at each of the four spa hotels in Balıkesir, Turkey. Balıkesir is one of the most important spa cities in Turkey and has been famous for its rich spas and spa culture for more than 700 years. It has more than 15 spa hotels offering a wide range of spa treatments. The Turkish Ministry of Culture and Tourism has given priority to Balıkesir within its thermal tourism master plan (which aims to double spa demand by 2023) because of its spa potential (Ministry of Culture and Tourism, 2007).

The selected spa hotels are widely known for their spa services. One of the selected hotels was graded as a five-star hotel, two were graded as four-star hotels and one was graded as a three-star hotel. The target population was customers staying at these hotels during the data collection period. The researchers tried to reach as many customers as possible during the data collection period. Having obtained formal permission from the local tourism director of Balıkesir, hotel managers were approached to invite them to participate in this study. After the researchers had got permission, customers were approached and asked to complete the questionnaires individually after they had checked out and return them to the researcher. 400 questionnaires were distributed to customers and 346 were returned. Unfortunately, 15 questionnaires were not taken into consideration because they were incomplete or the customers had given contradictory answers. Consequently, 331 were analysed and evaluated in the study.

#### *Data analysis*

SPSS 19.0 and AMOS were used for data analysis. To explore the dimensionality of the 34 items, factor analysis was performed. Only factors with an Eigenvalue equal to or greater than one were considered significant and chosen for interpretation. Variables with factor loadings of 0.40 were considered (Juwaher, 2004). To identify both the fitness and the validation of the identified factors, Confirmatory Factor Analysis (CFA) was employed (Emir and Saraçlı, 2011). Cronbach Alpha was used to test the reliability and the internal consistency of the factors (Nunnally, 1978; Pallant, 2007). To analyse customer expectations and perceptions; means and standard deviations were calculated. Gap scores were calculated by subtracting the expectation score from the perception score. To identify significant gaps between customer perceptions and expectations t-tests were used. To explore the influence of customers' demographic profiles on perception of service quality chi-squared tests were performed (Pallant, 2007).

### **Results**

The results will be discussed under three headings. First, factor analysis of the data for each of the items of service quality to identify a smaller number of key dimensions on the basis of customer expectations. Second, customer expectations and the spa hotels' performance towards these expectations. Third, the particular findings in relation to the food and beverage service quality in the hotels participating in this study.

#### *Exploratory factor analysis*

Exploratory factor analysis was undertaken to identify a small number of factors on the basis of customer expectations. From this analysis six factors emerged as



dimensions of service quality in spa hotels' food and beverage provision and explained 55.87 per cent of the total variance. The factors were identified as: "assurance and employee knowledge"; "healthy and attractive food"; "empathy"; "tangibles"; "responsiveness and service delivery"; "reliability".

Based on the results of the factor analysis, the most important factor related to the evaluation of service quality in relation to the spa hotels' food and beverage services was "assurance and employee knowledge" which accounted for 25.27 per cent of the total variance. "Healthy and attractive food" (9.94 per cent) was the second most important dimension for predicting food and beverage service quality in spa hotels (see Table III). However, for five items: services are done correctly the first time; when customers are faced with a problem in this unit employees show an interest in finding a solution to the problem; the unit provides services as promised; traditional food and beverages are served at this unit; food and beverage employees know the contents and methods of preparation of food and beverages on the menu, were discarded from the scale as their factor loadings were less than 0.40.

To test the internal consistency of the factors, a reliability analysis was used (Yilmaz, 2009). The overall Cronbach Alpha score of the factors was high (0.89) with the individual alpha coefficients for each of the six factors ranging from 0.71 to 0.80 indicating good internal consistency among the items within each factor and across all the factors (see Table IV). As a result, the questionnaire instrument can be considered to be reliable (Nunnally, 1978; Pallant, 2007).

CFA was performed to determine the validity and the fitness of the identified six factors in the instrument (see Figure 1). As a result of CFA analysis,  $\chi^2 = 754,415$  ( $sd = 362$ ,  $p > 0.01$ );  $\chi^2/sd = 2,084$ ; SRMR (Standardised Root Mean-Square Residual) = 0.0647; GFI (Goodness of Fit Index) = 0.90; CFI (Comparative Fit Index) = 0.90; RMSEA (Root Mean Square Error of Approximation) = 0.06 show that the scale is both fit and valid for measuring the service quality of the food and beverage provision in spa hotels (Emir and Saraçlı, 2011).

#### *Customer expectations and spa hotel performance towards these expectations*

Customers expectations for each service quality dimension are important for spa hotel managers in evaluating their performance. It is particularly important that hotel managers understand customer expectations of the service quality dimensions for which customer expectations are high. Expectations act as a benchmark for service delivery. The gap between expectations and perceptions of the service received can help managers to evaluate the various aspects of the service they provide. Management interventions should focus on those aspects of the service for which there are the highest expectations and the largest gaps between expectations and perceptions. As can be seen in Table V, customers had the highest expectations of "tangibles" (4.54) and "assurance and employee knowledge" (4.50) dimensions of the hotels' food and beverage provision. Customer perceptions of the service provided were lower than expectations for all dimensions emphasising that the service quality provided by spa hotels food and beverage provision generally did not meet customer expectations (-0.45). However, the largest gaps between expectations and perceptions were for "healthy and attractive food" (-0.70) and "tangibles" (-0.54). The smallest gap was for "empathy" (-0.32).

		Factor loading
<i>Dimension 1: Assurance and employee knowledge</i>		
Item 1	Employees have experience in the field	0.746
Item 2	Food and beverage employees behave with courtesy and respect to customers	0.707
Item 3	Employees have enough information when responding to customer queries	0.673
Item 4	Employees give complete answers to customers' questions	0.624
Item 5	Customers feel personally safe and secure when food and beverage services are offered	0.576
<i>Dimension 2: Healthy and attractive food</i>		
Item 6	Menu cards have information about nutrition and calorific values of the food and beverages	0.778
Item 7	Room service is offered to guests who have physical disabilities	0.725
Item 8	Food and beverage units present personalized services to respond to customers' illnesses	0.652
Item 9	Food and beverage units have customized diets and healthy menus for customers	0.623
Item 10	Organic food and beverages are presented at these units	0.575
<i>Dimension 3: Empathy</i>		
Item 11	Employees use personal initiative to fulfill customer requests	0.749
Item 12	Employees understand the specific needs of customers	0.702
Item 13	The operating hours of food and beverage units are convenient for all customers	0.615
Item 14	Employees put their customers' interests ahead of anything else	0.572
Item 15	Employees give individual attention to customers	0.557
Item 16	Employees put in extra effort to handle customers' special requests	0.485
<i>Dimension 4: Tangibles</i>		
Item 17	The food and beverage halls are clean	0.769
Item 18	Employees look good and are appropriately dressed	0.753
Item 19	The food and beverage unit has modern tools and equipment	0.730
Item 20	The food and beverage halls have a nice appearance	0.663
Item 21	The food and beverage offer looks good at this unit	0.516
<i>Dimension 5: Responsiveness of service delivery</i>		
Item 22	Employees are not busy when they meet the needs of customers	0.632
Item 23	Employees are always willing to help customers	0.570
Item 24	Employees provide quick service to customers	0.533
Item 25	The service completely fulfills the customers' requirements	0.493
Item 26	Employees tell guests exactly when services will be performed	0.483
<i>Dimension 6: Reliability</i>		
Item 27	Food and beverages are served to customers according to their orders	0.700
Item 28	Records and accounts (reservations, bills, etc.) are kept accurately	0.669
Item 29	Food and beverage orders are served to customers at the time promised	0.653

**Table III.**  
Results of the exploratory factor analysis

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*Customer expectations and perceptions of the service quality of food and beverage provision in the four spa hotels in Balıkesir*

The demographic profiles of the Balıkesir spa hotel customers were an important part of the study. 201 of the customers were male (60.7 per cent) and 130 were female (39.3 per cent). The highest proportion of the customers' were aged between 25-34 years (24.5 per cent; 81), followed by those in the 35-44 years age group (22.1 per cent; 58) and then the 18-24 years age group (17.5 per cent; 53). The majority of customers were under the age of 45. 115 customers had completed high school education (34.7 per cent), 92 had completed undergraduate education (27.8 per cent) and 60 had completed primary school education (18.1 per cent). Of the customers 224 were single (67.7 per cent). A total of 103 customers had stayed one to three days (31.1 per cent), 100 had stayed for four to six days (30.2 per cent), 95 had stayed for seven to 13 days (28.7 per cent) and 33 had stayed 14 days and more (10 per cent). Returning customers represented 52.1 per cent (172) of the sample.

Neither gender, age, marital status, length of stay nor whether the customer was a first time or returning customer had any effect on customer expectations or perceptions. However, educational status did impact on customer expectations (chi square test,  $\chi^2 = 0.00$ ,  $p < 0.05$ ) with less-educated respondents having higher expectations of the service quality of the food and beverage provision in the spa hotels than better-educated respondents.

Customer expectations, perceptions, difference scores and t-test results for each item are presented in Table VI. Paired-sample t-tests showed that there was a significant gap between customer expectations and perceptions for all the items in the questionnaire. The customers had the highest expectations in relation to "the food and beverage halls are clean" (4.69) and "employees look good and are appropriately dressed" (4.62). The biggest gaps between perceptions and expectations were for "food and beverage units have customised diets and healthy menus for customers" (-0.82) and "food and beverage units present personalised services to respond to customers' illnesses" (-0.72). The smallest gaps were for "customers feel personally safe and secure when food and beverage services are offered them" (-0.26) and "employees use personal initiative to fulfil customers request" (-0.26).

## Discussion

This study had three aims: first, to develop an instrument to evaluate food and beverage service quality in spa hotels; second, to identify the aspects of service quality of food and beverage of which customers had the highest expectations, i.e. the key

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	Cronbach Alpha	Eigen value	Percent of variance	Cumulative variance (%)
Factor 1: Assurance and employee knowledge	0.79	7.329	25.274	25.274
Factor 2: Healthy and attractive food	0.75	2.882	9.938	35.212
Factor 3: Empathy	0.80	2.201	7.591	42.803
Factor 4: Tangibles	0.77	1.528	5.270	48.074
Factor 5: Responsiveness of service delivery	0.73	1.242	4.280	52.357
Factor 6: Reliability	0.71	1.020	3.518	55.875
Overall	0.89			

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**Table IV.**  
The reliability scores for  
the six factors

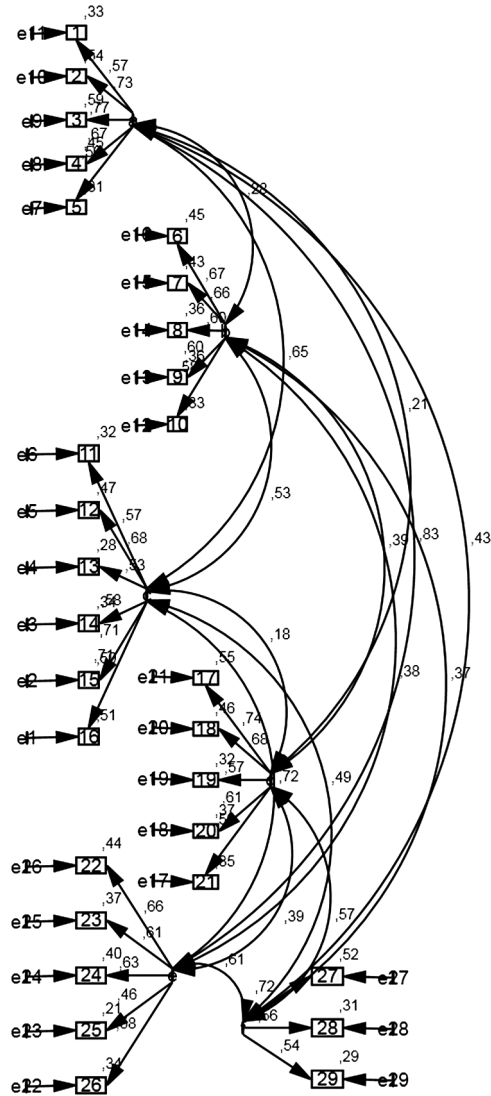


Figure 1.  
Confirmatory factor  
analysis

dimensions of food and beverage service quality in spa hotels; third, to measure customer perceptions of the spa hotels in this study and those dimensions with the largest gap between customer expectations and perceptions. Each of these aims will be discussed in turn.

*Developing an instrument to evaluate food and beverage service quality in spa hotels*  
Identifying the critical dimensions of service quality and continuously monitoring them gives spa hotel managers a better understanding of the service quality of food

Factors	Expectation		Perception		Different scores (expectation – perception)
	Mean	SD	Mean	SD	
Factor 1: Assurance and employee knowledge	4.50	0.52	4.10	0.77	– 0.40
Factor 2: Healthy and attractive food	4.12	0.68	3.42	0.94	– 0.70
Factor 3: Empathy	4.23	0.60	3.91	0.73	– 0.32
Factor 4: Tangibles	4.54	0.49	4.00	0.72	– 0.54
Factor 5: Responsiveness of service delivery	4.41	0.51	4.02	0.65	– 0.39
Factor 6: Reliability	4.49	0.51	4.14	0.67	– 0.35
All factors	4.38	0.38	3.93	0.60	– 0.45

**Table V.**  
Customer expectations,  
perceptions and gap  
scores for each factor

and beverage provision in their establishments (Akan, 1995; Akbaba, 2006; Alén *et al.*, 2006; Hsieh *et al.*, 2008; Juwaheer, 2004; Markovic and Raspor, 2010). In this study, a new scale to monitor the service quality of food and beverage provision in spa hotels was developed. The new scale combines 17 elements from SERVQUAL with eight elements from DINESERV models identified through expert analysis. Nine additional elements specific to the spa hotel context were identified by spa hotel managers. This resulted in the development of a 34-item research instrument. Exploratory factor analysis resulted in the removal of five items and a new 29-item scale designed to meet the specific needs of the spa hotel context.

*Identifying the key dimensions of food and beverage service quality in spa hotels*

Previous studies on spa hotels have identified four or five service quality dimensions for spa hotels (Blešić *et al.*, 2010; Deng, 2007; Emir and Saraçlı, 2011; González and Brea, 2005; Snoj and Mumel, 2002). In this study, specifically focusing on the dimensions of food and beverage service quality in spa hotels, six key service quality dimensions were identified: “assurance and employee knowledge”; “healthy and attractive food”; “empathy”; “tangibles”; “responsiveness of service delivery”; “reliability”. As shown by previous studies (e.g. Akan, 1995; Huang, 2011; Markovic and Raspor, 2010; Mei *et al.*, 1999; Mohsin, 2011), some aspects of service quality dimensions are more important than others for predicting service quality. Identifying customer expectations towards these six critical service quality dimensions are important indicators for managers enabling them to prioritise issues and focus on what really matters to customers (Emir and Saraçlı, 2011).

In this study, although (as for other services) food and beverage provision is mostly intangible (Hsieh *et al.*, 2008; Lebe, 2006; Mak *et al.*, 2009; Saar, 2010), customers in these spa hotels weighted tangible aspects of the food and beverage provision, i.e. the cleanliness of the food halls and the appearance of the employees, the food halls and the food and beverage offer, particularly highly. “Tangibles” was the most important element just ahead of “assurance and employee knowledge” and “reliability” in relation to food and beverage service quality in spa hotels. These results parallel those of previous studies (e.g.: Deng, 2007; Snoj and Mumel, 2002).

The second most important service quality dimensions in relation to customer expectations in these spa hotels were “assurance and employee knowledge” and “reliability”. According to Emir and Saraçlı (2011) and many other studies (e.g. Chairit,

**Table VI.**  
Mean expectation and perception and *t*-test results for each item in the questionnaire

Item	Expectation		Perception		Perception minus expectation	<i>t</i> -value	Significance
	Mean	SD	Mean	SD			
Food and beverage units have customized diets and healthy menus for customers	4.28	0.87	3.46	1.24	- 0.82	10.589	0.000
Food and beverage units present personalized services to respond to customers' illnesses	4.16	0.96	3.44	1.16	- 0.72	10.003	0.000
Menu cards have information about nutrition and caloric values of the food and beverages	3.78	1.14	3.09	1.28	- 0.69	8.344	0.000
Organic food and beverages are presented at these units	4.29	0.83	3.63	1.06	- 0.66	9.499	0.000
The food and beverage halls are clean	4.69	0.62	4.04	0.94	- 0.65	10.668	0.000
Employees have experience in the field	4.49	0.67	3.88	0.95	- 0.61	11.074	0.000
Room service is offered to guests who have physical disabilities	4.08	0.96	3.48	1.15	- 0.60	8.553	0.000
Food and beverage halls have a nice appearance	4.46	0.68	3.94	0.92	- 0.52	8.702	0.000
The food and beverage unit has modern tools and equipment	4.37	0.77	3.86	0.99	- 0.51	7.648	0.000
Employees look good and are appropriately dressed	4.62	0.67	4.12	0.85	- 0.50	8.849	0.000
The food and beverage offer looks good at this units	4.56	0.64	4.06	0.93	- 0.50	8.602	0.000
Employees are always willing to help customers	4.53	0.65	4.06	0.84	- 0.47	9.483	0.000
The service completely fulfils the customers' requirements	4.55	0.59	4.11	0.84	- 0.44	8.205	0.000
Employees have enough information when responding to customer queries	4.50	0.68	4.08	0.84	- 0.42	8.576	0.000
Employees put their customers' interests ahead of anything else	4.25	0.92	3.84	1.01	- 0.41	6.697	0.000
Employees tell guests exactly when services will be performed	4.20	0.87	3.81	0.96	- 0.39	6.471	0.000
Records and accounts (reservations, bills, etc.) are kept accurately	4.51	0.70	4.14	0.82	- 0.37	7.460	0.000
Food and beverage orders are served to customers at the time promised	4.48	0.63	4.12	0.83	- 0.36	7.016	0.000

(continued)

Item	Expectation		Perception		Perception minus expectation	t-value	Significance
	Mean	SD	Mean	SD			
Employees give complete answers to customers' questions	4.44	0.75	4.09	0.84	- 0.35	6.936	0.000
Employees give individual attention to customers	4.22	0.86	3.88	0.95	- 0.34	6.042	0.000
Food and beverage employees behave with courtesy and respect to customers	4.57	0.69	4.24	0.83	- 0.33	6.723	0.000
The operating hours of food and beverage units are convenient for all customers	4.41	0.74	4.08	0.93	- 0.33	6.553	0.000
Food and beverages are served to customers according to their orders	4.49	0.69	4.17	0.79	- 0.32	6.162	0.000
Employees provide quick service to customers	4.42	0.73	4.11	0.78	- 0.31	6.512	0.000
Employees put in extra effort to handle customers' special requests	4.21	0.83	3.90	0.96	- 0.31	5.641	0.000
Employees understand the specific needs of customers	4.10	0.96	3.80	1.00	- 0.30	5.943	0.000
Employees are not busy when they meet the needs of customers	4.29	0.83	4.02	0.81	- 0.27	5.574	0.000
Customers feel personally safe and secure when food and beverage services are offered	4.49	0.70	4.23	2.36	- 0.26	2.112	0.035
Employees use personal initiative to fulfil customer requests	4.16	0.79	3.90	0.95	- 0.26	4.784	0.000

Table VI.

2010; Hsieh *et al.*, 2008; Phongvinat and Panadis, 2011; Sekliuckiene and Langviniene, 2009), employees play a major role in spa hotels and spa hotel customers expect services to be provided by well-qualified and experienced employees. Other studies have similarly noted that the aspects of service quality of the food and beverage provision in spa hotels which directly impact on health are critically important for customers (Bennett *et al.*, 2004; Emir and Saraçlı, 2011; Keskin, 2008; Lebe, 2006; Tsai *et al.*, 2012).

*Measuring customer perceptions of the service quality of food and beverage provision in spa hotels*

Customer perceptions of the service quality provided is a measure of the performance levels of the service provider (Akbaba, 2006; Juwaheer, 2004; Salazar *et al.*, 2010). In this study, customers had the highest perceptions of 'reliability' of the services provided in these spa hotels.

Gap scores between customers' perceptions and expectations of each service quality dimension relate customer expectations to customer perceptions of service provision (Parasuraman *et al.*, 1988, 1991). At a minimum a service provider should seek to equal customer expectations and ideally to exceed them to ensure customer satisfaction. Large gaps between customer expectations and perceptions of the service provided are an indication of service failure. As Akbaba (2006), p. 186 explained: "A detailed analysis of expectation, perception and gap mean scores of the items could help hotel managers in detecting the weak points of services and designing the services to meet or exceed customers' expectations".

In this study of four Turkish spa hotels, customers did not receive the expected service quality of the food and beverage service provision on any of the key dimensions. However, the largest gap between expectations and perceptions was for 'healthy and attractive food' which has been shown to be important in several previous studies of spa hotels (e.g. Bennett *et al.*, 2004; Hsieh *et al.*, 2008; Lebe, 2006; Spivack, 1998; Tabacchi, 2010).

According to some studies, customers' demographic profiles influence their expectations and perceptions of the service quality of spa hotel services (Koh *et al.*, 2010; Mak *et al.*, 2009; Saar, 2010). In contrast to these other studies, this study did not find that the demographic profile of customers impacted on their expectations or perceptions of the service quality of food and beverage provision in spa hotels.

**Conclusions and practical implications**

Customers visit spa hotels for health and well-being reasons and the service quality of food and beverage provision in spa hotels is vitally important. Measuring customer expectations and perceptions of the service quality of food and beverage provision allows spa hotel managers to understand how the services they provide are perceived by the customers. This study identifies six key dimensions of service quality related to customer expectations of food and beverage provision: "assurance and employee knowledge"; "healthy and attractive food"; "empathy"; "tangibles"; "responsiveness of service delivery"; "reliability". Focusing on these six key dimensions could help spa hotel managers to increase the perceived service quality of the services they offer to their guests. Having measured customer expectations and perceptions of the service quality of food and beverage provision on these six key dimensions in four Turkish spa



hotels some recommendations can be given to the spa hotel managers to help them improve perceptions of the service quality of their food and beverage provision and promote customer satisfaction.

Tangible aspects of the food and beverage provision are a key issue for customers at the spa hotels. Thus, spa hotel managers should pay particular attention to tangible characteristics. The unit must have modern tools and equipment, the food halls must have a nice appearance and be clean, employees must look good and be appropriately dressed and the food and beverage offer must look good. Close behind tangibles is the issue of assurance and employee knowledge. Spa hotel customers need to feel safe when food and beverage services are provided. Spa hotel customers expect to be looked after by well-education/experienced and well-informed employees who are courteous and respectful towards them and able to give complete answers to questions. The operating hours of food and beverage units must be convenient for all customers. The service offered to customers must be reliable: food must be served according to customers' orders at the times promised and records/accounts must be accurate. To attain these specifications, some educational programs should be available for food and beverage employees to ensure the adequacy of their skills and knowledge in these hotels.

The food offer should be healthy and attractive and menu cards should provide information on the nutritional and calorific value of menu items. The menu should be customized to meet customers' specific health agendas, especially those with particular physiological problems and illnesses, and room service should be offered to guests with physical disabilities. The provision of organic menu items is an important issue.

Employee empathy is a critical aspect of food and beverage service provision. Employees must give individual attention to customers and put their needs ahead of anything else. They must make sure they understand the specific needs of customers and be empowered by managers to use their personal initiative when fulfilling customer requests so they can be seen to make a special effort when responding to special requests. The service provided must completely fulfil customer requirements. Employees are an important aspect of service delivery and they must be willing to help customers, they must not be busy when they serve customers – they should provide services in a timely fashion and tell guests exactly when the services will be performed. Spa hotel managers should give all the required support for food and beverage employees to achieve appropriate performance standards.

### **Limitations of the study and suggestions for further research**

This study has several limitations – most notably it only focuses on four spa hotels in the Turkish city of Balıkesir. Although the 29-item instrument should be applicable for studying service quality of food and beverage provision at other spa hotels, the specific findings in relation to the performance of the spa hotels studied cannot be generalised to all spa hotels in Turkey or beyond Turkey to other countries.

Another limitation relates to the process of data collection. According to earlier service quality measurement models, expectation scores should be taken before customers have used the service and perception scores should be taken after customers have used it. In this study expectations and perceptions were collected simultaneously at check out from the hotel. Despite these limitations, we believe that this study makes a significant contribution to the literature on service quality, specifically in relation to

food and beverage service quality in spa hotels. However, some further research can be recommended. The sample size and the number of hotels should be increased in future studies. A separate study is being undertaken to investigate the cultural differences of customers in relation to their expectations and perceptions of service quality in spa hotels. Customer satisfaction and behavioural intentions should also be investigated using this scale. Future research could also be extended to other classes of accommodation type in spa destinations.

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