

## **Determining Service Quality Management in small rural hotels in Catalonia using a Qualitative Optimization Process**

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### **Abstract**

Today no one disputes that the service quality has become a market requirement in the hotel sector. Under this line, there has been some research, mainly focused on customer feedback with little management evaluation. This research is tries to determine, from the manager's point of view, the gap between the importance given to certain aspects of quality management and their development in small hotels. The research methodology is based in the qualitative reasoning using the orders of magnitude to test a new way to determine the importance level and assess the quality of service.

**Keywords:** Service quality; Small hotels; Hotel management; Qualitative optimization

### **Introduction**

Quality in the hotel sector is considered of great importance by a large number of researchers (Getty and Getty, 2003; Falces et al., 1999; Kandampully, 2006; Luk and Layton, 2004; Yilmaz and Bititci, 2006), however, advances in research have been limited and have focused primarily on measuring the quality of service as in previous studies, to the concept of service quality. The vast majority of these studies have focused their fields of research on large hotels, on international hotel chains, and on their clients.

The implementation of quality systems supposes an improvement in the development of the organization (Claver et al., 2006; Ekinci, 2002; Oh, 1999; Olorunniwo et al., 2006). In this light, the stakeholders of various hotel companies expect management to take action to achieve "financial satisfaction" via the implementation of philosophies for management excellence. Hotel establishments need to adapt their practices to management, not only for client satisfaction and loyalty, but also for excellence in management (Yang, 2006).

There are considerable studies that show that small business success and development is dependent on the firm's service orientation, with many authors exploring that a lack of customer service and marketing orientation is a key cause of company failure (Fuller, 1994; Murdoch *et al.*, 2001; Moriarty *et al.*, 2008).

In view of quality management, a study was carried out of small scale hotel establishments in Catalonia, belonging to the association Petits Grans Hotels de Catalunya, whose mission is to determine which aspects of management are key to achieving service quality and determining the degree of its importance and its level of implementation and development in these organizations. To carry out this study, different research methodologies were used, among them those which highlighted a qualitative optimization process.

## Quality management in the hotel sector

The most widely accepted definition of quality in the academic community is one that is based on exceeding client expectations, and therefore a product or service quality is one which is perceived as better than what was expected. (Bolton and Drew, 1991; Brogowicz, et al, 1990, Oliver, 1980; Parasuraman, *et al.*, 1985, Reeves and Bednar, 1994). This definition of quality evolves from reflections made in marketing of services (Lovelock, 1983) where researchers argue that the approximation of quality to service should be made under the premise of "meets requirements" regarding previous expectations of service.

Quality management is based on the subjective views of clients, and therefore it is important to consider the extent to which quality is a point of reference in client's opinions and take this into consideration for quality management. Following this line of thought, different authors have focused their research on quality service management exclusively derived from the opinions of the guests staying at the hotel (Chi & Gursoy, 2009; Kandampully, 2006; Luk & Layton 2004 ; Yilmaz, 2009). Following with the management of the establishment based on client feedback, Knutson et al. (2009) they describe this experience with four major factors: the environment, accessibility to the establishment, value of stay and incentives which the client obtains. A review of the research on service quality in hotels conducted by Santomà and Costa (2007), classify into three main groups: those who make a theoretical analysis of the concept, those who study quality management and those who measure service quality in hospitality. The latter group can be subdivided in two: work undertaken by the measurement of service quality using the model SERVQUAL and those measuring the quality of service using other criteria, whether owned or not (such as the tolerance zone, critical incidents, etc.).

Work done using a theoretical analysis has focused on the one hand, in reviewing the benchmarks for measuring service quality (Ekinci, 2002) and, on the other hand, the analysis of the concept of satisfaction and its application to the tourism industry, with particular emphasis on intercultural aspects (Pizam and Ellis, 1999). Studies that examine issues related to quality management evaluate the implementation of a quality certification, for example, ISO 9000 (Claver et al., 2006), the validity of the EFQM model in the hotel (Camisón, 1996, Ribeiro , 1999) or the analysis of total quality management and with no reference to any particular model (Motwani et al., 1996).

Studies that based on the model SERVQUAL have as their main objective to measure service quality and to identify service attributes that affect perceptions and expectations of customers of the hotels. The main technique for obtaining data is through the application of a survey, usually adapted from a starting model and the results obtained are the attributes which determine the quality of service in the facilities studied, either from the point of view of the client (including Getty and Getty, 2003; Falces et al., 1999) or from the point of view of management or the establishment's employees (including Douglas and Connor, 1993, Saleh and Ryan, 1991).

The other studies that have measured the service quality using different techniques or pursuing different objectives do not conclude with a list of attributes of service quality. Mattila (1999), through conducting interviews and focus groups, identified characteristics of the luxury hotel which are important to the client. Mattson (1994) conducted a study similar to that of Mattila (1999) but never to determine the characteristics of quality service. Oh (1999) studied the factors influencing the relationship between service quality, customer satisfaction, purchase intent and subsequent recommendation. Nadiri and Hussain (2005) examined the tolerance zone for the expectations about service that clients receive and thus determine the degree of satisfaction. Ekinci and Riley (1999) used the Q-Sort tool to determine the attributes of service quality in hotels. The authors aim to overcome the limitations of the SERVQUAL model, studying the concept of quality of service from the client's perspective without no prior assumptions. Lockwood (1994) conducted a study on the feasibility of the critical incident technique to evaluate the quality of service in hotels.

The relationship between customer satisfaction, loyalty, repeat purchase and, therefore, the financial satisfaction has been the subject of study by different authors (including Oh, 1999; Olorunniwo *et al.*, 2006). In this light, various studies have tried to analyze how best to achieve management of customer satisfaction, or, in other words, how to manage the quality of service in the hospitality industry.

Enz (2001) identifies different initiatives in the management of service quality in five areas: creating a service culture, building a service delivery system based on empowerment, providing guidance to the establishment with respect to client's opinions and finally, the development guaranteed services. In the same vein, Oneill & Matilla (2010) identify the brand as one aspect that the client bears in mind when choosing and therefore, managing the service quality must be oriented towards brand management in general.

Wilkins *et al.* (2007) indicate that management of the hotel establishment, if it takes client's opinions into account, must consider three types of service quality, which are: the quality of tangible elements, the management of experience in the establishment and finally the quality of food and drink. Hotel managers will find it useful to segment the quality management using these three types, instead of managing a vague concept of service quality.

From the point of view of the implementation of quality models and their certification, Claver *et al.* (2006) discuss the implementation of ISO 9000 in the hospitality industry; on the other hand, Camisón, (1996) and Ribeiro (1999) analyse the validity of the EFQM model in the hotel. These different studies raise in their conclusions the need to adapt these models due to the nature of the hospitality and tourism industry. The low penetration of ISO 9000 norms in the hotel sector, with respect to other sectors, is an alert stemming from different levels which are primarily based on the atomization of the hotel sector and the difficulty that small and medium-sized hotel companies have in bearing the costs and the difficulties of certification (Camisón *et al.*, 2007, Puig-Duran, 2006). This situation implies the growing need for quality systems specific to the hospitality industry which consider the reality of the sector itself and its particular needs.

Overall, a well-managed organization has a good implementation of quality systems and uses management tools that help them to implement a strategic definition of quality (such as the balanced scorecard, Six Sigma, TQM, etc.). (Yang, 2006).

## **Determining the GAP between the importance and the stage of development or implementation of the most relevant aspects in small hotel management**

### **• Objectives and Methodology**

The overall objective of the research project is to identify management issues that are important to improve service quality, but they are not sufficiently developed or do not have a satisfactory degree of implementation in practice.

This research focuses on the hotels belonging to the association Petits Grans Hotels de Catalunya (PGHC). The hotel partners, representing 23% of hotels, are small (less than 15 rooms) in Catalonia, with the common characteristic that the hotels wishing to be associated must pass an internal quality audit.

The development of the project involved three phases of study which involved: the first attempted on the one hand, to identify the key aspects of management needed to improve the quality of service. The second phase had as its objective to determine the importance and degree of development or implementation of key aspects of management for improvement of the quality of service, from the perspective of the hotel. The third and last phase, from the application of a qualitative reasoning process, aimed at determining the gap

or mismatch between the importance and degree of development or implementation of key aspects of management to improve the quality of service.

Stage 1 - Determining Aspects of Management: In order to determine what aspects of management lead a small hotel to obtain service quality, two focus groups were set up with experts in quality management in hotels and in small establishments.

Stage 2 - Importance and Level of Development of Key Aspects of Management: From the information obtained in this first phase of the study, a questionnaire was designed to measure the degree of importance that directors of PGCH hotels assigned to each of the aspects of management. The questionnaire was structured based on a Likert scale of 1-6, where the lowest score (1) corresponded to the label, "management is not very important to achieve excellence in service quality and the highest rating (6) corresponded to the label "management is very important to achieve excellence in the service quality."

In order to fine tune the views of hotel managers and obtain a more accurate answer as to valuation, the response is not locked to any one single value but could represent one, two, three, four, five or six values depending on the respondent's opinion.

At the same time, a second questionnaire was prepared, also aimed at PGCH hotel managers and was intended to measure the degree of implementation or development of each aspect of management. The questionnaire was structured based on a Likert scale of 1-6, where the lowest score (1) corresponded to the label: "Management is poorly developed and / or implanted in the hotel" and the highest (6) corresponded to the label "Management is implemented and / or developed very well at the hotel."

In order to fine tune the views of hotel managers and obtain a more accurate answer, the response is not locked to any single assessment but could represent one, two, three, four, five or six values depending on the respondent's opinion.

Stage 3 - Mismatch between the Importance and Degree of Development or Implementation: In this third phase, an analysis of survey responses was carried out in order to determine what gap existed between the importance given to every aspect of management and their level of development in hotels. To perform the analysis, quantitative statistics were considered as a tool. This method was discarded as it was considered that the survey responses corresponded to a value associated to a qualitative label and that it was focused on the individual opinion of the person who answered the survey.

It was then decided to apply a qualitative reasoning process, with the aim of adjusting the analysis of survey responses to the individual reality of each of the managers who responded to the survey.

- **Qualitative Reasoning Process**

The process of qualitative reasoning aims at reproducing and analysing the aforementioned and at maintaining the level of individual opinion of each of the individuals who have assigned a value to a statement.

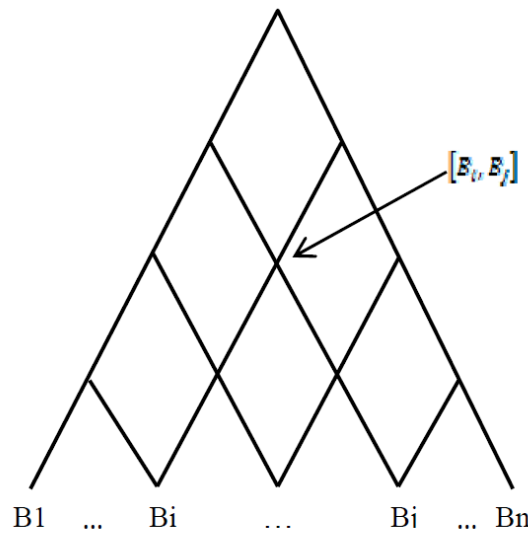
One of the main problems found in qualitative reasoning is the qualitative calculation (Q-Calculus). It tries to find ways to represent continuous properties by a discrete set of symbols called spatial quantities or spatial orders of magnitude (Agell and Piera, 1992).

An area of absolute orders of magnitude (Travé and Dague, 2003) consists of a finite number of qualitative labels for an ordinal measurement scale. The number of labels chosen

to define a problem is not fixed and depends on the characteristics of each of the variables (Agell and Piera, 1992, Agell et al., 2000).

Consider a finite set of labels ordered  $\mathcal{S} = \{B_1, \dots, B_n\}$ , where each of the terms corresponds to a linguistic term, so that  $B_1 < \dots < B_n$  is for example, "very little" < "little" < "normal" < "fair" < "a lot" and where the elements of  $\mathcal{S}$  are called basic. The entire universe of descriptors of spatial orders of magnitude  $OM(n)$  is the set  $\mathcal{O} = \mathcal{S} \cup \{[B_i, B_j] | B_i, B_j \in \mathcal{S}, i < j\}$ , where the label  $[B_i, B_j]$  with  $i < j$  is defined as the set  $\{B_i, B_{i+1}, \dots, B_j\}$ . The number  $n$  of basic labels which define the space  $OM(n)$  is called granularity (Sanchez et al., 2007).

Figure 1 Complete universe descriptors OM (n)



Source: Sanchez et al. (2007)

To study the survey results, a methodological application by Sanchez et al. (2007) will be used, with an expanded version, since in the study carried out in this research contemplates for the complete universe of basic label descriptors:  $\{B_1, B_2, B_3, B_4, \dots, B_n\}$ .

According to the methodology followed, each of the ideas of the survey is evaluated by  $k$  subjects, and these assessments will be drawn from basic qualitative labels of  $OM(N)$ . Therefore every idea  $i$  to  $i \in \{1, \dots, p\}$  is represented by a  $k$ -dimensional label  $E(i)$ ;  $E(i) = \{e_1, \dots, e_k\}$ .

The process of prioritization of ideas that takes place from the labels that represent each of the ideas, is as follows:

- The "best idea" was suggested  $O = \{O_1, \dots, O_n\}$  or a reference label as that which contains, in each component, the maximum and minimum peak values assigned by the corresponding assessor.
- It calculates the Euclidean distance of each one of the best ideas to obtain a  $d_i^2$  value associated with the  $i$  idea and it will serve as a tool for prioritization:  $d_i^2 = d^2(E(i), O)$

Thus, if the idea  $i$  has a low  $d_i^2$ , it means that many assessors have placed it near the optimum, while if  $d_i^2$  is high, it means that few assessors have assigned values near the optimum.

In the work of Sanchez et al. (2007) this methodology has been used for the purpose of establishing a ranking of the characteristics that describe a particular retail business.

## Results obtained

To carry out the process established in the first phase, two focus groups were set up, managers of the main Spanish hotel chains participated in the first and in the second specialists in the management of small hotels. The collection of information was obtained through brainstorming techniques and the results showed the existence of 40 management issues grouped into five groups:

### 1.- People management

- Good distribution of workload
- Occupational Health and Safety
- Definition of jobs, skills and responsibilities
- Take advantage of the improvement actions raised by staff
- Staff recognition
- Good pay system
- Job stability
- Training
- Involvement and / or commitment of people

### 2.- Management of client information

- Working with questionnaires or customer satisfaction
- Implementation of a system of a mystery client
- Building on customer input to make improvements in service
- A system of collection, processing and resolving complaints

### 3.- Strategic Marketing Management

- External communication
- Design and maintenance of website
- Be proactive and have customer-oriented information
- Carry out actions for customer loyalty
- Belonging to a brand
- Have possession of and use of information of the competition
- Use of electronic tools to manage reservations

### 4.- Internal Management

- Select products and raw materials
- Control and management of outsourced services
- Maintenance of buildings and facilities
- Establishment of operational planning
- Reservations management
- Provide a warm welcome and farewell to the client
- Phone etiquette
- Cleanliness of establishment
- Comfortable facilities
- Quality of facilities
- Have a good restaurant service

Safety and food hygiene  
Accessibility of the establishment  
Have a WiFi service for clients

#### **5.- Strategic Management**

Commitment to quality  
Establishment of strategic planning  
Have an environmental and ecological commitment  
Learn "Who we are, what we do? and who do we want to be? "  
Innovate

The second phase consisted of conducting two surveys drawn from the results of the first phase. One of them would assess the degree of importance that hotel managers gave to each of the management issues and the second would assess the degree of development of the management issues in each of the hotels. To adjust the level of responses to the views of the hotel professionals who responded to surveys, the grading scale was not limited to any one single answer, but they could indicate as many as they needed to best reflect their views.

Both surveys were sent jointly to the 42 hotels under study and a 54% response rate was obtained in the first survey and a 52% in the second.

The data were analysed using a qualitative reasoning process which would show both the degree of importance given to each of the 40 aspects of management and the degree of development or implementation of each of the 40 aspects of management in hotels belonging to PGHC.

The application of the qualitative reasoning process to both surveys, as described in the preceding paragraph, meant a four-phase process:

1. Individuals who have responded to the survey have been able to assess each of the management aspects on a scale of 1-6 where 1 means that the idea is not very important or is poorly implemented or developed, and 6 that the idea is very important or well developed or implemented. In order to obtain a response that conforms fully to reality, the responses could be multiple in the case that of not adjusting exactly to a number.

2. After obtaining the ratings for each of the ideas, a Maximax value (up to the maximum value) has been constructed for each idea, and a Maximin value (maximum of the minimum values). This vector represents the best idea or best assessment of each aspect of management, in both its most valued aspect as well as in the least.

3. The Euclidean distance is calculated for each of the assessments made in the first phase to each of the aspects of management to the best idea given in the second phase.

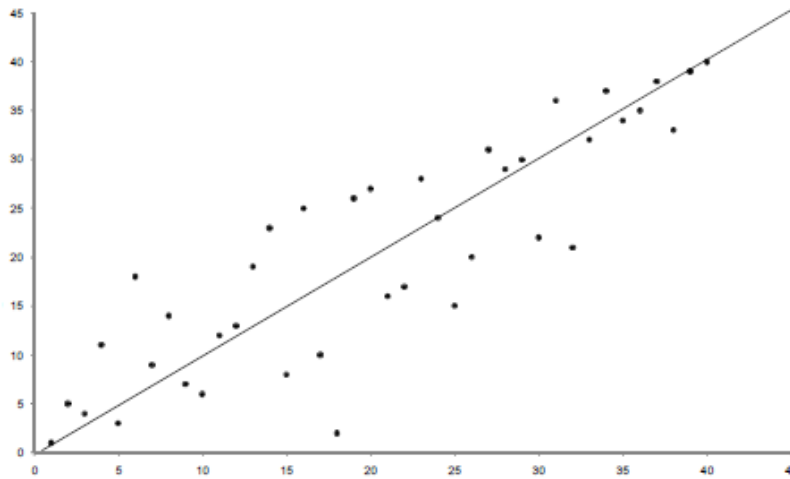
4. Each of the management aspects were ordered depending on their valued distance to the best idea. The lesser the distance, the higher value this aspect of management has for evaluators.

Thus, applying this process results in an ordered list of the 40 aspects of management according to their degree of importance given by the evaluators, and according to their degree of development or implementation as manifested in the surveys.

In order to establish the degree of mismatch between the importance and the degree of development, each of the ideas are plotted on a graph, taking into consideration the distance from the best idea in both its scale of importance as the degree of development or implementation.

In Figure 2, each point represents an idea. All those above the main diagonal have a distance greater than the optimal level of development or implementation in their degree of importance. This could be significant of those ideas which are considered to be important and which are not sufficiently developed. The ideas below the diagonal are those which have an assessment of its importance further from the idea of optimal levels of development or implementation. This fact is significant for management issues which have a high degree of implementation, while valuing its importance is not so.

**Figure 2: Gap between importance and degree of development of key aspects of management to improve service quality**



**Source: Authors**

The following table 1 shows the ranking of the 20 management issues considered most important in relation to its position in the ranking of levels of development. If we calculate the difference between the two positions in the ranking, we can see those issues whose importance is ranked higher than its development ranking (negative difference) and those whose ranking in importance is lower than its development ranking (positive difference).



**Table 1: Gap between importance and development of the most important aspects evaluated**

	Ranking		
	Importance.	Development.	Diff.
Cleanliness of the establishment	1	1	0
Attention to client and telephone etiquette	2	5	-3
Comfortable Facilities	3	4	-1
Give a warm welcome and farewell to the customer	4	11	-7
Quality of facilities	5	3	2
Building on customer input to make improvements in service	6	18	-12
Prioritize products and raw materials	7	9	-2
Innovate	8	14	-6
Establishment's interior design	9	7	2
Maintenance of buildings and facilities	10	6	4
Involvement and / or commitment of people	11	12	-1
Design and maintenance of the website	12	13	-1
Job stability	13	19	-6
Staff Appreciation	14	23	-9
Knowing "Who we are, what we do? and who do we want to become ?"	15	8	7
Good pay system	16	25	-9
Commitment to excellence in service quality	17	10	7
Hygiene and Food Safety	18	2	16
Has a good restaurant service	19	26	-7
Be proactive towards the client	20	27	-7

**Source: Authors**

The most significant gaps are listed in the following table 2: If we analyse the groups of ideas, we can see that group 4 (internal management) is considered most important because it is one that contains the most ideas among the top positions. Second is group 1 (people management), in third place we see the ideas in group 5 (strategic management), in fourth place in Group 3 (Strategic Marketing Management) and finally the ideas contained in group 2 (management of client information).

**Table 2: Gaps Higher Ranking**

	Ranking		
	Importance.	Development.	Diff.
Building on customer input to make improvements in service	6	18	-12
Staff Appreciation	14	23	-9
Good pay system	16	25	-9
Give a warm welcome and farewell to the client	4	11	-7
Innovate	8	14	-6
Hygiene and Food Safety	18	2	+16
Accessibility to the establishment	32	21	+11
Good distribution of workload	25	15	+10
Have an ecological and environmental commitment	30	22	+8
Have a commitment for excellence in service quality	17	10	+7

Source: Authors

## Implications / Conclusions

In the present context, small hotels are challenged to differentiate themselves and achieve satisfactory economic returns. For this, they must focus on innovation, differentiation and excellence in the service quality, and at the same time, look for an expansion of its brand, of marketing policies and of the use of information and communication technologies. The quality of service and the path to continuous improvement has been the line of work both for Petits Grans Hotels de Catalunya and in the destination where they operate.

In considering the aspects involved in improving the quality of service, PGHC hotels give more importance to operational aspects, to the day-to-day, rather than to the strategic. In this way, group 4 (internal management) and group 1 (people management) are the areas considered the most important. Also we see the area which contemplates management of client information is considered as the least important. Many of the aspects evaluated from the perspective of development and importance show a degree of consistency in both surveys. Of the aspects considered important such as: cleaning, telephone etiquette, quality and comfort of facilities, welcome and farewell to clients, use of the client's suggestions for improvement, prioritization of local products or innovation, there is a mismatch in development of management issues such as: use of client suggestions for improvement, the welcoming and farewell to the client, innovation and staff recognition, the pay system or job stability.

Of mention are highly developed areas in practice but are not considered as important for improving the service quality, which are belonging to a brand and use, healthy and safe work conditions, operational planning, or health and food safety. Since agents can act together with hoteliers, academic institutions, associations and public institutions, it is necessary to strengthen of the importance of improving the quality of service in issues of people management, from training and sharing costs to work safety. With regard to strategic management, from the brand name and external communication, to seek synergies and obtain more from the association or from the destination through greater customer focus, listening to them, using their complaints and suggestions and survey results for client loyalty, using information from the competition, to the use of appropriate management tools for

business planning and for the small business. It is important to have the support of the maximum number of protagonists to achieve a better quality of service, which will differentiate the hotels belonging to the chain and add a differential value together with that of the destination.

## REFERENCES

Agell, N. & Piera, N. (1992). Relacions qualitatives per al càlcul amb ordres de magnituds. *Working Papers ESADE*, 89: 2-10.

Agell, N; Rovira, X.; Ansótegui, C.; Sánchez, M. & Prats, F. (2000). Homogenising References in Ordres of Magnitude Spaces: An Application to Credit Risk Prediction. In proceedings *XIV International workshop on qualitative reasoning*. Universidad Michoacana de San Nicolás de Hidalgo. México.

Brogowicz, A.A.; Selene, L.M. & Lyth, D.M. (1990). A synthesised service quality model with managerial implications. *International Journal of Service Industry Management*, 1(1): 27-45.

Camisón, C. (1996). Total quality management in hospitality: an application of the EFQM model. *Tourism Management*, 17(3): 191-201.

Camisón, C.; Cruz, S. & González, T. (2007). *Gestión de la calidad: conceptos, enfoques y sistemas*. Madrid: Pearson – Prentice Hall.

Chi, C. & Gursoy, D. (2009). Employee satisfaction, customer satisfaction, and financial performance: An empirical examination. *International Journal of Hospitality Management*, 28: 245-253.

Claver, E.; Tarí, J.J. & Pereira, J. (2006). Does quality impact on hotel performance?. *International Journal of Contemporary Hospitality Management*, 18(4): 350-358.

Douglas, L. & Connor, R. (2003). Attitudes to service quality - The expectation gap. *Nutrition and Food Science*, 33(4): 165-172.

Ekinci, Y. & Riley, M. (1999). Measuring hotel quality: back to basis. *International Journal of Contemporary Hospitality Management*, 11(6): 287-293.

Ekinci, Y. (2002). A review of theoretical debates on the measurement of service quality: implications for hospitality research. *Journal of Hospitality & Tourism Research*, 26(3): 199-216.

Enz, C. (2001). What keeps you at night? Key issues for concern for lodging managers. *Cornell Hotel and Restaurant Quarterly*, 42(2), pp. 38-45.

Falces C.; Sierra, B.; Becerra, A. & Briñol, P. (1999). Hotelqual: una escala para medir la calidad percibida en servicios de alojamiento. *Estudios Turísticos*, 139: 95 – 110.

Fuller, P.B. (1994). Assessing marketing in small and medium-sized enterprises. *European Journal of Marketing*, 28 (12): 34-49.

Getty, J. & Getty, R. (2003). Lodging quality index (LQI): assessing customers' perceptions of quality delivery. *International Journal of Contemporary Hospitality Management*, 15(2): 94-104.

Kandampully, J. (2006). The new customer-centred business model for the hospitality industry. *International Journal of Contemporary Hospitality Management*, 18 (3): 173-187.

- Knutson, B.; Stevens, P.; Wullaert, C.; Patton, M. & Yokoyama, F. (1991). Lodgserv: a service quality index for the lodging industry. *Hospitality Research Journal*, 14: 277-284.
- Lockwood, A. (1994). Using Service Incidents to Identify quality improvement points. *International Journal of Contemporary Hospitality Management*, 6 (1/2): 75-85.
- Lovelock, C.H. (1983). Classifying services to gain strategic marketing insights. *Journal of Marketing* 47(3): 9-20.
- Luk, S. & Layton, R. (2004). Managing both Outcome and Process Quality is Critical to Quality of Hotel Service. *Total Quality Management*, 15 (3): 259-278.
- Mattila, A. (1999). Consumers' Value Judgments, how business travelers evaluate luxury-hotel services. *Cornell Hotel and Restaurant Administration Quarterly*, Feb: 40-46.
- Mattsson, J. (1994). Measuring Performance in a First Class Hotel. *Managing Service Quality*, 4(1): 39-42.
- Moriarty, J., Jones, R., Rowley, J. & Kupiek, B. (2008). Marketing in small hotels: a qualitative study. *Marketing Intelligence & Planning*, 26 (3): 293-315.
- Motwani, J.; Kumar, A. & Youssef, M. (1996). Implementing quality management in the hospitality industry. Current efforts and future research directions. *Benchmarking for quality management & Technology*, 3(4): 4-16.
- Murdoch, H., Blackey, H. & Blythe, J. (2001). Beliefs and attitudes of Welsh SMEs to marketing. *Journal of Targeting, Measurement and Analysis for Marketing*, 10 (2): 143-155.
- Nadiri, H., & Hussain, K. (2005). Perceptions of service quality in North Cyprus hotels . *International Journal of Contemporary Hospitality Management*, 17(6): 469-480.
- Oh, H. (1999). Service quality, customer satisfaction, and customer value: A holistic perspective. *International Journal of Hospitality Management*, 18: 67-82.
- Oliver, R. (1981). Measurement and evaluation of the satisfaction process in retail settings. *Journal of Retailing*, 57: 25-48.
- Olorunniwo, F.; Hsu, M.K.; Udo, G.J. (2006). Service Quality, customer satisfaction, and behavioral intentions in the service factory. *Journal of Services Marketing* 20(1): 59-72.
- Oneil, J. & Matilla, A. (2010). Hotel Brand Strategy. *Cornell Hospitality Quarterly*, 51 (1): 27-34.
- Parasuraman, A.; Zeithaml, V. & Berry, L. (1985). A conceptual model of service quality and its implications for future research. *Journal of Marketing* 49(4): 41-50.
- Pizam, A. & Ellis, T. (1999). Customer satisfaction and its measurement in hospitality enterprises. *International Journal of Contemporary Hospitality Management*, 11(7): 326-339.
- Puig-Durán, J. (2006). *Certificación y modelos de calidad en hostelería y restauración*. Madrid: Díaz de Santos.
- Reeves, C.A. & Bednar, D.A. (1994). Defining quality: alternatives and implications. *Academy of Management Review* 19(3): 419-445.
- Ribiero, D. (1999). Total Quality Management. Applying the European Model to Spain's Urban Hotels. *Cornell Hotel and Restaurant Administration Quarterly*, Feb: 54-59.
- Saleh, F. & Ryan, C. (1991). Analysing Service Quality in the Hospitality Industry Using the SERVQUAL Model. *The Service Industries Journal*, 11(3): 324-343.

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Sánchez, M.; Hu, Y.C.; Prats, F.; Rovira, X; Sayeras, J.M. & Dawson, J. (2007). Ranking Features by means of a Qualitative Optimisation Process. In proceedings del X Congrés internacional de l'Associació Catalana d'Intel·ligència artificial. Andorra.

Santomà, R. & Costa, G. (2007). Calidad de servicio en la industria hotelera: revisión de la literatura. *Revista de Análisis Turístico*, 3: 27-44.

Travé, L. & Dague, P. (2003). *Modèles et raisonnements qualitatifs*. París: Ed. Lavoisier, Hermes Science.

Wilkins, H. Merrilees, C. & Herington, C. (2006). Towards an understanding of total service quality in hotels. *Hospitality Management* 26: 840–853.

Yang, C. (2006). Establishment of a Quality-Management System for Service Industries. *Total Quality Management*, 17 (9): 1129 – 1154.

Yilmaz, Y. & Bititci, U. (2006). Performance measurement in tourism: a value chain model. *International Journal of Contemporary Hospitality Management*, 18 (4): 341-349.