

Marta Peris-Ortiz · José Álvarez-García
Carlos Rueda-Armengot *Editors*

Achieving Competitive Advantage through Quality Management

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Foreword

Quality management is an important area of practice and research. Managers and scholars have become increasingly interested in quality management, and the number of books and articles on the subject has grown exponentially as our knowledge has developed. Today it remains an interesting topic for managers and academics alike, and many organizations use quality practices, techniques, and tools to implement the quality management philosophy.

Initially it was thought that quality had a cost and that if quality rose then costs increased correspondingly. This vision of quality has been changing and today it is considered that a commitment to quality enhancement can improve differentiation and also reduce costs. Studies have shown that companies that implement quality management can reduce their costs as a proportion of sales because they control costs successfully, eliminating scrap and rework, and improving their processes. In addition, quality management has positive effects on improving the corporate image and promoting product/service quality, among other outcomes. Consequently, quality can have a positive effect on competitive advantage, through both differentiation and cost leadership. Nevertheless, not all companies implementing quality initiatives achieve benefits from that implementation. It is important to create a quality culture to ensure that efficient management of quality issues translates into real benefits.

The literature on quality has gone through a range of research themes and has principally examined how quality management practices should be adopted, how quality models should be used, and which techniques and tools are most effective in developing quality initiatives and what benefits can be achieved by organizations. The chapters in this book increase our knowledge about these issues and describe both theoretical and empirical studies on quality practices, techniques, and tools as sources of competitive advantage.

This book will be valuable for managers and scholars and help them to understand better the practices, techniques, and tools for developing quality initiatives. The chapters examine (a) the different benefits that a company may achieve (regarding operational and marketing results, innovation, and legitimacy), (b) the critical factors that facilitate quality management implementation, (c) the methodologies

and models that are used to assess quality, (d) the links between quality management and characteristics of organizational design, and (e) the importance of quality for customers as a selection criterion of a company. These issues are examined in manufacturing organizations (Chaps. 2 and 9), service industries (Chaps. 1 and 16), the tourism industry (Chaps. 3, 5, 7, 8, 17, and 18), and the educational sector (Chaps. 10, 12, and 13).

In relation to the benefits that a company may achieve, Chaps. 1, 2, and 9 present analyses of the benefits of quality management systems. Quality management focuses on providing superior value to the customer and on improving the efficiency of processes. The continuous improvement of processes and product/service quality leads to increased revenues through product reliability and reduced costs through process efficiency. As a result, customer satisfaction leads to increased revenues that enable the firm to gain a competitive advantage. Chapters 1 and 9 indicate that organizations may achieve internal benefits (e.g., clear definition of processes and responsibilities within the organization, improvements in organizational processes, improved productivity) and external benefits (e.g., commercial advantage, increased opportunities to compete in the market) from implementing quality management systems in service and manufacturing organizations. Quality management practices also aim to introduce incremental and radical changes to increase benefits. Although the evidence on incremental improvements is clear, the results in relation to the effects of quality management on radical innovation are less so. In this connection, Chap. 2 examines an important topic, namely the relationship between several quality management practices and radical innovation. This chapter addresses different quality issues such as standardization, teamwork, and a culture of error avoidance, as well as discussing the relationships between those elements and radical innovation.

Quality also allows organizations to increase legitimacy. The markets respond to the fact that quality initiatives can have positive effects on the legitimacy of organizations. Chapter 10 shows how organizations with a higher level of excellence display greater legitimacy. This study finds that the European Foundation for Quality Management (EFQM) model is an instrument that can be used to develop quality and gain legitimacy. Similarly, Chap. 18 indicates that the institutional pressures can be used to explain the implementation of quality management practices and that those practices can then explain legitimacy.

In relation to the critical factors that facilitate the efficient adoption of quality management, different chapters in this book identify key factors for the implementation of quality management and improvement in customer, employee, and society results (Chap. 5) and discuss how other key factors, such as communication and control systems (Chap. 14), facilitate quality management. These three chapters discuss quality issues that are essential for the efficient adoption of quality management. In addition, Chap. 7 shows that improving accessibility is a factor of differentiation and improved external image and that in the medium and long term may have a positive economic effect on the business. Chapter 8 reports the lessons learned

from the experience of planning and managing hospital beds and shows that quality management can bring a fresh approach to planning hotel places that has a high value for health customers. These two chapters address two issues that have been under-investigated in a quality management context and provide insights to improve performance and competitive advantage.

In relation to the methodologies and models used to assess quality, organizations can use these techniques to assess quality, identify strengths and weakness, and then improve their activities and gain competitive advantage. Chapter 3 defines an assessment methodology that allows the quantification of quality in tourism destinations. Chapter 4 shows how organizations use the EFQM model and implement the fundamental concepts of excellence as a roadmap for their conversion from organizations into institutions. Chapter 11 reports the development of a model designed to assess the maturity of integrated management systems that assess the quality level of a company, to enable the company to achieve access to still higher levels. Chapter 12 shows how we can collect data from different stakeholders to integrate, process, and visualize these data to assess quality, and Chap. 15 develops a comprehensive review of the current state of a specific tool, E-S-QUAL, that can be used in to evaluate the quality of e-services. These chapters present models that can be used to measure quality and use data to improve performance. Measurement is a critical issue for quality management. What cannot be measured cannot be improved, and these chapters help us to understand the need to measure, analyze, and improve in a way that can be correctly applied to quality management.

Regarding the link between quality management and organizational design, when organizations implement quality management, they introduce changes in the organizational design. For example, companies may increase formalization (through standardization) and decentralization (by using teamwork) which may facilitate the creation of a quality culture. These issues are controversial in the quality literature and a discussion about these issues can be found in Chaps. 16 and 19. Chapter 16 discusses the tensions raised by the impact of quality management on work design, and Chap. 19 identifies factors that facilitate the creation of ambidextrous capabilities in a quality management context. Meta-routines implemented in the quality management framework play an especially significant role in generating ambidextrous capabilities.

Finally, in relation to the importance of quality for customers as a selection criterion, we can ask, if quality is important for companies in their efforts to improve competitive advantage, what do customers think about that? Chapter 6 provides an interesting discussion of the value of quality certification as a marketing signal in accommodation selection. Customers can use quality cues to reduce the risk of adverse selection that may result from the presence of information asymmetries, in favor of service providers. From this perspective, this study provides evidence of the existence of situational and personal factors that determine the importance of quality certification as a hotel selection criterion. Similarly, Chap. 17 shows that there is a statistically significant relationship between the

sociodemographic profile of the online consumer and the type of service encounter. Consequently, sociodemographic variables have a statistically significant influence on the type of service encounter.

This book provides interesting reading on a wide range of themes in the quality management field, and it increases our knowledge of quality philosophy and stimulates greater discussion that may well lead to further studies.

Alicante, España

Juan José Tarí

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Chapter 1

Benefits of Implementing a Quality Management System in Spanish Thalassotherapy Centres

Marta Peris-Ortiz, María de la Cruz del Río-Rama, and José Álvarez-García

Abstract According to 2011 records, there are 44 thalassotherapy centres in Spain. This chapter presents results from an empirical study of 31 of these centres. The objective of the study was to identify the benefits that thalassotherapy centres perceive they obtain from implementing a certified quality management system. Building on a comprehensive literature review, the empirical research method consisted of descriptive and factor analyses to identify benefits and determine their importance. Results reveal that the most important perceived benefits are a clear definition of processes and responsibilities within the organisation, quality services followed by improved productivity and better use of time and resources.

1.1 Introduction

Today's firms, especially those belonging to the tourism sector, are aware that to remain competitive and survive in today's dynamic markets, they need to meet customers' needs. The implementation of quality management systems (QMSs) is thus

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becoming a prerequisite for firms. These systems help firms meet customers' needs by allowing firms to improve their internal procedures and general performance (Gilbert & Sia, 2001; Gotzamani & Tsiotras, 2002; Kaynak, 2003; Larsen & Häversjö, 2001; Tarí & Molina, 2002), which is then reflected in an increase in internal (employee) and external (customer) satisfaction (Arumugam, Ooi, & Fong, 2008; Gunasekaran & McGaughey, 2003; Mehra & Ranganathan, 2008; Nield & Kozak, 1999; Rubio-Andrada, Del Mar Alonso-Almeida, & Rodríguez-Antón, 2011; Salaheldin, 2009). Quality also affects business performance (quality and financial performance), as shown by numerous studies (Alonso-Almeida, Rodríguez-Antón, & Rubio-Andrada, 2012; Nicolau & Sellers, 2002; Rubio-Andrada et al., 2011) (see Marín Vinuesa, 2009; Ul Hassan, Mukhtar, Qureshi, & Sharif, 2012 for an exhaustive bibliographic review).

This research investigates Spanish thalassotherapy centres. These firms belong to the health tourism sector. This sector is currently developing, and its growth has been driven by the rise in society's health and leisure culture and the sector's capability to develop territories and local economies—generally situated in rural areas—through employment and income creation (Moure, 2008). Thalassotherapy centres are facilities where medical and qualified personnel apply treatments that combine marine baths with the effects of the sun and the air to prevent, cure or treat illnesses (Rocha Ortiz, 2004).

These centres, like all other services firms should meet customers' needs so that they may generate customer loyalty and attract new customers, thereby creating profits and ensuring survival. Therefore, quality is a strategic tool that can help them to achieve their objective: to offer service that satisfies customers' needs, with a clear awareness of customers' needs and requirements, whilst meeting these needs at the lowest possible cost. In other words, quality allows firms to differentiate their service and reduce costs (Belohlav, 1993; Grant, 1995). Nevertheless, very few centres have implemented a QMS. Camisón and Yepes (1994) explained the reasons for this lack of QMS adoption, reporting that it owes to the high cost of implementation and a lack of specialised personnel in tourism SMEs.

For the above reasons, together with the fact that the scientific literature shows that quality implementation is driven by the internal and external benefits it yields (Casadesús Fa & Heras Saizarbitoria, 2001; Singels, Ruel, & Van de Water, 2001; Yahya & Goh, 2001), we establish a research objective of identifying the benefits that managers of thalassotherapy centres can obtain by implementing QMSs. Results will verify whether managers are aware of the benefits yielded by QMS implementation. This awareness represents the first step towards deciding to implement a QMS. Although benefits are reaped once the system is in place, studies have shown that benefits are the same as the motives that drive managers to implement QMSs. In this sense, "the benefits yielded by a process of quality sophistication obviously depend on the motivations for performing such a process" (Alonso-Almeida et al., 2012:922).

The importance of this study lies in the choice of target firms: thalassotherapy centres. As already mentioned, thalassotherapy centres belong to the health tourism sector. Health tourism is a highly important sector in Spain. According to the first tourism and health forum of the Balearic Islands 2013 (<http://www.turismoysaludbalears.es/index.php>), "health tourism is becoming one of the highest growth market

segments within the tourism industry”. In addition, health tourism has received little attention from scholars of quality management (Álvarez García, del Río Rama, González-Vázquez, & Lindahl, 2015; Del Río Rama, Álvarez García, García Rodríguez, & Gómez Fraiz, 2015; Del Río Rama, Álvarez García, Rueda-Armengot, & Coca Pérez, 2014; Peris-Ortiz, del Río Rama, & Álvarez García, 2015), despite the need for such research.

The chapter is structured in four additional sections. First, we establish the theoretical framework adopted for this research. Second, we describe the method employed to achieve the research objective. Third, we present analysis of empirical results. Finally, we discuss the study’s main conclusions and implications.

1.2 Theoretical Background

Many studies have attempted to identify the benefits obtained from implementing QMSs, the majority of which have been performed in the industrial sector. Findings show that firms can obtain numerous benefits by adopting the ISO 9001 (quality assurance) standard or the European Foundation Quality Management (EFQM) (total quality) model—the two reference frameworks used.

According to Reed, Lemak, and Montgomery (1996), and more recently Claver, Tarí, and Pereira (2006:35), “*quality can influence performance via two complementary paths*”. First, quality can yield internal effects: standardisation of processes that encourage an increase in workers’ productivity, strengthened infrastructures, improvements in efficiency and cost reductions (Ahire & O’Shaughnessy, 1998; Choi & Eboch, 1998; Dow, Samson, & Ford, 1999; Forza & Filippini, 1998; Ho, Duffy, & Shih, 2001; Kaynak, 2003; Naveh & Marcus, 2005; Nield & Kozak, 1999; Samson & Terziovski, 1999; Sharma, 2005; Terlaak & King, 2006, among others). Second, quality can yield external effects because the market favours customer satisfaction (Rahman, 2001), and so greater demand leads to greater sales, market share, image and so forth (Benner & Veloso, 2008; Dick, Heras, & Casadesús, 2008; Häversjö, 2000; Hendricks & Singhal, 2001a, 2001b; Sharma, 2005; Singels et al., 2001; Yahya & Goh, 2001).

Delving further into the subject, scholars have exhaustively reviewed the bibliography and have grouped the most relevant studies as a function of their research approach. Marín (2009) reviewed research that investigates how quality affects financial performance. Claver, Tarí, and Pereira (2006) reviewed research that studies the positive effect on business performance. Finally, Ul Hassan et al. (2012) reviewed several studies that show the effect on performance (quality performance, business performance and organisational performance) to be positive. Such studies include those by Solis, Rao, Raghu-Nathan, Chen, and Pan (1998), Terziovski and Samson (1999), Sharma and Gadenne (2002), Lagrosen and Lagrosen (2003), Chong and Rundus (2004), Prajogo (2005), Joiner (2007), Malik et al. (2010), Karani and Bichanga (2012), and Zehir, Ertosun, Zehir, and Muceldilli (2012).

The bibliographic review shows that numerous benefits can be derived from QMS implementation. In fact, several researchers have categorised these benefits.

Buttle (1997) designed four groups of benefits: (1) greater profits, (2) process improvement, (3) marketing benefits and (4) other benefits. Jones, Arndt, and Kustin (1997), in contrast, established two groups: (1) improvements in organisational elements such as processes or competitiveness; and (2) improvements that do not involve development (e.g. customer requirements, marketing actions and public relations). Casadesús and Karapetrovic (2005) defined three groups: (1) economic and financial benefits (greater sales, market share and profitability), (2) operative benefits (better relations with providers, lower costs and nonconformity, greater reliability in meeting deadlines, better productivity, and higher quality of products or services), (3) client satisfaction (reduction in complaints and greater satisfaction) and employee satisfaction (better working conditions and better training, etc.). Rahman (2001), Sun (2000), Dow et al. (1999), and Marín Vinuesa and Gimeno Zuera (2010) established three groups: (1) quality performance benefits, (2) operational performance benefits and (3) economic and financial performance benefits.

The literature review implies that implementing a QMS, regardless of its reference framework (i.e. ISO 9001 or EFQM), positively affects firms, whether internally or externally. Numerous studies have shown this positive relationship in firms whose QMS is based on the ISO 9001 standard. Such studies include those by Buttle (1997), Vloeberghs and Bellens (1996), Carlsson and Carlsson (1996), Mallak, Bringelson, and Lyth (1997), Brown, Van Der Wiele, and Loughton (1998), Larsen and Häversjö (2001), Gilbert and Sia (2001), Tarí and Molina (2002), Gotzamani and Tsiotras (2002), Chow-Chua, Goh, and Wan (2003), Lee, To, and Billy (2009), Mak (2011), and Mokhtar and Muda (2012). Key studies of firms that use the EFQM self-evaluation model are those by Camisón (1996), Hendricks and Singhal (1996), Eskildsen, Kristensen, and Juhl (2001), Wongrassamee, Simmons, and Gardiner (2003), Heras, Landín, and Casadesús (2006), and Camisón, Cruz, and González (2007).

Although numerous studies have corroborated the positive effects of quality on business performance, some studies such as those by Martínez-Costa, Choi, Martínez, and Martínez-Lorente (2009) and Lo, Yeung, and Edwin Cheng (2011) have shown that becoming certified does not affect business results. These findings may owe to the difficulty in evaluating the effect of the ISO9001 standard (Casadesús, Heras, & Arana, 2004), especially when attempting to measure the effect of quality on financial performance, because quality indirectly affects financial performance through variables such as productivity, client satisfaction and business image, which quality does affect (Hardie, 1998).

1.3 Methodology

1.3.1 Sample

The target population comprised Spanish thalassotherapy centres. At the time of the study, there were 44 thalassotherapy centres in Spain. Because there was no official list, we used the most relevant associations at the national level to construct the list.

Table 1.1 Profile of the sample of Spanish thalassotherapy centres

Variable	
Size of centre (measured by number of employees)	<ul style="list-style-type: none"> – 14 centres with 0–9 employees – 15 centres with 10–49 employees – 2 centres with 50–250 employees
Accommodation	<ul style="list-style-type: none"> – 27 centres offered accommodation (87.1 % of sample): 7 with 10–49 employees, 15 with 50–249 employees and 5 with more than 250 employees – 4 centres did not offer accommodation (12.9 %)
Hotel classification system in Spain (1 star to 5 star) (minimum requirements available at http://www.cehat.com/frontend/cehat/Hotel-Classification-System-In-Spain-vn2682-vst328)	<ul style="list-style-type: none"> – 17, 4-star hotels – 7, 5-star hotels – 3, 3-star hotels
Quality management system (QMS)	<p>Thalassotherapy centres</p> <ul style="list-style-type: none"> – 24 centres were not certified by any QMS (77.42 %) – 7 centres certified by the UNE-EN ISO 9001:2008 quality assurance standard, 4 of which were also certified by the UNE-EN ISO 14001:2004 environmental standard. <p>Centres offering accommodation</p> <ul style="list-style-type: none"> – 7 with the UNE-EN ISO 9001:2008 standard – 6 with the “Q for Tourism Quality” standard (UNE 182001:2008 for Hotels and Tourist Apartments—Spanish standard) – 5 with the UNE-EN ISO 14001:2004 standard

Source: Authors' own data

These associations are the Spanish Association of Thalassotherapy, the “Bilbilis” Foundation, which is dedicated to the investigation and innovation in medical hydrology and water therapy (<http://fundacionbilbilis.es/home/>), and the *Almanac of Thermalism and well-being in Spain, Portugal, and Andorra* (Tribuna, 2010/2011)

We emailed the questionnaire to sampled centres, and we obtained a response rate of 70.45 % (31 valid responses). This response rate implies a sampling error of ± 9.76 % for a confidence level of 95 % ($Z=1.96$ $p=q=0.5$). We received two incomplete questionnaires, for which we telephoned the respondents to request the completion of these questionnaires. The data collection process started on 2 May 2011 and finished on 30 July 2011. Table 1.1 shows the sample profile.

1.3.2 Questionnaire and Measures

To meet our research objectives, we designed the questionnaire drawing on the bibliographic review. We designed the questionnaire considering the items employed in research that has analysed the benefits derived from QMS implementation and

certification. We thus ensured as best as possible that the questionnaire was internally valid—internal validity indicates the degree to which the measurement process is free from systematic and random error (Kinnear & Taylor, 1995).

Studies reviewed were Adanur and Allen (1995), Jones, Arndt, and Kustin (1997), Buttle (1997), Terziowski, Samson, and Dow (1997), Tarí and Molina (2002), Heras, Casadesús, and Marimón (2004), Casadesús and Karapetrovic (2005), and Casadesús and Heras (2005), among others. Thus, the questionnaire contained 12 items to which thalassotherapy centre managers responded. Items were measured using a 7-point Likert-type scale (1 = *not at all important*; 7 = *very important*). With the questionnaire, we sought to obtain managers' perceptions of the benefits they had obtained implementing a QMS (7 centres) or of the benefits they thought they could obtain by implementing a QMS (24 centres).

1.4 Data Analysis

We used descriptive analysis to accomplish our research objective, namely to analyse thalassotherapy centre managers' perceptions of the potential benefits of implementing QMSs and certifying their centres. According to questionnaire data, thalassotherapy centre managers think that QMS implementation allows them to improve their management by clearly designing and establishing processes and responsibilities within the organisation (6.64) and that QMS implementation improves productivity. Managers also perceive that QMS lets them make better use of time and resources (6.13) and increases knowledge of customer expectations (6.06), which undoubtedly results in greater customer satisfaction (5.97) and a reduction in complaints (5.90). The least valued benefits were improvements in manager–employee relations (4.70) and cost reductions (4.83). These result simply that managers think that QMS implementation would not yield important benefits in these two areas (Table 1.2).

Findings by Magd and Curry (2003), Ragothaman and Korte (1999), Van der Wiele, Dale, and Williams (2000), Dick, Gallimore, and Brown (2001), Dissanayaka, Kumaraswamy, Karim, and Marosszeky (2001), Stevenson and Barnes (2001), Yahya and Goh (2001), and McAdam and Fulton (2002), among others, support our findings. All these studies examined industrial firms with QMSs based on the ISO 9001 standard, and hence the importance of analysing the benefits in thalassotherapy centres (service sector and tourism sector).

Very few centres had implemented a QMS (22.58 % of interviewed firms). In the health tourism sector, Álvarez-García, Fraiz-Brea, and del Río-Rama (2012a) study of thermal bath centres (thermal water and mineral medicinal sector) corroborates our findings. In that study, centres had implemented QMSs, and their quality managers perceived the same benefits of implementing quality in their centres as in the current study: clear definition of processes and responsibilities, better knowledge of customer expectations and improvement of customer satisfaction. Hence, the

Table 1.2 Descriptive analysis of perceived benefits (thalassotherapy centres)

Benefits	Mean (1–7)	Standard deviation
(BF2) Clearly defined processes and responsibilities	6.6452	0.79785
(BF8) Productivity and better use of time and resources	6.1290	0.99136
(BF5) Better knowledge of customer expectations	6.0645	0.81386
(BF1) Greater customer satisfaction	5.9677	0.91228
(BF9) Reduction in complaints	5.9032	1.39892
(BF7) Increase in awareness of quality among employees	5.7419	1.06357
(BF3) Improvements in working environments	5.4839	1.43460
(BF11) Higher sales	5.3871	1.64676
(BF12) Increase in market share	4.9677	1.58080
(BF4) Increase in employee motivation and satisfaction	4.9032	1.44579
(BF10) Cost reductions	4.8387	1.75303
(BF6) Improvement in manager–employee relations	4.7097	1.59569

Source: Authors' own data

present study's findings coincide with those in Álvarez-García, Fraiz-Brea, and del Río-Rama (2012b) study about hotels.

Next, we performed exploratory principle components analysis to group the 12 items into other variables that substitute these 12 items with the least loss of information possible, whilst providing insight into the structure of the benefits that thalassotherapy centre managers perceive they obtain by implementing QMS. First, we checked the data were suitable to perform the analysis. We examined the correlation matrix, and we checked the correlation matrix to ensure that at least one p-value was less than 0.05 for each variable—if this had been the case, we could not have eliminated any variables (Conca, Llopis, & Tarí, 2004:138)—and we checked the indicators of the degree of association between variables (the correlation matrix, the determinant of the matrix, Bartlett's sphericity test, the KMO index measure of suitability, and the model's goodness of fit). Table 1.3 shows these criteria.

Following the literature review, we performed the analysis following the a priori criterion, considering only two internal and external beneficial factors (Tsiotras & Gotzamani, 1996; Vloeberghs & Bellens, 1996). We confirmed that the data matrix was suitable for principle components analysis because it met all minimum requirements in all parameters analysed. Bartlett's test of sphericity shows that the approximate Chi-square is very high and is highly significant (i.e. less than 0.05). These values simply that the correlation matrix is the identity matrix, and hence the variables are not independent from one another and that the data are suitable for analysis. The KMO index was low in both cases, but the measure of sample adequacy for each variable was greater than 0.5 in all cases.

Finally, we rotated the matrix using the varimax method (Hair et al. 1999) to yield a small number of factors. To enable their interpretation, factor loadings with values lower than 0.4 (minimum considered) were eliminated (Table 1.4). Using the

Table 1.3 Criteria for examining the correlation matrix

Criterion	Value		
Examination of correlations	The number of correlations in many cases should be greater than 0.5 (some authors use 0.3). Variables with very low values should be eliminated from the analysis.		First approximation of the relationship between variables.
Determinants	Value close to 0 (0.5 is the limit to be able to perform the analysis). If the value equals 0, the analysis is invalid because it implies a linear combination of values.		Measure of the existence of linear dependence.
Bartlett’s sphericity test	The higher the test, the better. Significance level (sig.) < 0.05.		Measure to check the variables are not independent.
Kaiser-Meyer-Olkin (KMO) test of suitability	$1 \geq KMO > 0.9$	Very good	Compares the observed magnitudes of correlation coefficients and partial correlation coefficients, indicating whether we should proceed with the analysis.
	$0.9 \geq KMO > 0.8$	Good	
	$0.8 \geq KMO > 0.7$	Medium	
	$0.7 \geq KMO > 0.6$	Mediocre	
	$0.6 \geq KMO > 0.5$	Poor	
	$KMO \leq 0.5$	Unacceptable	
MSA index	Ranges between 0 and 1. Checked for all of the anti-image matrix diagonals. Unacceptable if values are less than 0.5. Small values should be eliminated from the analysis.		Similar to the previous criterion, but instead for each variable.

Source: Authors’ own data

Table 1.4 Indicators of the degree of association between variables and the rotated matrix

Indicator	Correlation matrix	Correlation matrix determinant	Bartlett’s test of sphericity		Measure of sample adequacy	KMO Index
Internal benefits	Variables correlated	0.001	187.404 sig. 0.000	(0.759–0.866)		0.705
External benefits	Variables correlated	0.026	100.071 sig. 0.000	(0.581–0.751)		0.54
<i>Item</i>			<i>Factor 1 internal</i>	<i>Factor 1 external</i>		<i>Factor 2 external</i>
(BF2)	Clearly defined processes and responsibilities	Internal	0.67			
(BF3)	Improvements in working environments	Internal	0.828			
(BF4)	Increase in employee motivation and satisfaction	Internal	0.9			

(continued)

Table 1.4 (continued)

Indicator	Correlation matrix	Correlation matrix determinant	Bartlett's test of sphericity		Measure of sample adequacy	KMO Index
(BF6)	Improvement in manager–employee relations	Internal	0.84			
(BF7)	Increase in awareness of quality among employees	Internal	0.668			
(BF8)	Productivity and better use of time and resources	Internal	0.792			
(BF10)	Cost reductions	Internal	0.836			
(BF1)	Greater customer satisfaction	External				0.936
(BF5)	Better knowledge of customer expectations	External				0.911
(BF9)	Reduction in complaints	External		0.855		
(BF11)	Sales	External		0.956		
(BF12)	Market share	External		0.933		
Own value			4.422	2.554		1.728
% of variance explained by factor			63.167	51.086		34.556
Accumulated % of variance explained			63.167	51.086		85.642
Standardised Cronbach's alpha			0.9	0.784		

Source: Authors' own data

criterion of percentage of variance, we observed that there were three factors and that they explained 63.167 and 85.642, in both cases exceeding the required minimum of 50 %. Cronbach's alpha, which measures scale reliability (Nunnally, 1978) was greater than 0.7 (the recommended minimum). The process allowed us to identify three factors (Table 1.5). In the study by Álvarez et al. (2012a) in thermal bath centres, benefits formed two groups (internal and external benefits).

Finally, we analysed the importance of benefits. We observed that the external market benefits had the highest mean. The means of internal benefits and external customer benefits were very similar (Table 1.6).

Table 1.5 Factor analysis results

Factor 1: “Internal benefits” consists of motivations related to improving internal processes and procedures (by standardising processes and procedures), improving the working environment, increasing employee motivation and satisfaction, improving manager–employee relations, increasing awareness of quality among employees, improving productivity and making better use of time and resources, and reducing costs.

Factor 2: “External customer benefits” consists of greater awareness of customer expectations and greater customer satisfaction.

Factor 3: “External market benefits” consists of greater sales and market share, and fewer complaints.

Source: Authors’ own data

Table 1.6 Importance of benefits

Factors	Mean (1–7)	Standard deviation
Internal benefits	5.4931	1.04903
External customer benefits	5.4194	1.42196
External market benefits	6.0161	0.80087

Source: Authors’ own data

1.5 Conclusions

As we have already seen in the theoretical framework section, numerous studies highlight the benefits that industrial firms obtain from QMS implementation. Such studies in the tourism sector, however, are scarce. Hence, the relevance of this study lies in the sector analysed (i.e. health tourism) and the type of establishments (i.e. thalassotherapy centres) where, as already mentioned, quality implementation is uncommon. Results are especially interesting to increase scientific knowledge about this area of study, above all for agents in both the public administration and the tourism sector who are interested in encouraging quality implementation and certification in the Spanish tourism sector, particularly in thalassotherapy centres. In Spain, the commitment to quality as a competitive strategy for the public administration and the tourism sector led to the release of a document known as the holistic plan for quality in Spanish tourism (Plan Integral de Calidad del Turismo Español) for the years 2000–2006.

This research provides evidence that managers of Spanish thalassotherapy centres know the benefits provided by QMS implementation. Results show that the most important benefits managers hope to obtain from QMS implementation are gaining a clear definition of processes and responsibilities, which managers undoubtedly consider leads to better productivity (i.e. making better use of time and resources), greater knowledge of customer expectations, which together with the improvement in internal operations leads to an increase in customer satisfaction and therefore a reduction in complaints. Because the benefits that managers consider they will obtain are numerous, we grouped them statistically to gain insight into the

structure of these benefits. Principal factor analysis yielded three groups. Of these three groups of benefits, the most important for managers were external market benefits: sales improvements, greater market share and a reduction in complaints.

These findings show that managers already know that the implementation of quality assurance systems would be a good strategy to follow to improve performance, which means it is unnecessary to disseminate evidence of the benefits of QMS implementation. (Demonstrating QMS implementation's benefits is the starting point for the QMS implementation process in many sectors.) We therefore consider that the scarce level of implementation may owe to one of the main barriers to implementation detected in other studies, namely the cost of implementing QMS, especially in SMEs, which most thalassotherapy centres are (Camisón & Yepes, 1994; Chan, 2008; Sampaio, Saraiva, & Guimaraes, 2009; Tarí, Claver, Pereira, & Molina, 2010).

In light of our findings, we consider that the lines of action to increase QMS implementation should involve stakeholder support for firms to develop quality systems and business initiatives that seek to implement quality systems in their centres so that they can improve their position in the national and international tourism markets. Support should be provided in the form of aid or subsidies to cope with costs, and training and advisory programmes to overcome barriers that thalassotherapy centre managers perceive prevent the success of QMS implementation. Peris-Ortiz et al. (2015) studied thalassotherapy centres, identifying the main barriers to QMS implementation as resistance to assuming new responsibilities, knowledge, and inadequate misunderstanding of quality management among employees, resistance to change and a lack of time to dedicate to quality tasks, which constitute the starting point and the barriers to overcome. Therefore, training and advisory services should focus on these barriers.

This study focused on a specific population, which implies a limitation with respect to the generalisation of results. The second limitation relates to the cross-sectional nature of the study, which took place at a specific moment.

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Chapter 2

TQM and Innovation: Controversial Issues Surrounding the Impact of Formalization over Radical Innovation

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Abstract The purpose of this chapter is to better understand the influence of total quality management (TQM) practices on innovation, examining the conflicting issues that surround the impact of process management implementation and the effects of subsequent formalization on radical innovation. We consider several arguments that appear in the literature, as well as empirical research findings on this topic, discussing how TQM can stimulate a context that favors innovation, putting all the experience and competences of the firm at the service of innovation goals, or conversely, considering the potential barriers that process management and formalization can build against radical innovation. An extensive review of the literature leads us to conclude that appropriately applied TQM, and particularly process management, is capable of fostering incremental innovation and does not hamper radical innovation, although consideration must be given to adapting TQM programs to particular circumstances, such as uncertain and rapidly changing environments. Further research is needed to garner a more comprehensive understanding of the complexity of leadership decision-making in terms of change and adaptation, as well as the role of possible mediating factors in the relationship between TQM and innovation.

2.1 Introduction

The fact that quality and innovation are crucial to achieving competitive advantage solicits the question of how to manage both elements concurrently. The intensification of global rivalry and an increase in the rate of change demand that firms

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encourage innovation at the same time as improving quality as a means of survival and growth (Cho & Pucik, 2005).

The quality-innovation binomial has been extensively researched, although consensus is yet to be reached on a number of issues. The contributions of Prajogo & Sohal (2001) and Kim, Kumarb, & Kumarb (2012) are crucial to the field, as they offer a comprehensive review of the literature. There are plenty of arguments and empirical evidence that maintain the fact that quality management practices help firms to develop innovation (Gustafson & Hundt, 1995; Perdomo-Ortiz, Gonzalez-Benito, & Galendez, 2006; Prajogo & Hong, 2008).

Nevertheless there are also recognized studies supporting the idea that TQM impedes organizations from being innovative, especially when radical innovation is needed (Moura & Abrunhosa, 2007).

Our aim is to contribute to the comprehension of the impact of total quality management (TQM) on radical innovation, particularly when it comes to the consequences of the implementation of process management and the inherent formalization, as this is the main controversial issue.

The distinction between radical and incremental innovation has been widely reported in the specialized literature (Green, Gavin, & Aiman-Smith, 1995; Tidd et al., 1997). Radical innovation comes about in totally new products or processes that necessitate new knowledge and are able to satisfy new customers or emerging markets (Herrmann, Tomczak, & Befurt, 2006). Incremental innovation implies progressive improvements to previously existing products and processes, and does not need new knowledge and is designed to satisfy current customers and markets, through improved designs, products and services (Chang, Chang, Chi, Chen, & Deng, 2012; Green et al., 1995). Organizations tend to adopt an incremental approach to innovating because it is much easier than concentrating on radical breakthroughs (Zairi, 1994).

Most of the arguments that maintain that TQM will hinder innovation are related in one way or another to process management practices. However, TQM is a multi-dimensional and complex framework comprising a wide range of principles and practices (Moreno-Luzon & Valls-Pasola, 2011; Prajogo & Sohal, 2001) that have been classified into three major groups: processes, people and customers (Bou-Lusar, Escrig-Tena, Roca-Puig, & Beltran-Martin, 2009; Dean & Bowen, 1994), and thus include human, organizational, marketing, and strategic elements.

TQM has inherited from quality assurance a stress on the improvement and control of processes, which embraces a notable tendency towards formalization. Process management practices are a principal constituent of TQM programs (Hackman & Wageman, 1995). Key processes include, for example, identification of customer requirements, product concept development, design and engineering, production, quality control, and sales and after sales services (Imai, 1992)

Process management practices entail mapping processes, improving processes, and adhering to systems of enhanced processes (Benner & Tushman, 2003). Achieving quality results involves a framework of measurement, data and analysis; it requires finding an improved way of doing a job and establishing a better standard. Standardization is typically important in dealing with quality and is the foundation for both maintenance and improvement.

Process management implies an increase in formalization, which can be defined as the extent of written rules, procedures, and instructions in a firm (Mintzberg, 1979), and has been extensively researched by organizational literature. Process management and formalization have been traditionally viewed as influential for continuous quality improvement and incremental innovation (Anderson, Rungtusanatham, & Schroeder, 1994; Deming, 1993), but they have also been said to obstruct radical innovation.

In this chapter we examine the conflicting issues that surround the impact of process management implementation. The next section contains a review of the arguments that appear in the literature, as well as empirical research findings on the potential barriers that process management and formalization can build against radical innovation, while in Sect. 2.3 we present the arguments on how they can stimulate a context that favors innovation. Section 2.4 presents the discussion and managerial implications. We conclude with a summary of the main conclusions, accompanied by the issues for further research.

2.2 Claims that Process Management and Formalization Hinder Innovation

The first influential empirical research to examine the existence of a relation between process management and a reduction in radical innovation consists of a longitudinal study in firms that implement quality assurance programs, using the ISO 9001:1994 standards (Benner & Tushman, 2002, 2003). Some literature still upholds this finding using the arguments listed below. It has been claimed that the process management practices introduced through TQM generate efficiency and improvement, but also constrain creativity, making it hard to foresee market opportunities and appropriate risk-taking opportunities, which are not positive outcomes for engendering radical innovation. Moreover, TQM implementation leading to excellent results can be deceptive and lead the firm to fall into a competency trap. This debate is related to another one in organization research that considers how organizations adapt to variations in their environments and how organizational routines obstruct or enable adaptation (Benner, 2009).

2.2.1 Process Management Fosters Linear Thinking

Trust in rules and procedures has traditionally been considered to hinder experimentation and ad hoc problem-solving (March & Simon, 1958). In this sense, Imai (1992) states that standards should be followed, where other behavior must be considered as deviation. This type of guideline does not appear to inspire further exploration. Some literature claims that the follow-up of processes, as well as formalization, stop more inspired ideas from developing (Samaha, 1996), and only promote analytical and linear thinking, thereby leading people to work towards unambitious goals (Bossink, 2002; Harari, 1993; Samaha, 1996).

It has been argued that when TQM systems are mechanically focused, and centered on their statistical roots, creativity is discreet, leaning more towards minor improvements (McAdam, 2004), which are shaped in an analytical and safe environment that excludes entrepreneurial capacity (Harari, 1993; Prajogo & Sohal, 2004a). Formalization can make people act in an “unconcerned way” (Hackman & Wageman, 1995, p. 333), trusting in the same routines when they should really be entirely changed (Prajogo & Sohal, 2001). In case studies, we find evidence to suggest that process management can increase barriers to innovation by producing a “comfortable zone” of work in an environment with clear standards that are related to solid results, and thus the firm’s interest in innovative development diminishes (Prajogo & Sohal, 2004b).

As Prajogo and Sohal (2001) indicate, while empowerment and involvement are conceptually highly coherent with innovation, in practice, TQM workers are usually “empowered and involved” to deal only with small-scale improvement. The conclusions of some case studies confirm this perspective, finding that quality teams promote smaller levels of conflict than innovation teams (Bossink, 2002). Additionally, there are doubts about the connection between employee empowerment and innovation, as it has proven to be nonsignificant in recent research on Polish SMEs (Kmieciak, Michna, & Meczynska, 2012).

The literature primarily refers to Slater & Narver (1998), who describe the dangers involving an orientation limited to current customers because of the narrow-minded view this entails, which harms innovation outcomes, and may prevent firms from anticipating market changes. The development of existing customer satisfaction, combined with reduced waste and costs, are expected to further enhance organizational effectiveness. However, a close relationship with existing customers or those like them carries the risk of blinding the organization to the development of new markets. It could also limit investment in innovation outside the existing product set, as no measurable improvements in manufacturing or distribution processes are foreseen (Liu, 2006).

We agree that if TQM builds in mechanisms that favor uncritical application and single-loop learning, it will bring about cost reduction and induce other improvements to established processes, but not radical changes, as radical innovation is rooted in a fundamental questioning of the reasons and motives behind any situation (Argyris, 1994).

2.2.2 Error Prevention and Risk Avoidance

Radical innovation requires risk-taking, which is associated with a willingness to commit large amounts of resources to projects where the cost of failure may be high (Miller & Friesen, 1982). TQM implementation could have a negative effect on the development of this capability, which is inherent in radical innovation.

Formalization allows firms to exploit their accumulated knowledge, thereby increasing efficiency but organizations that are still guided by potentially outdated

knowledge can find themselves at a disadvantage, often due to the fact that the environment has changed, and attractive opportunities may have appeared or become accessible (Adler et al., 2009).

Zero defects programs have been strongly criticized when the firm aims for radical innovation, as it increases process control and improvement and discourages risk-taking to avoid possible errors. To encourage a higher degree of innovation, management has to tolerate and accept a higher probability of mistakes. The problem has been reflected by Eidt (1992, p. 28) who indicates: "It is one thing to exhort an assembly line crew to 'do the right thing the first time', but quite another to give the same signal to an exploratory researcher whose work inevitably involves learning from failed experiments".

2.2.3 *Efficiency versus Slack Resources*

Relevant studies conclude that the scarcity of available resources will impair the capacity for radical innovation. Organizational slack is the difference between available resources and those currently needed (Cyert & March, 1963). Slack represents a static inefficiency, but can act as a dynamic shock absorber. When successful, an organization generates more slack, which provides greater resources (people, time, money) for longer-term, significant innovation. When less successful, organizations search for problems and their solution tends to reduce slack (Tidd & Bessant, 2013). As Theresa Amabile (2000) states, adding more resources above what is sufficient will not boost creativity, but keeping resources too tight means people's creativity goes into finding resources.

Quality management promotes efficiency, and not many funds will be available for the necessary experimentation and "play" which innovative companies require. Slack resources will be diminished through process improvement because of the importance attached to cost and schedule. Therefore, no available resources will be provided to ease the adaptation to innovation needs. In this respect, there are well-known best practice cases, such as 3M and Google, in which the firm allows employees free time and resources to pursue their own research outside their usual course of work.

3M had problems after implementing a Six Sigma program in the year 2000. The improvement in efficiency was a success, but it led to a process that was too strict, less productive and was impossible to measure due to uncertainty regarding decisions on new products. Therefore, 3M became less innovative. In 2004 the firm was the most innovative company in the Boston Consulting Group ranking, while in 2007, it dropped to seventh position.

This matter is closely connected to the productivity dilemma (Abernathy, 1978) which suggests that, by optimizing their processes for reaching efficiency in the short term, organizations become rigid, thereby undermining their long-term adaptability. Abernathy observed that, in the automobile industry, a firm's economic

decline was directly related to its efficiency and productivity efforts. He pointed out that a company's ability to compete in the long term depends on its capacity to simultaneously balance efficiency and innovation (Abernathy, 1978).

2.2.4 Competence Traps for the Firm in Current Products and Processes

Competence traps may occur when organizations refine their competences to a level where it finds it difficult to give them up to enter into unexplored and riskier new ways and paths (He & Wong, 2004; Levitt & March, 1988). Emergent markets are usually uncertain, and therefore difficult to measure; which is why activities in new markets become progressively unappealing in comparison to the short-term, tangible, measurable attainments from additional improvements in existing capabilities (Leonard-Barton, 1992), and innovations for emergent or new markets will sooner or later be squeezed out (Liu, 2006).

Furthermore, the self-reinforcing nature of organizational learning makes it attractive for a firm to maintain its current focus and to augment its current capabilities even if the environment has changed, thus causing core capabilities to be turned into core rigidities (Leonard-Barton, 1992). To counter such organizational myopia and competency traps (Levitt & March, 1988) there is a need for "going beyond local search" (Rosenkopf & Nerkar, 2001); a fact that has been regularly highlighted in the literature (He & Wong, 2004).

TQM promotes process control and efficiency, increases measurement and analytical thinking, and reduces errors. All these conditions, camouflaged by the accomplishment of improvements, can move the firm closer to a competency trap (Prajogo & Sohal, 2001).

2.3 Arguments for a Positive Relationship between Quality Management and Innovation

In contrast to the many reasons that point to the fact that quality management is detrimental to radical innovation, there are plenty of arguments that maintain that organizations implementing TQM will be successful innovators. Numerous empirical studies have tested for a positive and significant connection between process quality management practices and business innovation capability (Perdomo-Ortiz et al., 2006) and product innovation (Prajogo & Hong, 2008). A recent study by Kim et al. (2012) points out that process management directly and positively relates to all kinds of innovation results, and comprises incremental as well as radical ones (Kim et al., 2012, p. 305).

To explain these results, several theoretical arguments can be used, and in this chapter we discuss the following: (a) process management can be configured in a

flexible and enabling way; (b) Close relations with customers and suppliers as a channel to generate new ideas; (c) Training employees at all levels, cooperation and teamwork nurture innovative behavior; (d) Incremental innovation as a platform for radical innovation.

2.3.1 Process Management can be Configured in a Flexible and Enabling Way

While traditional organizational theorists frequently questioned the advantages of formalization, more recently, there seems to be increasing inclination to perceive the formalization of operating routines in a positive light, and that they are capable of producing an “enabling” rather than a “coercive” bureaucracy (Adler & Borys, 1996).

Process management can be an outstanding approach for the application of the creative ideas of workers, obtaining efficiency and the systematization of change and creating an environment in which routine and change are smoothly combined without removing flexibility (Adler, 1991; Adler, Goldoftas & Levine, 1999; Adler & Borys, 1996). The introduction of systematic efforts for improvement avoids complacency and a lack of discipline (Nohria & Gulati, 1996), stimulating creativity and the generation of ideas (Prajogo & Sohal, 2001), while meaningful goals stimulate and motivate people’s creativity (Amabile, 2000).

Process management enables the firms to acquire valuable information, as it is used for improvement (Deming, 1993), assuming workers are motivated to develop organizational performance by using available information on how to best perform their tasks (Sauermann, 2004).

Innovation processes also need to be managed, as this enhances the objectives being pursued through efficient methods (Hoang, Igel, & Laosirihongthong, 2006). In general, the increase in norms and standards improves the processes of the implementation and the diffusion of innovation (Moreno-Luzon & Lloria, 2008) and thus contributes to better performance, standing as a solid basis on which firms might improve innovation results.

2.3.2 Close Relations with Customers and Suppliers as a Channel to Generate New Ideas

As Santos-Vijande & Alvarez-Gonzalez (2007) point out, a well understood principle of customer orientation requires continuous innovative effort, with a predisposition to accepting new ideas, and even anticipating latent ones, in order to satisfy more complex customers, stimulating the continued search for new opportunities.

Customer requirements are included as part of the product design and process management, and customer satisfaction is incorporated within the quality data as an

important reporting factor. The measurement of customer service requests, feedback from sales staff, customer retention/turnover, customer surveys, and complaints are all quantifiable indicators of customer quality perceptions (Lau & Anderson, 1998). This information is a valuable resource for boosting innovation.

Numerous quantitative studies have concluded that close relations with customers and suppliers have a positive impact on the speed and success of the development of new products (Gustafson & Hundt, 1995) and on process and product innovation (Prajogo & Sohal, 2003). Recent research also points to a positive view, as in the study by Sainio, Ritala, & Hurmelinna-Laukkanen (2012), who prove that customer relationship management promotes technologically radical innovation, as it reinforces close collaboration with current leading-edge customers.

2.3.3 Training Employees at All Levels: Cooperation and Teamwork Nurture Innovative Behavior

The importance of the human side of quality management was first highlighted by engineers that were originally involved in the statistical control of processes (Deming, 1993). As Hackman & Wageman (1995) state, organizations that implement TQM implement a number of practices related to human resource management, such as continuous training, teamwork with the overall objective of streamlining work practice, and mechanisms for employee involvement and commitment to achieving the objectives of substantial quality improvement.

TQM promotes employee education, which is necessary to ensure everyone has a sufficient understanding of quality management tools, techniques and methodology as well as an attitude of active listening and cooperation (Randolph, 1995). Organizations that implement TQM invest heavily in formal training at all levels, from senior and middle managers to first-line supervisors, where the most common content often include interpersonal skills, quality-improvement processes and team leading and building (Hackman & Wageman, 1995).

Teamwork is one of the most relevant TQM principles (Dean & Bowen, 1994) and has to do with cooperation between managers and non-managers, involving different functions and linking the company with customers and suppliers. Teamwork enables the participation of organizational members in the effective solution of problems and is used abundantly in establishing commitment and cooperation (Bowen & Lawler, 1992).

These human resource practices (HRP) may have important positive consequences in the light of innovation management. The literature points to several arguments on how HRP can benefit innovation. The continuous training that TQM promotes improves knowledge as a lever for creativity (Amabile, 2000) and the ability to unlearn via which people are able to question current situations (Herrmann et al., 2006). An employee with good fundamental knowledge is usually prepared to understand and accept new operating systems (Santos-Vijande & Alvarez-Gonzalez, 2007).

Collaboration, knowledge sharing and involvement will boost creativity (Amabile, 2000). Improvement involves not only achieving a higher standard but also challenging the prevailing one (Imai, 1992). Commitment and employee participation can build a shared vision and guide employees towards achieving innovation objectives (Adams, Bessant, & Phelps, 2006), enabling the participation of different departments in quickly launching new products (Lovelace, Shapiro, & Weingart, 2001).

Moreover, empowerment should make people more autonomous and less constrained by rule-bound aspects, and self-efficient in carrying out work that will nurture innovative behavior (Spreitzer, 1996). A TQM framework means that trust is put in people, they are offered a greater degree of freedom for problem-solving without constant supervision (Adams et al., 2006). This trust is fundamental for facing up to the risks inherent in radical innovation (Santos-Vijande & Alvarez-Gonzalez, 2007).

All these arguments are coherent with several empirical quantitative studies that coincide in underlining people management and leadership due to their positive relation with innovation outcomes (Llorens Montes, Ruiz Moreno, & Garcia Morales, 2005; Prajogo & Hong, 2008; Prajogo & Sohal, 2004a) and business innovation capability (Perdomo-Ortiz et al., 2006). The study in a sample of Spanish firms by Jimenez-Jimenez and Sanz-Valle (2005) reveals that participation significantly explains the firm's innovation orientation.

2.3.4 Incremental Innovation as a Platform for Radical Innovation

The emphasis on incremental change is central to the philosophy of process improvement (kaizen) developed by Imai (1992). However, kaizen is not intended as a substitution for innovation. The fact that incremental innovation fits best with TQM does not mean it is incompatible with radical innovation (McAdam, Armstrong, & Kelly, 1998). Instead, kaizen is needed to sustain the benefits resulting from innovation.

As Colman (2002) states, radical innovation is not inhibited by incremental innovation, as these two types of innovation are managed at different hierarchical levels. They do not really compete for the same resources. Indeed, it works the other way round, as the improvement of processes and products reduces waste and cost.

TQM has for decades proved successful in improving reliability and productivity through continuous improvement, customer satisfaction, and employee cooperation (Larson & Sinha, 1995), and this fact is positive, as it releases resources for exploration (Li & Rajagopalan, 1998). In the same way, several empirical studies relate TQM with better performance (Ittner & Larcker, 1997; Samson & Terziovski, 1999), underlining the importance of long-term collaboration with suppliers and customers, leadership, and management of people over techniques such as statistical process control or cycle time analysis.

Incremental innovation favors radical innovation by improving profitability, but also in another way. Brown & Eisenhardt (1997) demonstrate that continuous change ultimately transforms the firm in a radical way, through altering their products and processes. Along the same lines, a recent study (Gil-Marques & Moreno-Luzon, 2013) proved a significant and positive relationship between incremental and radical innovation, which is consistent with the idea that incremental innovation is not negatively related to radical innovation, but instead it constitutes a platform to achieve radical innovation results. This result challenges the “success trap” effect, and is in accordance with the findings of authors such as Brown & Eisenhardt (1997), Colman (2002) and Van der Panne, Van Beers, & Kleinknecht (2003), who maintain that continuous change is not a barrier to innovation.

2.4 Discussion and Managerial Implications

TQM has a multidimensional and complex nature, comprehending a wide range of principles and practices (Moreno-Luzon & Valls-Pasola, 2011; Prajogo & Sohal, 2001). When TQM is adequately implemented, processes management operates interdependently with other practices, on the basis of people commitment and customer orientation.

As the global competition strengthens and the pace of change increases, it is more relevant to achieve quality and innovation simultaneously, by way of survival and growth (Cho & Pucik, 2005). Consequently TQM’s impact on innovation has received a good deal of attention in the literature, where the relationship between process management and radical innovation has been among the most polemic issues.

TQM’s emphasis on process management has been the subject of debate due to disagreement on the impact of formalization on radical innovation. We highlight several controversial points in the literature. The importance of process management and continual improvement has been criticized, as it generates discipline and could undermine creativity; but another view stresses it can also breed change when procedures are designed to enable people to deal with contingencies and learn from experience (Levitt & March, 1988; Adler & Borys, 1996).

Out of all the practices that TQM encompasses, HRM practices are of the utmost importance in explaining incremental and radical innovation (Dean & Evans, 1994; Hackman & Wageman, 1995). In a knowledge economy, where creativity is at a premium, people truly represent the most important assets a firm possesses; the challenge is “how to go about building the kind of organizations in which an innovative behavior can flourish” (Tidd et al., 1997, p. 314). HRP practices can nurture innovative behavior, which can be defined by an interest in learning, sharing knowledge, challenging prevailing systems, self-efficiency, responsibility, and trust. In this sense, TQM can act as a platform for radical innovation.

Additionally, it is important to remember that TQM has a stronger orientation towards improvement and incremental innovation, whose main goal is to obtain quality and efficiency. Therefore, implementing TQM will not be sufficient to attain

innovation results. TQM requires a company-wide approach and their application is contingent on different sectors and types of firms. When radical innovation is needed it is important to avoid linear thinking and risk prevention, reinforcing empowerment and instilling people confidence to deal with complexity and conflict. It is vital in this case to inspire employees to be creative and flexible while also being disciplined, reconciling the need to standardize practices while continuing to search for new approaches to solving problems.

The management of the innovation process can be reinforced to underline the importance of this process for company survival. In this way, experience in process management can be also useful for achieving innovation goals. For example, this could be done by developing standards related to innovation, such as a certain number of new ideas per month or new products launched onto the market each year.

On the other hand, failure should not be punished, and instead it can be positively considered as exploration if the firm aims for radical innovation. Uncertainty, which typically surrounds radical innovation, will not permit the organization to focus too much on schedule and strict measurement. As Sitkin, Sutcliffe, & Schroeder (1994) contend, when the environment rapidly changes, focusing too much on preventing mistakes will dampen radical innovation. Instead a supportive response to failures is critical. In these cases of rapid change, measurement systems may not be applicable without jeopardizing innovation. For example, by the time a production process of an existing product is stable and understood well enough to implement TQM measurement systems, it will need to be replaced (Lau & Anderson, 1998). Townsend and Gebhardt (1992) suggest finding a few well-chosen measures to alert the company to a specific problem that requires attention.

Finally, the innovative company will need to balance an orientation towards current customers, and towards the rest of the market. New segments must be identified and goals aimed at the identification of opportunities must be established.

As firms gain expertise in TQM, they must become more aware of the risks of falling into a competency trap. TQM has for decades proved successful in improving reliability and productivity (Larson & Sinha, 1995) and enhanced performance (Ittner & Lareker, 1997; Samson & Terziovski, 1999). TQM implementation leads to excellent results through the refinement of firm competences, and therefore it can deceive the firm, and facilitate falling into a competency trap. To avoid such organizational myopia and competency traps (Levitt & March, 1988), there is a need for “going beyond local search” (Rosenkopf & Nerkar, 2001), considering the fact that improvement is not always a good choice, sometimes it is necessary to unlearn and start from the beginning.

2.5 Conclusions and Future Research

We can conclude that adequately applied TQM, and particularly process management, is capable of fostering incremental innovation, and will not necessarily hamper radical innovation. However, some considerations must be made in adapting TQM

programs to particular circumstances, due to the uncertainty and rapid change involved when there is a need to boost radical innovation.

We find interesting further research on the wide range of responses and capabilities required for effective leadership, as managers must develop complex behavior, which is critical to adaptation and survival. As Sale (1980) noted: “Diversity is the rule of human life, not simplicity: the human animal has succeeded precisely because it has been able to diversify, not specialize: to climb and swim, hunt and nurture, work alone and in packs. The same is true of human organizations: they are healthy and they survive when they are diverse and differentiated, capable of many responses; they become brittle and unadaptable and prey to any changing conditions when they are uniform and specialized” (Denison, Hooijberg, & Quinn, 1995, p. 403).

Furthermore, better understanding the necessary collaboration between quality departments, traditionally linked to operations management, and human resource and marketing departments could also be of interest.

Finally, there is a growing body of literature on the mediating factors in the relationship between TQM and innovation, and there is great potential in discovering new knowledge on this topic (Kim et al., 2012). In this sense, Moreno-Luzon et al. (2013) examine the role of a diverse cultural change as a mediator in the quality-innovation binomial, finding that TQM practices have a significant and positive relationship with incremental innovation, but conclude that they only affect radical innovation through the mediating effect of cultural change.

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Chapter 3

Excellence in Tourism Destinations

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Abstract In an environment of businesses globalisation and increasing international competitiveness, it seems like most tourism growing or mature destinations are trying to develop and implement strategies that shall ensure a clear orientation towards the satisfaction of the clients' needs and expectations, ensuring at the same time a balanced management of the different resources, aims and interest present. The implementation of the integrated quality management in the tourism destinations while advocating a different view for the operation and the development of the sector and wanting the introduction of new approaches and methodologies, is accomplished through the setting of aims of cooperation, understanding of the needs and expectations of the visitors, setting of standards, collecting the visitors' reactions, executing improvement actions and monitoring the results obtained. Besides these concerns, there is also the issue of the network of heterogeneous organisations in the public and private sectors that require interaction to efficiently and effectively meet the consumers' needs and expectations, minimising the potential negative impacts on the potential negative sociocultural, economic and ecological impacts in the host community. The main research purpose of this chapter is to define an assessment methodology that allows the quantification of quality in the tourism destinations. This is based on an approach focused on the self-assessment process developed by the managers of the Destinations Management Organisations and other organisations, which, with more or less protagonism, monitor the integrated quality management in the tourism destinations. The chapter analyses the different phases and steps that must be the basis for the implementation of an integrated quality management process in the tourism destinations and proposes concrete ways of applying the methodology on the ground, in order to achieve the optimization of the satisfaction of the participants in the process of provision and consumption of tourist services, the valorisation of the tourism experience and the improvement of the competitive positioning of the tourism destinations.

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3.1 Introduction

In the emerging global market, quality has become the central concern of public and private operators. Tourism activities, more than any others in the entire economic system should be aware not only of the dynamics of demand and the need to fulfil their expectations, but also to consider the interests and goals of all stakeholders involved—tourists, public and private organisations, residents and other local entities (Manente & Furlan, 1998; Wilkinson & Dale, 1999).

It seems intuitively logic that there is a causal relationship between the quality of the tourism suppliers' performance, the customers' level of satisfaction and the success of the tourism destination measured in terms of competitive positioning. Higher performance quality and satisfaction levels usually lead to higher visitor loyalty, higher tolerance to price increases and increased reputation of the tourism destinations (Baker & Crompton, 2000).

Several authors recognise that quality management of tourism destinations must be administered in a more integrated manner as opposed to what has happened so far (Burhin, 2000; Denmann, 1998; Frangialli, 1998; Go & Govers, 2000; Godin, 1999; Hoffmann, 1997; Klein, 2000; Manente & Furlan, 1998; Silva, Mendes, & Guerreiro, 2001; Valles, 1999).

3.2 Theoretical Background

There is a relative consensus in the academic community that the adoption of principles and of the management philosophy of the Total Quality Management/ Excellence as the most indicated referential for the study of quality within the scope of touristic destinations. In fact, it is an option that has been increasingly undertaken by many authors and that makes sense in terms of its aims, means involved and comprehensive vision as well as with regard to the integration into the tourism destinations' global management.

The pursuance of total quality/excellence aims/excellence within the context of tourism destinations lies within the logic and principles that substantiate the integrated quality management approach, thus constituting a fundamental guideline framework for the development of quality systems with regard to tourism destinations.

Moreover, many European tourism destinations are proactively seeking strategies to anticipate competition and, with the support of governmental grants and programmes, are already using the designation "Destinations of Excellence" promoting a brand that goes beyond simply offering quality.

3.2.1 *The Concept*

There has been an evolution in the concept of quality from being exclusively related to the satisfaction of the customers' needs towards an integrated management system that encompasses economic, social and environmental concerns, expanding its field of incidence to others stakeholders interested in the system's operation. The implementation of this integrated quality management is a guideline that enables to meet the tourists' needs, increase competitiveness of the tourism sector and ensure a sustainable and balanced development (Denmann, 1998; Go & Govers, 2000; Godin, 1999).

The integrated quality management aims to increase the visitors' satisfaction, while seeking to improve the local economy, environment and quality of life of the resident community. According to Klein (2000: 2), this system can be described as an approach that "acknowledges that a number of stakeholders and a set of elements not exclusively managed and controlled by one interested person/organization, defines the quality with its multiple effects in a multi-dimensional context."

This new management approach is materialised through the establishment of regulations and cooperation goals, understanding needs and expectations of visitors, obtaining reactions from tourists, undertaking improvement and monitoring results. In addition to such concerns, the mentioned approach also encompasses a network of different public and private organisations, which require interaction to learn how to effectively, and efficiently meet customers' needs and expectations while minimising potential negative sociocultural, economic and ecological impacts in the host community. In this context, subjects such as urban and regional planning, cultural heritage preservation and economic development are included in the integrated approach to solving problems of tourism destinations (Commission Européenne, 1999b; Go & Govers, 2000).

By favouring the enlargement of quality management to all players and organisations of tourism destinations, with the purpose of consolidating a common culture guided by excellence objectives, a parallel is been drawn between the concepts of integrated management and total quality/excellence management. The fundamental idea is that the destination as a whole should commit to the principles and philosophy of acting and service provisioning that takes into account the satisfaction of all parts involved, the minimization of impacts and the sustainable development of the regions.

The complexity of Total Quality Management (TQM) in tourism destinations arises from the need to identify and coordinate a vast number of entities, the difficulty in establishing the expectations of the different tourist segments, and the challenge of measuring the system's overall performance (Burhin, 1998).

On this path towards total quality/excellence, it is crucial to consider two important factors. Firstly, its implementation and development requires a broad range of changes both in management techniques as in the people's behaviours and attitudes

and in the structures of the organisations involved. Secondly, the process of change implies the creation and assimilation of a new relationship culture and value system, and the development and implementation of a wide network of ongoing improvement processes in tourism destinations (Camisón, 1996).

3.2.2 Fundamental Principles

The success of the implementation of an integrated quality management approach to tourism destinations depends on the compliance with a set of principles and guidelines, described as paradigmatic cases of best practices in European destinations analysed in previous studies (Godin, 1999; Klein, 2000).

The awarding of quality prizes is based on models with underlying criteria, principles and processes that seem to be the only integrated and available means to monitor the total quality management implementation actions. Consequently, the entity responsible for ensuring the process of change is given access to the necessary mechanisms to surpass obstacles, answer new challenges posed by customers, and compare its overall performance with better-ranked competitors. Benchmarking has become a crucial instrument in TQM (Bohoris, 1995). Managers and organisations responsible for the performance of the tourism destinations should understand and assume this perspective, and while developing initiatives of integrated quality management, guide their activity by the principles that characterise excellence in tourism destinations.

3.2.2.1 Leadership and Players' Involvement

The existence of a clear leadership in tourism destinations is crucial to consider and implement an integrated quality management project. The success of the improvement programmes deeply depends on the commitment and enthusiasm of the team in charge of the process of change.

The meaning of quality in any organisation can be determined by its purposes and objectives. The behaviour of the leaders is fundamental to clarify and generate a sense of unity and coherence of purposes, inside the organisation as well as in relation to the surrounding environment where it operates (EFQM, 1999a).

In the particular case of tourism destinations, the leadership of the organisation's management team leading the process revolves around its capacity to engage players, coordinate strategies, and to project a differentiated image of the tourism product. In order to engage all the relevant players, the company management must be strong, well structured, institutionalised, provided with means (human and financial), autonomous, and supported by public authorities, private actors and local community (Commission Européenne, 1999b).

3.2.2.2 Management by Processes and Facts

The tourism destination's performance is much more effective when the inter-related activities are comprised and managed in a systematic way, and decisions regarding operations are planned based on reliable information about the perceptions of stakeholders (EFQM, 1999a).

The concerns with quality and management techniques, which are intrinsic to the implementation process in the tourism destination, must be cemented around a set of key processes that should be developed in an integrated and coordinated way so as to avoid waste of resources and a fragmented image of the destination. Thus, obtaining results based on the performance of clearly identified processes is one of the main issues of this approach. Furthermore, fact based management helps develop a healthy and trusting environment among the many players involved, which is of fundamental importance for the consolidation of the change process.

3.2.2.3 Differentiation and Authenticity

The increasing need to preserve the intrinsic character of genuine touristic locations and experiences must be equated as an important factor of the attractiveness of a destination. In addition to the authenticity of the service, tourists increasingly express the desire to include events, ceremonies, activities and equipment which are not a re-enactment but which really reflect the real local identity (Ritchie & Crouch, 1997).

Tourists search experiences that fulfil their dreams and many expectations are based on "illusion, romantic myth and marketing domain" (Hobson & Williams, 1994: 126). The maintenance of local authenticity in its diverse forms is an alternative increasingly sought by many market segments beyond mass tourism. For many visitors, tourism is a sort of game in which they want to fully participate, sometimes unconsciously, as if they wish that an imaginary product became authentic even if, in their core, they are not completely convinced of its genuineness.

Apart from authenticity, the reputation of the destination in terms of hospitality –how visitors are welcomed and the quality of the service rendered constitute three pillars that sustain the image of the differentiated tourism destinations (Bouncken, 2000).

3.2.2.4 Focus on People

A process of change and quality improvement of a tourism destination, based on the perspective of integrated management, should assume that it is grounded on the people it involves, who are part of the production and consumption process of tourist services, i.e. customers, suppliers, population and other agents.

Customers are the final referee of the product and service's quality. Customer loyalty, retention and gain of market share are best optimised through the focus on the needs of current and potential customers. Customer orientation is a culture and

philosophy, which must infiltrate and spread across all organisations and agents that support the tourism destination. The effective management of the visitors' perception to ensure satisfaction requires that the organisations that offer tourism products and services operate in line with each other and that the professionals are encouraged to contribute to the establishment of their own standards. Population and governments should also be part of this venture.

Satisfying customers is the ultimate purpose of the efforts developed under TQM/excellence in tourism destinations. Because customers influence the service's process and results, there is the need for suppliers to be ready to detect and foresee problems in the services. Since the behaviour of professionals cannot be easily standardised, the service suppliers must be prepared for the occurrence of problems even if they excel in service planning and on the definition of preventive measures.

On the other hand, the quality of the hosting service, in its broader sense, is a fundamental element of the integrated quality management in the tourism chain. Sedoux, referred by Simon (1994: 33), defines hosting as "the set of behaviours, policies and techniques in place to succeed when addressing the tourist, regarding a quality human relationship, with the purpose of satisfying its curiosity, needs, likes and expectations, and of developing a climate of meetings and exchanges so as to stimulate knowledge, tolerance and understanding among people." Successful hosting concerns the entire tourism chain. All suppliers are involved and contribute to the success of the overall quality of the tourist's experience. This greatly influences the image and word-of-mouth popularity, which is one of the key instruments of communication of tourism destinations. In this sense, quality should translate into kindness, availability and skills of the tourism professionals, which are to be reinforced through active participation of local community, and be seen in all strategic areas of the destination (Commission Européenne, 1999a).

Tourists, resident community and place interact, with the visitors' management process aiming to build an harmonious relation among such three elements. Thus, it can be defined as "a continuous process of reconciliation of the potential competition between the tourist's needs, and the resident community and place" (Davidson & Maitland, 1997: 184). Visitors are not under the direct control of the destination's managers; nonetheless, many services and equipment are and can be managed to indirectly "control" their activities through suggestions and persuasion. Successful visitors' management can bring benefits, namely, increase the experience of the visitors, create a quality environment, maximise economic opportunities, reduce negative impacts, encourage the development of new equipment and reinforce the local feeling of civic pride (Davidson & Maitland, 1997).

Collaborators are human resources of public and private organisations and, consequently, internal customers who provide services in the tourism destinations. There must be a balance between the satisfactions of employees in their workplace and that of tourists. The knowledge of expectations and perceptions, and the evaluation of the satisfaction level of tourism professionals are a matter of the utmost importance to the quality of the tourist experience. The development of people's abilities is achieved through delegation processes, involvement in the decision making process, shared values and building a culture of truth (EFQM, 1999b).

3.2.2.5 Partnership Development

An organisation works more effectively when it has mutually beneficial relationships with partners, built upon trust, knowledge sharing and integration (EFQM, 1999a).

The creation of a cooperation atmosphere means, firstly, that players are aware that they belong to a chain of provision where every performance adds value to the tourist experience. The development of integrated programmes and projects, sharing a common vision about the destination, is evidence of partnerships at the tourism destinations. The same applies to the establishment of protocols and cooperation agreements between public and private entities, aimed at pursuing global improvement goals.

The integrated management of quality is an interactive and participatory process. The strict and coherent cooperation amongst all players and organisations at a regional, national and even international scale is crucial for the sustainability of the project. That is, it is crucial to the extent that it creates synergies in the entire network of suppliers and enables the structuring of a common vision about the development of tourism based on the different stakeholders' opinions, needs and expectations.

3.2.2.6 Social Responsibility

The integrated quality management is based on the recognition that all stakeholders have responsibilities in guiding the improvement process. For that to happen, it is essential for leaders and organisations that administer the process to have the necessary skills to motivate and involve interested parties in an integrated vision of the destination, and in common projects that emerge from social contracts that enable a coordinated and responsible action that benefits all (Lazlo, 1999).

Tourism's impacts in the environment, culture and society requires the integrated quality management to be developed through holistic approaches enclosed in vast and multidimensional contexts (Walle, 1995). These approaches consider not only business profitability and economic perspectives but also factors of industrial ethics and social responsibility from all stakeholders (Walle, 1995).

The implementation and development of such management methodologies significantly depend on the ability to balance and satisfy relevant needs of the stakeholders (industry professionals, customers, suppliers and society at large), as well as the adoption of reliable ethical principles framed in regional development and sustainability.

The issue of quality is not a challenge for companies; it is above all a task which tourism policies must enforce. As such, the Government must effectively support the effort made by the economy in general and entrepreneurs in particular towards quality improvement.

3.2.2.7 Continuous Learning, Innovation and Improvement

From an integrated management perspective, there is the need for a balanced development of different equipment necessary to satisfy the demands of customers. At the same time, one must ensure that such development is sustainable so that tourism does not compromise the natural and cultural resources of a country.

Quality management and learning process both include the need to monitor every aspect that represents quality, aside from visitors’ impacts in organisations, environment and local community. Quality in this sector depends essentially on the creative capacity of people, their ability to introduce new technologies, the use of new processes and organisational methods.

3.3 Methodology

3.3.1 Excellence Model

The criteria of excellence models constitute a useful guide to establish and monitor a quality improvement programme in tourism destinations. The combination of self-evaluation processes with the establishment of ambitious objectives, characteristic of excellence models, applied in an integrated and comprehensive manner to the entire destination allows a balanced and effective development of the quality in the tourist region.

European Foundation for Quality Management (EFQM) model states that excellent results with respect to Performance, Customers, People and Society are achieved through Leadership driving Policy and Strategy, which is transferred through People, Partnerships and Resources, and Processes (Fig. 3.1).

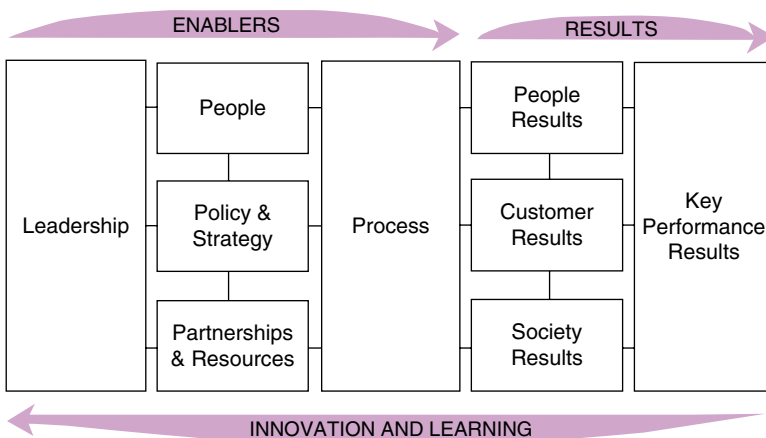


Fig. 3.1 European Foundation for Quality Management (EFQM) model. Source: http://www.bqf.org.uk/ex_framework.htm

EFQM's excellence model is the referential for this research. There are five reasons that justify such choice:

1. It is a non-prescriptive model, flexible in terms of application, which recognises that there are several paths and approaches to obtain results (EFQM, 1999a). The interdependence of elements of tourism destinations, and the complex balance needed to maintain the pursuit of a quality improvement programme and excellence goals are not compatible with rigid normative models. Furthermore, differentiating aspects, which characterise destinations and constitute attractive factors, justify and stimulate the adoption of open and flexible models that enable each tourism destinations to find its distinct way of improving quality.
2. It is an organisations' model. Yet only two studies apply it to tourism (Klein, 2000). The first, by Camisón (1996), is a cross lining analyses between the points of view of customers and managers in the hospitality industry of Valencia; the second, by Neves (2004), evaluates the excellence profile of small and medium enterprises (SMEs) in the Algarve.
3. It is a robust model that has contributed to improving the competitiveness of a wide range of organisations from several economic sectors (EFQM, 1999b). European organisations increasingly acknowledge that quality management is an imperative option to obtain efficiency, efficacy and competitive advantage to ensure a sustainable long-term success. With this model, organisations that conduct the management process in the destination are able to find and demonstrate their involvement and behaviour towards total quality/excellence. Its use, in this context, facilitates benchmarking actions and creates a true challenge to tourism destinations management.
4. The model is culturally adjusted to the European socio-economic reality, and was developed according to principles and values, that fit with the way of thinking, being and living of the culture of organisations and the management in western countries.
5. Several European institutions recognise the model. The European commission supports it and governmental organisms that coordinate and stimulate the implementation of quality policies, in several member states, generally adopt it.

3.3.2 The Adaptation of the Model

Since the EFQM's excellence model is structurally oriented to the business context, it would not make sense to apply it to completely different organisations and contexts without adapting it to the new reality under observation. In this sense, and similarly to what happened with previous adaptations to the public sector and SMEs, the structure of the criteria is maintained but their content is altered to better match our research focus. The changes we introduce drawn on our literature review, the analysis of other adaptations of the original model, and critical thinking. Importantly, all our adjustments are made in a way so that the coherence and integrity of the model and its underlying philosophy are left unchanged.

Once the consensus regarding the evaluation of the criterion content was achieved, variable matrix was created to be included in the self-assessment questionnaire through an exercise of unfolding the questions to simplify its understanding and completion. The goal to assess and analyse is not the internal orientation towards excellence of the Destination Management Organisation (DMO) but the orientation of the tourism destinations to total quality, led and conducted by the organisation concerned. With that in mind, in the end 90 questions were employed, all which were allocated among the nine criteria of the model.

We next focused on the weighting scheme of each criterion included in the adapted model. The challenge here is to determine to what extent one should employ the same relative importance of each criterion as in the EFQM's base excellence model. Four reasons justify the need for some adjustments on this matter:

1. The purpose of the research is not to evaluate total quality/excellence in the Destination Management Organisation but in the tourism destination. Quality management in the tourism destinations is a much more complex question than quality management in an organisation. The scope under analysis is the entire supply that the composite tourism product entails—a product not always capable of being described and objectively evaluated. The logic behind the development of a TQM process and excellence model in a destination must be different from that that companies use since there are two distinct entities and realities. The tourism product, by nature, is a *sui generis* product due to its complexity and specificity.
2. The DMO develops a management process essentially concerned with the outside, targeting results with global impact on the businesses, quality of life of local residents and regional socio-economic development. Its purpose is, fundamentally, to create and maintain a cooperative environment between players, to coordinate and influence key processes, and to develop a balanced touristic system in the region. Therefore, it is clearly a *sui generis* management infrastructure.
3. The context in which the process of tourism destinations management happens barely resembles the setting that surrounds business management. The global product is the outcome of the fragmented supply of products and services that depend on a vast number of players with diverse goals, interest and operating logics. So it is important to develop projects, programmes and actions that are capable of globally improving the quality of the composite product, influence and project an image that seduces visitors and favours the positioning of the competitive destination. Naturally, these initiatives are dependent of the business' organisational skills and commitment, the involvement of other regional entities, and technical and financial governmental support. Therefore, it is a *sui generis* operating and management context.
4. There is an assumed practical adaptation of the original model to organisations that develop management processes in specific contexts. Thus, for example, there are different versions of the model application to the Public and Volunteer sector, SMEs and large companies.

Once the model was finally customised to our needs, we sent out a questionnaire to the middle and top managers of the DMO's. The universe was 184 managers and the response rate was 44, 56 %.

3.3.3 Validation of Model

We use regression analysis to analyse the validity of our adapted EFQM excellence model. Our regression model is as follows:

$$R_i = \beta_0 + \sum_{j=1}^5 \beta_j X_{ij} + \varepsilon_i$$

where R_i is the value of one of the four RESULTS criteria for the i -th survey considered, X_{ij} is the value of the j -th ENABLERS criteria of i -th survey considered and ε_i is a residual variable, considered to be white noise.

We use two tests to infer about the validity of our regression results. The first is a Ramsey test, which helps to determine if we have problems of incorrectly omitted explanatory variables and/or incorrect functional form (Rebelo, 1999). Secondly, we test for the presence of heteroscedasticity, a key problem in cross-section models such as ours (Gujarati, 2003). We do this with the help of a White test and compute heteroscedasticity-robust t -statistics as per White (1980) whenever that is appropriate. Finally, drawing on Rebelo (1999), we use t - and F -test to remove all non-statistically relevant explanatory variables from our regression models to generate their more parsimonious versions.

3.4 Results

According to the Ramsey and White tests, we conclude that:

1. None of our models suffer from incorrect omission of explanatory variables and/or incorrect specification issues.
2. Heteroscedasticity is present in all of our models.

The first conclusion is of fundamental importance as it suggests that our regression results are statistically meaningful. The fact that heteroscedasticity is present is dealt with by estimating robust t -statistics following White (1980). Next we briefly present the main specific results of each model, obtained by applying the suggested methodology for each of the dependent variables analysed.

3.4.1 Model for Results: Tourists

The first regression model developed uses as the dependent variable the RESULTS-TOURISTS and as independent variables the five criteria ENABLERS. Apparently, only one variable (PROCESSES) has explanatory power over the dependent variable in analysis. In this sense, a restricted model built from the previous one, where only

that same explanatory variable is considered, was estimated. The results obtained with this new regression suggest that the PROCESS variable shows high individual explanatory power on the endogenous variable under study. The hypothesis concerning the simultaneous exclusion of the remaining four exogenous variables was tested by conducting an F test. Results suggest that the null hypothesis in question should not be rejected, so it can be concluded that the LEADERSHIP, POLICY AND STRATEGY, PEOPLE, PARTNERSHIPS AND RESOURCES variables have no explanatory power and/or set on the endogenous variable under analysis.

3.4.2 Model for Results: Employees and Professionals

The second estimated model in this context shows as exogenous variables, five criterions that integrate ENABLERS: LEADERSHIP, POLICY AND STRATEGY, PEOPLE, PARTNERSHIPS AND RESOURCES, and PROCESSES. The evaluation of the obtained results from the estimation of the initial model suggests that variables LEADERSHIP, POLICY AND STRATEGY, PARTNERSHIPS AND RESOURCES have no explanatory power on the dependent variable. So a restricted version of the base model was estimated in which the following variables are considered explanatory variables PEOPLE, PARTNERSHIPS AND RESOURCES, and PROCESSES. The empirical evidence gathered with the estimation of this new model specification suggests that both exogenous variables considered have real explanatory power on the dependent variable under study. However, drawing on Rebelo (1999), an F test was performed to validate the simultaneous exclusion of the model variables LEADERSHIP, POLICY AND STRATEGY, PARTNERSHIPS AND RESOURCES. This test leads to the non-rejection of the null hypothesis, which suggests that there are only two criteria of ENABLERS that, in this context, are statistically significant in explaining the results of employees, i.e. PEOPLE and PROCESSES.

3.4.3 Model for Results: Region

The third model estimated in this context features as explanatory variables the five criteria that comprise the enablers. The results of the estimation of the initial model suggest that LEADERSHIP, POLICY AND STRATEGY, PARTNERSHIPS AND TOURIST RESOURCES have no explanatory power over the endogenous variable under study. A restricted model built from the previous one that included only the criteria PEOPLE and PROCESSES as exogenous variables was then considered. Since the construction of the restricted model involves the simultaneous exclusion of three explanatory variables, an F -test was performed to validate this choice (Rebelo, 1999). The test results suggest that the null hypothesis should not be rejected, so the exclusion procedure adopted is valid from a statistical standpoint. Thus, since the values of t -statistics associated with PEOPLE and PROCESSES variables considered in the

restricted version of the model are statistically significant, it may be concluded that in this case, these are the two genuinely explanatory variables results in the region.

3.4.4 Model for Results: Performance

The fourth model considered in this context has the endogenous variable PERFORMANCE RESULTS and, as exogenous variables, the five criteria that integrate ENABLERS. The results of the estimation of the original model suggest that the variables POLICY AND STRATEGY, PEOPLE, PARTNERSHIPS AND RESOURCES are not statistically significant in explaining the variability of the endogenous variable of the model in question. Then a restricted version of it was constructed in which the explanatory variables mentioned above were omitted. The estimation results of this restricted version suggest that the two remaining explanatory variables are statistically significant in explaining the variability of the PERFORMANCE RESULTS variable. Once again, the results obtained by performing an F test to the simultaneous exclusion of models POLICY AND STRATEGY, PEOPLE, PARTNERSHIPS AND RESOURCES, suggest the null hypothesis should not be rejected. So it is possible to conclude that the variability of PERFORMANCE RESULTS variable is jointly explained by the LEADERSHIP and PROCESSES variables.

The following figure summarises the final results of the empirical verification of the relationship between ENABLERS and RESULTS (Fig. 3.2).

According to the results, and bearing in mind the context of the study, it seems that the PROCESSES criterion influences the achievement of all the criteria that integrate RESULTS. On a second level of explanation is the PEOPLE criterion, which significantly explains both RESULTS-EMPLOYEES and RESULTS-REGION. LEADERSHIP,

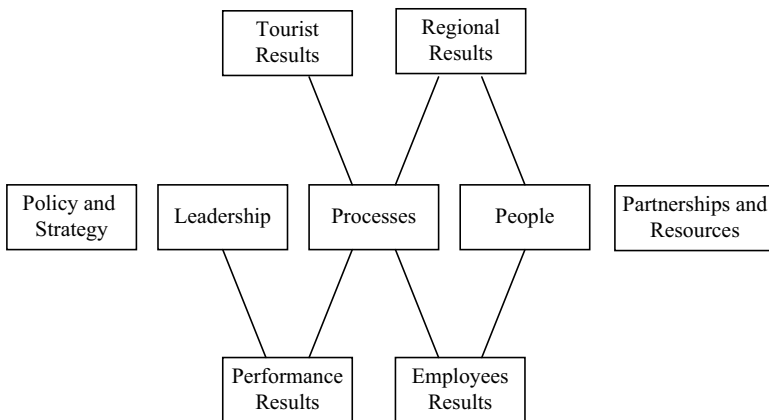


Fig. 3.2 Relationship between ENABLERS and RESULTS

according to the opinions of organisations' managers that participated in the study, explains only, significantly, the PERFORMANCE RESULTS. Lastly, POLICY AND STRATEGY, PARTNERSHIPS AND RESOURCES have no significant explanatory relation with any of the criteria of RESULTS.

3.5 Conclusion

The criterion PROCESSES had the least relative importance attributed by managers, in the set of ENABLERS, which is surprising because it appears that PROCESSES influence RESULTS the most. We now know that it is the criteria that most influences the evidences in the RESULTS, which confirm the high weighting, attributed in the original model to this criterion.

Another result that contradicts the literature review is the reduced explanatory influence of LEADERSHIP over the set of RESULTS. Experts appointed this criterion as the greater relative importance in terms of quality evaluation, which naturally acknowledges its influence in terms of pursuing goals and achieving results.

On the other hand, this result somehow contradicts many considerations being made over the influence and role of LEADERSHIP in terms of the implementation of quality improvement strategies and programmes in tourism destinations. So this question is presented as one of the most responsible for the competitive success of 45 studied European destinations (Commission Européenne, 1999a, 1999b, 1999c).

Respondents also indicate that the criteria POLICY AND STRATEGY, PARTNERSHIPS AND RESOURCES don't have significant explanatory relations with any of the criterion that are part of the RESULTS.

The development of a favourable environment to the creation and stimulation of partnerships is absolutely referred as another important criterion for accomplishing quality improvement goals of the composite tourism product. As such, one would admit a higher explanatory power over the set of RESULTS.

Regarding the criterion POLICY AND STRATEGY it was also demonstrated that its influence is not statistically significant for the managers of organisations present in this study. This result does not fit with what the vast majority of authors defend.

Another explanatory relation that is not in conformity with literature is between criterion PEOPLE and RESULTS-TOURISTS. A substantial part of the academic world defends a close relationship of association among questions that deal with people's behaviour and the results that organisations obtain from tourists. In this particular case, and due to the fact that it is a very specific product, organisation and management, it would not be possible to identify a strong explanatory relation. Nonetheless, the weak explanatory power between those criteria is still surprising.

As all results that are obtained in exploratory studies, they too must be viewed with caution. Especially due to the lack of similar studies, it is not possible to compare them with others, which would reinforce the support of the conclusions drawn.

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Chapter 4

Excellence and Organizational Institutionalization: A Conceptual Model

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Abstract Organizations, while dealing with the institutionalization process, seek the way to assure their long-term survival. With this aim, firms try to further the economic-managerial dimension in order to turn themselves into institutions capable of satisfying the needs and expectations of all their interest groups. Nevertheless, there is a lack of concrete guidelines and a defined waybill. Hence, there exists a need for a transformation model that could turn into a set of structured processes which organizations would systematically implement. This model aims to serve as a guide for firms in their intention of becoming institutions. The EFQM excellence model is a non-prescriptive framework that helps organizations in their purpose of meeting the needs and expectations of all their stakeholders and thus achieving outstanding, sustainable, long-term results. In our chapter, we reveal how organizations use the EFQM model and implement the fundamental concepts of excellence as a roadmap for the conversion from organizations to institutions. Moreover, firms approach this in a structured, consistent, measurable, open and flexible way. In order to endorse our findings, we propose a conceptual model that considers all the drivers that characterize organizational institutionalization and the fundamental concepts of excellence as a result of the implementation of conceptual maps with a panel of first-level experts in Excellence in Management in Spain.

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4.1 Introduction

The aim for survival is often presented among firms as a reflection of Darwinian logic, where organizations that achieve success survive and those that do not die (Johnson, Price, & Van Vugt, 2013). Change management is one of the paths that organizations follow as a transformation process with the purpose of surviving within the currently complex environment. This transformation process requires applying mechanisms and practices such as innovation, products and services diversification, learning, and continuous enhancement mentality, among others (Chreim, 2006; Christensen, 2013; Covin & Slevin, 1989; Kohnen, 2006; Ramanujam & Varadarajan, 1989). These are oriented to maximizing profits and minimizing interferences in firms (Kazmi & Naarananoja, 2013; Kotter, 2011).

Nevertheless, this transformation process goes beyond the final line of the income and costs account. It looks further than mere profit maximization (Band, Scanlan, & Tustin, 1994). In fact, its origin can be found in the confluence of a set of managerial motivations that means to transcend the economic result. It aims to responsibly satisfy the stakeholders' needs within an environment, characterized by globalization, social awareness and sustainability. In this way it attains a favorable recognition that leads to legitimacy (Walker & McCarthy, 2010).

Within the institutional theory framework, this transformation and modernization process leads firms to evolve from a traditional view to their conversion into institutions (Selznick (1957). (Ackoff, 1988) considers firms as organisms that, in addition to achieving legitimacy present a series of properties and characteristics that are unique to them and distinguish them from other organizations. These are rooted in diverse initiatives such as Corporate Social Responsibility (CSR), firm reputation, environmental theory, and the triple balance focus, among others. Thus, the matter goes far beyond the mere economic dimension. Although there are plenty of initiatives that drive institutionalization, the academic literature lacks both concrete guidelines and a global model that enables firms to systemically apply a set of processes oriented toward attaining institutionalization.

The desire to offer a response to this need has led us to consider that organizations which apply the EFQM excellence model share certain similarities with the characteristic features of institutions. Hence a real connection is established between TQM theory and institutionalism. Our work therefore suggests that the systematics proposed by the EFQM model can be a route to be applied by organizations on their way toward institutionalization.

The chapter is structured as follows: Sect. 4.2 presents a theoretical framework that entails a review of the academic literature and concludes by offering a conceptual model and hypotheses; Sect. 4.3 shows the conclusions extracted from this work as well as a reflection about further lines of research.

4.2 Conceptual Framework

4.2.1 *Organizations and Institutional Theory*

The behavior of organizations has been developing within the framework of organizational theory. The so-called new institutionalism stands out. This is focused on the institutional perspective of organizations (Carroll, Goodstein, & Gyenes, 1988) as a framework for the development of both the organization's relationships and behavior, as well as providing several explanations about the processes by which institutions originate and change. The major foundations were stated by Meyer and Rowan (1977) and Zucker (1977).

Scott (1995, p. 33) defines institutions as “cognitive, normative, and regulative structures and activities that provide stability and meaning to social behaviour, ... are transported by various carriers—culture, structures, and routines—and they operate at multiple levels of jurisdiction.”

Thus, the consequences of the institutional behavior of organizations which follow institutionalized rules allows them to acquire legitimacy and improve their prospects of survival (Powell, 1991). Organizational analysis puts the focus on legitimacy when it comes to wanting to understand the survival and growth of organizations (Meyer & Rowan, 1977; Zucker, 1987). For Suchman (1995, p. 574), “Legitimacy is a generalized perception or assumption that the actions of an entity are desirable, proper or appropriate within some socially constructed system of norms, values, beliefs and definitions.” Thus, the generation of a perception of the credibility and convenience of legitimate organizations makes them be perceived as more predictable, reliable, and balanced (Suchman, 1995). This then becomes a critical success factor that favors their access to the resources needed to reach new markets, growth and sustainability in the long term (Brown, 1998; Hunt & Aldrich, 1996; Suchman, 1995; Zimmerman & Zeitz, 2002).

4.2.2 *Institutional Features*

Certainly, an institution is an organization that attains legitimacy, but it is also an organization that has been transformed through a process (institutionalization) and has acquired a set of characteristic features. These features can be found, defined, and measured within the institution. Therefore, within the institutional theory framework and on the basis of an exhaustive review of the academic literature, we identify the features that are inherent to institutions and that characterize them:

4.2.2.1 **Serve the Needs of Their Stakeholders**

The origin of the concept of “Stakeholder” (Freeman & McVea, 2001) is rooted in the American society of the 1960s (Stanford Research Institute). This revealed that to manage organizations it was necessary to understand the concerns of the groups

to which they were related. It is then possible to develop targets and business strategies that they support, hence contributing to their long-term success. A widely generalized and accepted definition of stakeholder is posited by Freeman (1994, p. 25), who labels it as “any group or individual who is affected by or can affect the achievement of an organization’s objectives.” Freeman (1984) establishes a set of specific criteria to identify them, indicating up to eleven possible ones: owners, consumer advocates, customers, competitors, media, employees, groups of followers, ecologists, suppliers, governments, and local community organizations. Each and every one of them will have different degrees of influence on the organization (Husillos & Álvarez-Gil, 2008). These will be according to the power that they hold, as well as the legitimacy and urgency of their demands (Mitchell, Agle, & Wood, 1997). There is a lack of statutory foundations to identify them, as these will depend on each organization (Bowie, 2012; Donaldson, 1989).

One of the main objectives of organizations must be the creation of value for their different actors (Bowie, 2012; Carroll & Shabana, 2010). Firms will therefore have to focus their efforts on taking advantage of the opportunities which enable meeting the demands of stakeholders.

4.2.2.2 Perform Responsible Management

This attention toward the interest groups generates a wide status of social duties in organizations that go beyond their legality and transcend economic obligations (Freeman, 1984). This gives rise to the term Corporate Social Responsibility (CSR) introduced by Bowen (1953), and whose range of proposals has evolved over the past 60 years (Alniacik, Alniacik, & Genc, 2011). According to Carroll (1991a, 1991b, 1979), the duties of organizations are the expectations that stakeholders and society have concerning them. This author posited the Organizational Social Performance model as a tool that allows the gathering of the possible dimensions of CSR that should be considered by every organization. In turn arguments were found that justify its pursuit in terms of benefits for the organization (Kurucz, Colbert, & Wheeler, 2008).

Responsible organizational management has also been the subject of discussion for years in the framework of the rational choice theory (Arrow, 2012; Friedman, 1953). The choice of the best alternative, among those which are possible, will allow the maximizing of its utility and reduce risks. In this way the economic efficiency or efficient distribution of resources and wealth optimization is achieved, among other targets, (Posner, 1979). Therefore, one of the objectives of welfare economics is to test the effectiveness of institutions in their ability to allocate resources in consumption and production, taking advantage of those that are available (Scitovszky, 1941). According to Roberts and Greenwood (1997) organizations with efficient designs, in terms of competition and the generation of alternatives, are those that attain higher economic efficiency. This is related to institutional quality (Rodriguez, Araneda, Pedraja, & Rodriguez, 2011).

4.2.2.3 Promote Human Rights and Respect for Social Justice

Responsible management, in addition to deriving from efficiency, has to be impregnated with values aligned with the defense of human rights and social justice. Human rights were born as a universal statement at the heart of the United Nations in 1948, as a defense of the human condition in its broadest sense. Initially organizations were assigned by means of a *de facto* share-out, the generation of wealth and the public sector its distribution and the defense of the values recognized in the universal declaration (Cragg, 2000). The absence of specific rules in this division of tasks resulted, through practice, in the generation of voluntary private initiatives (i.e., the World Agreement). A list of voluntary principles was followed by a global corporate citizenship seeking to reconcile the interests of companies with the demands of the civil society (Seppala, 2009).

Initiatives such as the Social Pact are deeply rooted in what for Rawls (1971) is the basic object of social justice: the distribution as a social institution of the rights and duties of humans (Bankston, 2010). These are based on their capacities and their development, as well as people's freedom and how they act on the basis of equality (Sen, 1980, 1999). Greater capabilities and opportunities involve greater freedom and superior individual and collective human development (Fajardo Arturo, 2006). Since institutions are made up people, when exercising their responsibility they should have the moral obligation to promote human capabilities and thus achieve a dignified life (Nussbaum, 2004).

4.2.2.4 Perform a Job Recognized by Their Stakeholders

The values professed, as well as the actions developed by organizations, are durable, distinctive and central aspects that make up their identity. In the extent to which their members transmit the idea of what the organization represents and where it intends to go, this will help to ensure that their activity is legitimized, that is to say, public recognition and social justification of its distinctive features or its role in society (Honneth, 1997; Perrow, 1961). In this way, corporate reputation is achieved. This concept is a collective construct that relates to fields such as economy, strategy, marketing, sociology, communication, and accounting. It describes the aggregate of multiple stakeholders' perception about the organization's performance (Fombrun, Gardberg, & Sever, 2000). It could be identified with the prestige or recognition that the organization attains among these groups on the basis of the degree of compliance with their commitments (past, present, and expected in the future) with regard to customers, employees, shareholders, and society (Carrillo & Frechilla, 2012; Fombrun & Shanley, 1990; Villafañe, 2003). This shows coherence between what is stated and what is done (Alcalá, 2003).

4.2.2.5 Possess Rules and Routines of Behavior

North (1990, p. 5) sustains that “institutions are the rules of the game and organizations are the players.” Institutions provide regularity, stability and meaning to social behavior through rules, beliefs, and norms (Greif, 2006; Scott, 1995). These characteristics are what differentiate institutions from organizations. They are shaped by groups of people with shared goals and common interests which, work together to accomplish them.

All organizations can be studied as a set of formal rules of operation (such as organization charts, rules of decision procedures, clauses, etc.) that delimit spaces of possible action and its application translates into practices consistent with their social commitments to their stakeholders. These practices have been the result of learning (routines), pointing out that when formal rules do not meet the goals, routines are developed (Jiménez Valencia, 2003). Sometimes both concepts—rules and routines—are used to express the same meaning. However, although they are inter-related they are distinct concepts: “rules relate to the ways things should be done and routines relate to the ways things are done” (Coyte, Emsley, & Boyd, 2010, p. 96). Therefore, routines can be institutionalized as being regarded as the ways in which rules are executed (Burns & Scapens, 2000).

4.2.2.6 Show an Ethical Conduct

After the global crisis of the 1970s, society stopped thinking about States as sole managers and main defenders against inequalities and social expenditure. This gave way to social institutions and enterprises as new facilitators that contribute to social well-being (Cuesta González & Valor Martínez, 2003). This idea embodies a moral perspective that argues that companies have an ethical duty, to “give back” to society through voluntary actions and social objectives that go beyond economic and legal responsibilities (Brønn & Vidaver-Cohen, 2009; Carroll & Shabana, 2010). “Ethical responsibilities embody those standards, norms, or expectations that reflect a concern for what consumers, employees, shareholders, and the community regard as fair, just, or in keeping with the respect or protection of stakeholders’ moral rights” (Carroll 1991a, 1991b, p. 41). This gives rise to a series of practices and corporate responsibilities in management (Heath & Norman, 2004) through the creation of codes of conduct and the promotion of an ethical corporate culture. In this way, different kinds of future benefits are eventually brought about (Cragg, 2000; Graafland & van de Ven, 2006; Sims & Keon, 1997).

Sud, VanSandt, & Baugous (2009, p. 211) sustain, on the basis of empirical evidence, that the collaboration between social and business institutions will contribute to solving the current social problems by applying moral practices. To design a complete strategy of management that combines a concern for fulfilling the law and an ethical behavior will lead to defining the aspirations and responsibilities that make up the ethical course of the organization (Paine, 1994).

4.2.2.7 They Are Committed to Regulations

The first reflections made on regulations argued that the State would act seeking the interest of society and the competitive equilibrium. This is due to the market having flaws and not meeting the conditions necessary to generate and distribute resources in an efficient and balanced way within a competitive model (Guzmán, 1993; Nestor Guillermo Saruba, 2012). This rationale, grounded on the public interest theory, was questioned by Stigler (1971) through what is known as the economic theory of regulation. This is considered to be a mechanism or coercive instrument of Government (Posner, 1974) which could be used to benefit a group or groups of society with common interests, improving their state of well-being (Guzmán, op. cit.). Against this argument, Posner (1974, p. 350), sustains that “the regulatory process can be expected to operate with reasonable efficiency to achieve its ends. The ends are the product of the struggle between interest groups, but it would be contrary to the usual assumptions of economics to argue that wasteful or inappropriate means would be chosen to achieve those ends.” According to Franch Sagner (2005), public interest is linked to the notion of public service, which is based on the need to satisfy the interests of the community and takes place through public policies. They were originally carried out by political or dependent organs of national, regional, or municipal government organizations (Edelman & Suchman, 1997).

In this line, and from an institutional perspective, public institutions were introduced that do not belong to the state or the private sphere of the market, and are increasingly dealing with empty spaces and providing social services of a public nature, and performing in activities related to social rights (Morales, 1998). The normative support, the cultural alignment and the consonance with the rules and pertinent laws are the defining characteristics of what Scott (1995) labels as the legitimacy of an organization. This fundamental concept of institutional theory is an organizational resource. It can be achieved as a result of rational efficiency (pragmatic legitimacy), legal mandates (regulatory or social and political legitimacy) and objectives, means, collective purposes, etc. (moral or normative legitimacy) (Cruz Suárez, 2012; Meyer & Rowan, 1977).

4.2.2.8 Manage Change Properly

The attitude toward change, adopted by the managers of organizations, has been linked to the answer given to their stakeholders, defining it as a strategic position (Ullmann, 1985). This change in the management process has been studied, among other theoretical frameworks, from the theory of complexity, depending on which organizations must manage situations of order and disorder simultaneously. This therefore introduces self-organizing processes, experimenting and innovating to respond continuously to changes in their environments and to survive (Burnes, 2005). Organizations that adopt this approach will require a balanced distribution of power, a clear trend toward customers and an ongoing strategy of learning, as well as a focus of their efforts to serve the community. This ability to manage change is

assumed to be implicit in the scope of the institution (Bechtold, 1997). According to North (1990), “institutions are the informal and formal rules that offer both opportunities and constraints for organizational actions,” in this way finding the suitable framework in which to act.

Two types of changes can be found in the processes of institutionalization: isomorphic and non-isomorphic convergence (Greenwood, Hinings, & Suddaby, 2002). The former is natural and inherent to the institutions, while the latter supposes an organizational traffic from a switching stage to deinstitutionalization, passing to pre-institutionalization and subsequent full institutionalization.

4.2.2.9 Encourage Positive Impacts on the Environment

The idea of the environmental responsibility of the company was shaped as a result of the United Nations Conference on environment and development, where the famous Agenda 21 emerged as a guide for action at the global, national and local levels in every area in which humans impact the environment (UN, web). Years later the Global agreement was adopted as a new initiative. Three of its ten principles promote the incorporation of environmental principles into corporate strategy (United Nations, web).

Therefore, “A stakeholders leadership would necessarily incorporate a moral sense, concern for others, and a wide vision about the future of the planet” (Gibson, 2012, p. 23). Involved in this leadership in actions will be “to build and cultivate sustainable and trustful relationships to different stakeholders inside and outside the organization and to coordinate their action to achieve common objectives (e.g., triple-bottom-line goals), business sustainability and legitimacy and ultimately to help to realize a good (i.e., ethically sound) and shared business vision,” Maak and Pless (2006, p. 103).

4.2.2.10 Encourage Positive Impacts on Employees

Large American companies and public institutions were the first that in the 1970s began to take into consideration both the people who worked in them as well as the quality of their working environment. This new role began to be known as “human resources management” (Mills, 1975, p. 132). It currently remains a crucial aspect. Its strategic, managerial and operational implications involve the choice of development policies of people, their skills, and their daily tasks, as well as contemplating their needs and expectations. A proper management of all these will allow the joint achievement of strategic goals and organizational performance (Devanna, Fombrun, & Tichy, 1981; Pfeffer, 2012; Turker, 2009; Vakola & Nikolaou, 2005).

The importance that relationships with interest groups and corporate strategies have for organizations to create value currently lacks interest (Carroll, 1999). This will not be able to be maximized if its interests are ignored (Jensen, 2010). Therefore, “Employees are perhaps the most important value-relevant stakeholders, since they

are the ones who must execute the firm’s strategies for creating value” (Faleye & Trahan, 2011, p. 4). According to Kaler (2009), employees would shape a primary group, at the same level as the owners (the maximum allowed in the theory of interest groups), while customers, suppliers and other stakeholders would form a secondary group of lower status.

4.2.3 Clustering the Institutional Features: Methodology

The identification of some constructs that combine the features identified will facilitate their articulation and operability (Trochim 1989a, 1989b). With this aim, we apply a multivariate confirmatory statistical analysis: Hierarchical Cluster Analysis. This procedure identifies relatively homogeneous groups of cases (or variables) from certain selected characteristics, using Ward’s cumulative hierarchical algorithm (Aldenderfer & Blashfield, 1984). It starts with each case (or variable) in a separate conglomerate and combines clusters until only one remains. At the end, we obtain a graphical output (dendrogram), which enables the observing of how the variables (or cases) are gathered into groups which have high internal cohesion: This allows us to define the constructs that help to make it operational (Fig. 4.1).

To carry out the cluster analysis process, we apply the technique known as Concept Mapping (Trochim 1989a, 1989b) starting from the intervention of a panel of five experts with recognized curricula in the area of excellence in management and strategic planning. All of them are members of the “Club de Excelencia en Gestión” (Excellence in Management Club) in Spain, and partners of the EFQM foundation. They have a proven and extensive experience in excellent organizations, a recognized reputation and international prestige. The formation of groups was held in the month of April 2013. From the processing of information using

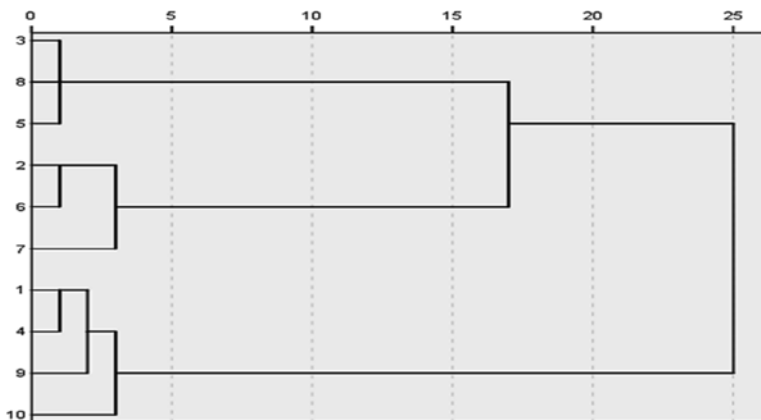


Fig. 4.1 Dendrogram: combination of re-scalable distance clusters

CLUSTERS	CLUSTER NAMES	WEIGHTING	FEATURES CLUSTERING
Cluster 1	Satisfaction of the needs and expectations of their stakeholders (SNES)	4,250	01: Serve the needs of their stakeholders 04: Perform a job recognized by their stakeholders 09: Encourage positive impacts on the environment 10: Encourage positive impacts on employees
Cluster 2	Perform management inspired by the principles of legality and morality (MLM)	3,933	02: Perform responsible management 06: Show an ethical conduct 07: They are committed to regulations
Cluster 3	Have a vision and integrity-based leadership (LVI)	3,600	03: Promote human rights and respect for social justice 05: Posses rules and routines of behavior 08: Manage change properly

Fig. 4.2 Composition of clusters

statistical software (SPSS v.20), we identify clusters in the dendrogram and label them according to the interpretation of expert knowledge constructs (Trochim, 1993).

The main conclusions derived from the clusters analysis lead us to group institutional features within three distinct constructs (see Fig. 4.2):

Construct 1. Satisfaction of the needs and expectations of their stakeholders (SNES).

To survive in the long term, organizations need to satisfy a wide range of interests that must be balanced. These range from economic prosperity to a concern for people, the environment, and society. This management will lead to organizational sustainability if it focuses on maximizing the quality of the organization's products and services to clients, and targets the satisfaction of the needs and expectations of the other interest groups (Foley, 2005; Freeman, 1984; Wheeler & Sillanpaa, 1997; Wreder, Johansson, & Garvare, 2009).

Construct 2. Perform management inspired by the principles of legality and morality (MLM).

According to Carroll (1987), moral management strives to be ethical both in its regulatory aspects of professional conduct, goals, orientation law and in its overall management strategy. It therefore seeks not only the responsible management of opportunities for business but at the same time legality and morality.

Construct 3. Have a vision and integrity-based leadership (VIL).

A proactive leadership will drive the organization toward its goals, making decisions and managing change properly (Burnes, 2005; Ullmann, 1985). It will channel the organization toward activities that develop the anticipation of problems, the observing of new business opportunities and the use of multiple sources of information. It will thus be able to generate new initiatives (Husillos & Álvarez-Gil, 2008). The responsibility and the presence of values such as ethics, the development of capacities or the concepts of justice and respect for human rights (Nussbaum, 2003; Sen, 1985) are the essential part of its performances Freeman and Auster, 2011).

4.2.4 The EFQM Model and the Main Concepts of Excellence

Excellence is a management philosophy that is born as an evolution of quality over time and that is located in the total quality management (TQM) philosophy (Garvin, 1988). TQM philosophy adds together meeting or even exceeding the needs and expectations of customers, continuous improvement and teamwork as essential aspects that define it (Hafeez, Malak, & Abdelmeguid, 2006; Miller, 1996). These principles of TQM have resulted in the emergence of standards and models of excellence in management that are widely applied by both public and private organizations, around the world. These include: the EFQM model for business excellence, the Malcolm Baldrige model, the DEMING management model and the Ibero-American model of excellence.

The EFQM excellence model is a management system that enables organizations to assess where they are on their path toward excellence, putting the focus on achieving and maintaining outstanding levels of performance that meet or exceed the expectations of all their interest groups. It is made up of three interrelated elements whose joint use allows the continuous improvement of management practices as well as the realization of the strategy: (1) The fundamental concepts of Excellence. These are the basic principles upon which the whole model for any organization relies in order to achieve sustained excellence; (2) The conceptual framework or EFQM excellence model consists of the criteria and subcriteria which serve to assess the organization concerning excellence; and (3) The logical schema (REDER) as a tool used to measure the results, the approach and deployment, as well as the evaluation and revision of the criteria.

As published at the EFQM Model 2013, the fundamental concepts are to:

1. Add value to customers.
2. Create a sustainable future.
3. Develop the capacity of the organization.
4. Take advantage of creativity and innovation.
5. Lead with vision, inspiration, and integrity.
6. Manage with agility.
7. Achieve success by the talent of the people.
8. Maintain outstanding results over time.

4.2.5 Conceptual Model and Research Propositions

The conceptual model we are proposing raises the possible relationships between constructs of Excellence (EXCEL) and Institutionalization (INST). Excellence is shaped by the EFQM's eight fundamental concepts (CF_i) indicated above. The construct Institutionalization is determined by the constructs generated from the cluster analysis (Construct 1: Satisfaction of the needs and expectations of the organization's stakeholders; Construct 2: Carry out management inspired by the principles of

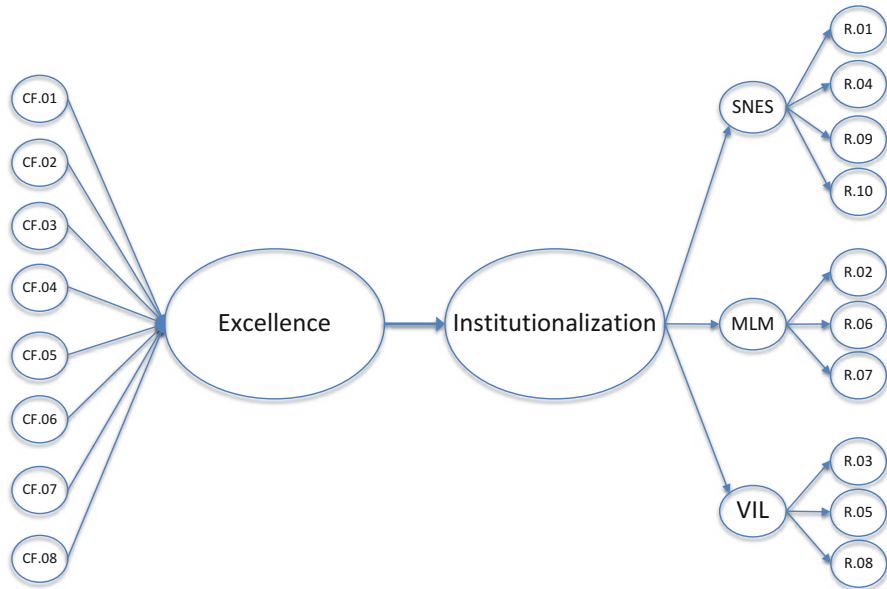


Fig. 4.3 Conceptual model

legality and morality; Construct 3: Have a vision and integrity-based leadership) that in turn are formed by the institutional features identified in the academic literature analyzed (Fig. 4.3).

The theoretical basis underlying our conceptual model is reflected in the following propositions:

It is usually agreed that, through institutional legitimation, organizations offer suggestive symbols to obtain social support (Ashforth & Gibbs, 1990; Suchman, 1995). They can thus be culturally integrated in such a way that a common expectation related to organizational performance will be generated (DiMaggio & Powell, 1983; Zucker, 1987). On the other hand, the orientation to the client is one of the aspects on which the quality of competitive organizations is based (Lengnick-Hall, 1996). This is in order to make an offer that meets their needs (Dean & Bowen, 1994) and acquire a commitment with them sharing relationships, values, and long-term strategies. This therefore raises customer satisfaction to the rank of the ultimate goal in the organization (Grant, Shani, & Krishnan, 1994). In the extent to which managers and customers maintain shared widely accepted beliefs about the central features of an organization, we will be in the presence of an organizational identity (Albert & Whetten, 1985). This identity will be perceived as legitimate (Scott & Lane, 2000) and therefore institutionalized.

Proposition 1: Adding value to the organization's customers is positively related to institutionalization.

The concept of sustainable development emerged from the Brundtland and World Commission on Environment and Development (1987, p. 8). It was established as “the development which meets the needs of the present without compromising the ability of future generations to meet their own needs.” Some authors (Brown & Dacin, 1997; Kotler & Lee, 2005) argue that companies should be responsible to society, considering this as a whole. Therefore, according to Carroll (1991a, 1991b), within the framework of their responsibilities (economic, legal, ethical, and philanthropic) companies should have social initiatives (i.e., programs, practices or policies), which translate into a benefit for society (Brønn & Vidaver-Cohen, 2009). Already in 1973, K. Davis predicted that changes in social values would impose new demands on economic organizations, arguing that the changing values of society would create new criteria of institutionalization. Therefore, in addition to showing a solid results account, companies would need a suitable social agenda to preserve public support for their activities.

Proposition 2: Working to create a sustainable future is positively related to institutionalization.

Change, understood as “the process of continually renewing an organization’s direction, structure, and capabilities to serve the ever-changing needs of external and internal customers” (Moran & Brightman, 2001, p. 111), is a very current characteristic in the life of organizations, both at the strategic and the operational level. To manage it appropriately, organizations need to identify where they need to be in the future. Their aptitude to attain this will depend on this identifying (Burnes, 2004; Rieley & Clarkson, 2001), as will, to a great extent, their survival (Deutschman, 2007; Senior, 2002). Change management deals with the modification of the goals, plans, structure and motivation systems (J. P. Kotter & Rathgeber, 2006), acting through competitive control, strengthening the potential of people and the processes of continuous improvement. This is why change is a routine itself (Luecke, 2003). It responds to both the internal conditions and external environment (Leifer, 1989), making them effective and enabling improved performance.

As highlighted by Ali E. Akgün, Byrne, Lynn, and Keskin (2007, p. 800) and Hendry (1996), change management involves analytical and learning processes at the same time as combining rational, political and cultural elements. Coming close to Suchman’s (1995) concept of legitimacy, Thomas and Lamm (2012) considered that when organizational changes are desirable, own and appropriate according to a system of norms, values and beliefs, the organization is legitimate and therefore institutionalized.

Proposition 3: Developing the capacities of the organization is positively related to institutionalization.

The innovation process is the result of the generation of new ideas (Buijs, 2007). This is where the management of the companies should play an active role by stimulating, identifying, selecting, and implementing them (Björk, Boccardelli, &

Magnusson, 2010) through the management of creativity (Amabile, 1998) in a structured way. It should motivate employees, allocate resources, and carry out management practices that favor an appropriate work environment (Çokpekin & Knudsen, 2012). Given the complexity of this process, it is necessary to count on the collaboration of both the company's internal departments and external innovators (suppliers, customers, users, and even competitors). The access to information regarding their interest groups will allow firms to take advantage of a greater diversity of ideas and perform operations that generate value for them (Sharma, 2005).

Chun (2006) concluded, in a study with 407 managers, that there is a correlation between integrity, effort, employee satisfaction, and innovation. We can say that if the organization's values are in harmony with its groups of interest, this will result in its legitimacy as a brand (Michell, Swanston, & Mandry, 1995) and the organization as a whole (Suchman, 1995), attaining institutionalization.

Proposition 4: Taking advantage of creativity and innovation is positively related to institutionalization.

In the global society of interest groups, a responsible leadership (Voegtlin, 2011) is considered to be the relationship with the customer based on value and by means of ethical principles between leaders and actors (Pless, 2007). In this way, the leaders recognize the needs of their followers, serving them as inspiration and enabling them to transcend their particular interests to work together toward a common organizational project (Podsakoff, MacKenzie, & Bommer, 1996). They advocate for a clear vision of the future, proposing goals and meeting challenges in achieving those goals, dialoguing and balancing the interests of the various stakeholders. At the same time, they are seen as a model to be followed by employees and an example of how to do things correctly, making legitimate decisions and listening to other points of view (Voegtlin, 2011, pp. 59–60). This organizational attitude is described as the role of organizations as corporate citizens and political actors (Matten & Crane, 2005; Scherer & Palazzo, 2007), addressing a proactive management of all stakeholders that ensures their legitimacy and license to operate as an institution in a global society (Palazzo & Scherer, 2006).

Proposition 5: Leading organizations with vision, inspiration and integrity is positively related to institutionalization.

Organizations, in their effort to achieve efficient, outstanding results and to add value to their stakeholders, seek competitive quality through the design and implementation of systems that adapt to the continuous transformation of the system (Lengnick-Hall, 1996). In this regard, dynamic capabilities occupy a primary role. Dynamic capabilities are those management skills that act directly on the resources of the company in order to coordinate, transform and renew them in order to be able to follow the changes of the environment or even to create them. In this way they coincide with the development of markets and competitors over time (Amit & Schoemaker, 1993). According to Teece (2007, p. 319), these capabilities can be disaggregated into three categories according to their purpose: (1) to analyze and give shape to the opportunities and threats; (2) to take advantage of opportunities;

and (3) to maintain competitiveness and efficiency by improving, combining, protecting, and, when necessary, reconfiguring the company's tangible and intangible assets.

Meyer and Rowan (1977) suggested that technical efficiency could be the precursor of the organization's legitimacy and therefore its institutionalization. Deephouse (1996) was the first who measured this relationship.

Proposition 6: Managing the organization with agility is positively related to institutionalization.

The human capital of enterprises is one of the three most important axes in organizational management together with innovation and strategy (Alles, 2005; Coff, 1997). Leaders therefore need to manage their employees by integrating them into the organizations and directing them toward a common vision of these organizations by encouraging cooperation, teamwork, combining knowledge, skills and talent and working together to achieve a goal. They must also know how to attract, select, establish, and develop this talent in an environment in which all the actors are valuable and feel satisfied (Becker, Huselid, & Beatty, 2009; Dolan, 2003; Gubman, 2000; Pardo & Arteaga, 2001). In this sense, the employees' commitment to the organization as well as a culture of delegation will impact its performance, survival and fate (Finkelstein & Hambrick, 1996; Fuenmayor, 2010; Gal-Or & Amit, 1998; Judge, Piccolo, & Ilies, 2004; Ruigrok, Peck, & Keller, 2006; Vural, Vardarlier, & Aykir, 2012; Yukl, 2002).

All of this leads to the management of human resources in the organization being very deeply rooted in its culture, values, traditions, and social norms. It reaches employees, influencing these rules while fulfilling their own demands. This leads organizations to be institutionalized (Amit & Belcourt, 1999; Walker, Thomas, & Zelditch, 1986).

Proposition 7: Achieving success through the talent of people is positively related to institutionalization.

There is plenty of research in the academic literature revealing that business organizations can and should serve the needs of their stakeholders (Preston & Sapienza, 1990), and that such services are associated with higher financial performance (Scherer & Palazzo, 2007), reputation (Fombrun & Shanley, 1990), and the performance of the organization (Greenley & Foxall, 1997). When stakeholders approve of the objectives (Elsbach & Sutton, 1992), results remain outstanding (Zimmerman & Zeitz, 2002) and a perception of credibility and convenience is created. Organizations which act like this attain institutionalization as they are considered more predictable, reliable, and balanced (Suchman, 1995).

Proposition 8: Maintaining outstanding results over time is positively related to institutionalization.

As a consequence of the propositions established above and based on the pillars of the EFQM model in which fundamental concepts lead to excellence in management, we can establish a new proposition that stems from all of the above:

Proposition 9: Excellence in management is positively related to institutionalization.

On the basis of the previous assumptions about the fundamental concepts of excellence, we can relate excellence itself with the constructs generated from the characteristic features of the institutions:

The EFQM model is focused on “excellent results with respect to Performance, Customers, People and Society are achieved through Leadership driving Policy and Strategy, that is delivered through People, Partnerships and Re-sources, and Processes” (van Marrewijk et al., 2004, p. 85). Such a wide range (clients, people and society) is the result of an evolution followed by the model over time, while the concept of “customer satisfaction” is enhanced and substituted by another which covers the rest of the interest groups (Klefsjö, Bergquist, & Garvare, 2008) and that alludes to all those actors for which one wants to create value (Bergman & Klefsjö, 1994). Therefore, if the organization connects with stakeholders, knowing what they want now and in the future, identifying what is important to them with regard to the perception which they have about the product or service received (Gregory & Cronemyr, 2011), this will make these interest groups recognize and positively support the organization (Aldrich & Fiol, 1994; Suchman, 1995). Therefore:

Proposition 10: Excellence in management is positively related to the satisfaction of the needs and expectations of its stakeholders.

The EFQM excellence model “starts from a humanist approach that situates the customer (in his multiple senses) as the core and ultimate reason of the activity of the organisation, giving special emphasis to the role of the organisation as a responsible member of the community. An ethical approach is therefore adopted as the best way to serve the long-term interest of the organisation and the people that integrate it, exceeding the policy of the society in general” (Martín-Castilla, 2002, p. 126). To this perspective of the management we must add that fulfilling legality is one of the first samples of confidence on the part of the interest groups toward the organization, allowing it to develop its activity in a normal manner, gaining access to resources and opportunities that allow it to achieve its targets (Arjoon, 2005).

Proposition 11: Excellence in management is positively related to a management style inspired by the principles of legality and morality.

In excellent organizations the role of leadership focuses on identifying, communicating, and guiding the organization toward the fulfillment of its purposes in accordance with a vision and objectives (Calvo-Mora, Leal, & Roldán, 2005). This strategic orientation will be aimed at managing change, anticipating and being ahead of it, seeking innovation and the organization’s survival (Barker, 2001). To achieve this, the leadership of excellent organizations has to be a clear reference model that inspires a culture of involvement and responsibility, and which excels in the presence of values that promote human rights and social justice (Freeman & Auster, 2011).

Proposition 12: Excellence in management is positively related to avision and integrity-based leadership.

4.3 Conclusions and Further Lines of Research

In our study, we sustain that there is a real connection between quality management theory and institutional theory. We believe that the process of improvement and innovation proposed by the EFQM model of excellence in management leads toward the institutionalization of organizations. We have tried to cover the proliferation of institutional initiatives of all kinds that end up leading to the institutionalization of organizations with a common sense and aim, either tacit or explicit, and which have an integrating umbrella. All of them serve us to encompass a whole set of modernizing aspects of management, which transform organizations, converting them into others with specific characteristics, different from those which develop their activity without paying attention to the objectives of people, social needs, sustainability, etc., (i.e., on the sidelines of what institutions are). That is, organizations which are more complex, modern and professionalized have social sensitivity.

Institutional theory points out that the conversion of an organization into an institution takes place thanks to the positive perception of its stakeholders. Certainly, an institution is an organization that attains legitimacy, but we consider that it is also more than just a perception. It is an organization that has been transformed through a process (institutionalization) and has acquired some special features that define it and characterize it as a body (Ackoff, 1988). It is something real, it is a body with a life of its own, independent of its owners' features, as Selznick (1957) pointed out. We focus on the actual physical appearance of institutions, their structure, the people who compose it, the values by which they are governed and the way in which they are managed (i.e., a focus on the features of institutions and not legitimacy). We believe that these are not conflicting issues. We therefore understand that when firms have legitimacy, they also have institutional features.

We grouped the features together looking to establish constructs through the use of multidimensional analysis and cluster analysis, using first-level specialists to build concept maps that finally allow us to identify the constructs, making this a much-needed empirical analysis in this approach.

We believe that the main contribution of this work lies in giving a coherent and practical response to this magma that the ambiguous expression of the institutionalization process has always been. There are many pathways by which organizations can advance to build, step by step, their institutionalization. We believe that the best tool for clearing up this process, giving it coherence and balancing the necessary actions to do so is the quality management model called the EFQM model.

Excellence in management based on the principles defined by the EFQM model helps toward the efficient transformation of organizations into institutions, specifying a way forward in the process of institutionalization in a structured, coherent and measurable way. Moreover, this is done in an open, flexible and non-deterministic manner, in such a way that it can adapt to the specific peculiarities of the organizations and be attached to the same environment.

Given that institutionalization does not become complete nor is a goal in itself, but that it continues to evolve in the extent that society does, we affirm that excellence and institutionalization share this feature. This reinforces the idea already sketched out that the process toward excellence can be a way for organizations to institutionalize.

4.3.1 Further Lines of Research

From the theoretical framework developed, it would be necessary to perform an empirical check of the assumptions underpinning the conceptual model proposed, applying them to organizations that follow processes toward excellence, analyzing relations between them and institutionalization.

The conclusions of the work reveal a series of challenges that must be overcome and that might be considered to be new reflection routes. This is the case of the fundamental concepts which have been worked with at a theoretical level. The EFQM's 2013 model considers them "the foundation for achieving sustainable excellence in any organisation. They can be used as the basis to describe the attributes of an excellent organisational culture" (EFQM, 2012, p. 3). However, the model is not explicit, nor do we know to what extent each fundamental concept contributes to the excellence, nor the degree of relationship that exists between them.

The non-provision of an empirical analysis that allows us to realize how the relationship between excellence and institutionalization is opens another path of study. This would be the application of the model focus to organizations such as their dimension, sector or country-specific features.

With our work we have wished to contribute to academic research by proposing a theoretical framework that will in the future help to provide a systematic, structured methodology of self-evaluation and follow-up. This will facilitate the process of institutionalization and satisfy the desire of those organizations which wish to transcend beyond their traditional objectives, paying attention to people, to social needs and to sustainability.

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Chapter 5

“Q for Tourism Quality” in the Spanish Tourism Tourist Accommodation Sector: Implementation and Results

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Abstract This chapter sets forth results from an empirical study to investigate the degree of implementation of critical quality factors in Spanish tourist accommodation firms. An empirical study was conducted in 186 accommodation firms nationally certified with the “Q for Tourist Quality” standard. The aim of the study was to identify strengths and areas for improvement that will enable Spanish accommodation firms to move towards total quality management (TQM). First, descriptive statistics were calculated. Then, exploratory factor analysis was applied to validate two measurement scales: one scale to measure critical quality factors and one scale to measure performance. Results indicate that the degree of implementation of critical factors is greater than 80 %. The main finding is that employee management is the main area for improvement in these firms. Another key finding is that the way hotels manage critical factors can positively affect employees, society, key results, and customer satisfaction.

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5.1 Introduction

The quality management literature illustrates how important it is for tourist accommodation firms to consider the principles and techniques of quality management. Results of numerous empirical studies have shown that implementing a quality management system increases competitiveness by improving internal operations and performance (i.e., internal quality) (Lee, To, & Yu, 2009; Mak, 2011; Sila, 2007). Improvements in internal quality then affect external quality (i.e., business performance) (Kaynak, 2003; Powell, 1995).

Numerous scholars have studied the quality practices (i.e., critical factors) necessary to implement quality management, conducting research mainly in the industrial sector. Scholars have subsequently performed studies in the tourism sector, researching the implementation of quality in services and hotels (Azorín, Cortés, Moliner, & Guilló, 2009; Álvarez García, Fraiz Brea, & Del Río Rama, 2013a; Cortés, Moliner, Guilló, & Azorín, 2012; Harrington & Akehurst, 1996, 2000; Ortega, Guilló, Moliner, Azorín, & Gamero, 2013; Pereira-Moliner, Claver-Cortés, Molina-Azorín, & Tarí, 2012; Tarí & Pereira, 2012; Tarí, Claver-Cortés, Pereira-Moliner, & Molina, 2009; Tarí, Claver-Cortés, Pereira-Moliner, & Molina-Azorín, 2010), the application of TQM and human resources practices (Arasli, 2002; Breiter & Bloomquist, 1998; Partlow, 1996; Rodríguez-Antón & Alonso-Almeida, 2011; Tsauro & Lin, 2004), the application of the EFQM model in the hotel industry (Camisón, 1996; Ribeiro, 1999), and the motivations, barriers, and benefits of implementation in hotels and rural accommodation (Alonso-Almeida, Rodríguez-Antón, & Rubio-Andrada, 2012; Álvarez García, Fraiz Brea, & Del Río Rama, 2012; Álvarez García et al., 2013a, 2013b; Del Río Rama, Álvarez García, J., & Vila Alonso, 2013; Del Río Rama, Álvarez García, Vila Alonso, & Fraiz Brea, 2013; Tarí, Heras-Saizarbitoria, & Dick, 2012).

To explore this area further, we draw upon research by Calvo de Mora et al., Serrano Bedia et al., and Santomá and Costa, who have exhaustively reviewed the literature on quality management in services and tourism. Calvo de Mora, Criado García-Legaz, and Pizarro Moreno (2003) focused on the services sector, Serrano Bedia, López Fernández, and Gómez López (2007) reviewed tourism research from a management perspective, and Santomá and Costa (2007) analyzed key studies in the hotel sector between 1990 and 2007. These reviews have highlighted a lack of research linking the concepts of hotel management with quality of service. Furthermore, few studies analyze how internal business processes are managed to offer services that meet customers' needs. Hence, this research analyzes the degree of quality management in the tourist accommodation sector in Spain to identify a number of strengths and areas for improvement of Hotels' quality management. The importance of this study is that it provides managers with relevant information on their degree of quality implementation.

To meet its objectives, this chapter is structured in four sections. First, we present the theoretical background. Second, we propose the research methodology (sample, questionnaire and measurement, and reliability of measurement scales). Third, we present results of the data analysis. Finally, we discuss the study's key conclusions.

5.2 Theoretical Background

5.2.1 *Critical Factors*

Kanji (1998) defined critical factors of quality as key organizational areas, which, if managed properly, guarantee improvement in competitiveness and business excellence. Numerous studies have demonstrated the need to consider these factors so that quality management implementation is successful (Claver, Llopis, & Tarí, 1999; Easton & Jarrell, 1998; Wilkinson, Redman, Snape, & Marchington, 1998; Zhang, 2000). These studies have also discussed the practices, tools, and techniques that allow us to apply these factors.

Nevertheless, there is a lack of consensus as to what these critical factors actually are (Mohr-Jackson, 1998). Many authors have performed research to identify these critical factors, building upon the ideas provided by the gurus of quality (Deming, 1982, 1986; Juran, 1986). The first study to determine critical factors and empirically validate a measurement instrument of quality practices was by Saraph, Benson, and Schroeder (1989). Other authors have since performed similar research in the sector of industry and services (Ahire, Golhar, & Waller, 1996; Antony, Antony, & Ghosh, 2004; Black & Porter, 1996; Flynn, Schroeder, & Sakakibara, 1994; Grandzol & Gershon, 1998). In the same vein, notable studies in the hotel industry include those by Arasli (2002), Breiter and Bloomquist (1998), Camisón (1996), and Harrington and Akehurst (1996). Excellence models such as the Malcolm Baldrige National Quality Award and the European Foundation for Quality Management (EFQM) Excellence Model also enumerate various critical factors that are consistent with those from the literature (Sila & Ebrahimpour, 2005).

Of all the studies to have reviewed critical factors that appear in the recent literature, three stand out. First, Sila and Ebrahimpour (2002) examined critical factors in studies performed between 1989 and 2000. Second, Claver, Tarí, and Molina (2003) grouped all critical factors that appeared persistently in most studies. Third, Camisón, Cruz, and González (2007) reviewed the most relevant literature on the topic and regrouped the principles cited into ten core principles.

More recently, Magd (2014) conducted a study to identify the critical factors considered by exponents of different schools of thought, namely quality gurus, quality award models, and empirical research. Common core TQM critical success factors based on quality gurus are as follows: management leadership, training, employee participation, process management, planning, and quality measures for continuous improvement. Common core TQM critical factors based on quality award models are as follows: leadership, strategy and policy planning, information and analysis, people management, process management, customer satisfaction management, business performance, supplier and partner management, impact on society, and resource management. Finally, common TQM critical success factors based on empirical research are as follows: top management commitment and leadership, strategic planning, customer focus and satisfaction, quality information and

performance measurement, benchmarking, human resource management, training, employee empowerment and involvement, employee satisfaction, process management, product and service design, supplier management, continuous improvement, and communication.

5.3 Method

5.3.1 Sample

The target population of this study comprised tourist accommodation establishments with the “Q for Tourism Quality” certificate (regulation UNE 182001:2008 Hotels and Tourist Apartments). Specifically, the target population of this study comprised 566 establishments: 534 hotels and tourist apartments, and 32 thermal baths that offer accommodation.

The international quality management system implemented in the tourism sector is the ISO 9001:2008 quality assurance standard. In the Spanish tourism sector, however, firms can implement a quality management system using the ISO standard or a set of regulations specific to the tourism sector. These regulations are stipulated under the umbrella term of “Q for Tourism Quality.” To date, quality regulations in 22 tourism subsectors have been developed. For accommodation establishments, the applicable regulation is UNE 182001:2008 Hotels and Tourist Apartments. “Q for Tourism Quality” emerged in the mid-1990s, when the tourism sector together with the Spanish public administration strategically decided to adapt to changes in demand and stress quality as a competitive tool.

The database was constructed using information from the Spanish institute for tourism quality (Instituto para la Calidad Turística Española) web site (www.ict.es). This Spanish institute is a private, independent, nonprofit organism that promotes the Spanish quality management system and takes responsibility for its execution, integrity, and dissemination.

The data collection process began on 1 April 2010 and ended on 30 May 2010. Data collection took place through one or more rounds of email contact with quality managers of hotels. Of the 566 questionnaires sent, 164 completed and 22 incomplete questionnaires were returned. We made email and telephone requests for managers to complete the incomplete questionnaires. Hence, we achieved a total sample of 186 valid questionnaires, which represents a response rate of approximately 32.86 % and a sampling error of ± 6.01 with a confidence level of ($Z=1.96, p=q=0.5$).

The sample profile can be defined using the following variables: (1) firm size (number of employees): 53.8 % were small enterprises (0–49 employees), and 46.2 % were medium enterprises (50–249 employees); (2) category of the establishment: 13 (7 %) were 1- or 2-star establishments, 64 (34.4 %) were 3-star establishments, and 109 (58.6 %) were 4- or 5-star establishments; (3) time possessing quality standard UNE 182001:2008: 65 firms had had the standard for less than or equal to 3 years, 77 had had the certification for more than 3 years but less than or equal to 6 years, and 44 firms had had the certification for more than 6 years.

Table 5.1 Content validity of the measurement scales

Measurement scales	Items	Likert scale	Authors
Leadership	8	1 = Not implemented (0 %); 7 = implemented	Black and Porter (1995, 1996); EFQM Model (1999); Grandzol and Gershon (1998); Powell (1995)
Quality policy/planning	7	100 %	Ahire et al. (1996); Black and Porter (1995, 1996); EFQM Model (1999); Saraph et al. (1989)
Alliances and resources	7		Ahire et al. (1996); Black and Porter (1995, 1996); EFQM Model (1999); Grandzol and Gershon (1998); Saraph et al. (1989)
Employee management	11		Ahire et al. (1996); Black and Porter (1995, 1996); EFQM Model (1999); Saraph et al. (1989)
Learning	9		Grandzol and Gershon (1998)
Process management	6		Ahire et al. (1996); Black and Porter (1995, 1996); EFQM Model (1999); Grandzol and Gershon (1998); Powell (1995)
Continuous improvement	9		Black and Porter (1995, 1996); EFQM Model (1999); Grandzol and Gershon (1998); Powell (1995); Saraph et al. (1989)
Customer satisfaction	7	1 = Totally disagree;	EFQM Model (1999); Grandzol and Gershon (1998)
Employee satisfaction	9	7 = totally agree	
Social impact	8		EFQM Model (1999)
Key results	11		EFQM Model (1999); Powell (1995)

Source: Authors' own data

5.3.2 Questionnaire and Measures

To design the questionnaire, we first reviewed the literature to gather a wide range of items and to guarantee scales' internal validity (Table 5.1).

5.3.3 Analysis of Measurement Scales' Reliability

To analyze the reliability of the measurement scales used to measure critical factors and results, we applied exploratory factor analysis (SPSS v.17). This analysis allowed us to evaluate whether the proposed scales measured the construct consistently and stably. It also allowed us to check whether constructs were free from systematic and random error. Items on some of the scales had item-total correlation below the recommended minimum of 0.3 (Nurosis, 1993). These items were

Table 5.2 Analysis of measurement scales' reliability

Scales	Cronbach's alpha	Standardized alpha	Cumulative percentage variance (%)	Deleted items
Leadership	0.912	0.915	63.575	Item-total correlation >0.3
Quality policy/ planning	0.920	0.929	70.411	
Alliances and resources	0.879	0.884	59.568	
Employee management	0.923	0.934	63.451	Item-total correlation >0.3 except EM8 (0.272)
Learning	0.935	0.940	67.933	Item-total correlation >0.3
Process management	0.891	0.895	65.605	
Continuous improvement	0.845	0.882	52.668	
Customer satisfaction	0.752	0.857	55.660	
Employee satisfaction	0.875	0.883	59.695	Item-total correlation >0.3 except ES4, ES5
Social impact	0.924	0.924	72.905	Item-total correlation >0.3
Key results	0.878	0.882	51.887	Item-total correlation >0.3 except KR6, KR7

Source: Authors' own data

eliminated to improve Cronbach's alpha so that the value of Cronbach's alpha was above the minimum required level of 0.7 (Nunnally, 1979) in all cases. Indeed, in most cases, values exceeded 0.8—the value recommended by certain authors (Luque, 2000) for confirmatory studies (Table 5.2).

To confirm unidimensionality of the scales, we performed principal component analysis with varimax rotation. The application of factor analysis did not involve the removal of any item—not considering factor loadings below 0.3 as significant (Hair 1999). The cumulative percentage of explained variance was greater than 50 %, which implies the proposed scales are unidimensional, highly reliable, free from random error, and able to provide consistent results.

5.4 Data Analysis

The descriptive analysis carried out to analyze the degree of quality management implementation in Spanish tourist accommodation businesses detected a number of strengths and areas for improvement regarding quality management.

Quality policy/planning was the factor that firms managed best (mean=6.10). The next best-managed factor was leadership. Means for employee management

Table 5.3 Mean and standard deviation of critical factors and performance in Spanish tourist accommodation firms

Critical factors		Mean ^a	Standard deviation	% Degree of implementation
LE	Leadership	6.10	0.90	87.21
L	Learning	6.06	0.91	86.70
PO	Quality policy/planning	5.99	0.73	85.54
CI	Continuous improvement			
PM	Process management	5.90	0.85	84.40
EM	Employee management	5.83	0.99	83.34
AR	Alliances and resources	5.80	0.82	82.93
Results		Mean ^b	Standard deviation	
CS	Customer satisfaction	6.48	0.55	
KR	Key performance	5.19	0.95	
ES	Employee satisfaction	5.17	1.17	
SI	Social impact	4.79	0.96	

Source: Authors' own data

^aMean score between 6 and 7 (strongly implemented); mean score between 5 and 6 (with a high score); mean score between 4 and 5 (average implementation); mean score below 4 (low implementation)

^bMean score between 6 and 7 (totally agree); mean score between 5 and 6 (strongly agree); mean score between 4 and 5 (agree); mean score below 4 (indifferent)

and learning were 5.8 and 5.83, respectively. These two factors yielded the lowest scores. Nevertheless, all were managed very similarly and the degree of implementation was superior to 80 % in all factors. The performance factor with the highest mean was client satisfaction (6.48). The lowest scoring factor was key results, albeit with a mean score of 4.79 (i.e., higher than the Likert-type scale's midpoint of 7). This finding must be analyzed with extreme caution, however, given the current socioeconomic situation. It is important to highlight the low degree of social impact, which reflects firms' scarce concern for social aspects (Table 5.3).

We also analyzed correlations between critical factors and performance (customer satisfaction, employee satisfaction, social impact, and key performance). We used the correlation matrix to perform this analysis (Table 5.4).

Correlation was observed in all cases, which means that good leadership, good quality planning, good management of suppliers and employees, and good management of staff learning processes and policies positively affect performance. In summary, results demonstrate that quality elements are related and that the way they are managed can positively affect customer and employee satisfaction, society, and key performance.

To broaden the scope of the analysis, we analyzed each item (see Appendix) that forms each criterion and quality results to identify the strengths and weaknesses of each critical factor to help firms improve (Figs. 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, and 5.7).

The analysis of mean scores on each of the items which we observe is the main weaker, a summary can be seen in Table 5.5.

Table 5.4 Pearson correlation between quality and performance elements

	Leadership	Quality policy/ planning	Alliances and resources	Employee management	Learning	Process management
Customer satisfaction	r 0.533	0.603	0.617	0.574	0.503	0.603
	Sig. 0.000	0.000	0.000	0.000	0.000	0.000
Employee satisfaction	r 0.463	0.525	0.580	0.586	0.497	0.583
	Sig. 0.000	0.000	0.000	0.000	0.000	0.000
Social impact	r 0.209 ^a	0.292 ^a	0.334 ^a	0.341 ^a	0.288 ^a	0.435
	Sig. 0.004	0.000	0.000	0.000	0.000	0.000
Key performance	r 0.307 ^a	0.431	0.327 ^a	0.436	0.400	0.485
	Sig. 0.000	0.000	0.000	0.000	0.000	0.000

r = Pearson correlation

Source: Authors' own data

^aCorrelation (weak)

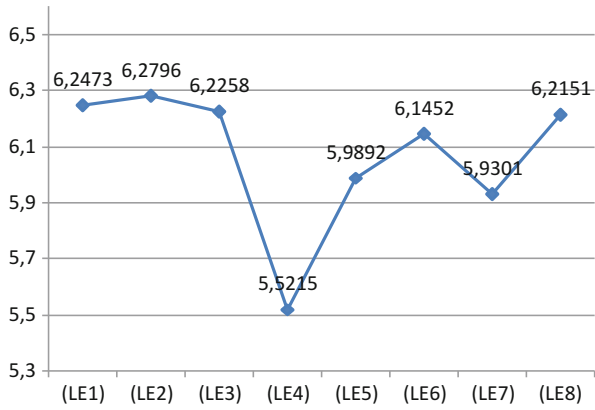


Fig. 5.1 Leadership. Source: Authors' own data

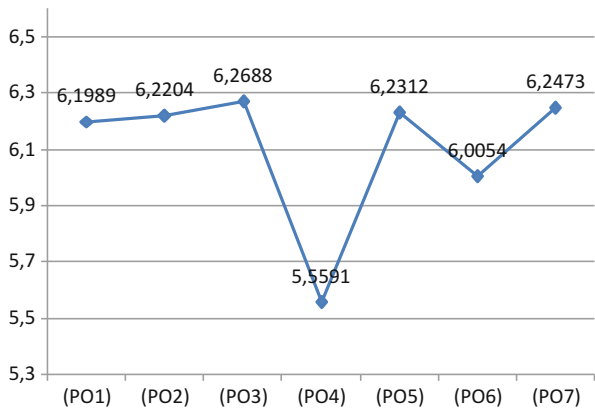


Fig. 5.2 Quality policy/planning. Source: Authors' own data

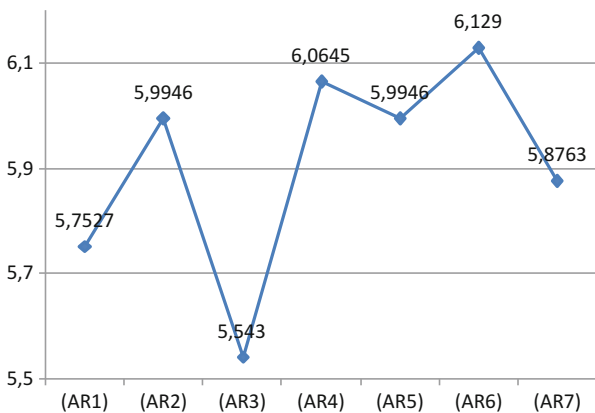


Fig. 5.3 Alliances and resources. Source: Authors' own data

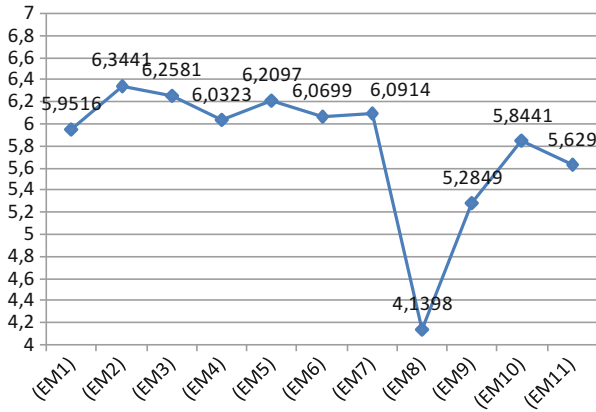


Fig. 5.4 Employee management. Source: Authors' own data

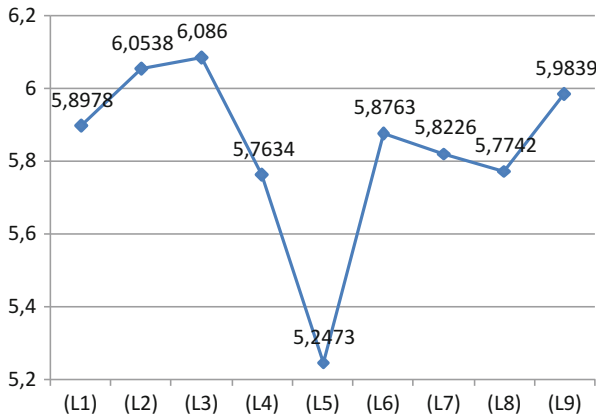


Fig. 5.5 Learning. Source: Authors' own data

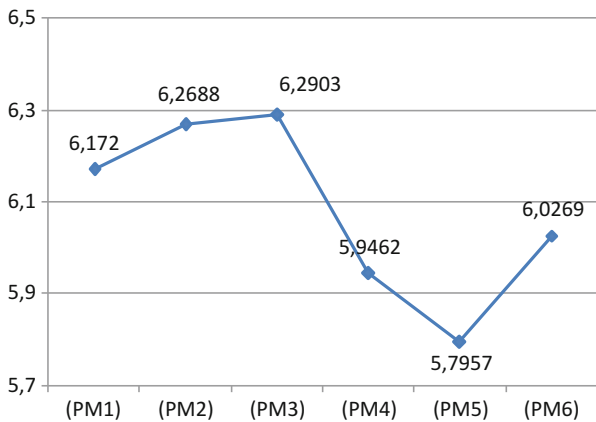


Fig. 5.6 Process management. Source: Authors' own data

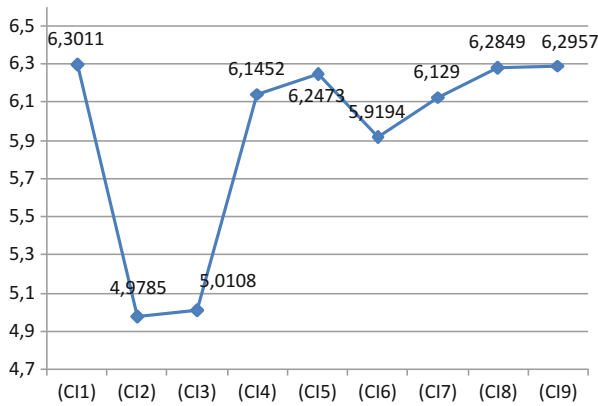


Fig. 5.7 Continuous improvement. Source: Authors’ own data

Table 5.5 Weaknesses in the critical factors

Leadership	Managers should allow employees greater freedom to take decisions, should increase contact with customers and suppliers to foster alliances, and should put actions in place for joint improvement
Quality policy/ planning	The management is reluctant to communicate strategy and objectives with customers, suppliers, and other external agents
Alliances and resources	The management should establish closer relationships with fewer suppliers, prioritizing quality over price
Employee management	Establishments do not have transparent systems to reward staff achievements and improvements, nor do they have social benefits systems. In addition, firms should measure employees performance and should solicit employees opinions to introduce improvements in management
Learning	Firm should give employees more information in basic statistical tools and should establish an environment that fosters continuous education
Process management	Employees do not know how to evaluate different process they are involved in. They do not develop new services to access new markets, nor do they anticipate the needs of the current market or try to outdo main competitors
Continuous improvement	Firms should implement programs to find where time and money are wasted in all processes. They should carry out market studies that explain customers’ current and future needs, which would let them improve all services and processes

Source: Authors’ own data

The following graphs separately illustrate scores for each item of each performance dimension (see Appendix) (Figs. 5.8, 5.9, 5.10, and 5.11).

For employee and customer performance, the key area for improvement relates to the need for firms to compare performance with their main competitors. The areas for improvement in the social impact criterion are evaluating community feeling by collecting data from surveys and meetings, analyzing causes of social impact, planning and acting to create improvements, and benchmarking performance to learn from competitors.

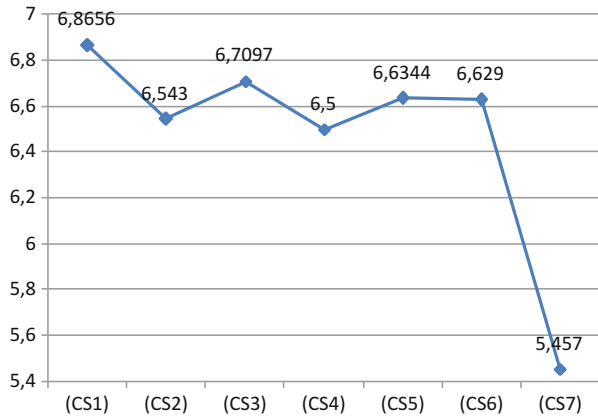


Fig. 5.8 Customer satisfaction. Source: Authors' own data

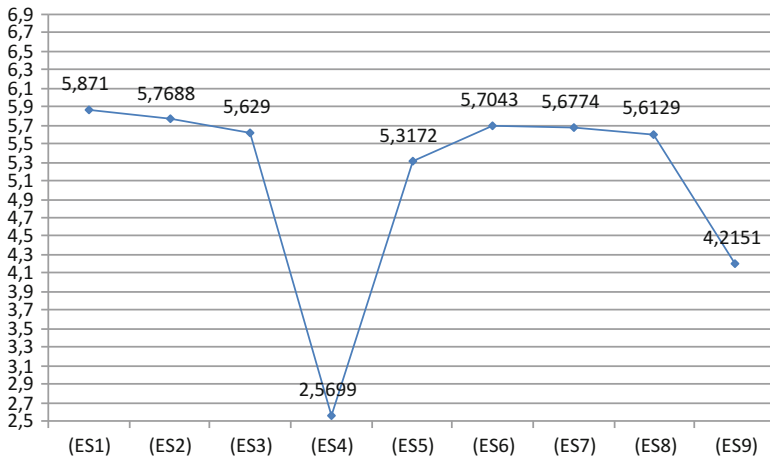


Fig. 5.9 Employee satisfaction. Source: Authors' own data

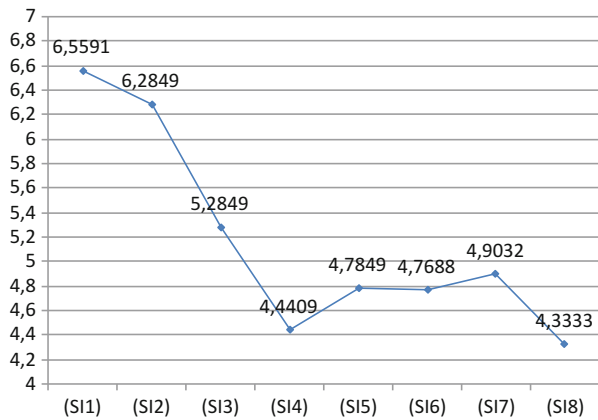


Fig. 5.10 Social impact. Source: Authors' own data

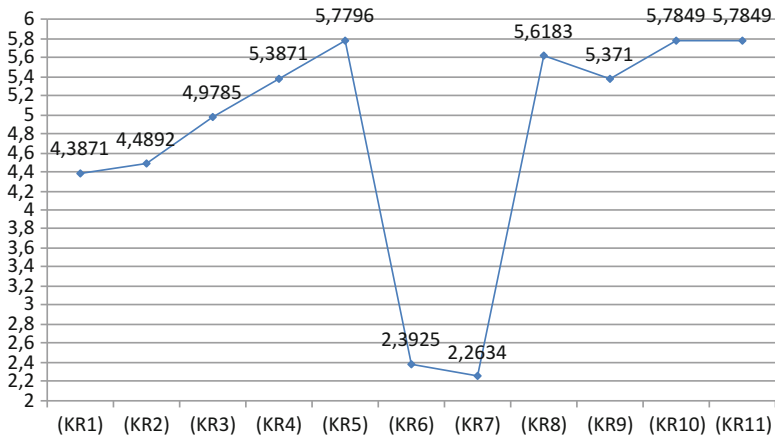


Fig. 5.11 Key results. Source: Authors’ own data

5.5 Conclusions

In this study, we performed a detailed diagnosis of the degree of implementation of quality management in tourist accommodation establishments. Results reveal which critical factors of quality have been applied most by managers and employees of establishments. Importantly, the study also reveals areas for improvement.

Results demonstrate that in the firms analyzed, the management is highly involved in the implementation process, managing and revising its efficacy. In general, the establishments develop and implement strategies and plans considering customer requirements and the establishments’ capabilities. In addition, the management deploys policies that establish realistic objectives for all employees, involving employees throughout the entire process. Conversely, employee management represents the main area for improvement, reflected in the lower scores for employee performance.

The limitations of the study are as follows. First, conclusions cannot be generalized to other tourism subsectors. Second, the data were self-report data from quality managers based on their perceptions. Hence, responses may suffer from a certain bias. We therefore consider it important to perform the same study considering not only quality managers’ responses but also those of different human resources belonging to the business. These responses would offer different points of view. Finally, a third limitation relates to the cross-sectional nature of the study, namely that this study analyzes relationships at one specific moment. Our proposal for future research is to rigorously analyze each critical factor across different tourism sectors.

5.6 Appendix

Leadership

Top management actively manages our quality program and reviews its effectiveness once implemented

Administrators actively communicate a quality commitment to employees

Employees are encouraged to help implement changes in the organization

The management team allows employees to make their own decisions

The management team motivates its employees and helps them to fulfill their work at a high level

The management appreciates the efforts and improvements made by the staff

The management maintains contacts with customers, suppliers, and other external agents and is involved with them in the promotion and participation of alliances and improvement actions

The changes that should be carried out for improvement are identified and boosted by the Management and their effectiveness is reviewed once implemented

Quality policy/planning

Strategies and business plans based on the information about customer requirements and business capabilities are developed and implemented

The management displays the policy establishing realistic targets for all its staff (managers and employees)

The management communicates its strategy and objectives to all staff

The management communicates its strategy and objectives to customers, suppliers, and other external agents in order for them to know them

Staff is involved in setting objectives and plans

Key processes are identified and developed from the business strategies or plans

The results are evaluated by performing a comparison with those planned, with the aim of improvement

Alliances and resources

There is a close working relationship with suppliers

The suppliers are provided with the necessary requirements (quality) of the goods or services

The management encourages the use of a few suppliers, with quality rather than price as the first selection criterion

A management plan for buildings, equipment, and other materials is formulated (form of use, maintenance, insurance, renovations, etc.) to improve the overall performance of the organization

Economic and financial resources are assigned and used adequately so as to ensure the success of the strategy

All important information and the knowledge generated is collected and managed, being such information reliable and easy to use by the relevant personnel

In general, management of alliances and resources is carried out according to the strategy

(continued)

Employee management

Management of human resources in line with the strategy and/or business plans is performed

The management is trained in quality principles

Employees are trained in quality principles

Employees are trained in problem-solving skills

Employees are trained in teamwork

Experience and training of people is adjusted to current and future needs or specific training plans are developed

People are encouraged and supported to take responsibility and make decisions without risk for the organization, to be involved in improvement activities, team work, etc.

There is a transparent system to reward staff achievements and improvements, as well as a social benefits system (pension plan, kindergarten ... etc.)

Employee performance is measured and recognized in order to motivate them and improve their work performance

Communication between all personnel is ascending, descending, and horizontal, so that employees are considered to be well informed and that their opinions are valued

Improvements in human resource management are introduced by using staff satisfaction surveys, regular meetings with employees, performance analysis, etc.

Learning

Managers and supervisors ensure that all employees receive training in order to help them understand how and why the organization performs

Most employees of this company have sufficient knowledge about the basics of the sector

Most employees of this organization understand the basic processes used to create our products/services

All company employees are trained in the concepts of total quality

The company employees are trained in basic statistical tools

Employees receive training to develop teamwork

Availability of resources for staff training within the organization

Top management has established an environment that encourages continuous training

Managers and supervisors participate in specialized training

Process management

Control and continuous improvement of key processes

Prevention of defective services is a strong attitude in this organization

The processes used in this organization include measures to ensure that development of services is consistent with the previous design and subsequent execution (quality measures)

Employees involved in different processes know how to evaluate them

New services in an attempt to access other markets are developed, anticipate the needs of today's market or try to be better than the main competitors

The development of products/services in line with previous designs and later developments is guaranteed

(continued)

Improvement continuous

Service improvements as a result of customer satisfaction surveys, complaints and claims, etc. are introduced

A program to find losses of time and costs in all processes is implemented

Market research is conducted to understand current and future customer needs and as a result improvements in its products, services, and processes are introduced

Specific organizational structures are implemented (quality committee, work teams) to support quality improvement

Areas for improvement are identified

Information is managed to support quality improvement (analysis of business information, cost, and financial aspects to support the development of priorities for improvement)

Increase in direct personal contacts of the organization with customers

Use of customer requirements as the basis for quality

Managers and supervisors support activities that improve customer satisfaction

Customer satisfaction

The company is concerned about collecting information from its customers to measure their satisfaction through surveys, complaints, etc.

Customer satisfaction shows improvement over time

It has a mechanism to hear and resolve customer complaints

Objectives in this context are established and the customer results achieved meet the objectives

The causes of these customer results are analyzed and improvement plans or actions are implemented

All these customer results cover the most relevant areas of the organization

These customer results are compared with those of the main competitors being such comparative favorable or otherwise learning from them

Employee satisfaction

The company collects relevant information to measure employee satisfaction (surveys, meetings, motivation, training, promotion, etc.)

Other indirect indicators of satisfaction like the level of absenteeism, complaints, involvement in improvement programs, staff turnover, etc. are evaluated

Employee satisfaction shows improvement over time

Absenteeism is low

Staff rotation is low

Objectives in this context are established and the results achieved meet the objectives set by the organization

The causes of these results in people are analyzed and plans or actions for improvement are implemented

These employee results cover the most relevant areas of the organization

These employee results are compared with those of the main competitors being such comparative favorable or otherwise learning from them

Social impact

Policies to reduce and prevent risks to health and safety are developed

Environmental protection policies are developed

The company participates in many community activities

The feeling the community has is evaluated through surveys, meetings authorities, etc.

The results in society show improvements over time

Objectives in this context are established and the results achieved meet the objectives set by the organization

The causes of these results in society are analyzed and plans or actions for improvement are implemented

These results in society are compared with the company's main competitors, being such comparative favorable or otherwise learning from them

(continued)

Key results

Our financial results have been excellent
 Our quality program has increased our incomes
 Our quality program has increased our productivity
 Our quality program has improved our competitive position
 Our quality program has improved our performance as a whole
 Our quality program has had a negative impact on our profitability
 We could have had better results without a quality program
 Both economic and noneconomic key results are evaluated, as well as financial and nonfinancial
 Objectives in this context are established and these are met by the key results achieved
 The causes of these key results are analyzed and plans or actions for improvement are implemented
 All these key results cover the most relevant areas of the organization

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Chapter 6

Quality Certifications as Hotel Selection Criteria

Laura Caso, Víctor Iglesias, and Francisco Javier De La Ballina

Abstract Signalling Theory proposes that consumers use quality cues to reduce the risk of adverse selection derived from the presence of information asymmetries in favour of services providers. From this perspective, the present chapter analyses the value of quality certifications as marketing signals in accommodation selection. To this end, factors influencing the use of signals by customers are reviewed in order to propose a model which explains the reasons for the selection of a certified hotel. We focus on first-time guests, as evidence suggests that previous experience with a particular service provider works as an important risk reliever. A survey of 385 Spanish leisure guests evidences the existence of situational and personal factors determining the importance of quality certifications as hotel selection criteria. Use of heuristics depends on customer information search behaviour. In that sense, travel involvement and a pre-trip planning period influence the probability of selecting a certified hotel. On the other hand, there seems to be a relationship between this probability and the level of familiarity with the service. Managerial implications and future lines of research are also discussed.

6.1 Introduction

The relationship between clients and service providers can be seen as an agency relationship in which clients play the role of the principal. As a result, prior to the first buying experience, there is an adverse selection problem derived from the existence of information asymmetries in favour of the agent, that is, the service supplier. As a solution, consumers look for signals that help them to anticipate some level of service quality. The utility of signals as risk relievers is higher when products are

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based on experience attributes, as in hospitality services. In this context, tourists will rely more on signals when booking an unknown accommodation because previous experience works as an important information source in shopping. However, travel circumstances, like length of stay, influence the level of travel involvement or pre-trip planning. This research is aimed at studying the reasons for the selection of a certified accommodation as a way of alleviating the adverse selection problem in first-time bookings.

Certification can be defined as a process that informs consumers about the level of non-observable quality through a system of labels (Auriol & Shilizzi, 2003). As an informative element, it helps to decrease information asymmetries and the adverse selection problem. Moreover, Dewally and Ederington (2006) state that certifications may be the strongest signal that a firm can send to the market. Quality certifications can provide three types of information: (1) objective, if they certify the presence of a particular feature or product characteristic, (2) evaluative, in cases in which quality auditors make brand evaluations or product/service evaluations, and (3) guarantee, in circumstances in which certifications indicate some kind of responsibility derived from the purchase.

According to the Signalling Theory, the role of quality certifications as signals depends on their credibility and on the consumer's perceptions about auditor impartiality or independence (Parkinson, 1975; Phelps, 1949; Taylor, 1958). A literature review seems to support the value of quality certifications as risk relievers in the context of hotel selection. In that sense, Abrate, Capriello, and Fraquelli (2011) show that quality certifications allow providers to set a premium price, whereas Montoro, Luque, Fuentes, and Cañadas (2006) suggest that certifications create positive associations in the consumer mind which could represent a differentiation factor for hospitality firms. Nicolau and Sellers (2010) support the role of quality certifications as signals because they found evidence of an increase in the share value of a Spanish hotel chain after it gained the Spanish Quality Q for Tourism. Peiró-Signes, Segarra-Oña, Verma, Mondéjar-Jiménez, and Vargas-Vargas (2014) analyse the influence of ISO 14001 on hotel guests' ratings. Overall, their results provide evidence of the positive influence of environmental certification on customer ratings, but, as the authors highlighted, they fail to demonstrate causality between being certified and improving hotel ratings. This raises the question of the effectiveness of these certifications and which circumstances have an influence on that effectiveness.

The Signalling Theory postulates that the use of signals by consumers depends on their informational value, but also on the level of the perceived risk which is intrinsically linked to service features and travel situational variables. Thus, certification utility can have important differences, depending on travel circumstances and tourist profiles (travel expertise, etc.). This study is aimed at setting and testing a model that analyses these kinds of variables as antecedents of certified (versus non-certified) accommodation selection. To this end, we adopt the Signalling Theory and the Elaboration Likelihood Model (Petty & Cacioppo, 1981).

6.2 Theoretical Background

According to the Signalling Theory (see Connelly et al., 2011, for a review), the utility of signals as information cues is linked to their specificity, as well as their predictive and diagnostic value. Signal specificity indicates the extent to which a particular signal is specific to a service/product category. Dawar and Parker (1994) show that, *ceteris paribus*, the most specific signals have a higher probability of providing useful information to accurately evaluate service or product quality. Consumers trust highly predictive signals, that is, the cues that allow them to infer a particular product or service feature. This is related to diagnostic value, which is defined as the perceived trustworthiness of the ability of a signal to discriminate between alternative interpretations (Purohit & Srivastava, 2001). Confronted with several signals, it is expected that consumers will use the most specific one and those with higher diagnostic value.

A literature review suggests that first-time visitors base their accommodation selection on signals or particular hotel facilities. In subsequent stays, they will take the previous experience into account to make their decision. However, as we have explained, travel circumstances and pre-trip planning can condition the choice. First, the length of stay can influence the desired service standard (Chan & Wong, 2006; Lockyer & Roberts, 2009). The importance of making the right decision about accommodation is positively related to the length of stay. As a result, a tourist could be more demanding about the expected service quality and the establishment's facilities. Second, travel involvement determines the level of perceived risk and tourist information search behaviour. Moreover, price could become unimportant in the context of a trip to celebrate a special event (Lockyer, 2005). Third, the booking channel determines the number of alternatives that are considered by travellers and their selection criterion, especially the relevance of price (Kim & Kim, 2004; Law & Hsu, 2006). Finally, tourists' familiarity with accommodation services influences the standard of service quality that they are willing to accept and their preferences about hotel attributes in accommodation selection (Chan & Wong, 2006; Dubé & Renaghan, 1999; Knutson, 1988; Weaver & Oh, 1993; Wong & Chi-Yung, 2001).

On the other hand, the Elaboration Likelihood Model (ELM) proposes that there are two routes that influence consumers' attitude changes: a central route and a peripheral one (Petty & Cacioppo, 1981, 1986; Petty, Cacioppo, & Schumann, 1983). Both of them are related to the consumer information search behaviour that determines the relevance of signals in accommodation selection. Travel and tourist characteristics will have an influence on the type of route used by tourists, and, as a result, the relevance of quality certification as a signal. In the subsequent sections, we propose some hypotheses based on the Signalling Theory and the ELM in order to explain the higher or lower probability of certified accommodation selection by tourists.

6.2.1 *Consumer Involvement*

There are two possible approaches to the concept of consumer involvement: permanent or situational. First, Social Psychology defines consumer product/service involvement as the personal relevance or the degree to which they perceive that the product or service is personally relevant based on their needs, values, or interests (Gursoy & Gavcar, 2003; Zaichkowsky, 1985). This is known as permanent involvement. Second, situational or purchase involvement is seen as the change in decision making or purchase selection when consumers consider the purchase occasion as personally relevant (Dholakia, 2001; Zaichkowsky, 1986). According to Dholakia (2001), a higher permanent involvement assures a higher situational involvement.

Consumer behaviour literature measures situational involvement in terms of customer motivation to search and process information, the time and effort dedicated to selecting a product, the number of alternatives considered, or the extension of the decision-making process (Dholakia, 1997; Engel & Blackwell, 1982; Pearce & Kang, 2009). The Elaboration Likelihood Model relates higher consumer involvement to the central route for information processing (Rodríguez, Del Barrio, & Castañeda, 2003). From this view, consumer involvement favours deliberation in decision making. So, higher consumer involvement decreases the probability of using cues or heuristics. On the contrary, in the case of low situational involvement, the use of cues and heuristics will be more frequent. In this sense, Lockshin, Jarvis, D'Hauteville, and Perrouy (2006) found evidence that less involved consumers rely more on price and quality awards to evaluate products.

We expect an inverse relationship between situational involvement and the probability of booking a certified accommodation. As the Elaboration Likelihood Model proposes, the use of a central route for information processing reduces the relevance of signals in decision making, as consumers consider a wider number of attributes and alternatives. In this context, being a certified property would be an additional element, but not a critical one. However, less involved tourists looking for homogeneous service quality will be more prone to use quality certifications as heuristics, so they will tend to choose certified establishments over non-certified ones. In summary, we propose:

H1: tourist travel involvement has a negative influence on the probability of booking a certified accommodation.

6.2.2 *Travel Planning*

The literature suggests that the lack of time to make a decision increases the utility of signals as informative elements and reduces the perceived risk in selection (Dawar & Parker, 1994; Orth & Krska, 2002; Zeithaml, 1988). In those circumstances, the value of a signal is intrinsically linked to its potential to decrease the cost of searching and processing information. So, we expect that when tourists must

make a quick accommodation selection, they will pay special attention to quality signals such as category, price, or a particular brand name. In that sense, quality certifications can also play a relevant role. We propose:

H2: the lack of time for travel planning has a positive influence on the probability of booking a certified accommodation.

6.2.3 Need for Cognition

Consumers with a higher need for cognition are prone to dedicate more time to making a decision. In that sense, Andrews, Durvasula, and Akhter (1990) consider the consumer's need for cognition as an antecedent of purchase involvement, whereas Cacioppo and Petty (1982) suggest that consumers with a higher need for cognition invest more time in looking for information and evaluating alternatives in order to make a purchase decision (Petty, Briñol, Loersch, & McCaslin, 2009).

According to the Elaboration Likelihood Model (Petty & Cacioppo, 1981, 1986; Petty et al., 1983; Petty, Heesacker, & Hughes, 1997), when the central route for persuasion is activated, consumers use their knowledge or previous experience to thoroughly evaluate all of the information they have, whereas in the case of the peripheral route, the presence of some cues stimulates an attitude change, as consumers use these cues to make inferences about the information provided by the firm. In this context, consumers with a higher need for cognition are more likely to be involved in the central route (Petty et al., 1997). Moreover, from the Signalling perspective, Chatterjee, Heath, and Mishra (2002) show that the use of signals is higher among consumers with a lower need for cognition.

The need for cognition can be taken as a personality trait of tourists that is related to their information search behaviour before booking an accommodation. As the Elaboration Likelihood Model states, we expect that the travellers with a lower need for cognition are more likely to make a decision based on the presence of a quality certification (as a cue), whereas those with a higher need for cognition will take into account much more information before making a reservation. As a result, being a certified establishment will be less relevant. So, we propose:

H3: tourists' need for cognition has a negative influence on the probability of booking a certified accommodation.

6.2.4 Service Category Risk

The difficulty of evaluating quality, joined with the perceived service differences between providers, as a proxy of service category risk, is an indicator of perceived risk in accommodation selection. Studies in product categories provide evidence a higher use of cues, such as brand or price, in the context of high perceived differences between purchase alternatives (Lambert, 1972; Shapiro, 1973; Tsao, Pitt, & Berthon, 2006).

Tourists who perceive a higher variability between services providers will find more difficulty in anticipating service quality before travelling to a particular destination, so we expect that they will take into account a wide variety of quality signals, especially quality certifications, as their primary goal is to guarantee uniformity in service provision. From this perspective, a higher probability of selecting an establishment which offers the signal will be entailed, so:

H4: service category risk has a positive influence on the probability of booking a certified accommodation.

6.2.5 Service Familiarity

Consumers' expertise or familiarity with a service improves their capacity to infer quality, which decreases their uncertainty about purchase decisions (Arnthorsson, Berry, & Urbany, 1991; Laroche, Bergeron, & Goutaland, 2003). However, the literature is not conclusive about the relationship between product or service familiarity and prepurchase information search behaviour.

Some researchers have found evidence that consumers who repeatedly use a service category have a more developed mental image about it, so they can easily evaluate new alternatives (De Bont & Schoormans, 1995; Wirtz & Mattila, 2003), which stimulates information searches before purchasing (Beatty & Smith, 1987; Sambandam & Lord, 1995). In terms of the Information Economy, consumer familiarity with a service or product category reduces the cost or cognitive effort associated with an information search and increases its benefits (Brucks, 1985). As a result, there would be a positive relationship between customer familiarity with a product or service and the level of information search before buying.

On the other hand, Johnson and Russo (1984) show that, when consumers make their decision, there is an inverted-U relationship between the level of familiarity and learning (recorded information), so consumers use their higher knowledge to simplify or decrease the information search. In this sense, Bettman and Park (1980) found evidence of a positive relationship between the level of previous knowledge and information search behaviour for consumers who have low-moderate knowledge, whereas the relationship is negative for customers with higher knowledge. However, Punj and Staelin (1983) tested and rejected the inverted-U hypothesis.

Finally, some researchers highlight that consumers gain knowledge through their previous experiences with a particular product category, so they will use a lower number of external sources of information in their future purchases (Kerstetter & Cho, 2004; Molina, Esteban, & Martín, 2007; Punj and Staelin, 1983; Zalatan, 1996).

On the other hand, there is no consensus about the influence of familiarity on the use of quality signals, although this discrepancy could be due to the existence of differences in terms of the type of quality cue or product/service category taken into account by each researcher.

According to Rao and Monroe (1988), consumers who are highly familiar with a product can judge its quality from intrinsic and extrinsic attributes, so they will only use signals with a high diagnostic value. Similarly, Rao and Sieben (1992) found evidence that consumers with higher knowledge limit the use of quality cues to circumstances in which these signals are reliable and precise quality indicators.

Empirical evidence suggests that previous experience with a particular product stimulates the use of brand name in information processing (Bettman & Park, 1980; Chocarro, Cortiñas, & Elorz, 2009; Grewal, Krishnan, Baker, & Borin, 1998), although DeVecchio (2001) found a negative influence and González, Díaz, and Trespalacios (2006) found a lack of relationship.

In the Tourism and Hospitality area, previous experience can allow frequent travellers to anticipate service quality from the presence of particular hotel attributes. As we have mentioned, the literature suggests that customers familiar with a service category use only those signals considered to be reliable quality indicators. We expect that frequent travellers will be familiar with the most popular hotel chains and with the standards of quality. In that sense, Wong and Chi-Yung (2001) found evidence that price is the main reason for accommodation selection among infrequent travellers, whereas the segment of frequent travellers pays special attention to establishment category or familiar brand names.

Repeated service use can stimulate a learning process that allows tourists to identify quality signals with a higher diagnostic value. In this context, we expect that they link certifications to service suppliers that are more committed to service quality. Moreover, the probability of having a previous experience in a certified establishment will be greater. So, we propose:

H5: travel frequency has a positive influence on the probability of booking a certified accommodation.

6.2.6 Control Variables

There are other aspects that can be related to the selection of a certified establishment, so we take them into account as control variables. First, the length of stay can condition the perceived risk and travel involvement. Second, the selection of a certified establishment can be related to the use of the Internet as a reservation channel. Tourists who make an online booking can compare a higher number of alternatives quickly and effortlessly. Moreover, the Internet could make the room price more noticeable, which could be a disadvantage for establishments that have higher service standards and rates, as certified accommodations. However, other studies suggest that online booking reinforces the importance of certifications as a choice attribute. Kimery and McCord (2002), in the case of e-security seals in e-commerce, show that the Internet allows customers to know the meaning of seals by clicking on their logos, which increases their influence on customers' decision making. Therefore, we think that it is advisable to take the reservation channel into account as a control variable in our model.

6.3 Methodology

6.3.1 *Sample and Variables*

This study is aimed at clarifying the role of certifications as quality signals and the reasons for choosing a certified accommodation. In order to contrast our hypotheses, we focused on leisure trips and designed an online questionnaire to get information about trip and tourist features, as well as the selected accommodation in the context of a particular destination. We collected data through an online questionnaire.

The variables used to contrast our hypotheses are shown in Table 6.1. First, our dependent variable is CERTF, a dummy variable reflecting whether or not a tourist selected a certified accommodation. A hotel is considered to be certified when it has at least one of these quality seals: Spanish Quality Q for Tourism, ISO, or EMAS. Second, the independent variables were based on the literature review. Following Dholakia (2001) and Gursoy and Gavcar (2003), we measured travel involvement (INV) as the perceived importance of the trip and making a good accommodation choice. Taking into account our research goals, we created three items to know the length of the pre-trip planning period (PLANI). In relation to tourist features, we adapted the scale of Wesley, Lehew, and Woodside (2006) about consumer decision-making styles in retailing to measure the level of information search behaviour before booking as a proxy of tourist need for cognition (NC). Service category risk (CR) was measured through an adapted version of Burnham, Frels, and Mahajan (2003) scale of perceived heterogeneity for insurance and long-distance or local telephone service. Seven-point Likert-type scales, with responses ranging from strongly disagree (1) to strongly agree (7), were used to measure these independent variables. Further, we used the number of business and leisure trips per year to approximate travel frequency (TF). Finally, we included, as control variables, the length of stay (LS) and the online booking channel (WEB).

The questionnaire was pretested in order to correct any comprehension mistakes, and some improvements were introduced. Next, we used the LimeSurvey software to design an online version that, once again, was pretested by several Marketing professors before starting the field work. At the same time, the website “tourismandquality.com” was opened to allow respondents to access it. Two control methods were used to avoid the possibility of double responses: a cookie to recognise the respondent IP and a cookie to recognise the respondent email.

We took several steps aimed at using a convenience sample. On the one hand, we elaborated a database with 3,088 emails from AEMARK and the University of Oviedo directory and used it to send a link to the questionnaire, together with a cover letter. On the other hand, we used LinkedIn and Facebook to send this link to professional and personal contacts. At the same time, we asked them to collaborate in the delivery of the questionnaire through their own networks. The use of different contact points allowed us to get a heterogeneous sample in terms of age and socio-economic variables. After completing the field work, we obtained 1,125 completed questionnaires, although we had to eliminate 78 invalid ones, so the final sample

Table 6.1 Variable description

Variable	Measures and items	Source
Certification (CERTF)	Dummy variable 1: Certified accommodation 0: Non-certified accommodation	Designed by authors
Travel involvement (INV)	Involvement in trip planning and accommodation booking Travel relevance Interest in making a good accommodation choice The trip was a consequence of a last minute offer I decided the trip details a few days before travelling The trip was almost spontaneous	Dholakia (2001) Gursoy and Gavcar (2003)
Travel planning (PLANI)	I spend a lot of time on searching for information about accommodations, with the aim of finding the best offer I make a detailed search for information to find the best value for the money I pay high attention to total rate when booking an accommodation I invest a great effort to find accommodations with the highest standard of quality	Designed by authors
Need for cognition (NC)	Service quality shows important differences between accommodation providers Accommodation facilities are very variable	Wesley et al. (2006)
Service category risk (CR)	Number of business and leisure trips in the last 12 months staying in a collective establishment	Burnham et al. (2003)
Travel frequency (TF)	Number of nights booked Dummy variable 1: Online booking 0: Booking by phone, travel agency, or other means	Designed by authors
Length of stay (LS)		Designed by authors
Online booking (WEB)		Designed by authors

comprised 1,047 respondents. In that sense, to qualify for the study, tourists had to provide information about a leisure trip to a national destination during which they stayed at a public accommodation for at least one night, and we excluded cases in which the tourist had been a client of the selected hotel in the past. So, for this study, we used a subsample of 385 tourists.

Before model estimation, a validity test of scales was performed using the software EQS for Windows. We performed a confirmatory factor analysis because our scales were based on the literature review. The overall fit indexes are indicative of a good fit of the model to the data (GFI=0.960, AGFI=0.935, SRMR=0.050, RMSEA=0.064, CFI=0.961, NFI=0.948). Regarding reliability, all of the constructs manifest composite reliability (CR) and average variance extracted (AVE) greater than the recommended threshold values of 0.7 and 0.5, respectively (Bagozzi and Yi, 1988). With respect to validity, convergent validity is supported, as all the standardised lambda parameters are significant and greater than 0.5. Discriminant validity is supported. The maximum value of the correlations between constructs is .371. The correlations among all the variables show confidence intervals that do not include the unit value, and their squared value does not exceed the AVE of the corresponding constructs (Fornell and Larcker, 1981). Table 6.1 shows the final scales used in the model estimation.

A Logistic Regression was carried out to test the hypotheses because the dependent variable is dichotomous. The study is aimed at clarifying the reasons why tourists prefer a certified accommodation. From a methodological perspective, this decision depends on the utility derived from each alternative, that is:

$$U_{it} = V_{it} + \varepsilon_i = \sum_{k=1}^K \beta_k x_{ik} + \varepsilon_i$$

where U_{it} utility function of i alternative for t individual, V_{it} deterministic component of utility function, ε_i random component of utility function, β_k estimated coefficients of model variables, x_{ik} value of K variable for t individual linked to i alternative.

The probability of selecting i alternative is:

$$P_{it} = \frac{\exp\left(\sum_{k=1}^K \beta_k x_{ik}\right)}{1 + \exp\left(\sum_{k=1}^K \beta_k x_{ik}\right)}$$

6.3.2 Results

The model was estimated using STATA 10.0 software. The estimation results are shown in Table 6.2. The LR Test confirms the significant effect of the model variables in explaining accommodation selection.

Table 6.2 Model estimation

				Number of obs = 385		
				LR chi2(7) = 29.06		
				Prob > chi2 = 0.0001		
Log likelihood = -141.56039				Pseudo R2 = 0.0931		
Variable	Coef.	Std. Err.	z	P > z	[95 % Conf. Interval]	
INV	-0.3404421	0.1474287	-2.31	0.021	-0.629397	-0.0514873
PLANI	-0.2440685	0.1354152	-1.80	0.071	-0.5094773	0.0213404
NC	-0.2003666	0.1400455	-1.43	0.153	-0.4748509	0.0741176
CR	0.2284882	0.1381353	1.65	0.098	-0.042252	0.4992283
TF	0.0565343	0.0200807	2.82	0.005	0.0171769	0.0958917
LS	0.1257432	0.042844	2.93	0.003	0.0417705	0.2097158
WEB	0.5677599	0.3285275	1.73	0.084	-0.0761421	1.211662
Cons	-1.014135	1.084923	-0.93	0.350	-3.140545	1.112274
LL(C): -156.092	LL $\hat{\beta}$: -141.560		LR (7): 29.064			Prob > LR:
						0.000
R^2_{McF} : 0.093	R^2_{McF} adjusted: 0.042					
AIC: 0.777						
BIC: -1961.252						

As H1 proposed, tourist involvement has a significant and negative influence on the probability of choosing a certified accommodation. It seems that travel involvement influences the role of quality certifications as quality cues. When tourists are highly involved in their holidays, they invest more time and effort in searching for information about accommodations, which decreases certification salience.

H2 proposed a positive relationship between the lack of time in travel planning and the selection of a certified accommodation. This hypothesis is rejected. Our results suggest that tourists who have to make a quick decision do not take quality certification into account as a selection criterion ($\alpha < 0.1$). In this context, tourists could rely on signals that are easily identifiable, like price, or on recommendations from their relatives or friends. Moreover, sometimes, it is difficult to know if an accommodation is certified, which would decrease its relevance if tourists were not willing to invest time in searching for information. On the other hand, in these situations, tourists could be more flexible about their quality standards, which could be a disadvantage for certified establishments.

The results do not support H3 because the relationship between tourists' need for cognition and certified accommodation selection is negative, but not significant. The results suggested that the probability of making a selection based on signals could be higher among those tourists with a lower need for cognition.

As H4 stated, service category risk had a significant and positive influence on the propensity to book a certified accommodation. However, the coefficient is only marginally significant (two-tailed $p < 0.1$). Tourists who perceived high differences between the standard of services provided by each supplier relied on certifications as risk relievers. It appeared that quality marks assured some uniformity in quality provision.

The estimations supported H5, as travel frequency had a positive and significant influence on certified accommodation selection. Tourists who were more familiarised with a service category were able to identify quality signals with a higher diagnostic value, so they gave more value to certifications as service guarantees.

In terms of the control variables, length of stay had a positive and significant influence on certified accommodation selection. Quality certifications were more relevant for longer stays, which confirmed their role as risk relievers. At the same time, online booking increased the probability of choosing a certified supplier. As the literature suggested, the Internet allowed tourists to know the implications of certification in an easy way, stimulating their use as quality cues. In that sense, certified accommodation reviews could be more positive, which would make them more valuable as a selection criterion.

6.4 Conclusions

This research was aimed at explaining the role of quality management certifications as risk relievers. The results show that the use of signals is intrinsically linked to situational as well as personal factors. The study supports the validity of the Elaboration Likelihood Model and the Signalling Theory as theoretical explanations for certified accommodation selection.

As the Signalling Theory proposes, the relevance of cues is higher in low involvement situations. In line with Elaboration Likelihood Model propositions, tourists who are more worried about the consequences of making a wrong accommodation selection make more elaborated decisions. An extensive information search reduces the relevance of signals. In this context, quality certification is an important, but not determinant, selection criterion.

Contrary to Signalling Theory arguments, our results suggest that the relevance of signals is lower when tourists have less time for travel planning. However, we consider this discrepancy to be due to the type of signal used in our investigation. Quality certifications suffer from awareness limitations, so when tourists have to make a quick selection, they could rely on more familiar signals, such as brand name or price.

From Elaboration Likelihood Model propositions, we anticipated a negative relationship between tourists' need for cognition and the use of heuristics, such as quality certifications. However, our results do not support this hypothesis, although the estimated coefficient has the expected negative sign.

The estimation results give some support to the higher utility of signals in risky service categories. In that sense, tourists who perceive more differences between hospitality providers are more prone to select a certified accommodation.

This investigation contributes to the debate about the relationship between consumer familiarity with a service category and the use of signals. Our results support the existence of a positive relationship between travel frequency, as a proxy of service familiarity, and the relevance of quality certifications as highly diagnostic signals.

On the other hand, our research shows the relevance of travel situational variables as determinants of tourists' information search behaviour and the relevance of signals. In that sense, the length of stay increases the probability of selecting a certified establishment, because it reduces the risk of making a wrong decision. It seems that tourists view certifications as good indicators of a minimum service quality level, which increases their value in contexts of higher perceived risk, as in bookings for longer stays. At the same time, the Internet, as a booking channel, favours certified providers, presumably because it makes it easy to know the meaning of their logos.

Several managerial implications can be drawn from our study. First, the study shows that, although quality certifications help to decrease tourists' perceived risk, they suffer from an awareness problem. As a result, their relevance as a selection criterion decreases in cases of lack of time for travel planning, or, in very different situations, when tourists make elaborated decisions. So, it seems necessary for companies to communicate the meaning of certifications and their implications in order to make them a source of competitive advantage. Certified accommodations should make their clients aware of the role of quality seals as service guarantees. Second, our research provides evidence that frequent travellers tend to book a certified accommodation. Familiarity with hospitality services allows tourists to identify quality certifications as trustworthy indicators of a certain standard of service. However, tourists who have less time for travel planning or those searching for last minute offers do not pay attention to certifications. As a consequence, quality certifications are especially useful as a marketing tool for establishments aimed at frequent travellers and those most concerned about service quality who use signals as risk relievers in decision making. Third, online booking seems to increase the probability of choosing a certified accommodation, so we recommend highlighting certification logos on accommodation websites or informing tourists about the certificated status on any other page of the website, because it could help to attract clients throughout the websites of third-party online distributors.

Our study is subject to some limitations. First, there is the subjectivity of the data derived from using personal questionnaires for information collection. However, we had to assume this limitation because we wanted to analyse tourists' accommodation selection criterion. Second, there might be some interaction effects between the variables of the model and variables outside the model, for example, certification awareness. Third, the role of certifications might be different in different types of tourism: leisure, health, business, and rural. New studies are necessary to analyse these differences. In spite of these limitations, we hope to shed some light on the role of quality certifications as signals.

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Chapter 7

Tourism for All and Performance: An Analysis of Accessibility Management in Hotels

Arturo Calvo-Mora, Antonio Navarro-García, and Rafael Periañez-Cristóbal

Abstract Tourism is a first-order social commodity which must be within the reach of all citizens, irrespective of their personal, social, and economic circumstances. In this sense, the accessibility of tourist installations and services helps to guarantee the right of all people to enjoy leisure (Tourism for all). Furthermore, accessibility is a characteristic of a tourist product's quality which is increasingly more valued by customers. This is why there is a growing interest in accessibility management and understanding its impact on the improvement of the performance and image of tourist organizations. In our work we analyze the key aspects of accessibility management in a sample of hotel establishments, as well as the perception of their managers concerning the benefits of this management. The results show the strong commitment of hotel managers toward accessibility (leadership and strategy), although deficiencies are observed in aspects related to staff training and the involvement of the firm in the networks, forums, and associations which try to strengthen tourism for all. Finally, hotel managers are aware that the bettering of accessibility is a differentiation factor and improves the external image of their hotels. This can have positive economic repercussions for the business in the medium and long term.

7.1 Introduction

Tourism has become a very important social phenomenon which mobilizes millions of people all over the world, especially in Europe. Tourism is a factor of progress and a decisive element for improving knowledge, communication, and the degree of relationship and respect between citizens of different countries. Moreover, the tourist activity is a complex economic phenomenon whose varied range of products and services affects more than 100 economic branches in the different environments in which it operates (González Velasco, 2008).

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In Spain, the tourist sector is one of the greatest driving forces of the economy. The contribution of the tourist activity to the Gross Domestic Product (GDP) grew 0.6 % in 2013, leaving behind the recession of 2012. Exceltur forecasts that the tourist GDP will have increased by 1.8 % at the end of 2014. As Domínguez Vila, Fraiz Brea, and Alén González (2011) indicate, more than 15 % of firms are related to tourism, employing more than 20 % of the population.

In spite of these favorable statistics, the tourist sector carries out its activities in a globalized and turbulent economic environment in which new trends and challenges can be glimpsed. This is why a debate has been generated in recent years concerning the present and future of the tourist sector in Spain. In this sense, the most worrying aspects are the excessive speculation in sun and beach tourism, the surplus of hotel rooms, their low quality and scant renovation, the emerging competition of other destinations, and the drop in incomes as a consequence of the difficulties to maintain the occupation rate (Alonso López & Dinarés Quera, 2006).

Due to this, the tourist industry must seek diversification strategies which will broaden its competitive area. This can be done through added values which positively influence the tourist experience and attract new segments of the market (Serrano Bedia, López Fernández, & Gómez López, 2007). Price-based competition will cease through this strategy and there will be a move to competing in quality and value added. This will affect the generating of profits, both tangible (greater incomes and profitability) and intangible (improvement of image) for tourist firms.

In this context accessible tourism—or tourism for all—can take on an important role in the development of the tourist industry. This can take place not only by contributing added values to the tourist experience but also via differentiation and specialization in a segment of customers which is not being dealt with appropriately by the tourist industry (Kastenholz, Eusébio, Figueiredo, & Lima, 2012; Kim, Stonesifer, & Han, 2012).

What is more, we must not forget that tourism is a first-order social commodity which must be within the reach of all citizens, irrespective of their circumstances, whether these be personal, social, economic, or of any other kind. All these factors must be taken into account in the open debate about the future of the sector, the changes in the demand and the need for a greater quality and value added in the offer of services (Calvo-Mora, Criado, & Ortega, 2010). Currently, and in spite of the advances made in applying parameters of accessibility, disabled tourists continue coming across a series of barriers which hinder, and in most cases prevent, their access to and enjoyment of the activities which come within the tourist sector: travel agencies, transport, accommodation, the restaurant industry, and its additional offer (Fernández Alles, 2009b). To sum up, the problems of accessibility affect all the tourist cycle (booking, accommodation, and tourist services), as well as involving both public and private agents, and there is a wide variety of urban, architectural, information, and awareness barriers (Yau, McKercher, & Packer, 2004).

In this context, our work concentrates on the analysis of the accessibility of hotel accommodation. This represents more than 25 % of the tourists' total spending (CERMI, 2005). Furthermore, the general valuation of the accessibility in these

accommodations is far from ideal, either due to the lack of information and awareness of those in charge of the establishments concerning the social and economic benefits of accessibility, or because they do not know who the main beneficiaries of accessible tourism are (Fernández Alles, 2007).

Our work therefore proposes the following aims:

1. To analyze the commitment and leadership of those in charge of hotel establishments regarding accessibility as a key factor of social integration and a source of business differentiation.
2. To study how hotel establishments manage accessibility based on key business aspects such as strategy, people, resources, and processes.
3. To look into the knowledge that hotel managers have about the potential benefits of accessibility for their establishment's performance and image.
4. To go deeply into the impact that specific contextual variables such as the age, size, and category of the hotel establishment and its management system having some kind of recognition have on accessibility management and the perception about its benefits.

To fulfill these aims, the work begins by presenting the concepts of disability, accessibility, tourism for all, and other related terms. Later, we set forth the main legislative texts and reference norms about accessibility which should be taken into account in hotel establishments. After, we describe the main benefits of tourism for all and the key elements of accessibility management. Finally, taking a sample of hotels as a reference, we analyze the most relevant aspects of accessibility management and their impact on performance and image.

7.2 Disability and Accessibility

7.2.1 Concept and Types of Disabilities

The group most affected by problems of accessibility to the environment in general and tourist products and services in particular are the disabled and those with reduced mobility.

The World Health Organization (WHO) defines disability as the restriction or absence of ability to carry out an activity in the way or within the range which is considered to be normal for a human being and identifies four types of disability: intellectual, physical or motor, auditory, and visual (World Health Organization, 2005).

There is also another very important group: people with reduced mobility. That is to say, people affected by circumstances which cause a temporary restriction of mobility or other faculty, reducing their independence and autonomy. This group includes the elderly, pregnant women, people with broken limbs, people who are transporting prams, packages or luggage, etc.

In practice, the use and normal enjoyment of the environments and services which we find in any developed society are affected by there being a series of barriers. In this sense, Martín Pérez and González Velasco (2003) differentiate three types of barriers which affect the disabled or people with reduced mobility:

- Intrinsic barriers: linked to the levels of the physical, psychological, and cognitive functionality of each person.
- Environmental barriers: those specifically imposed by the physical or social conditions of the environment (architectural, transport, ecological, communication barriers or those that are simply attitudinal or due to rejection).
- Interactive barriers: these are related to the ability required for specific activities concerning the communication and interaction with people and the environment.

Logically, eliminating these barriers is an essential step for people who are disabled or have reduced mobility to be able to enjoy tourism on equal terms.

7.2.2 From the Elimination of Barriers to Universal Accessibility

There is not a unique and generally accepted definition of the term accessibility. In this sense, different associations, legislative, professional, and research bodies use the term in accordance with their own traditions and proposals (Alonso López & Dinarés Quera, 2006).

In recent years there has been an important conceptual change and new terms have come up. Among those which stand out is that of the White Paper on Accessibility (2003) for which accessibility is the set of characteristics which an environment, a product, or a service should have to be used comfortably, safely, and in equal conditions by all people and, in particular, by those who have some disability.

The Decree 293/2009, of July 7th, by which the regulation was passed which regulates the norms for accessibility in infrastructures, urbanism, building, and transport in Andalusia defines accessibility as the set of characteristics of infrastructures, of urbanism, of buildings, establishments and installations, transport, and communications which allow any person to use them and enjoy them safely and autonomously.

In essence, an accessible environment must be (1) respectful with diversity, (2) safe and healthy, (3) functional, (4) comprehensible, and (5) aesthetic.

It is to be highlighted that in recent years, there has been an important qualitative change when understanding and conceiving accessibility. In this vein, accessibility must not only include eliminating barriers and environmental obstacles (measures which are a posteriori and very expensive) but also involve solutions from the outset or a priori. That is to say, conceive all that is created or newly designed without barriers. In this way arises what is known as Universal Design or Design for all.

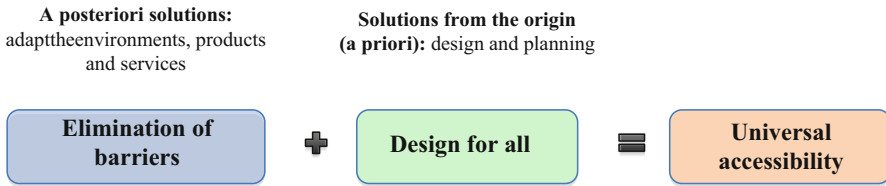


Fig. 7.1 Qualitative leap forward of accessibility. Source: Own elaboration

The origin of this concept is located in the Center for Universal Design of the North Columbia State University (EE.UU.) in the last quarter of the twentieth century (Connell & Sanford, 1999). The basis of Universal Design is the recognition of diversity. That is to say, assuming that the human dimension cannot be defined via capacities, measures, or standards, but must be considered in a more global manner in which diversity is the norm, not the exception (Domínguez Vila et al., 2011).

Soret Lafraya (2005) defines Universal Design as the process of creating products, services, and environments which are usable by the greatest range of people possible and covering the most varied type of situations possible. In this way a better product for all will come from a design which has taken into account greater difficulties. A fruit of applying Universal Design to solve problems of the accessibility of the environment comes from the concept of Universal Accessibility (Fig. 7.1).

7.3 Social Tourism, Accessible Tourism, and Tourism for All

7.3.1 Origin and Definitions

In the World Tourism Organization’s *Manila declaration* (1980), the word tourism was associated for the first time with accessibility and tourism was recognized as a fundamental right and a key vehicle for human development.

Another important landmark is the Tourism for all report (1989), worked out by a group of experts from the United Kingdom and which formed the basis for tourism for all. This report shows (1) the appeal and potential of the market represented by people who are disabled and/or have reduced mobility; (2) the existence of important barriers which cause a lack of equality between a disabled tourist and one who is not when enjoying leisure and tourism; (3) the consideration that Tourism for all is a differentiated tourism which has a greater quality; and (4) the important role that the Public Administrations play in enforcing legislation and promoting and giving momentum to Tourism for all.

In this sense, the opinion of the European Economic and Social Committee “For tourism that is accessible to all people and socially sustainable” of 2003 establishes that the public powers will have to promote programs and actions aimed at fostering

accessibility and progressively eliminating the barriers that prevent or make it difficult for disabled people to safely and comfortably access satisfactory tourist services. Furthermore, the Opinion notes the need for the promotion of accessible tourism to be also the responsibility of all private sources (tourist operators, travel agents, suppliers of transport and accommodation, those in charge of tourist attractions, etc.) which operate in the tourist sector. Finally, it is pointed out that the accessibility of tourist goods and services must not come solely from an imposition of the public administrations, but from the free decision of tourist agents. They must be convinced that Tourism for all is, as well as a social responsibility, a business opportunity and a competitive advantage for the tourist products and services that they offer.

Speaking of tourism that is accessible and for all, it is necessary to refer to what is called social tourism understood as the set of tourist services and activities organized for the segments of society which are at a disadvantage Rubio (1989). Social tourism sets out from a broader conception of its potential beneficiaries, as its aim is to fight against inequalities and the exclusion of all those who have a different culture, have fewer economic means, or live in less favored regions (Martín Pérez & González Velasco, 2003). On the other hand, accessible tourism deals with the issue of eliminating physical, psychical, and sensorial barriers that people with some kind of disability or reduced mobility still find when being tourists. Finally, tourism for all is that which is proposed, designed, and developed thinking that leisure and free time tourist activities can be enjoyed by all kinds of people (Domínguez Vila et al., 2011). In essence, tourism for all is not limited to the elimination of physical, sensorial, or communication barriers but has the aim of ensuring that tourist environments and services can be enjoyed on equal terms by any person, disabled or not disabled.

7.3.2 Legislation and Normalization in Accessibility and Tourism for All

As Fernández Alles (2009a) and Santos (2009) point out, Spain lacks a specific regulation about accessible tourism and tourism for all. There is an important legislative body but it is dispersed in different sectorial area norms (tourism, disabilities, urbanism, and transport). Moreover, according to the constitution, tourism is a competence that has been transferred to the Autonomous Communities and almost all of them have their own Tourism Law and its corresponding regulations. Next, we will present the main Spanish and Andalusian legislative frameworks concerning disabilities, equal opportunities, nondiscrimination, accessibility, and tourism:

Spain

- The Spanish Constitution of 1978. Articles, 9, 10, 14, 19, and 49. These deal with guaranteeing the exercise of the fundamental rights of the citizens based on the principle of equality and nondiscrimination. In this sense, accessibility is an

includible requirement to guarantee the exercise of the fundamental rights of the citizens on a basis of equality and nondiscrimination.

- Royal Decree 1/2013, of November 29th, passing the Recast Text of the General Law of the rights of disabled people and their social inclusion.
- Royal Decree 314/2006, of March 17th, passing the Technical Building Code (TBC).
- Royal Decree 505/2007, of April 29th, approving the basic conditions of accessibility and nondiscrimination of disabled people for the access to and use of urbanized public spaces and buildings.
- Royal Decree 173/2010, of February 19th, modifying the TBC passed by the Real Decree 314/2006, of March 17th, in matters of accessibility and the nondiscrimination of disabled people.

Andalusia

- Decree 72/1992, of May 5th, approving the technical forms for accessibility and eliminating architectural, urban, and transport barriers in Andalusia.
- Decree 293/2009, of July 7th, approving the rule regulating the norms of accessibility in infrastructures, urbanism, building, and transport in Andalusia.
- Law 13/2011, of December 23rd, of Tourism in Andalusia.

As we see, there is a very broad and transversal legislation in the area of accessibility and tourism. A sample of this is that in the USA there is a single mandatory norm in accessibility (Grady & Ohlin, 2009), while in Spain there are around 50. A reflection of this fact is that, for example, if we wish a room of tourist accommodation to comply with the legislation in force, we should take into account the National level, the TBC, the Andalusian Community level, the Decree 293/2009, of July 7th, and the Law 13/2011, of December 23rd.

Despite the obligatory character of the prior legislation, in practice a systematic noncompliance exists, either due to unawareness of it or because of the tremendous difficulty of complying with and adapting the legislation to each part of the national territory.

Faced with this legislative panorama, a good solution is to opt for following a voluntary norm of accessibility which enables us to comply with the legislation in force (local, autonomous, and national). The Spanish Association for Standardization and Certification (AENOR) has had the norm UNE 170001 on Universal Accessibility since 2007.

This norm has two parts (AENOR, 2007):

- *UNE 170001-1. DALCO requirements* (Ambulation, Apprehension, Location, Communication). This norm establishes the conditions which an environment must meet in order for its users to be able to overcome the limitations of accessibility in which they find themselves. By complying with these requirements, the organization will be prepared to guarantee that it is accessible and that this accessibility is not temporary but will be maintained over time.
- *UNE 170001-2. System of management of universal accessibility*. This means a social commitment of the organization to the equality of rights and opportunities

for all people, regardless of their capabilities. In this way, any customer who wishes to access an environment and receive the services it offers will be able to do so, given that the firm will have made its environments accessible and will have taken into consideration the processes of offering services in such a way that these reach all people. Furthermore, once the management system of a certification which is compatible with the ISO 9001 quality certification has been implemented, it shares with this norm the very tools of management systems such as planning, aims, and corrective actions. It adds the perspective of universal accessibility which is not covered by traditional quality management systems. Since 2003 there have been different organizations which have opted for this scheme of certification. The Guggenheim Museum in Bilbao was the first. Until now 41 certificates have been issued to firms and administrations from diverse sectors such as banks, beaches, passenger transport, service stations, malls, and hotels (AENOR, 2014).

This norm is applicable to all those sectors—both public and private—in which citizens use public services, such as transport, constructed spaces such as hospitals, primary health clinics, universities, City Hall agencies, Autonomous Communities, and the Central Administration. It is also applicable to any business location, related to either customer support (hotels, malls, museums, distribution networks, bank offices, sales points, supermarkets, residences) or labor environments of any public or private organization.

There is also a series of more specific and technical norms, such as the following:

UNE 41510: 2001. Accessibility in urbanism. This includes the requirements that all urban elements must comply with—including definitive or provisional street furniture—in order to facilitate the movement and use of all citizens.

UNE-ISO 21542: 2012. Building. Accessibility of the constructed environment. This international norm establishes a range of requirements and recommendations for many elements of construction, sets, components, and accessories which the constructed environment is made up of. These requirements and recommendations refer to the constructional aspects of the buildings: access, interior movement, and exits for normal situations and for emergency evacuations.

7.4 Benefits of Tourism for All

The quality of the tourist product depends on many tangible and intangible factors, amongst which is accessibility. This characteristic is critical and indispensable for people who have some kind of disability or reduced mobility (Kim et al., 2012). What is more, the segment of the population which demands accessible tourism has become an increasingly more important market for the tourist industry. Without doubt the improvement of tourist accessibility is a business opportunity for the Spanish tourist sector (economic aspect), but it also helps to configure a fairer

society (social aspect). As Darcy and Pegg (2011) note, accessible tourism provides a high quality experience for disabled people which can be a source of innovation and competitive advantage in a very dynamic business environment. Darcy (2010) adds the fact that the cost of being accessible is small in comparison with the future benefits which can be obtained in the medium and long term. One must not forget that an accessible environment is also more comfortable for disabled people. That is to say, accessibility is a characteristic of the tourist product that is indispensable for 10 % of the population, necessary for 40 %, and comfortable for 100 %.

Tourism for all also aims to deal with a growing segment of the market. In Spain there are 3.85 million disabled people, in Europe more than 53.3 million, and about 500 million in the world (González Velasco, 2008). In this line, the United Nations Organization estimates that 21 % of the world population will be over 60 years old in 2050. In Spain, according to the INE (National Institute of Statistics), the number of people over 65 will then represent around 30 % of the population. This is why eliminating barriers and building accessible environments can increase the market quota and the possibilities of many tourist firms (Stumbo & Pegg, 2005) (Fig. 7.2).

From an economic point of view, the fostering of accessible tourism offers great business opportunities. First, the segment of disabled people can be considered “multi-customer.” That is to say, most people who are disabled or who have reduced mobility do not travel alone but accompanied by family and friends. This is why there is an increase in spending and the occupation rate of the establishments, as well as the level of use of tourist services. Second, it is a question of a segment which has a high purchasing power, spending more than the average tourist. Disabled people spend an average of 89.3€ per day, while people without disabilities

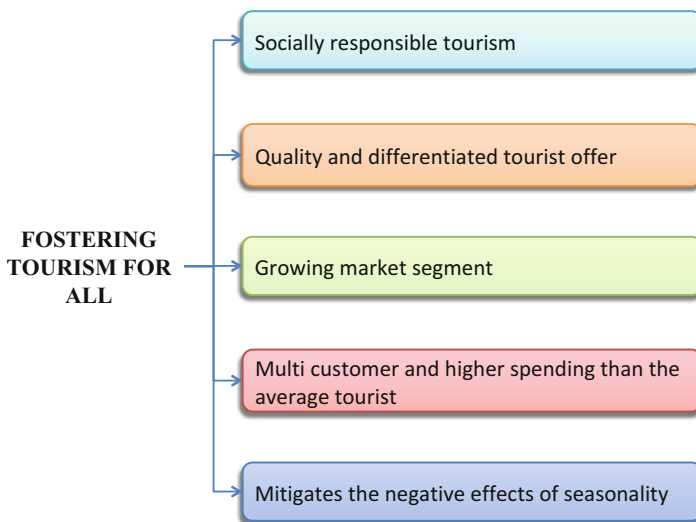


Fig. 7.2 Main benefits of tourism for all. Source: Own elaboration

spend 49.8€ per day. Third, the fostering of accessible tourism mitigates the negative effects of the sector's seasonality, as this is a segment of people who are not employed, who live from disability or retirement pensions, and, therefore, have more free time and prefer to travel in the "low" season to avoid crowds. Finally, the image of tourist destinations hinges to a great extent on the emotional enjoyment which is made of them and how they are experienced. Thus, offering an image without exclusion aimed at any kind of person promotes a socially responsible image of the firm. This is an aspect which is currently highly valued by society (Molina Hoyo & Cánoves Valiente, 2010).

7.5 Key Aspects of Accessibility Management in Hotels

For Alonso López and Dinarés Quera (2006), accessibility is a characteristic of the tourist service which must be taken into account via aspects related to the firm's organization, management, and culture from the moment of designing the establishment and the services which it offers.

An accessible hotel does not need to be a complex building, but it must be supported by aesthetically pleasant and creative actions and solutions. At certain times, these actions can mean high investments. Hence, it will always be more economical to make a hotel accessible from the moment of its design, eliminating barriers and reconstructing environments which can be used on equal terms by all (PREDIF, 2003).

For a hotel to be considered accessible for all people who are disabled or who have reduced mobility, it must comply with a series of basic and general requirements. The most important characteristics of physical accessibility and comprehension which must be taken into account for a hotel to be able to be used comfortably, autonomously, and safely appear in the Fig. 7.3.

In this line, the norm UNE 170001-1 establishes four criteria (Ambulation, Apprehension, Location, and Communication) for organizations to be able to make universally accessible environments available to their customers, irrespective of their age, gender, cultural origin, or capabilities. It is a question of generic requirements applicable to all kinds of organizations, regardless of their size or activity. The DALCO criteria mean to serve as a guide and a support to carry out an analysis of an environment's accessibility, although the applicable legal requirements (national, regional, and local) must also be considered. More specifically, the DALCO criteria refer to:

- **Ambulation:** action of moving from one place to another. Movement can be horizontal (moving along hallways, corridors, across rooms, etc.) or vertical (going up or down steps, stairs, ramps, etc.).
- **Apprehension:** the action of taking hold of something. This implies the action of reaching what is going to be held.

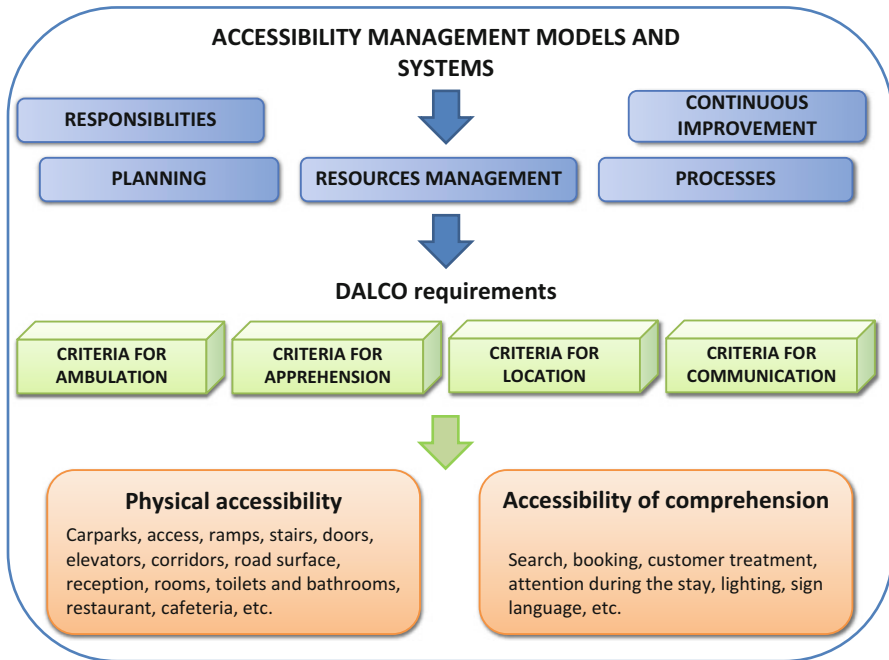


Fig. 7.3 Accessibility management models and systems. Source: Own elaboration

- Location: the action of finding out about the exact place (where) and moment (when) something or someone is or an event can occur.
- Communication: the action of exchanging information which is necessary for the development of an activity.

To systematically comply with the criteria of accessibility, the norm UNE 170001-2 establishes the requirements in order to design, implement, and improve an accessibility management system which enables an organization to show its capability of providing accessible environments, to comply with the legislation concerning accessibility, to improve its internal management, and to stand out from the competition thanks to a socially responsible attitude. Moreover, the accessibility management system is compatible with other systems (quality, environment, and labor safety and health).

The requirements of an accessibility management system refer to the design of a documental basis (policy, aims, processes, and indicators), the establishing of responsibilities in accessibility, introducing accessibility into the firm’s planning and strategy, developing an efficacious and efficient management of technical and human resources, as well as setting up the appropriate follow-up, measurement, and accessibility improvement mechanisms.

7.6 Methodology

7.6.1 Sample

The study's population is made up of 3-, 4-, and 5-star hotels located in the capital of Seville. According to the Register of Tourism of Andalusia, at the end of 2013 there were a total of 86 hotels (5 five-star, 47 four-star, and 34 three-star). Table 7.1 shows the characteristics of the sample.

7.6.2 Measures and Data

The data were obtained via a questionnaire sent to those in charge of the hotel or of the areas which had a global view of the organization. The design of the questionnaire took as a reference the EFQM model which, although it is a model oriented at quality management, is a nonprescriptive work model that enables an organization's measurement to be thoroughly known (Calvo-Mora, Picón, Ruiz, & Cauzo, 2014). It also included key aspects of accessibility management from the norm UNE 170001: 2007, the document "how to make hotels accessible for people with reduced mobility," edited by PREDIF (2003), and the Decree 293/2009, of July 7th, which passed the rule that regulates the norms for accessibility in infrastructures, urbanism, building, and transport in Andalusia (see Appendix). The aspects related to the perception of those in charge of the establishments regarding the impact that

Table 7.1 Characteristics of the sample

	Frequency	Percentage
<i>Category</i>		
3 Star	13	37.14
4 Star	17	48.57
5 Star	5	14.28
Total	35	100
<i>Age</i>		
<25 Years	25	71.42
>25 Years	10	28.57
Total	35	100
<i>Size (n° rooms)</i>		
Family (<100 rooms)	19	54.28
Small (100–150 rooms)	5	14.28
Medium (151–300 rooms)	9	25.71
Large (>300 rooms)	2	5.71
Total	35	100

Source: Own elaboration

accessibility could have on the hotel's performance and image were obtained from the analysis of the literature presented in the previous sections.

The items of each block were measured through a 7-point Likert scale, being 1: Totally disagree and 7: Totally agree. Finally, the statistic processing of the data was carried out via the SPSS 22.0 statistics program.

7.7 Results

Table 7.2 shows how the scales used were reliable, as the Cronbach Alpha value is above the recommended maximum of 0.9. The scales can also be considered valid as they are based on the EFQM model, which is an evaluation tool that is very widespread in the business world and used to improve firm management (Calvo-Mora et al., 2014).

Table 7.3 offers us the average values and the standard deviation of each of the items included in the scales considered in the study. The highest average of the block "management leadership and commitment" is in the section referring to the management making an effort to foster equal opportunities: 5.63 out of 7.

Regarding business strategy, it stands out that the highest average is point 2: "the strategy values the potential impact of new technologies and management systems to offer products/services which are more accessible for all their customers." The hotels value new technologies applied to accessibility even though not all of them can run them in their hotels for different reasons, such as the economic issue.

There is a negative result (value of the item below the average -2.54) in the block "Alliances and Resources" which corresponds to the participation or collaboration in networks, forums, and associations that deal with strengthening accessible tourism or tourism for all. The hotels are less involved in this point and therefore obtain a higher standard deviation: 1.915.

Regarding Processes, it is to be pointed out that "Processes are designed and handled with the aim of optimizing value for all interest groups, including the group of people with disabilities and reduced mobility" (PR1), obtains the second highest standard deviation: 1.903. This implies that not all the hotels are aware of taking into account disabled people when they develop their strategies, in spite of this group contributing many advantages to their business.

Table 7.2 Reliability of the scales

Dimension	Cronbach Alpha
Leadership	0.968
Strategy	0.966
People	0.906
Resources	0.920
Processes	0.926
Performance and image	0.952

Source: Own elaboration

Table 7.3 Descriptive statistics

Measurement scale	Average	Standard deviation	Measurement scale	Average	Standard deviation
<i>Leadership</i>	5.26	1.27	<i>Resources</i>	3.95	1.91
L1	4.91	1.23	PR1	2.54	1.52
L2	4.94	1.34	PR2	4.43	1.47
L3	5.17	1.06	PR3	4.00	1.37
L4	5.57	1.14	PR4	4.60	1.58
L5	5.63	1.24	PR5	4.17	
L6	5.40	1.33			
L7	5.09				
<i>Strategy</i>	4.77	1.16	<i>Processes</i>	4.36	1.90
S1	4.86	1.37	PC1	4.29	1.57
S2	5.23	1.38	PC2	4.57	1.56
S3	4.71	1.50	PC3	4.11	1.22
S4	4.29		PC4	4.17	1.30
			PC5	4.66	
<i>People</i>	4.92	1.00	<i>Performance</i>	6.03	0.88
P1	5.57	1.40	R1	6.40	0.88
P2	4.46	1.37	R2	6.17	0.78
P3	4.86	1.43	R3	6.17	0.83
P4	4.80		R4	5.89	1.07
			R5	5.80	0.88
			R6	6.09	1.07
			R7	5.97	1.06
			R8	5.86	0.97
			R9	6.00	

Source: Own elaboration

Lastly, we underscore that the section of Results gets a higher score than the rest. Most hotels perceive the importance of offering an accessible hotel and the positive repercussion and exterior image which this leads to, as it helps the integration of people with some kind of disability and this is an obvious right for their development (6.4 on average). Moreover, to have accessible services is a business opportunity and a differentiation factor for the firm (6.17 on average). Hoteliers consider accessibility to be an emerging element of the quality of its tourist offer (5.89 on average). To be an accessible hotel helps to reduce the effects of seasonality and enables making the most of the tourist installations and facilities (5.97 on average), with the advantage of increasing the hotel occupation rate and, therefore, increasing the operating incomes (5.86 on average). Eliminating barriers is not profitable in the short term but it is in the medium and long term (6.0 on average).

On the other hand, we study whether the way of understanding and managing the accessibility in a hotel is related to variables such as possession of some kind of certificate / recognition; how old the hotel is; its size; and its category. In this sense, Table 7.4 indicates differences in the measurements of the scales considered when taking into account the management system having some kind of certification. Thus it is the hotels which have a certificate and/or recognition (group 1) that consider

Table 7.4 Relation between the management system and accessibility

Management system certificate	Average		Levene test		t-Test	
	Do not have certificates (Group 0)	Have certificates (Group 1)	F	Sig.	T	Sig.
Leadership	5.18	5.29	-0.18	0.67	0.28	0.77 ^{ns}
Strategy	4.61	4.88	0.61	0.43	0.60	0.54 ^{ns}
People	4.68	5.10	0.01	0.97	1.05	0.30 ^{ns}
Resources	3.84	4.03	0.25	0.62	0.39	0.69 ^{ns}
Processes	4.37	4.7	0.01	0.91	0.70	0.49 ^{ns}
Performance and image	5.84	6.18	0.80	0.37	1.25	0.22 ^{ns}

Note: ns not significant

Source: Own elaboration

Table 7.5 Relation between age and accessibility

Age of hotel	Average		Levene test		t-Test	
	Hotels less than 25 years old	Hotels more than 25 years old	F	Sig.	T	Sig.
Leadership	5.31	5.07	0.09	0.75	-0.56	0.57 ^{ns}
Strategy	4.87	4.52	0.69	0.41	-0.70	0.48 ^{ns}
People	4.97	4.80	0.03	0.86	-0.38	0.70 ^{ns}
Resources	4.06	3.00	1.83	0.18	-0.77	0.44 ^{ns}
Processes	4.55	4.58	0.53	0.47	0.05	0.95 ^{ns}
Performance and image	6.06	5.98	0.12	0.73	-0.27	0.78 ^{ns}

Note: ns not significant

Source: Own elaboration

accessibility management to be more important—in any of the sections the questionnaire is divided into—compared to those hotels which lack quality certificates (group 0). However, these differences are not statistically significant.

Regarding how old the hotel is (Table 7.5), the newer hotels (less than 25 years old) have a higher score (positive) in the questionnaire. There may be two reasons for this: (a) increasingly greater legislative demands have affected newer hotels more and (b) the cost of a hotel’s accessibility only increases by 1 % from the outset in comparison to reforms carried out a posteriori. The differences are again not statistically significant.

Regarding the size of the hotel (Table 7.6), medium-sized hotels (group 3; 151–300 rooms) have higher values in accessibility management and perceptions of the benefits of accessibility. Next are large hotels (group 4; more than 300 rooms), family hotels (group 1; less than 100 rooms), and small hotels (group 2; 100–150 rooms), respectively. Though more physical barriers can be found in small hotels, these are the hotels which have fewer psychic barriers provided that the staff is

Table 7.6 Relation between size and accessibility

Size of the establishment	Average				Levene test		ANOVA	
	Family hotels	Small hotels	Medium hotels	Large hotels	F	Sig.	F	Sig.
Leadership	5.01	4.63	6.01	5.57	2.63	0.06	3.11	0.04**
Strategy	4.56	3.75	5.72	5.00	1.67	0.19	3.42	0.02**
People	4.67	4.20	5.83	5.00	2.71	0.61	3.37	0.03**
Resources	3.53	3.52	5.13	3.60	1.61	0.20	3.69	0.02**
Processes	4.15	4.08	5.57	5.00	1.79	0.16	3.13	0.04**
Performance and image	5.95	5.77	6.30	6.28	1.88	0.15	0.63	0.59 ^{ns}

Note: *ns* not significant. ** $p < 0.05$

Source: Own elaboration

Table 7.7 Relation between category and accessibility

Category of the establishment	Average			Levene test		ANOVA	
	3 Stars	4 Stars	5 Stars	F	Sig.	F	Sig.
Leadership	4.98	5.39	5.40	0.17	0.84	0.51	0.60 ^{ns}
Strategy	4.42	4.94	5.10	1.02	0.36	0.76	0.47 ^{ns}
People	4.55	5.10	5.25	0.64	0.53	1.04	0.36 ^{ns}
Resources	3.23	4.36	4.40	0.13	0.87	4.18	0.04**
Processes	4.09	4.82	5.28	0.27	0.76	4.22	0.04**
Performance and image	6.02	5.97	6.29	0.02	0.97	0.29	0.74 ^{ns}

Note: *ns* not significant. ** $p < 0.05$

Source: Own elaboration

aware and well trained. Having less staff and a reduced number of customers, the treatment is more personal and in most cases more satisfactory. Moreover, in this case the differences in the accessibility management of the hotels according to their size are significant. However, the perception of the importance of accessibility for the establishment's performance and image is not significantly different depending on the size. That is to say, it is perceived as being very important (very high values of the averages in the performance variable) irrespective of the hotel size.

Finally, in accordance with the hotel's category (Table 7.7), it is noted that the higher the category, the more responsibility and obligations there are. Four- and five-star hotels tend to belong to large hotel chains which have a certain reputation. This must be maintained and improved day by day. This is why they give special importance to current subjects and innovations and try to adjust them to their hotels and carry them out. Although customer service must have a high quality regardless of the category, size, or any other variable, the higher the hotel's category, the more demanding the customer is. What is more, disabled people tend to stay in four- and five-star hotels. Let us say that their choice is conditioned by their disabilities. This

is why questions of accessibility must be especially the order of the day in these higher category hotels.

These aspects are apparent as there are significant differences in the accessibility management in the Resources variable according to the category of the establishment.

7.8 Conclusions

Accessibility management. The data show the strong commitment and involvement of workers and those in charge of hotel establishments. This is deduced from the very high averages that these variables attain concerning the more technical aspects of accessibility, such as strategy, processes, and resources. It is to be emphasized that there is scant investment in accessibility for hotels and, moreover, the lack of importance given to participation in forums or associations that promote accessible tourism. Furthermore, it can be seen that the managers are aware of the importance of accessibility to improve their hotels' performance and image, but they are not starting to act. That is to say, it is necessary to allocate resources to design, implement, and improve an accessibility management system which enables hotels to achieve greater results and be more competitive.

Impact of accessibility on performance and image. We highlight the high score given to both disposing of an accessible tourist offer being a right and it being a factor which favors the social integration of those who have some disability or reduced mobility. That is to say, those in charge of hotels are very aware of the ethical aspect of accessibility—the need to integrate disabled people into tourism. It is also worth stressing the high score in aspects related to the need to improve the accessibility of hotel installations and services in order to be more competitive and profitable (counting on accessible installations and services is a business opportunity for the firm, a factor of business differentiation, and improves the hotel's exterior image and reputation; investment in eliminating barriers and accessible infrastructures is profitable in the medium and long term).

High scores are also received by the opinions of the managers about how accessibility is a dimension which defines the quality of the tourist establishments and helps achieve a better positioning of the hotel offer (accessibility is a basic element which strengthens the quality of the establishment's tourist offer and favors the implementation of the tourist destination's positioning strategy).

Finally, those in charge of hotel establishments also perceive how the improvement of accessibility can lead them to obtaining better economic results. These are related to the reducing of the effects of seasonality and making the most out of the tourist installations and facilities, as well increasing the establishment's occupation rate and its repercussion on operating incomes.

Influence of the context variables. The hotels which generally have some certificate are those that are newer (less than 25 years old), are medium sized (between 151

and 300 rooms), and of a higher category (5 stars). These are the establishments with higher scores in the variables that define accessibility management and, furthermore, have a stronger perception of the positive impact that accessibility has on performance and image. The unique exception has been in processes, products, and services. The oldest hotels have higher scores in this variable. This can be due to a greater experience in the tourist sector and long-established relations with customers and other interest groups. It is to be stressed that there are no significant differences in the accessibility management and performance related to the variables of age and whether the firm has a management system. However, there are differences in accessibility, although not in the perception of benefits, when the management is analyzed with respect to the size of the hotel and, to a lesser extent, the category of the establishment. Here differences in processes and resources can be seen.

Recommendations for tourist agents. Next, we propose a series of recommendations aimed at public and private agents involved in the tourist destination. These are a key piece for the fostering and developing of accessibility and tourism for all.

Creating awareness. Public bodies need to create awareness campaigns concerning accessible tourism in general and hotel accessibility in particular. These should be aimed at the owners of the establishments and hotel chains, as well as at all those agents involved—directly or indirectly—in the tourist sector. Studies should also be carried out that show the economic profitability of the segment of disabled people and the potential benefits associated with this tourist segment.

Training. In the surveys made, training and empowerment in accessibility is one of the items that obtain a lower score. However, without specific training it is very difficult to satisfy a group with the special needs which disabled people have. This is why it is necessary to have courses and hold congresses to make known all the aspects related to accessibility in hotel establishments, as well as the most relevant characteristics which determine the behavior of the physically disabled as tourists.

Disseminate and communicate. As this work reflects, hotel establishments do not tend to belong to, participate in, or collaborate with networks, forums, and associations to strengthen tourism for all. Disabled tourists highly value information about the accessibility of establishments and this variable is a key element when deciding about them. This is why actions concerning the communication variable should include the development of information material about the accessible hotel offer aimed at associations for the disabled, travel agencies, as well as different groups directly or indirectly related with them; the editing of a web page with complete and truthful information about all the hotel establishments of the accessible hotel offer; carrying out promotion aimed at disabled consumers, associations, and intermediaries in the tourist destinations which are sources of tourists; a greater participation in fairs promoting the hotel product's image of accessibility, including the hotel offer in web pages in the net about accessible hotels.

Finally, it is necessary to gather all these commercial decisions together through a marketing plan which contributes to attaining an accessible hotel offer. This would not only make it possible to achieve the commercial aims proposed, it would also

enable the elimination of the inequalities which disabled people suffer from. This would favor the social image of hotel firms as well as complying with the legal norm.

Act. To do so, it is necessary to set up in each hotel establishment an accessibility evaluation system to clearly identify those rooms in which an improvement of accessibility is needed, eliminating the existing physical barriers. After that, an action plan would have to be set up to achieve hotel accessibility in all or most hotel establishments.

Reward. Certification in universal accessibility should be fostered by the public sector, either through the norm or standard UNE 170001-2 or by the creation of a distinction in accessibility. This on the one hand assures the customers about the establishment’s effective accessibility and, on the other hand, differentiates this establishment from its competitors, conferring it with a certain value added in the face of competition.

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Appendix: Questionnaire

Please indicate your post/position in the Hotel: _____

Nº stars: _____ Age: _____ Nº of rooms: _____ Number of employees _____ Certificates/Recognition of quality/environment/ accessibility it has:

Accessibility Management

Leadership

L1. The management develops the mission, view, and culture of the organization, giving prominence to accessibility

L2. The management system is defined and focused to offer an accessible service

L3. The management is committed to disabled people to achieve mutual benefits and, in general, a fairer society

L4. The management makes an effort to foster innovation

L5. The management makes an effort to foster equal opportunities

L6. The management supports the generating of new ideas oriented to offering an accessible service

L7. The management fosters and motivates change to adjust to the needs of people who are disabled or have reduced mobility

Strategy

S1. The firm understands the needs of people with disabilities and reduced mobility and integrates them into their strategy to try and satisfy them

S2. The strategy values the potential impact of new technologies and management systems to offer products/services which are more accessible to all their customers

S3. The firm integrates the key elements of accessibility into its key processes' value chain and design

S4. The firm fixes accessibility objectives, evaluates their being fulfilled, and compares itself with other firms in its environment

People

P1. The employees are committed and make an effort to guarantee equal opportunities for people with disabilities and reduced mobility

P2. The employees are trained in accessibility

P3. The human factor is made aware of the importance of accessibility to fulfill the firm's objectives

P4. Team work is promoted and the opinions and improvement proposals of the employees with respect to offering an accessible service are taken into account

Partnerships and Resources

PR1. The firm belongs to, participates in, and collaborates with networks, forums, and associations which try to strengthen accessible tourism and tourism for all

PR2. The firm invests in infrastructures and other resources to try and satisfy the needs of people with disabilities and reduced mobility

PR3. The firm considers and deals with any negative impact resulting from its actions and omissions about the accessibility of its installations and the services which it offers

PR4. The firm takes into account technologies which speed up accessibility processes and projects

PR5. The firm uses data and information concerning its performance and its current capacities in accessibility to identify and strengthen innovation

Processes

PC1. Processes are designed and handled with the aim of optimizing value for all interest groups, including the group of people with disabilities and reduced mobility

PC2. The products and services are developed and designed to add value for the customers with disabilities and reduced mobility

PC3. The firm develops marketing strategies to efficiently promote their accessible products and services among people with disabilities and reduced mobility

PC4. The accessible processes and products/services are efficiently offered and dealt with

PC5. The firm manages and improves the mechanisms and processes it has in order to relate to its customers, especially those who have some kind of disability

Impact of Accessibility on the Hotel's Performance and Image

R1. Having an accessible tourist offer is a right and a factor which favors the social integration of those who have some kind of disability and reduced mobility

R2. Having accessible installations and services is a business opportunity for the firm

R3. Having accessible installations and services is a business differentiation factor

R4. Accessibility is a basic element which strengthens the quality of the establishment's tourist offer

R5. Accessibility favors the implementation of the positioning strategy of the tourist destination

R6. Having accessible installations and services improves the hotel's exterior image and reputation

R7. Being an accessible hotel helps to reduce the effects of seasonality and enables making the most out of the tourist installations and facilities

R8. Being an accessible hotel increases the establishment's occupation rate and helps to increase operating incomes

R9. Investment in accessible infrastructures and eliminating barriers is profitable in the medium and long term

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Chapter 8

A New Paradigm in the Planning and Management of Quality Hotel Services: Health Tourism

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Abstract Currently hotel tourism is of major socio-economic relevance, comparable with any other economic activity, present worldwide and driven largely by the breakneck speed of technological advances. Tourism specialists state that the quality of services is critical for the sector's competitiveness. Spain has long-standing experience in quality hotel services. However, changes in the industry and intense competition in this sector have prompted the search for new opportunities in it.

The purpose of European Parliament/Council Directive 2011/24/EU, of 9 March 2011, on the implementation of the rights of patients seeking healthcare in a Member State other than their own, is to ensure that patients receive safe, high quality healthcare, and has opened the door to new business opportunities in healthcare and hospitality branches in Europe.

In the health branch, some European regions have recognised the chance to offer medical services given their specialisation and/or for previous recognition, which can attract a certain patient type, and for them to become tourist destinations of so-called health tourism (healthcare tourism).

This paradigm shift has been identified by some hotel managers, who see this new circumstance a chance to revisit their hotel room offers by addressing the situation to a new type of customer whose stay should be planned differently from existing offers, as well as a new way of using surplus hotel rooms or at out-of-season times. Kind hospitality is a well-known very seasonal business. Obviously, such a change in the business approach has associated changes in production processes and their quality, and even in the management of all the processes that hotels offer customers.

This article reflects on the good practices and lessons learned, and on experience in planning and managing hospital beds, which can bring a fresh approach for planning hotel occupancies of high value for this new customer type, details of which must be considered to provide high quality services using a new approach.

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8.1 Introduction

Health tourism was defined in 1973 by the International Union of Tourist Organizations (Smith & Puczkó, 2009) as “tourism based on providing health infrastructures using natural resources of the country, particularly its mineral waters and climate.”

Nowadays, this definition has been extended and includes the objective of recovering/improving/maintaining health through a combination of curing, rehabilitation and well-being activities. Health tourism now comprises both medical tourism (the objective of which is surgical operations and/or therapeutic treatments) and well-being tourism or wellness.

According to Mourshed et al. (2010), health tourism consists in exporting health services that focus on four specific areas: curative medicine, preventive medicine, aesthetics and well-being.

According to the World Health Organization (WHO), health tourism is a complete state of physical, mental and social well-being, and not just the absence of afflictions or diseases.

However, for health tourism to exist, tourists need to travel. Thus outsourcing services to other countries, such as diagnostic imaging information in tertiary countries, is not considered health tourism.

For health tourism to be considered to exist, the reason for travelling must be the search for health; that is, willingness to receive treatment must be shown.

According to data in the August 2011 Report (Generalitat Valenciana y Consellería de Turismo, 2011), in 2010, the Health Sector had a world impact of 1.9 trillion dollars, of which the beauty and anti-ageing treatments sector represented 34.8 % of the total. Well-being (wellness) tourism represented 5.4 % of the Health Sector with some 106 million dollars, while medical tourism represented 2.6 % with 50 million dollars.

Globally, the ten most important medical tourist destinations are: Hungary, Mexico, Costa Rica, Gulf countries, Brazil, India, Thailand, Singapore, Malaysia and South Africa.

According to the Spanish Tourism Institute, in 2008, the main countries that issued health tourists were the USA, Germany, Great Britain, France, Austria and Switzerland. The main remaining European countries used health tourism at the domestic level, including Spain (Marín Lozano, 2012).

The Spanish Health System is considered by the WHO to be one of the best in the world. Indeed it occupied seventh position in 2000. In efficiency terms, Spain comes fifth in the world ranking, and first in the European ranking. It offers a simple, inexpensive example of healthcare and is characterised as having a public healthcare financed by taxes and offering a completely universal cover (Álvarez, 2013). The World Tourism Organization (WTO) considers Spain to be the fourth country in the world that receives more tourists.

8.2 Health Tourism in Spain

In Spain, 87 % of the health tourism offer is based on water-related treatments. Accommodation with a spa, health resorts and thalassotherapy centres respectively represent 60 %, 20.6 % and 6.4 % of this offer.

It is important to stress that the accommodation relating to health tourism is mainly hotel-based (95.4 %) and, within this category, 4- and 5-star accommodation cover 74 %.

In our country, the main health tourism destinations are Andalusia, Canary Islands and Catalonia (each with 15 % of the national offer), followed by Balearic Islands (10.4 %), Galicia (8.8 %) and the Valencian Community (8.7 %).

The main countries that issued health tourists to Spain in 2008 were the UK and Germany, each with 30 % of demand.

According to Auren (2013), from the medical attention perspective, the Spanish tourism poles are:

- Consolidated tourism destinations in which international demand has generated a critical mass of healthcare centres: Majorca, Alicante, Costa del Sol.
- Large cities: Madrid, Barcelona.
- Destinations close to frontiers: Badajoz.
- Regions specialised in certain treatments: Navarre, Asturias.

This is because the traditional tourism demand in these areas has produced sufficient critical mass to create a specialised offer that addresses foreign patients.

According to Turespaña, a foreign health tourist: chooses Spain for its climate and evaluates the quality of the accommodation and the quality/price ratio that it offers; travels as a family or as a couple; stays between 7 and 13 days; obtains information on the Internet and from travel agencies; is loyal to Spanish destinations; its level of satisfaction is high. The complementary activities carried out during stays include stays near beaches, shopping, restaurants, sports and visiting cities.

Despite the Spanish tourism model having previously focused on a medium-low level of demand (low prices), on excessive dependence on international tour operators and very little interest shown in territorial and environmental repercussions, all this is now changing, and public-private organisations are making efforts to offer better quality tourism that intends to provide a better value image for foreign visitors through actions such as:

- A less mass tourism approach of better quality that entails more expenditure per tourist.
- Improving the Spanish offer (hotel occupancies, hotel and catering, entertainment activities, cultural offer) in order to improve quality.
- Diversify the offer beyond sun-sea-and-sand tourism by exploring other more demanding assets, such as accommodation, gastronomy, culture, sport and nature.

In short, any tourist service complements health services, provided that the foreseeable health tourist profile is taken into account because some tourist activities cannot be undertaken by, for example, patients whose mobility is restricted or who have just had surgery.

Moreover, the complementary offer partly depends on the destination and the main health offer of this destination: thus in large cities like Madrid and Barcelona, the main associated health offer is receiving highly specialised treatments from professionals or prestigious clinics, and the associated complementary offer is cultural and gastronomy tourism. In traditional seaside destinations, the treatments generally sought are of the cosmetic and well-being types, thus the associated complementary offer tends to be wellness, and sun, sand and sea. In rural settings, the main demand is health resorts, and the associated complementary offer is sport activities and nature.

The Spanish tourism offer is excellent and is becoming increasingly more varied. Spain also has excellent infrastructures, as well as an adequate transport network that is essential for foreign visitors. Having direct air connections with issuing countries of health tourists is especially important, and it is not always the case. So this is a key determining factor to bear in mind.

8.3 Future Health Perspectives in Spain

The intention of the new Directive on Cross-border Healthcare, recently passed by the European Union (Directive 2011/24/EU), is to regulate healthcare to patients within the EU, while establishing a system to reimburse the services rendered at the same time. This is applicable to patients who decide to request healthcare in a Member State that it is not their own.

This circumstance must be viewed as an opportunity to shape health tourism and to end a loss-making situation which, for Spain, is fraudulent practices that benefit from either legal loopholes or lack of efficient information systems.

This opportunity will improve if private healthcare is encouraged among tourists, a true tourist industry niche within the tourist industry that can contribute to seasonally adjust the traditional holiday tourism offer.

One challenge faced by health tourism, which is distinguished from other tourist products, is that the health and safety of the customer receiving treatment can be jeopardised in many cases. So it does not suffice to offer high quality standards to attend to visitors, but to guarantee the quality of the healthcare being provided.

Despite the international prestige of the Spanish health service, it has to be accredited. To this end, reference international regulations and standards can be resorted to. The choice of quality standard will greatly depend on the customer type that the service addresses.

Doubtlessly, the most widely accepted and most internationally well-known quality standard is ISO 9001. Nonetheless, its scope is highly generic and it does not specify requisites for health-related services. Thus many businesses settle for the standards of the American Joint Commission to accredit their services.

In any case, no specific quality standard model has been established for the health tourism sector. This has led to various organisations adopting their own models, which not only assess the quality of the service provided, but also the safety of the health care received.

This is precisely the case of the model proposed by the International Joint Commission which, after having been specifically developed for health and acknowledged internationally, entails the complication of being difficult to adopt in small healthcare centres given its complexity and costs. Its market tends to cover the destination countries of North American tourists, like India and Mexico, and has been barely implemented in Europe (except for Hungary and Turkey).

In Europe, countries like Norway have opted for the DIAS model, which intends to become a European Joint Commission and emphasises patients' safety.

In Spain, the "medical tourism concept" has classically had negative connotations among health professionals because it has included all kinds of travelling patients. According to a Spanish Health tourism report (Auren, 2013), this definition includes:

- Tourists on holiday who urgently require health care due to unexpected illness or accidents (perhaps the commonest situation).
- Private patients who schedule their treatments through medical tourism facilitators, or through their international insurance companies.
- European patients, mainly from Nordic countries, whose countries of origin send them to shorten their waiting lists after they have obtained a previous agreement with Spanish health services.
- "Picaresque-type" health tourists, who take advantage of their stay in Spain to obtain treatment free of charge which, in their country of origin, they have to pay, or at least a percentage of the price.

The last type above is a practice that has grown in some foreign communities which, in order to gain access to free treatments, go to accident and emergencies services, and stress the symptoms of a pre-existing health problem, or spend 6 months in a tourist area in Spain to acquire a Spanish health card to access all kinds of treatments, to which they have no access in their countries of origin.

According to a report issued by the Spanish Court of Audit (Tribunal de Cuentas, 2012), in 2009 Spain invoiced 441.1 million euros to 26 EU countries, plus Iceland, Liechtenstein, Norway and Switzerland, for the medical attention it gave to citizens from these countries. However, the expense incurred from Spanish citizens receiving health care abroad only came to 46.2 million euros.

This difference, which the Spanish Court of Audit indicates in its tax report on health care given to foreigners, only responds to "Spain as a country that imminently receives foreign tourists and residents".

Also in its report, the Spanish Court of Audit found deficiencies in the information exchange between the National Social Security Institute and the Health Services of the Spanish Autonomous Communities, and the National Management Institute for the Spanish Autonomous Communities of Ceuta and Melilla.

These shortages in information exchange (which, according to the Court itself, have been rectified) have a "negative" impact on efficacy and efficiency when

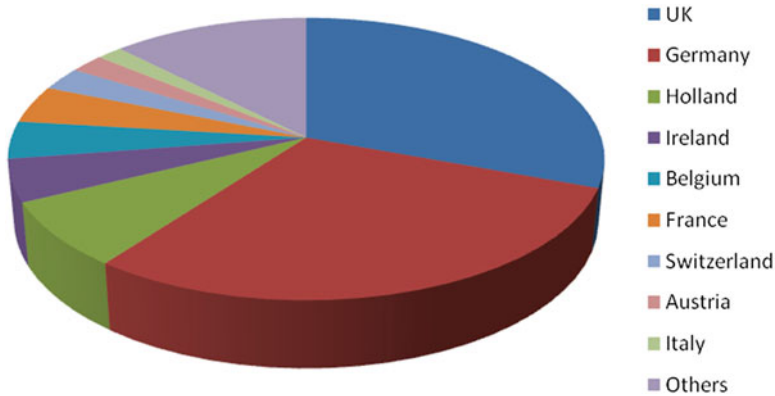


Fig. 8.1 Percentage of foreign tourists in Spain per country of origin, whose main motivation was Health Tourism. *Source:* Own source from TurEspaña (2011)

managing the amounts invoiced to Spain, and caused losses of around 20 million euros between 2007 and 2008.

The Court explains that this is due to invoices being issued to the UK in accordance with the mean number of tourists arriving in Spain, and not according to the actual cost of the treatment that UK citizens receive.

According to a Health Tourism report in Spain (Auren, 2013), these data reveal the potential of the health care demanded by foreigners which, if channelled towards private health care, would be a very interesting business opportunity for Spain (Fig. 8.1).

Indeed the main reason for health tourism is not low prices. According to the study by Goodrich and Goodrich (1987), those citizens who seek therapies that are not available in their own countries have high socio-economic profiles, like Russia and Arab countries. Senior Europeans also have a high purchasing power given the good cover that their countries of origin offer which, in many cases, is free of financial burden. The expense of a health tourist is higher than that of a tourist on holiday, and is between sixfold and tenfold higher according to the OECD (Lunz et al., 2011). Stays also tend to be longer and last 10–20 days on average.

In Spain, most senior health tourists are also residential tourists, and they share the following characteristics:

- Have more free time than the average tourist has.
- Have a high level of income and good professional qualifications.
- Are visited by relatives during their stay in Spain.
- Generate short, but frequent, tourist flows.
- Enjoy stays mainly in Winter and Summer, and return to their countries of origin to visit relatives.

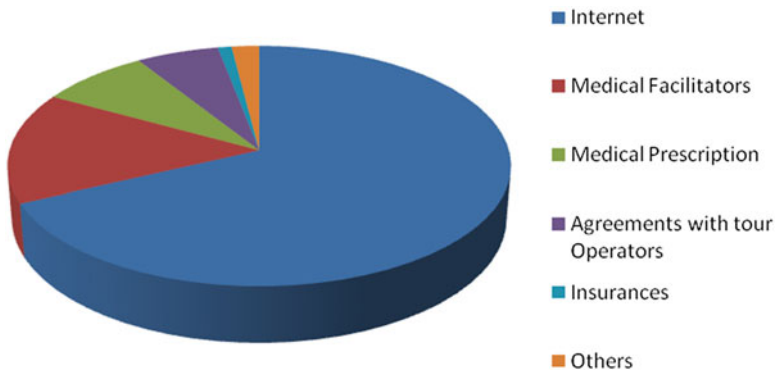


Fig. 8.2 Uptake pathways of medical tourism in Spain. *Source:* Own from Auren's data (2013)

8.4 Future Trends

According to the OECD (2013), medical tourism moved some 75,000 million euros in 2009 worldwide. Global Industry Analysts (2011) indicated that this sector obtained a business volume of 70,000 million euros/year worldwide in 2012, and 128,000 million euros are expected for 2015.

The Medical Tourism Association (2011) indicated that there are two main leagues: countries with advanced medicine (the USA, Germany, the UK, France); countries with low-cost medicine (Thailand, India, Malaysia, Hungary, the Czech Republic, Poland, Turkey).

Deloitte (2009) stated that the USA is the main country to issue health tourists, with approximately 750,000. Bearing in mind that North American tourists represent approximately 10 % of the total number of medical tourists, world figures are estimated to include 30–50 million tourists who could receive medical treatments each year, with an average expenditure of between €1,200 and €2,000 per tourist.

In a survey conducted with many European clinics (International Medical Travel Journal, 2013), the following information was obtained:

- 60 % of clinics stated that the number of international patients had grown in the last 12 months, and 80 % believed that this number would continue to rise in the next 12 months.
- 49 % of clinics expect to grow by more than 10 % in the next 5 years thanks to health tourism.
- The treatments that are expected to grow the most are aesthetic surgery (56 %), odontology (43 %), oncology (43 %) and fertility (40 %).

The most popular destinations are India, Thailand and the USA in terms of quality, and the USA, Thailand and Singapore in terms of the quantity of services rendered.

According to the FNCP (2014), the main issuers of health tourism are European countries with 51 % and the USA with 32 %. The USA, Germany, France, UK, Middle East and Scandinavian countries, and Italy, are at the top of the list.

More than 80 % of this business is generated in “immediate surroundings”; that is, flights lasting 3 h or shorter flights.

Other authors indicate the quantity of hospital centres and clinics in Spain, and competitive prices, if compared with the UK or the USA (Lunz et al., 2011; Reyes Rincón, 2013).

Europe has an ageing population, with 10 million people aged over 80 (Comisión de las Comunidades Europeas, 2005), and this figure is expected to rise by 52.3 % from the present-day until 2030. Elderly European citizens coming to Spain to seek quality healthcare treatment are the clearest “future tourist” profile (Marín Lozano, 2012). Yet to a lesser extent, there is also a segment of younger, single citizens, who are looking for cosmetic and mental well-being specialities in particular.

It is worth mentioning that medical tourism facilitators have been set up in recent years, which are a means to commercialise health tourism. Generally speaking, however, Spain as a destination has been rarely seen in these facilitators, and those that include Spain are mainly European.

8.5 Conclusions

Health tourism is a market that is rapidly expanding worldwide in terms of number of patients and business volume, but is a quite recent industry in Spain. Different health tourism initiatives are also recent, and references to Spain as a destination in the organisations that deal with such tourism have appeared only recently.

The Spanish National Health System is excellent and is well-known as such worldwide. Spain is also the fourth tourist destination in the world and offers competitive prices compared to the rest of Europe. Some regions of Spain are world references in certain medical and aesthetic treatments for citizens from countries at a distance of only 3 h, or less, away by air (Europe, North Africa and the Middle East).

Health tourism is growing all over the world, which will be favoured by the free circulation of citizens within the EU and the Directive on Cross-Border Healthcare.

Spain as a destination should increase in the main commercialisation forms of this type of tourism. In Spain, promoting and commercialising health internationally are quite recent actions. As the USA is one of the main markets that issues such tourists, the Spanish offer should address this market, but should not neglect the nearer European, North African and the Middle Eastern markets.

Tourist package deals that include the complementary offer should be designed. Alliances with prescriptors, such as large international medical groups, hospital groups, and public national health systems in tertiary countries, should be created. It is also necessary to focus on quality through International Quality Accreditations.

Moreover, we should not forget the geographic situation, excellent climate and the variety of the complementary tourist offer for foreign visitors to make Spain an

extremely interesting destination and to offer development opportunities in forthcoming years, which must be promoted from public and private organisation by exploiting the synergies that the tourism and health sectors can offer.

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Chapter 9

The ISO 9001 Standard in the Spanish Construction Industry

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Abstract The ISO 9001 Standard is a quality assurance standard for products and services. It is well established in the construction industry, which is one of the major industries worldwide, including in Spain. The objective of this paper was to analyse how adhering to this standard affects results in Spanish construction companies. To this end, a questionnaire was sent to 302 companies in the construction industry, yielding 126 responses. These empirical data imply that obtaining the ISO 9001 certification has positive effects that yield both “internal” and “external” benefits. According to firms, significant internal benefits were improvements to organisational processes. The most frequently mentioned external benefits were commercial aspects, such as better chances of competing in the market.

9.1 Introduction

At present, most markets in developed economies are highly competitive. The key for long-term business growth and profitability therefore lies in improving customer relations, a process conditioned by customer satisfaction (Heskett, Sasser, & Schlesinger, 1997). This new “differentiation” strategy led to intensive development in quality during the latter decades of the twentieth century. This development was so complete that, over time, quality management has become synonymous with the very concept of management (Casadesús & Heras, 2005). Quality management itself implies continuous improvement of an enterprise’s products, services and procedures, using all available resources (Brocka & Brocka, 1994). In short, quality

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management systems enable companies to acquire management tools with which to develop policies, assign responsibilities, allocate resources and identify key activities (Criado & Calvo, 2009).

Quality assurance standards have emerged in this context. Among them, the ISO 9000 family and the corresponding industry development standards are the most widespread. This family of standards emerged in 1987. It is based on systematising and formalising tasks to achieve product or service uniformity, and comply with customers' previously established specifications (Anderson, Daly, & Johnson, 1999). These standards often constitute a company's first contact with the concept of quality (Martínez, Rodríguez, & Vázquez, 2004), and have been very well received by businesses in different countries. By late 2011, there were 1,111,698 certified companies worldwide, 492,248 in Europe and 53,057 in Spain (ISO, 2012).

The construction industry is one of the world's major industries. In 2011, it contributed 11 % to global GDP, and its contribution may reach 13.2 % by 2020. Construction is also one of the most important industries in the Spanish economy. According to data provided by Seopan (2012), an industry observatory, in 2011, the sector accounted for 10.5 % of Spain's GDP and employed 8 % of the workforce (1.37 million employees). During the period of greatest expansion in the economic cycle (i.e. the year 2006), construction accounted for 12.6 % of Spain's GDP and employed 13.9 % of the country's workforce (2.7 million employees).

The sector has been severely affected by the aforementioned strong competition, and, as respondents noted, appropriate quality management has therefore become an essential tool in customer relations. Quality is in fact even more crucial in construction given the importance of safety in all products and services within the industry (FLC, 2002). Moreover, the current downturn in Spain's economic cycle has hit the industry particularly hard, which is why expansion beyond national borders has become a means of survival. To this end, strict compliance with international quality standards is a requirement (Torres, 2009).

Hence, construction companies have widely implemented the ISO 9001 Standard. This standard is, used to such an extent that, in terms of the number of certified companies, the construction industry ranks third worldwide and first in Spain, with 7,153 certifications (ISO, 2012). As discussed in further detail in the next section, initially applying and then sustaining this standard requires resources, which entails costs, as is the case when companies implement total quality models. The process should therefore be justified by benefits that offset the cost. These benefits may be "internal" or "external" (Heras, Arana, & San Miguel, 2010; Sampaio, Saraiva, & Guimaraes, 2010).

Numerous studies have examined the grounds and outcomes of implementing the ISO 9000 family of standards. Nevertheless, at the start of this research, no research had focused specifically on the Spanish construction industry, where many companies have implemented this standard.

This study analyses how adhering to the ISO 9001 Standard positively affects Spanish construction businesses. To this end, we conducted a postal survey of quality managers at 302 companies in the construction industry. Sections 9.4 and 9.5 present the outcomes and conclusions of this survey.

9.2 Theoretical Framework

As the introduction explains, today's companies are part of a competitive, globalised environment. To survive, they must strive for maximum efficiency in achieving their objectives, while focusing on their customers. These demands compel companies to introduce management systems that enable them to develop policies, assign responsibilities, allocate resources, and identify and perform key activities. Quality management systems are the most popular tool for this purpose (Criado & Calvo, 2009; Martínez et al., 2004), hence the central role of quality assurance standards. The most widely recognised are the ISO 9000 Standards, first published in 1987. They are often a company's first contact with the concept of quality (Martínez et al., 2004) because these standards tend to rely on qualitative tools that demand little knowledge and experience of quality (Casadesús, Heras, & Marimón, 2011). All of this has led to the rapid expansion of their use worldwide and across many sectors, particularly the Spanish construction industry, as data in the introduction illustrate (ISO, 2012).

Implementing the ISO 9000 family of standards requires money, time and organisation, both initially and over time to sustain them. Implementation should therefore constitute the pursuit of maximum returns on investment through the myriad benefits they offer (Heras et al., 2010; Sampaio et al., 2010; Whitford & Bird, 1996). All these factors have prompted a number of studies, which, either specifically or within another subject, have analysed the results of implementing these standards. As Mann and Kehoe (1994) have pointed out, however, assessing the effects of quality-related initiatives is difficult because very few companies are capable of isolating or quantifying these effects. Nevertheless, numerous studies have analysed the consequences of implementing the ISO 9000 Standards, albeit encountering difficulties and yielding contradictory results.

Most studies have concluded that ISO 9001 has beneficial effects. Nonetheless, a small number of studies have not reported positive effects, at least not in all cases and circumstances (Boiral & Amara, 2009; Gavin, 2000; Heras et al., 2002; Martínez-Costa, Choi, Martínez, & Martínez-Lorente, 2009; Martínez-Costa & Martínez-Lorente, 2003, 2007; Quazi, Hong, & Meng, 2002; Simmons & White, 1999; Singels, Ruel, & Van Der Water, 2001; Terziovski, Samson, & Dow, 1997; Wilson, Walsh, & Needy, 2003).

Several studies (Casadesús, Karapetrovic, & Heras, 2004; Douglas, Coleman, & Oddy, 2003; Escanciano, Fernández, & Vázquez, 2001; Gotzamani & Tsiotras, 2002; Leung, Chan, & Lee, 1999; Lo, Yeung, & Cheng, 2009; Sampaio, Saraiva, & Rodrigues, 2009; Tari, Molina-Azorín, & Heras, 2012; Vloeberghs & Bellens, 1996; Wahid & Corner, 2009) have classified positive outcomes resulting from adhering to the ISO 9001 Standard. These authors have thereby established two categories: positive effects on "internal aspects" (organisational processes, operational execution and human resources management); and positive effects on "external aspects" (commercial and financial results, and aspects related to customer management).

When ranking these two types of benefits some prior studies have prioritised positive effects on internal aspects (Bayati & Taghavi, 2007; Bhuiyan & Alam, 2005; Brown, Van der Wiele, & Loughton, 1998; Climent, 2005; Lo et al., 2009; Martínez-Costa, Martínez-Lorente, & Choi, 2008; Terziovski & Power, 2007; Vloeberghs & Bellens, 1996; Wahid & Corner, 2009; Williams, 2004). Conversely, other authors have emphasised positive effects on external aspects (Lima, Resende, & Hasenclever, 2000; Wayhan, Kirche, & Khumawala, 2002; Nicolau & Sellers, 2003; Corbett, Montes, & Kirsch, 2005; Sharma, 2005; Terlaak & King, 2006; Martínez-Costa & Martínez-Lorente, 2003, 2007; Vinuesa, 2007; Benner & Veloso, 2008; Dick, Heras, & Casadesús, 2008).

Most research, however, has found that adherence to these standards yields both internal and external positive outcomes (Buttle, 1997; Calisir, 2007; Casadesús et al., 2004; Casadesús & Giménez, 2001; Escanciano et al., 2001; Feng, Terziovski, & Samson, 2008; Gotzamani & Tsiotras, 2002; Jang & Lin, 2008; Leung et al., 1999; Lo & Chang, 2007; Magh, Khanna, & Sharma, 2010; Mercado, Castillo, & Mateo, 2005; Rodríguez, González, & Martínez, 2006; Romano, 2000; Zaramdini, 2007).

In addition, Tari et al. (2012) reviewed 82 studies on the benefits adhering to ISO 9001. They concluded that the positive effects cited most frequently relate to internal aspects involving operational execution and human resources management, and customer-related external aspects.

9.3 Empirical Research

9.3.1 Research Objective

The objective of this research was to analyse the results of implementing ISO 9001 in Spanish construction companies. In doing so, we sought to determine whether, as most studies indicate, ISO 9001 also yields positive effects in this field, and, if so, whether internal or external effects are most significant. If not, as other studies suggest, we would observe inconclusive evidence of the benefits of ISO 9001.

9.3.2 Sample

This study targeted companies in the Spanish construction industry. Specifically, we targeted firms devoted entirely or in part to civil engineering. As cycles in this field are usually more stable than in building construction, we avoided bias due to the moment at which the investigation took place. Codes established by the National

Classification of Economic Activities (CNAE for its acronym in Spanish) were used to establish the target population. After selecting relevant codes, we obtained a sample population of 3,493 entities.

9.3.3 Methodology

Primary information sources yielded the data for this investigation. Questionnaires were used to collect data. They were sent to quality managers or individuals responsible for quality in participating construction companies.

We designed the questionnaires by drawing on instruments used in prior studies on ISO 9000 Standards (Arana, Heras, Ochoa, & Andonegui, 2004; Buttle, 1997; Casadesús, Heras, & Ochoa, 2000; Casadesús et al., 2004; Casadesús & Heras, 2001, 2005; Escanciano et al., 2001; Mercado et al., 2005). We conducted a “pre-test” on two construction companies. Once we had incorporated their comments, we completed the definitive version of the questionnaire. The first wave of questionnaires was sent in November 2011. A second wave in February 2012, increased the number of completed questionnaires. All questionnaires were posted, and some were sent via e-mail if addresses were available in the databases. Eventually, we received 126 completed questionnaires. Data processing began on 1 April 2012.

All companies that completed the questionnaire had obtained ISO 9001 certification. The time elapsed since the first certification was over 5 years in 73 % of companies. In 93 % of companies, all processes had been certified, which reinforces the validity of conclusions in the present study. Table 9.1 shows the study’s technical data sheet, based on the data discussed previously.

Table 9.1 Technical data sheet

Population universe	Spanish construction companies in the civil works subsector, excluding small entities (as defined in European Union Recommendation 2003/361/CE)
Sampling technique	Random: questionnaires were sent to all the entities in the population universe
Information-collecting method	Postal and online survey
Respondents	Company Quality Manager or individual responsible for this area
Population	302
Sample size	126
Confidence level	95 % ($z = 1.96; p = q = 0.5$)
Sampling error	6.7 %
Information-collection period	From 1 November 2011 to 31 March 2012

9.4 Results

The objective of this study was, to analyse the results from the implementation of ISO 9001 in Spanish construction companies. Accordingly, participating organisations answered the following question:

- “How do you assess the influence of ISO 9001 on positive effects in the following areas?” (Respondents marked a score on a five-point Likert-type scale):

[(a) very low relevance, (b) low relevance, (c) intermediate relevance, (d) high relevance, (e) very high relevance]

Based on conclusions from the studies discussed in Sect. 9.2, different types of positive effects addressed by the questionnaire appear in Table 9.2.

Table 9.3 shows internal positive effects, and Table 9.4 external positive effects. For each positive effect, Tables 9.3 and 9.4 display the relevance of adherence to ISO. These percentages shed light on the relative importance of each positive effect, as reported by participating enterprises.

For 74.4 % of companies adhering to ISO 9001 had “high or very high” relevance in leading to internal positive effects relating to organisational processes. Only 53.7 % of companies cited “high or very high relevance” in the case of positive effects relating to operational execution. The influence of the ISO 9001 Standard on internal human resources management aspects received the lowest rating (31.7 %).

For all internal positive effects, considerably more respondents chose “high level of relevance” than “very high level of relevance”.

For 86.6 % of the entities surveyed, adherence to ISO 9001 had “high or very high” relevance for external positive effects relating to commercial aspects, such as competition in the marketplace. This percentage was 62.2 % in the case of positive

Table 9.2 Typology of positive effects arising from adherence to ISO 9001

<i>Internal aspects</i>	
Organisational processes	Production management control, establishment of rules and responsibilities, improved coordination with suppliers, increased innovation, enhanced process management information system, improved internal control system to detect nonconformities, etc.
Operational execution	Better use of resources, reduced inspection costs, enhanced general efficiency, lower production and logistics costs, fewer nonconformities, improved compliance with implementation deadlines, less non-quality costs, etc.
Human resources management	Better employee suggestion systems, team participation, decline in job absence levels, higher job satisfaction and motivation, etc.
<i>External aspects</i>	
Commercial	A requirement to compete in the industry and to enter new markets
Financial	Increased turnover and market share, higher revenue per-employee ratio, etc.
Customer management	Increased repeat-customer transactions, reduced nonconformities or complaints, increased satisfaction, enhanced market image, etc.

Table 9.3 Internal positive effects arising from the implementation of ISO 9001

Internal effects: level of relevance	Organisational processes (%)	Operational execution (%)	H.R. Management (%)
Very low	0.00	1.22	2.44
Low	4.88	6.10	20.73
Intermediate	20.73	39.02	45.12
High	58.54	42.68	29.27
Very high	15.85	10.98	2.44
Total	100	100	100

Table 9.4 External positive effects arising from the implementation of ISO 9001

External effects: level of relevance	Commercial (%)	Financial (%)	Customer management (%)
Very low	0.00	4.88	0.00
Low	4.88	20.73	2.44
Intermediate	8.54	40.24	35.37
High	42.68	24.39	41.46
Very high	43.90	9.76	20.73
Total	100	100	100

Table 9.5 Ranking of positive effects arising from the implementation of ISO 9001

Ranking	High or very high level of relevance (%)	Positive effects
1st	86.6	External effects: commercial
2nd	74.4	Internal effects: organisational processes
3rd	62.2	External effects: customer management
4th	53.7	Internal effects: operational execution
5th	34.2	External effects: financial
6th	31.7	Internal effects: H.R. Management

effects related to customer management, and the influence of the ISO 9001 Standard on external positive effects related to financial aspects received the lowest rating from certified companies (34.2 %). Considerably more respondents chose “high level of relevance” than chose “very high level of relevance”, except in the case of commercial aspects, where the “high” and “very high” relevance options were equally distributed.

After we had evaluated results of each positive effect (internal and external), we ranked the benefits of implementing the ISO 9001 Standard in the Spanish construction industry. The ranking, which appears in Table 9.5, is based entirely on the responses of participating companies.

Implementation of the ISO 9001 Standard appears to have a significant influence on external benefits (both commercial and concerning customer management), as well

as internal benefits (relating to organisational processes and operational execution). Nevertheless, respondents emphasise the importance of ISO 9001 in obtaining “external” benefits because positive effects of this kind appear first and third in the ranking.

9.5 Conclusions and Future Lines

This objective of this study was to analyse results arising from the implementation of ISO 9001 in Spanish construction. Most of the organisations that participated in this research reported that the standard has had a positive influence on internal benefits. Responses to two items (organisational processes and operational execution improvements) show that a significant proportion of companies (74.4 % and 53.7 %, respectively) consider that certification has had high or very high relevance in yielding these positive effects. The only item with a low percentage of positive responses (31.7 % of companies) human resources management.

Likewise, most participating entities stated that ISO 9001 has had a positive influence on external benefits. Responses to two items (improvements in commercial aspects, such as those related to competition in the marketplace, and customer management) show that a significant proportion of companies (86.6 % and 62.2 %, respectively), consider that certification has been of high or very high relevance in yielding these positive effects. The only item with a low percentage of positive responses (34.2 % of companies) related to financial improvements. Nonetheless, responses suggest that the positive influence of adhering to ISO 9001 is slightly stronger for external benefits than for internal benefits, because external benefits appear first, third and fifth in the ranking of positive effects (see Table 9.4).

Results of this study therefore appear to support those of authors who examined the effects of the ISO 9001 Standard on certified companies and found that it leads to both internal and external benefits, as discussed in Sect. 9.2 (Buttle, 1997; Calisir, 2007; Casadesús et al., 2004; Casadesús & Giménez, 2001; Escanciano et al., 2001; Feng et al., 2008; Gotzamani & Tsiotras, 2002; Jang & Lin, 2008; Leung et al., 1999; Lo & Chang, 2007; Magh et al., 2010; Mercado et al., 2005; Rodriguez et al., 2006; Romano, 2000; Zaramdini, 2007).

Despite these results, however, this study has some limitations, which present opportunities for future research. Since this is a descriptive study, readers should interpret results with caution. Results should be viewed as estimates until new empirical studies can confirm them. Likewise, the sampling error shown in the study’s technical data sheet is 6.7 % (Table 9.2). It thus exceeds 5 %, which means that the possibility of extrapolating results to the whole sector is limited.

In future studies, scholars should pursue two lines of research to offset the limitations described previously. A first line of research should increase the sample size and carry out new empirical studies to confirm this study’s conclusions. Second, a researcher should analyse how business size and time influence the positive effects of implementing the ISO 9001 Standard.

Finally, although most Spanish construction companies stated that they have benefited from adherence to the ISO 9001 Standard, responses were nevertheless contradictory, particularly concerning internal effects relating to human resources management, and external effects relating to financial aspects. Future research should thus analyse key factors in construction companies' enablers or barriers to achieving positive outcomes by implementing the ISO 9001 Standard.

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Chapter 10

The EFQM Model as an Instrument to Legitimise Organisations

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Abstract The number of studies to have shown the importance of legitimacy for organisations is growing. Legitimacy has become a key factor for organisations to survive and grow. Numerous mechanisms exist for acquiring legitimacy. Their implementation involves engaging in actions that conform to what is expected of an institution. This study aims to highlight the effect of management excellence, in compliance with the EFQM model, on the legitimacy of organisations. The principles of excellence, as established by this model, are consistent with what is expected of an institution. The general hypothesis is that organisations with a higher level of excellence show greater legitimacy. To achieve this objective, this study analyses the relationship between the excellence of 23 schools in the region of Madrid and their legitimacy. Results suggest that the EFQM management excellence model is a useful tool and guide to steer the process of institutionalisation and the achievement of legitimacy. Results also suggest implications in the field of institutional theory.

10.1 Introduction

Society expects organisations to behave rationally; that is, to conform to socially accepted parameters. Institutional theory suggests that organisations tend to become institutionalised to demonstrate that they fit within society (Scott, 1995). Organisations may adapt because of stakeholder pressure, ethical issues or the pursuit of competitive advantage (Cruz-Suárez, Prado-Román, & Díez-Martín, 2014). Institutionalisation of an organisation favours achievement of legitimacy and survival (DiMaggio & Powell, 1983; Meyer & Rowan, 1977).

The central element of the institutional process is the concept of legitimacy (Haveman & David, 2008). This concept consists of a state that reflects cultural alignment, normative support or accordance with relevant laws or guidelines

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(Scott, 1995). Highly legitimated organisations are highly institutionalised with less need to justify their actions (Barley, 2008).

Meeting social expectations is becoming more important for organisations because they thus gain greater access to resources. Organisations must portray an image of viability and legitimacy before receiving any type of support (Starr & MacMillan, 1990). An institutionalised organisation can thus achieve greater stakeholder support (Choi & Shepherd, 2005), engage with suppliers, achieve greater access to investors (Cohen & Dean, 2005; Pollack, Rutherford, & Nagy, 2012; Pollock & Rindova, 2003) and ensure customer satisfaction (Hsu, 2012; Luo & Bhattacharya, 2006); in short, increasing access to resources that are critical for success (Baum & Oliver, 1991; Díez-Martín, Blanco-González, & Prado-Román, 2010).

Organisations can develop strategies to alter the type and amount of legitimacy they attain (Suchman, 1995). In recent years, studies have shown that numerous firms are developing initiatives to earn legitimacy, such as quality management programmes, because they believe that through these actions they can gain competitive advantage, create new business opportunities, increase revenues and improve efficiency (see Kern Pipan, Gomiéscsek, & Mayer, 2012). Nonetheless, from an institutional viewpoint, questions remain concerning the effects of adopting quality management systems.

This observation stresses an aspect that, until now, has received little attention from academics: How do quality management systems affect the legitimacy of organisations? Although there is consensus that commitment to quality management positively influences the legitimacy of organisations, few empirical studies have tried to demonstrate this relationship (Westphal, 1997), especially in the field of business excellence.

Thus, in the current study, we analyse the relationship between quality management, using the EFQM excellence model, and legitimacy. Through this analysis, we aim to fill a gap in the research on legitimacy and the strategies to achieve it. To do so, we study schools in the region of Madrid (Spain) that use a quality management system.

10.2 Theoretical Framework

DiMaggio and Powell (1983) stated that institutionalisation consists of a process of imitation or mimicry whereby, when confronted by uncertainty between alternatives, successful elements of other individuals or organisations are adopted. Many reasons—covered in the literature—lead organisations to pursue institutionalisation. These reasons include responding to pressure from stakeholders, boosting competitiveness, or even complying with ethical issues (see Cruz-Suárez, Prado-Román et al., 2014).

The advantages of adjusting to and complying with social norms are increasing prestige, stability, legitimacy, social support, and internal and external commitment, accessing resources, attracting personnel, gaining acceptance from the profession and avoiding being questioned (DiMaggio & Powell, 1983; Meyer & Rowan, 1977).

Studies have shown that it is possible to achieve many of these advantages through quality management via excellence models. In particular, firms that use excellence management systems have obtained better results in distinct elements of the business structure such as management, people, systems and performance (Haffer & Kristensen, 2008). In Europe, firms that have won awards for excellence achieve better performance in the stock market, more sales, better capital-expenditure-to-assets and capital-expenditure-to-sales ratios, higher asset growth, and lower costs-to-sales ratios (Boulter, Bendell, Abas, Dahlgaard, & Singhal, 2005). Scholars have also found that firms with excellence systems earn greater commitment from their employees (Tutuncu & Kucukusta, 2007).

Despite these findings, however, some authors have suggested that total quality management (TQM) models have failed to yield all the expected benefits they promise (Ivanovic & Majstorovic, 2006; Staw & Epstein, 2000; Sun & Cheng, 2002). Analysis of the effect of total quality systems on business results remains a topic of interest for businesses and researchers (Prajogo, 2005).

Quality models have become a competitive advantage at the global level. Today, many suppliers and clients are demanding this type of management, and some firms use it more to promote the business than to implement continuous improvement (Kern Pipan et al., 2012). In such cases, quality management models help firms to adapt to society's demands by acting as an instrument to legitimise organisations.

Legitimacy is not an exchangeable product but rather a state that reflects cultural alignment, normative support, and compliance with relevant rules and guidelines (Scott, 1995). For instance, Singh, Tucker and House (1986) analysed how the youngest firms tend to perish sooner than more mature companies, amongst other reasons because of their lack of legitimacy. To a certain degree, one explanation for this observation is that young organisations must learn new routines, behaviours and so forth to adapt to the demands of the environment. Simultaneously, however, they are competing with more mature organisations that already have a certain degree of legitimacy. In other words, mature firms hold a competitive advantage over younger firms. This lack of legitimacy hinders access to resources indispensable for growth, not only for young companies but also for the rest (Aldrich & Fiol, 1994; Zimmerman & Zeitz, 2002).

Early scholars of institutional theory suggested that organisations achieved legitimacy by complying with rules, beliefs and guidelines (DiMaggio & Powell, 1983; Meyer & Rowan, 1977; Scott, 1995). According to this theoretical approach, organisations could do little to gain legitimacy because it was not considered that they could develop strategies to alter their degree of legitimacy (Mezias, 1995; Suchman, 1995). A new approach to legitimacy, however, has suggested that organisations can develop strategies to alter their type and amount of legitimacy (Scott, 1995; Suchman, 1995). Numerous authors have identified strategic actions that improve the legitimacy of organisations (Beelitz & Merkl-Davies, 2011; Deephouse, 1996; Díez-Martín, Prado-Román, & Blanco-González, 2013a; Lamberti & Lettieri, 2011). Suchman (1995) categorised these strategies into three lines of action: (a) strategies to earn legitimacy, (b) strategies to maintain legitimacy, and (c) strategies to recover lost legitimacy. Organisations that develop these types of actions would

advance in the process of institutionalisation. Along these lines, Elsbach and Sutton (1992) and Tornikoski and Newbert (2007) have shown that organisations are not simply passive elements in the process of legitimation, but can in fact actively work towards influencing and manipulating perceptions of their environment.

Quality management can play a key role in the legitimacy of organisations. In fact, stakeholders confer legitimacy upon firms when they feel firms maintain certain behavioural standards (Kostova & Zaheer, 1999). Indeed, to increase or maintain their legitimacy, some organisations have obtained certificates of quality standards (Zammuto, 2008). Models of management excellence, such as the EFQM, promote the performance of actions shown to be desirable for obtaining legitimacy. Examples are the creation of a corporate culture (Drori & Honig, 2013) or carrying out good governance practices (Judge, Douglas, & Kutan, 2008; Kent & Zunker, 2013).

H1. Organisations with a higher level of excellence show greater legitimacy

An organisation's legitimacy may be classified into several typologies (see Bitektine, 2011). One of the most common classifications is that of Scott (1995), who posited the existence of three types of legitimacy: regulative, normative and cognitive.

The regulative dimension of legitimacy depends on the regulations, policies, guidelines and laws that affect people's behaviour. An organisation with regulative legitimacy complies with society's laws and guidelines. The normative dimension captures evaluations of social norms, values and beliefs (Busenitz, Gomez, & Spencer, 2000; Scott, 1995); in other words, the objectives and standards pursued, along with the means used to achieve them. An organisation with normative legitimacy is one whose activities conform to the values of the society where it operates. Finally, the cognitive dimension consists of the knowledge framework through which information is interpreted. This dimension lies within the common reference framework that people adopt to interpret a certain situation. An organisation with cognitive legitimacy carries out its activities using the processes or methods that professionals and experts consider best.

The legitimacy of organisations is composed of different combinations of these typologies. Combinations vary amongst themselves and over time, such that an organisation may change from having high cognitive legitimacy and low normative legitimacy to a new state whereby its legitimacy consists primarily of regulative legitimacy. Scott (2008) argued that it is important to determine which legitimacy typology is the most important in each context, and the extent to which organisations work towards achieving this typology.

H2. Organisations with higher levels of excellence show greater regulative legitimacy.

H3. Organisations with a higher level of excellence show greater normative legitimacy.

H4. Organisations with a higher level of excellence show greater cognitive legitimacy.

10.3 Methodology

10.3.1 *Sample*

We decided to analyse the relationship between level of excellence and legitimacy of organisations in schools in the region of Madrid (Spain). In this region, there are 3,939 schools (Portal Escolar, 2014) including public, private and semi-private schools. Only 25 schools have obtained the EFQM certificate at one of its four levels (200+, 300+, 400+ or 500+). All schools with EFQM are private or semi-private. No public school in the region of Madrid holds an EFQM certificate of excellence in any of its four categories. The final sample comprised 23 schools because schools that taught only vocational training courses were eliminated.

We chose to study schools in the region of Madrid for several reasons. (a) Studies have shown the importance of quality for schools (Betts, 1995; Black & Smith, 2004; Eide & Showalter, 1998). (b) We needed a sample of organisations from a homogeneous environment. In Spain, regional governments, not the central government, have educational jurisdiction. This legal framework means that, across the country, there are different school environments, in which there are different regional regulations. (c) The region of Madrid has the highest number of EFQM-certified schools. (d) We needed there to be a wide range of certificates in organisations included in the study, so that not all organisations in the sample had achieved the same standard. This is the case with schools, unlike in other samples, whereby all firms with the EFQM certificate hold the 500+ standard (e.g. firms in the IBEX35).

10.3.2 *Data and Variables*

Measuring legitimacy has posed one of the biggest problems to researchers (see Díez-Martín et al., 2010), essentially because of the difficulty in creating a homogeneous measurement system. One way of measuring legitimacy is to address its sources; in other words, addressing who has authority on legitimation. Suchman (1995) considered that the possible sources of legitimacy were not limited to a specific group of people. The response depends largely on the research focus. Ruef and Scott (1998, p. 880) have perhaps contributed one of the most comprehensive approaches to distinguishing an organisation's sources of legitimacy: "whether an organisation is legitimate, or more or less so, is determined by those observers of the organisation who assess its conformity to a specific standard or model." More specifically, these authors indicate that the sources of legitimacy are the internal and external audiences, who observe organisations and evaluate their legitimacy. In the present study, we measured legitimacy of organisations by using external information sources. Other researchers have also used external sources to measure legitimacy of organisations (Drori & Honig, 2013; Rao, Chandy, & Prabhu, 2008).

To construct the variables for our model, we used two information sources. The first source was the School Portal (Portal Escolar, 2014) database belonging to the Madrid government, which yielded indicators of schools' legitimacy. We used data from the 2012–2013 school year. The second source was the database of the Club for Management Excellence (*Club Excelencia en Gestión*), which yielded the level of excellence of the schools included in the study. This club is the Spanish partner of the EFQM.

Table 10.1 shows the variables used in the research. The degree of the EFQM certificate provided the level of excellence, such that organisations with a higher level of excellence were those that had obtained the EFQM 500+ standard, whereas those with a lower of excellence had obtained the EFQM 200+ standard. We assumed that an organisation achieves a higher degree of excellence when it reaches and maintains exceptional performance levels that comply with or exceed all stakeholders' expectations (EFQM, 2013). Six variables determined legitimacy. These variables relate to society's perception of the degree of acceptance of the activities carried out by the schools. We assumed the schools with greater legitimacy were those that: receive more enrolment applications, ensure their students achieve higher scores in compulsory examinations, have a higher number of students who earn their secondary school diploma and earn better academic recognition.

Table 10.1 Variables and data source

Variable	Description	Values	Source
Codefqm	Level of EFQM obtained by the organisation	+200 (1); +300 (2); +400 (3); +500 (4)	CEG
Solprest	Number of enrolment applications		
Titsec	Percentage of students who earn a secondary school diploma	0–100 %	PE
Cdi	Average grade of students who took the compulsory exam (CDI) set by the Madrid government	0–10	PE
Lea	Average grade of students who took the reading, writing, and arithmetic exam (LEA) set by the Madrid government	0–10	PE
Pau	Average grade of students who took the university admissions exam (PAU) set by the Madrid government	0–10	PE
Premaca	Number of academic awards granted by the Madrid government		PE

CEG Club of Management Excellence, *PE* School Portal

Sample: Colegio Obispo Perelló, Fuenllana, Colegio Divina Pastora, Colegio Divina Pastora (Vallecas), Colegio Divina Pastora (Madrid), Colegio Mirasur, Colegio Ntra. Sra. de los Remedios, Humanitas Bilingual School (Torrejón de Ardoz), Humanitas Bilingual School (Tres Cantos), Colegio Mater Salvatoris, Colegio Alkor, Colegio Villalkor, Colegio Casvi-Boadilla, EurocolegioCasvi (Eurolenguas, S.A.), Colegio Maristas Chamberí, Colegio Nuestra Señora del Recuerdo, Colegio Sagrados Corazones (Martín De Los Heros), Colegio San Ignacio de Loyola, Cooperativa de Enseñanza José Ramón Otero (Colegio Ártica), Centro de Formación Padre Piquer, Colegio Nuestra Señora de las Maravillas, Colegio Ramón y Cajal, Colegio Virgen de Mirasierra

10.4 Findings

Table 10.2 shows the key results. Results show that the majority of schools had obtained the EFQM 400+ standard, followed by the 300+. Only four of the 23 had obtained the 500+ standard. In all but five schools in the study, the percentage of students successfully graduating from secondary education was above the average for the region of Madrid (81 %). Concerning students' grades in the compulsory CDI exam, five schools were below the regional average (7.76). Likewise, four schools had results below the regional average (8.52) for students' scores in the LEA exam. Finally, three schools had scores below the regional average (6.12) in the university admissions exam (PAU). Notably, all results from schools with the EFQM 500+ were above the average for the region of Madrid. Furthermore, the number of academic awards granted by the regional government to these schools was above the average for all schools that follow the excellence model.

Figures 10.1, 10.2, 10.3, 10.4, 10.5 and 10.6 show the relations between the EFQM level reached by the schools and their legitimacy for the 2012–2013 school year.

Table 10.2 Results of education variables for 23 schools in the region of Madrid

Nº	Codefqm	Solprest	Titsec	Cdi	Lea	Pau	Premaca
1	1	94	88.12	8.34	8.76	6.56	37
2	1	90	100	8.14	8.74	7.01	24
3	2	88	100	6.81	8.95	6.64	17
4	2		96.67	8.16	8.91	6.5	6
5	2	18	80	6.47	8.73		7
6	2	158		7.87	8.84		
7	3		99.32	8.86	9.5	7.15	98
8	3	219	97.03	7.61	8.35		31
9	3	131	95.4	8.53	9.55	6.24	36
10	3	147	88.89	7.92	9.03	6.68	36
11	3	366	90.21	8.09	8.43	7.35	3
12	3	80	87.3	8.3	9.38	6.93	26
13	3	23	93.62	8.33	7.94		12
14	3		93.48	8.45	9.6	6.61	6
15	3	155	96.25	7.8	9.11	5.63	
16	3	106		4.23		5.7	17
17	4		97.52	8.62	9.11	7.46	52
18	4			8.57	8.85	6.29	37
19	4	159	90.53	8.57	9.4	6.14	30
20	4		96.77	8.49	8.97	7.19	31
21	2	54	82.5	7.35	8.03		10
22	2	72	92.45	8.18	9.2	5.76	11
23	2	109		8.36	8.51		
<i>Media</i>	2.696	121.706	92.951	7.915	8.904	6.579	26.350
<i>s.d.</i>	0.876	81.508	5.705	0.988	0.457	0.567	21.641

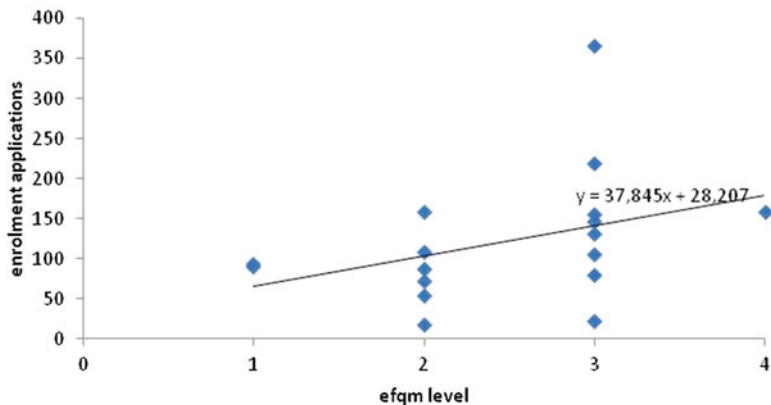


Fig. 10.1 Relationship between EFQM level and enrolment applications

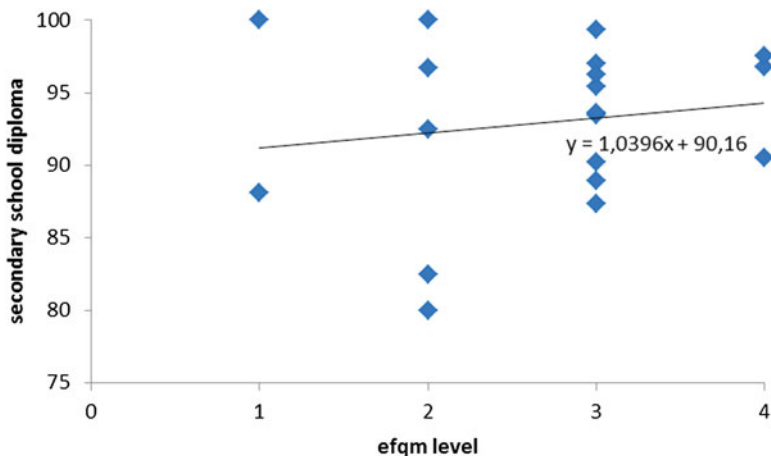


Fig. 10.2 Relationship between EFQM level and secondary school diploma

Results in these figures support, with varying strength, hypothesis 1 of this study: Organisations with a greater level of excellence show greater legitimacy.

Analysis of results suggests that there exists a positive relationship between a school’s level of excellence and the number of enrolment applications (Fig. 10.1): the higher the level of excellence, the greater the number of applications. We also observed a positive relationship between a school’s level of excellence and the percentage of students who earn their secondary school diploma. The schools with the greatest degree of excellence achieve a higher percentage of students graduating from school with a secondary education (Fig. 10.2). This finding confirms

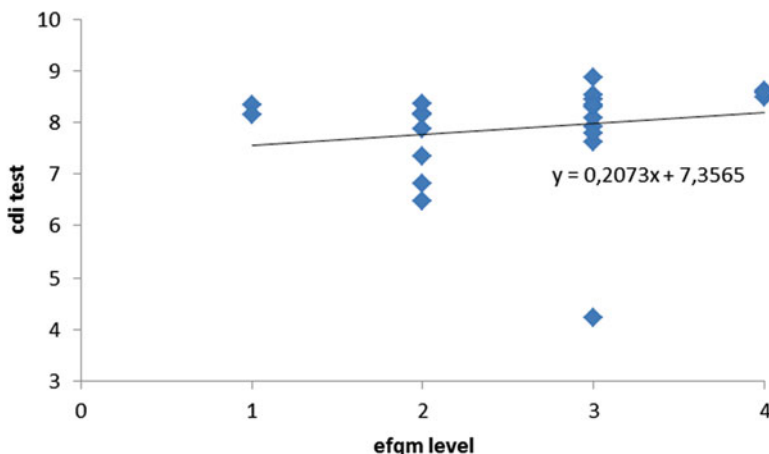


Fig. 10.3 Relationship between EFQM level and CDI exam

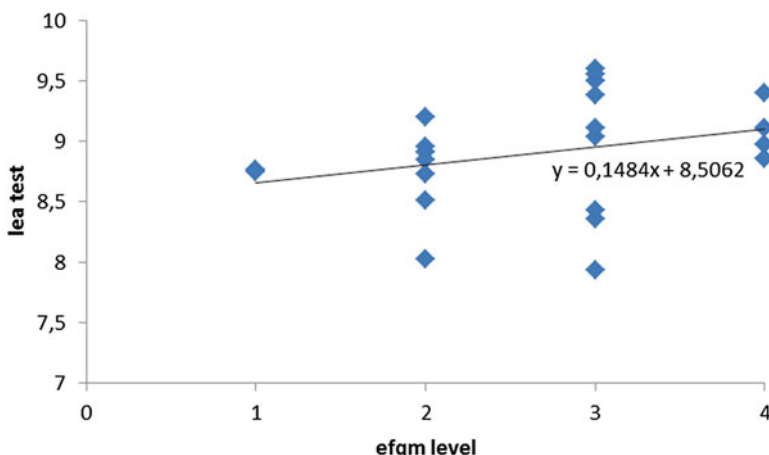


Fig. 10.4 Relationship between EFQM level and LEA exam

hypothesis 3. The relation between a school’s level of excellence and students’ exam results (for the CDI, LEA and PAU) also has a positive trend. This trend is less pronounced than those previously discussed, with a slope of less than 1 (Figs. 10.3, 10.4 and 10.5). Therefore, although these results support hypothesis 2, this support is weaker. Finally, the level of excellence has a relationship with the number of awards the school receives. Figure 10.6 shows a positive trend between a school’s level of excellence and the receipt of academic awards. These results support research hypothesis 4.

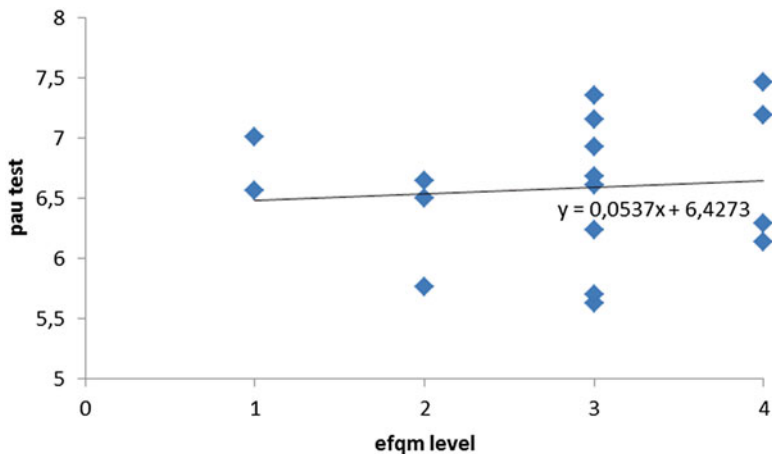


Fig. 10.5 Relationship between EFQM level and PAU exam

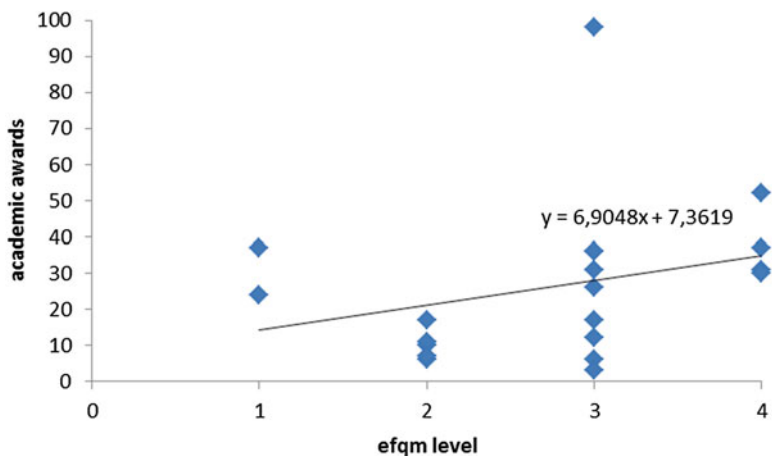


Fig. 10.6 Relationship between EFQM level and academic awards

10.5 Implications and Discussion

The aim of this study was to demonstrate the existence of a relationship between quality management, using the EFQM excellence model, and legitimacy. To do so, we analysed the relationship between the level of excellence of EFQM-certified schools in the region of Madrid and their external legitimacy.

Results of this research confirm the existence of a positive trend between schools' level of quality management and legitimacy. These results are consistent with the

institutional theory approach (DiMaggio & Powell, 1983; Meyer & Rowan, 1977) and previous studies that have linked quality to legitimacy (Zammuto, 2008).

Analysis of the results also suggests that level of quality management affects each type of legitimacy differently. Scholars have posited this relationship (Scott, 2008), arguing that each type of legitimacy resides in different behavioural dynamics (Díez-Martín et al., 2013a; Suchman, 1995).

Thus, the level of excellence of organisations influences, to a greater degree, legitimacy resulting from normative and/or cognitive evaluations. Organisations with higher-level EFQM certificates receive better evaluations concerning their actions relating to social norms, values and beliefs (normative legitimacy). They also garner better assessments regarding their actions relating to the use of methods, processes and work practices because society understands that these organisations are thus acting appropriately (cognitive legitimacy). Likewise, it has been demonstrated that organisations that use processes and methods that are widely accepted and desirable according to professionals and scientific experts, such as customer relationship management systems, increase their legitimacy (Kim, Ha, & Fong, 2014).

Nevertheless, excellence management influences, to a lesser degree, legitimacy resulting from evaluations of compliance with society's guidelines, policies and laws (regulative legitimacy). In the present research, students' achievement of better results in exams set by the Madrid government did not seem to have an effect on what influences the level of quality management in schools. Extending this result to other types of organisations would imply that a greater level of quality management would not influence an organisation's regulative legitimacy. This result is consistent with prior research that has shown that some components of total quality, such as ISO standards, not only help to comply with regulations and pressures from customers, but are also a suitable instrument to achieve continuous improvement within the organisation (Anderson, Daly, & Johnson, 2009). The implementation of a quality management model, based on excellence, is not aimed at fulfilling legal requirements, but rather at improving an organisation's efficiency and effectiveness whilst complying with the law.

Our results mark an advance in the field of quality management because they are directly related to a variable that is fundamental for business performance: legitimacy. This research thereby helps to fill the gap in research on the process of legitimisation relating to strategies to gain and maintain legitimacy.

This study has numerous management implications. In light of the aforementioned findings, school managers should be aware that quality management, through an excellence model, fosters the achievement of legitimacy, and ultimately improves business performance (Díez-Martín et al., 2013a). Society cares whether students of a particular school earn their secondary school diploma and receive academic awards. The school is then rewarded by receiving more enrolment applications. Some authors have reported that quality demonstrated by schools is significantly related to parents' decisions to keep their students enrolled at the same school (Hanushek, Kain, Rivkin, & Branch, 2007). We suggest that legitimacy plays an essential role in this relationship.

Achieving greater levels of quality management implies the achievement of more legitimacy, and, consequently, greater access to resources that are indispensable for survival (Zimmerman & Zeitz, 2002), such as enrolment applications. In particular, these results are consistent with those reported by Koning and van der Wiel (2013), who showed that the quality of information published in newspapers can increase enrolment applications to schools. Information published in newspapers has been used on numerous occasions to measure the legitimacy of organisations (Bansal & Clelland, 2004; Deephouse, 1996).

This study also reports that schools are not just passive elements in the legitimisation process, but that they can also work actively to influence and shape perceptions in their environment (Díez-Martín et al., 2013b; Oliver, 1991; Suchman, 1995). Thus, from a strategic viewpoint, school managers should view legitimacy as a strategic goal. Management of legitimacy could be undertaken in accordance with the proposal by Suchman (1995), who established a set of strategies to earn, maintain and recover lost legitimacy. The quality of these strategies has been proven by firms (e.g. Lamberti & Lettieri, 2011; Tornikoski & Newbert, 2007).

Despite its findings and the utility of its implications, this study has several limitations that present opportunities for future research. First, readers should interpret results with caution, and should consider them approximations until other empirical studies have confirmed the robustness of this model. To do so, we recommend expanding the sample of schools and using techniques that are more robust to confirm the hypotheses. Second, scholars could extend this analysis of quality management via excellence models by addressing individual dimensions that compose such models. Researchers can thus examine which criteria of the EFQM model exert the greatest effect on schools' legitimacy, or which criteria exert the greatest influence on each type of legitimacy. We also recommend using measures of legitimacy based on both external and internal sources, for instance by considering perceptions of school employees and students. Such an approach would yield more valid and reliable results. This would help to analyse the similarities that may arise between sources of legitimacy. Previous studies in this field have reported differences between the perceptions of students and those of teachers (Cruz-Suárez, Díez-Martín, Blanco-González, & Prado-Román, 2014). Future research could also analyse differences in legitimacy between schools with management models based on excellence and those that do not follow any accredited quality system. Scholars could even investigate whether there are differences in legitimacy between public, private and semi-private schools.

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Chapter 11

Integrated Management Systems: A Model for Maturity Assessment

Pedro Domingues, Paulo Sampaio, and Pedro Arezes

Abstract Maturity models are adopted to minimise our complexity perception over a truly complex phenomenon. In this sense, maturity models are tools that enable the assessment of the most relevant variables that impact on the outputs of a specific system. Ideally a maturity model should provide information concerning the qualitative and quantitative relationships between variables and how they affect the latent variable, that is, the maturity level. Management systems (MSs) are implemented worldwide and by an increasing number of companies. Integrated management systems (IMSs) consider the implementation of one or several MSs usually coexisting with the quality management subsystem (QMS). It is intended in this chapter to report a model based on two components that enables the assessment of the IMS maturity, considering the key process agents (KPAs) identified through a systematic literature review and the results collected from two surveys.

11.1 Introduction

IMSs are being developed worldwide by companies operating on the most disparate activity sectors. At the present, there is not an ISO standard to assist companies during the IMSs implementation like the ISO 9001 or ISO 14001 standards guide companies on the implementation of QMSs and environmental management systems (EMSs), respectively. This fact leads to similar companies achieving different integration levels and adopting different integration paths which influence IMSs efficiency. Maturity models are being developed in several fields and are useful tools when aiming at the assessment of complex systems like the IMSs. These complex systems are usually characterised by a great deal of variables involved, often related to each other, but

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where the nature and intensity of those relationships is not fully known. Ultimately, a maturity model simplifies a complex problem so it may be manageable and understood enabling some forecasting by the identification of the most relevant variables.

11.2 Theoretical Background

11.2.1 Maturity Models

Maturity models may improve companies' efficiency, effectiveness and capability and in our days are essential tools to evaluate and assess a company capability aiding to implement the necessary improvements structurally. Several authors such as Cooke-Davies (2002) described the features that should be taken into account before any maturity model development (Table 11.1).

In this context one may add that the development of maturity models relates intimately to two concepts: maturity and capability. Maturity implies, generically, a stage favourable to a peculiar characteristic and from where is not advisable to proceed any more actions but various authors provided their own definitions encompassing the specific context where the maturity model was developed. While the maturity concept concerns with more than one relevant item to the maturation object the capability concept relates with just one of those items. Röglinger and Pöppelbuß (2011) accurately defined maturity model as a set of sequential levels that, together, describe an anticipated, desired or logical path, from an initial stage to a final maturity stage. These models originated from the quality background (Demir & Kocabaş, 2010; Fitterer & Rohner, 2010; Sen, Ramammurthy, & Sinha, 2012) depicting a set of capability growth stages, both at quantitative and qualitative levels, of the maturation object.

Some features regarding the design of the model condition their applicability and diffusion, such as, the related costs, easiness to use, simplicity on interpreting it, coherence between successive editions and the degree of difficulty concerning the mandatory training. Disparate domains were the target of maturity models such as the quality management (Ivanovic & Majstorovic, 2006), the assessment of performance indicators (Aken, Letens, Coleman, Farris, & Goubergen, 2005), the development, testing and maintenance of software (April & Desharnais, 2005; Sen et al., 2011;

Table 11.1 Some features to be considered before developing a maturity model (Cooke-Davies, 2002)

Feature	
The meaning of the term "maturity" within the context of the maturity model development	The element being through the maturation process
The main features of the maturity model to be developed	The features that will sustain the model
The nature of maturation	The evolution of the elements or agents over time
The direction of evolution	

Wangenheim et al., 2010), the assistance to e-government by companies (Röglinger & Pöppelbuß, 2011), the evaluation of suppliers (Mettler, 2010), the development of products (Bing, Shan, Tao, & Gang, 2010), innovation (Essmann & Preez, 2009), the development of projects and their management (Gareis, 2002; Guangshe, Li, Jianguo, Shuisen, & Jin, 2008), the assessment of the communication level in collaborative activities (Maier, Eckert, & Clarkson, 2006), the risk management in IT activities (Mayer & Fagundes, 2009), the knowledge management (Jian kang, Jiuling, Qianwen, & Kun, 2011; Röglinger & Pöppelbuß, 2011), the development of business intelligence (Chuah, 2010), the evaluation of leadership capabilities and the assessment of archives systems (Wetering, Batenburg, & Lederman, 2010).

11.2.1.1 Typologies of Maturity Models

Usually, maturity models describe, using some sentences, the typical behaviour or the relative position (maturity level) achieved by the object of maturation. Concerning their field of application models may be classified as described by Fig. 11.1.

Tonini, Carvalho, and Spínola (2008) regarding the design requirements of maturity models distinguish between generic requirements and specific requirements (Table 11.2). The involvement by all the agents (users and developers), their dynamic nature, the systemic based approach and traceability are characteristics that all

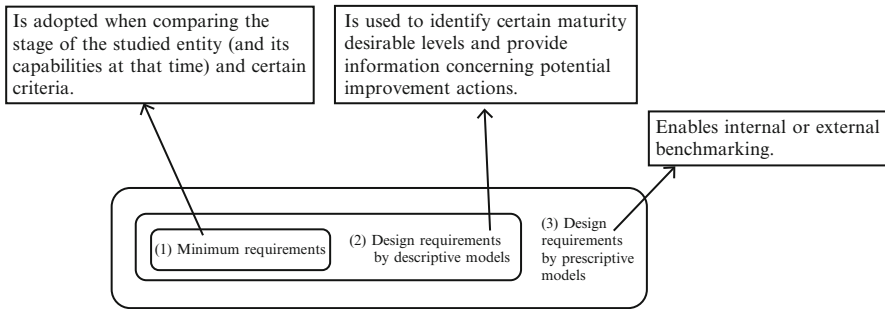


Fig. 11.1 Design requirements according Typologies of maturity models

Table 11.2 Maturity models requirements (adapted from Tonini et al., 2008)

Generic requirements	Specific requirements
Abstraction; to involve all the agents	Relevance; to highlight the features that add value to the company
Dynamic; to allow adaptations	Opportunity; to be used in order that business opportunities may be explored
Systematic; to be sustained by a system	Specificity; to take into account specific features from the company
Traceable; to allow a posteriori analysis so strengths and weaknesses may be identified	Feasible; to be implemented according a suitable cost/benefit relationship

maturity models should present. The specific requirements should be outlined considering the intrinsically characteristics of the entities that will adopt the model and to whom the model was developed.

11.2.1.2 Questions that Should be Taken in Account When Developing Maturity Models

The design of a maturity model is a multi-methodological task and, as previously mentioned, the proliferation of maturity models was reported in several research domains. However, concerning their design all maturity models present several common features (Röglinger & Pöppelbuß, 2011; Sen et al., 2011) that are listed in Table 11.3.

Röglinger and Pöppelbuß (2011) listed the main design principles (Table 11.4) that a generic maturity model should observe according to its own nature (comparative, descriptive or prescriptive). By analysis of Table 11.4 one may see that the minimum requirements do not consider the principles related to improvement actions and their assessment. The design features encompassing those principles are solely considered

Table 11.3 Common features to maturity models

A limited number of maturity levels (usually 4–6)	Each maturity level is characterised by certain key process agents (KPA's)	The maturity levels are sequentially ordered
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Table 11.4 Design requirements according to the typology of the maturity model. (Röglinger & Pöppelbuß, 2011)

Group	Design principles	
(1) Minimum requirements	1.1	Basic information
		Domains of application and pre-requirements
		Adoption
		Target group
		Entity class under research
		Models differentiation from related maturity models
		Design process and extension of the empirical validation
		1.2
	Maturity and its dimensions	
	Maturity levels and maturation paths	
	Theoretical foundations sustaining the model	
	1.3	Definition of critical features concerning the domain of application
	1.4	Documentation concerning the target group
	(2) Descriptive	2.1
2.2		Methodology to assess the target group
		Procedure model
		Consulting process concerning the assessment of the criteria
		Consulting process concerning adaptability and criteria configuration
		Experts know-how based on other applications

(continued)

Table 11.4 (continued)

Group	Design principles	
(3) Prescriptive	3.1	Improvement actions for each maturity level
	3.2	Decision calculus concerning the selected improvement actions
		Explanation on the relevant system objectives
		Explanation on the relevant influent features
		Distinction between an external report and the internal improvement perspective
	3.3	Decision methodology focused on the target group
		Procedure model
		Consulting process concerning the assessment of the variables
		Consulting process concerning concretisation and adaptability level of the improvement actions
		Consulting process concerning adaptability and decision calculus configuration
		Experts know-how based on other applications

by prescriptive models since the requirements from verifiable criteria and related methodological assessment were already taken into account by descriptive models.

The desirable relationships and correspondences that an operational maturity model should present (Fig. 11.2) were synthesised by Burnstein, Suwanassart, and Carlson (1996).

Each level deploys on several objectives (sub-objectives) each one focusing a specific KPA. In addition, relevant information concerning the capability of each KPA should be provided. Tasks, allocation of responsibilities, methodological changes, among other, may be adopted to attain the sub-objectives.

11.2.1.3 Maturity Models Limitations

Several authors pointed out several shortcomings of maturity models such as those listed in Table 11.5 (Becker, Knackstedt, & Pöppelbuß, 2009). The major concerns relate with the development of maturity models lacked of methodologies commonly accepted by the mainstream scientific community. This leads to the recurrent criticism on the excessive simplification of a phenomenon when compared to its real performance.

Some authors suggest that the minimisation of the above-mentioned limitations may be achieved assuring a continuous and iterative assessment as well a comparison with other adopted models aiming at the same objective.

11.2.2 Integrated Management Systems

Based on several bibliographic sources, such as the ISO Survey, there is some evidence that the number of IMSs is increasing worldwide. This fact relates with the new shareholders to whom the companies fulfil requirements: the environmental

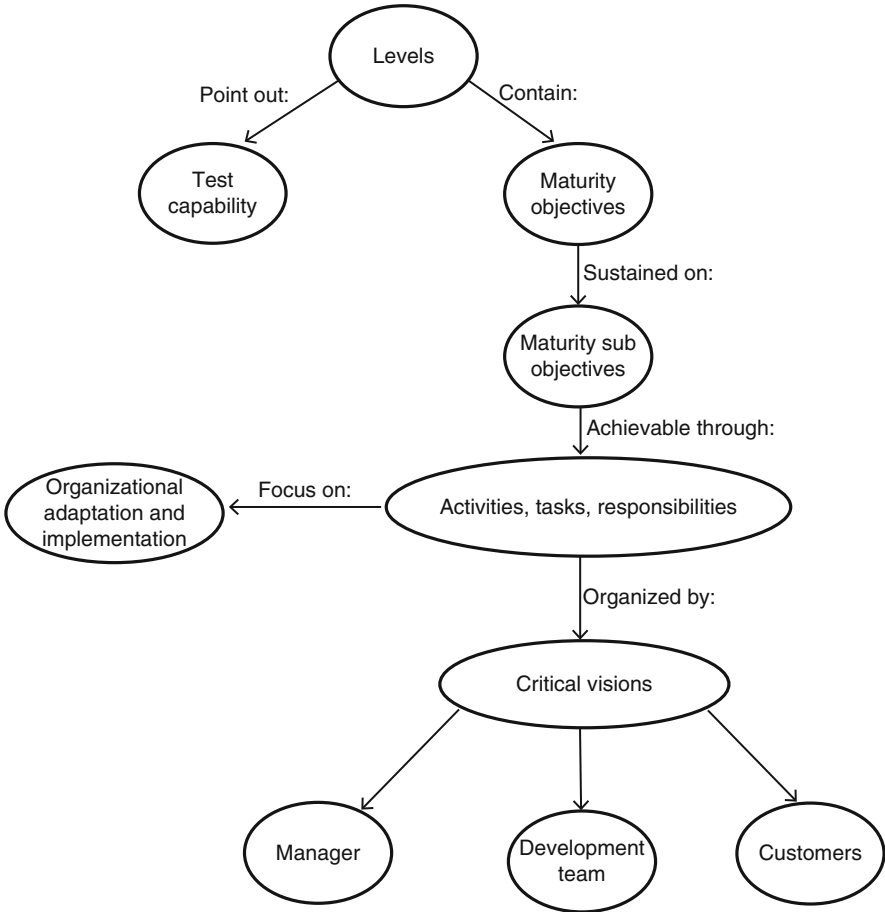


Fig. 11.2 Desirable relationships and correspondences on a maturity model (adapted from Burnstein et al., 1996)

Table 11.5 Limitations pointed out in the revised literature

Some shortcomings ascribed to maturity models	
Over simplistic when compared with reality	Lack of scientific foundations
Focus on a single path to achieve maturity neglecting potentially advantageous alternate paths	The applicability may be constrained by internal factors (available technology, intellectual property, relationships with suppliers) or by external factors (market position)
There are several identical maturity models	Lack of documentation concerning the maturity model design
The continuous adoption of the CMM (Capability Maturity Model) as a parent model	Generically they are adopted by a company being difficult to implement them in megaprojects

concerns by Society and the occupational health and safety (OHS) of the employees. Historically, after attending the quality requirements demanded by their customers (ISO 9001 certification), companies improved their MSs through environmental (ISO 14001) and occupational health and safety (OHSAS 18001) certifications. In addition to these certifications a great deal is available focusing some sector specific requirements such as the ISO 22000 (food safety MSs), the ISO/IEC 27001 (information security MSs), the ISO 50001 (energy management), the ISO 13485 (medical devices) and the ISO/TS 16949 (automotive production and relevant service part organisations). Hence, it is a subject of utmost importance to assess an IMS, namely, to evaluate the degree of articulation of the various MSs implemented. The efficacy of an IMS may be assessed by answering the question: Are the requirements from the shareholders being fulfilled? Other questions relates with the efficiency: How are the requirements being fulfilled? How many resources are being consumed? Are there duplicity among tasks, procedures and human resources?

A great deal of literature addressed various topics on the matter of IMSs and several reference publications are available. The attained benefits collected from the proper integration of MSs were targeted by the work of Simon, Karapetrovic, and Casadesus (2012), Zeng, Xie, Tam, and Shen (2011), Almeida, Domingues, and Sampaio (2014) and Wright (2000). The major obstacles and drawbacks concerning the IMSs implementation was a topic addressed by the work of Bernardo, Casadesús, Karapetrovic, and Heras (2012) and Beckmerhagen, Berg, Karapetrovic, and Willborn (2003a). Karapetrovic (2002, 2007), Karapetrovic and Casadesús (2009) and Sampaio, Saraiva, and Domingues (2012) discussed the strategies adopted during the implementation of an IMS, whereas the integration degrees were focused by Bernardo, Casadesús, Karapetrovic, and Heras (2008, 2012), Bernardo, Casadesús, and Karapetrovic (2011), Jørgensen, Remmen, and Mellado (2006) and Pojasek (2006). Models to integrate MSs were proposed, among others, by Karapetrovic and Willborn (1998), Renfrew and Muir (1998) and Zeng, Shi, and Lou (2007) and the specifics of the audit function were dissected by Beckmerhagen et al. (2003b), Bernardo, Casadesús, and Heras (2009), Domingues, Sampaio, and Arezes (2011, 2014a) and Kraus and Grosskopf (2008). Recently some lessons learned from integrated management abandonment cases were listed (Gianni & Gotzamani, 2015), the relationship within safety and quality MSs was pointed out (Karanikas, 2014) and MSs integration as a pillar for organisational sustainability was discussed by Mohamad, Abdullllah, Mohammad, and Kamaruddin (2014). Although a large stream of bibliography is available not a great deal of them, if any, concerns with the assessment of the IMS, its features and the level of articulation between its different components.

11.3 Methodology

The methodological path (Fig. 11.3) adopted during the current research enabled the identification of boundaries, limitations and scope of the collected results. The research methodology considered several stages. At first, an exploratory literature review focusing maturity models and IMSs involving the more sound scientific data

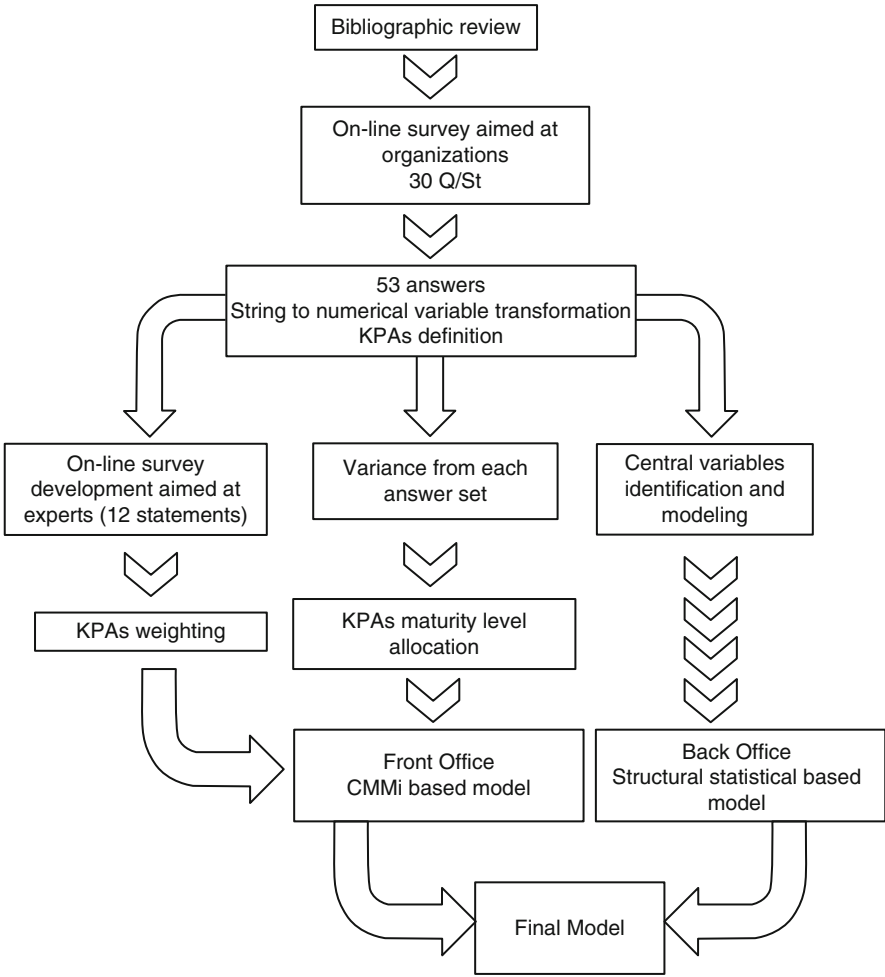


Fig. 11.3 Methodological path

bases and institutions proved to be crucial on the identification and definition of the KPAs. This stage enabled the development of two surveys where the opinions and perceptions of companies' professionals (Survey 1) and academic and industry experts (Survey 2) were taken into account. This latter survey was supported on a 1–5 scale type of answers (1—Reveal minimum integration level, ..., 5—Reveal maximum integration level) considering 10 questions/statements (Q/St).

The hereby reported model is supported by two components: the back office and the front office. The back office component is a statistical structured based component expressing the statistical relationships between the variables and taking into account the results collected from the survey conducted amid companies and identifying which of them were the most relevant (Domingues, Sampaio, & Arezes,

2012, 2014b). Based on the results from the companies' survey, a multiple regression linear model enabling the assessment of variables correlation was tested and validated. The front office component is supported by a Capability Maturity Model Integration/ed (CMMi) presenting the conditions and relevant parameters that enable an IMS to evolve till an ultimate maturity level throughout a discrete number of stages. The definition of which KPAs were to be considered by level and the weighing ascribed to each one considered the results collected from the two surveys and some insights from the revised literature. The front office component was designed to be handled by the respondent while the back office component was designed to process the information collected through the front office.

A 15 % response rate (53 valid answers) was attained by the survey conducted among the companies and a 70 % response rate was achieved by the survey conducted amid the experts' panel. Statistical analysis was carried out by IBM *Statistical Package for the Social Sciences* (SPSS Statistics) version 20, *network licence*.

11.4 The Model

Figure 11.4 presents the conceptual diagram expressing the underlying hybrid philosophy inherent to the final model. Similarly to software related concepts one may consider that the CMMi component act as a "cover page" enabling interactions with the user (companies) aiming at assessing the maturity of their IMSs like a monitor enables friendly software user interactions. In the processing unit, i.e., "behind the curtains", the structural statistical component (not accessible to the user) processes all the collected information, considering the relationships and modelling of variables, providing outputs to be displayed by the front office component (Fig. 11.4).

The predictor variables (Q/St10, Q/St23 and Q/St24) constitute the multiple linear regression model with an $R^2_{\text{adjusted}}=0.540$, thus explaining 54 % of variable Q/St25 variation. The remaining variables relate with these central variables by statistical significance of the *Pearson* correlation coefficient and, some of them, are statistically related through a single linear statistical relationship with the central variables (Fig. 11.5). The *Pearson* correlation coefficient is displayed at the arrows. Q/St8, Q/St27, Q/St28 and Q/St29 contribute to the maturity level but a meaningful correlation with the predictor variables Q/St10 (Integrated vision by top management), Q/St23 (Integration level classification) and Q/St24 (Audit typology) was not statistically evidenced. The Fig. 11.5 solely presents the relationships between non central variables and predictor variables.

The IMS efficiency may be assessed by the "path" (shorter or longer) that a company engages to the central variables. Additionally, the positive or negative correlation influences also the IMS efficiency level. An IMS would be more efficient as the higher value is ascribed to the central variables, to the non-central variables with positive and higher *Pearson* coefficient and lesser the value ascribed to non-central variables with a higher and negative *Pearson* coefficient. As an example, a company that achieve higher scores at the Q/St10, Q/St23 and Q/St24 will output an IMS

Fig. 11.4 Conceptual diagram (adapted from Domingues et al., 2014b)

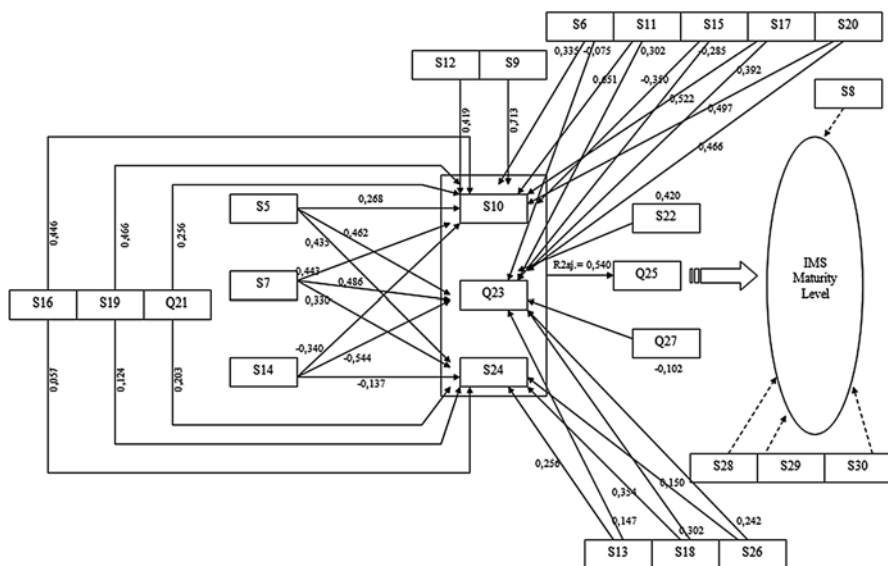
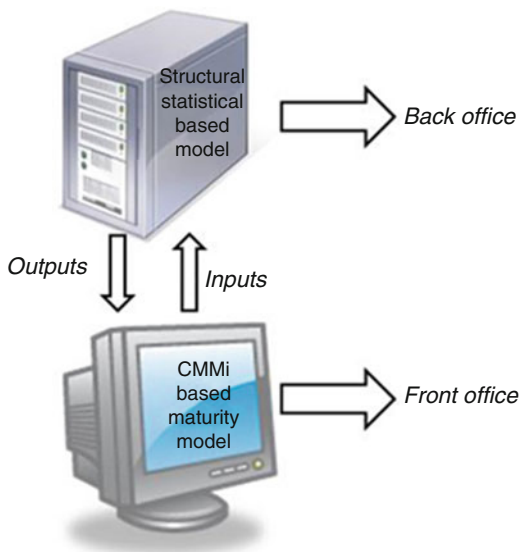


Fig. 11.5 Statistical based structured model aiming at IMS efficiency assessment (back office) (adapted from Domingues et al., 2014b)

classified as more efficient since it observe the parameters that contribute mostly to a high integration level and, thus, to the “Maturity level” latent variable. A company that intends to achieve the same maturity level based on different parameters than those described by Q/St10, Q/St23 and Q/St24 variables will need more variables and higher scores.

11.4.1 The CMMi Based Front Office Component Development

The KPAs were sorted by each level (1—Uncertainty; 2—Awakening; 3—Enlighten; 4—Wisdom; 5—Certainty) based on the results variance of the companies survey data set and on the information collected on the revised literature. To each KPA a factor (1–6) was ascribed according to the results from the expert’s group survey. The critical KPAs, according to the revised literature, are identified by an asterisk (*). Companies intending to assess the maturity of their IMS, according to the model, should evidence that critical KPAs are fulfilled in order to access to a higher maturity level. Table 11.6 lists the KPAs, their ascribed maturity level and the relative weighing ascribed by the experts group.

Table 11.6 KPAs, maturity level and weighing

KPA	Level	Weighing	Observations
Policies integration	1	X4	KPA1*
Top management integrated vision	2	X5	KPA2
Implementation process supported on a guide or framework	4	X3	KPA3
Top management training concerning systems integration	2	X1	KPA4
Organisational tools, methodologies and objectives alignment	3	X6	KPA5*
Perception that the IMS genesis originates organisational interactions	1	X1	KPA6
Non residual authority by environmental and/or OHS managers	4	X4	KPA7*
At least one integrating concept had been taken into account during the integration process	1	X2	KPA8
System bureaucratisation	3	X3	KPA9
Management procedures integration	1	X4	KPA10
Documental integration	2	X3	KPA11
Integrated objectives adoption	1	X5	KPA12
At the organisational structure there is an IMS manager	2	X4	KPA13*
Processes monitoring by KPIs, OPIs and MPIs	3	X5	KPA14
Integrated indicators adoption	5	X5	KPA15
Good correlation between the integrated organisational structure and the integration level perception	4	X3	KPA16
Audit typology	3	X4	KPA17*
Identification of organisational features not susceptible to integration	5	X3	KPA18
Integration strategy	2	X3	KPA19
MSs performance perceived better in an integrated context	4	X5	KPA20
The IMS perceived as an add value	1	X5	KPA21*

11.4.2 Allocation of the KPAs by Level

Table 11.7 presents, simplistically, the fundamental justification to the distribution of the KPAs on the different levels. The results variance was classified as follows:

- Low, if higher or equal than zero and lesser than 0.5;
- Reasonable, if higher than 0.5 and lesser than 1.0;
- High, if higher or equal than 1.0.

Table 11.7 KPAs allocation by maturity level

KPA ID	Variance	Level	Weighing	Level justification
KPA.1	0.39	1	X4	Low variance
				Reasonable weighing
KPA.2	0.72	2	X5	Reasonable variance
				High weighing
KPA.3	1.09	4	X3	High variance
				Reasonable weighing
KPA.4	0.51	2	X1	Reasonable variance
				Low weighing
KPA.5	0.68	3	X6	Reasonable variance
				High weighing
KPA.6	0.51	1	X1	Low variance
				Low weighing
KPA.7	0.79	4	X4	Reasonable variance
				Reasonable weighing
KPA.8	0.44	1	X2	Low variance
				Low weighing
KPA.9	1.23	3	X3	High variance
				Reasonable weighing
KPA.10	0.33	1	X4	Low variance
				Reasonable weighing
KPA.11	0.64	2	X3	Reasonable variance
				Reasonable weighing
KPA.12	0.34	1	X5	Low variance
				High weighing
KPA.13	0.44	2	X4	Low variance
				Reasonable weighing
KPA.14	0.84	3	X5	Reasonable variance
				High weighing
KPA.15	0.67	5	X5	Revised literature
KPA.16	0.51	4	X3	Revised literature
KPA.17	0.34	3	X4	Revised literature
KPA.18	0.25	5	X3	Results analysis
KPA.19	0.23	2	X3	Low variance
				Reasonable weighing
KPA.20	0.17	4	X5	Low variance
				High weighing
KPA.21	0.51	1	X5	Revised literature

The weighing was classified as follows:

- Low, if classified as 1 or 2;
- Reasonable, if classified as 3 or 4;
- High, if classified as 5 or 6.

As stated previously in addition to these parameters the distribution was performed based also in the revised literature. The KPA18 was ascribed to level 5 since the data set collected by the companies survey revealed a 55 partition by each answer potential typology. The fact that a company considers that there are several organisational features not susceptible of integration was understood as high maturity level and as a deeper integration. The KPA15, also pertaining to level 5, indicates a high maturity level based on the companies survey results and based on the revised literature. The adoption of integrated indicators reveals that all system monitoring (crucial task) is performed based on organisational features from the QMS, EMS and OHSMS thus revealing a high integration level. Concerning level 4, constituted by KPA3, KPA16, KPA7 and KPA20, it is characterised by the high variance or weighing from these KPAs, or, at least, by a reasonable variance and weighing. The distribution of the remaining KPAs through the lower levels was performed according the same parameters, but in this case, considering a low variance or weighing.

11.4.3 Final Front Office Component Incorporating Externalities and Management Pillars

One of the features emphasised by literature concerning maturity models development is that it should be an iterative procedure. So, after the internal KPAs identification by literature review and by conducting some case studies, several external factors were identified as well some common subsystems features that were considered as affecting the IMS maturity and, thus, should be contemplated by the model (Fig. 11.6). As displayed by Fig. 11.6, concepts such as successful sustainability, macro ergonomics, life cycle analysis and management and social responsibility were inserted on the model, reflecting their relevance and contribution to the IMS maturity.

MSs integration should be an assurance of sustainability by the company that implement it. An IMS implementation reflects the commitment by the top management with the requirements by several stakeholders, and so, with the requirements by people and entities that in some way interact with the company at different levels. This feature provides top management with a wider vision concerning the company position among society, enabling the identification and assessment of variables influencing the management component (Mohamad et al., 2014; Rebelo, Santos, & Silva, 2014). Accordingly, a company addressing the sustainability concept evidences a higher maturity level if compared with other company that do not address to this concept.

Macro ergonomics addresses and optimises simultaneously the worker, machine and involving factors through an holistic approach similar to that adopted by MSs integration that addresses and optimises the requirements from several stakeholders (customers, workers and society) (Domingues et al., 2012). The

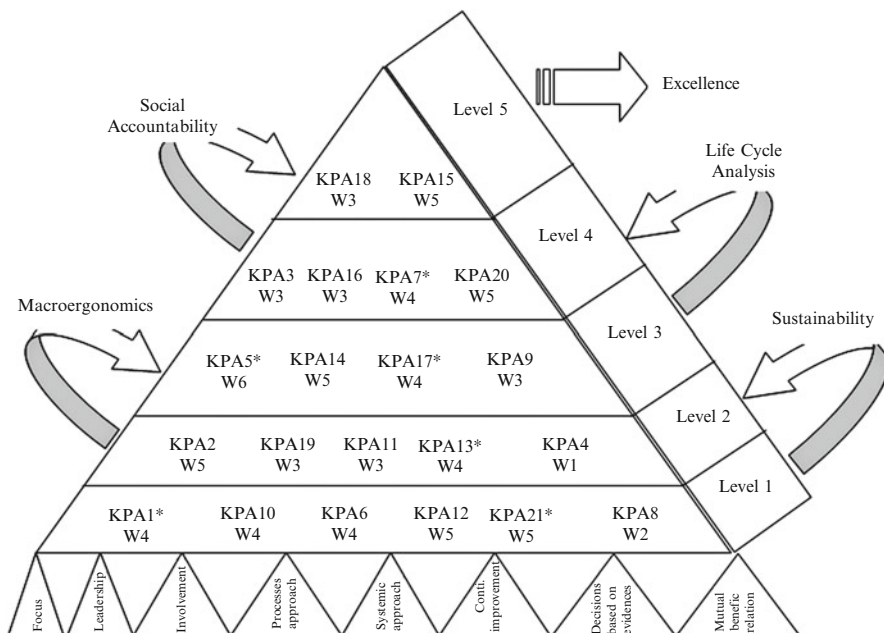


Fig. 11.6 IMS maturity assessment pyramidal version model including externalities and common features to the combined subsystems (adapted from Domingues et al., 2014b)

organisational structure that better suits to an IMS is a relevant parameter and is one of the research topics of macro ergonomics.

Life cycle analysis and management is an organisational tool that enables companies the comprehension the environmental incidences of the materials, processes and those from the products, and the information collected may be used to develop new products and to detect new research and development domains. In addition, several studies relate life cycle management with MSs integration (Löfgren, 2012).

Concerning social responsibility, companies should operate as sustainable development promoters among the society, considering social concerns at a personal and community levels. The eight pillars that should sustain any MS are included by the model since they are, ultimately, common and crucial parameters that enable the IMS operation. However, these eight pillars assessment should be performed on an integrated context.

Concerning the focus one should consider if the IMS is oriented in a way that is able to comply with the requirements from all stakeholders, that is, if all stakeholders are effectively present on the IMS scope. Furthermore, is desirable that the stakeholders be equitably targeted by the IMS.

Leadership, a fundamental concept shared by all MSs, should be validated based on the company organogram and with the responsibility degree affected to each MS responsible.

More than a processes approach, a systemic approach should be highlighted on an integration context. After integration, the boundaries from the initial system expand themselves and one should assess the extension and depth of the management actions undertaken by the IMS. At this stage, system monitoring, policies, objectives and goals definition may be suitable features to validate the systemic approach in an integrated context.

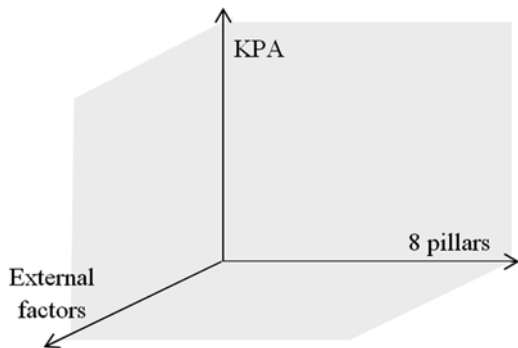
Continuous improvement or more precisely, how continuous improvement is materialised is a critical parameter defining an IMS maturity. The question to be observed is how improvement actions are implemented and managed. Do the improvement actions being implemented solely with the QMS inputs or the other MSs are considered too? Which are the criteria to open an improvement action? Who participate, by defect, in all the activities concerning the implementation and management of improvement actions? These are critical questions to determine if the continuous improvement philosophy embedded in all normative standards is being properly implemented in an IMS, contributing to higher maturities.

Decisions based on evidences take other dimension when in an integrated context. The question that should be putted over the table is in which evidences are the decisions based on, namely, are being considered all the facts from all the integrated MSs?

Finally, other crucial item to consider is if the IMS promotes the establishment of mutual beneficial relationships between the different stakeholders and if equally beneficial relationships are developed between the different MSs that constitute the IMS.

The final CMMi based component considers three dimensions. One dimension reserved to the KPAs that assesses internal organisational criteria. A second dimension deals with external features contributing to the IMS maturity. The third dimension assesses the common management pillars of the subsystems and how they sustain the IMS (Fig. 11.7).

Fig. 11.7 Model three-dimensional nature



11.5 Conclusions

A hybrid model aiming at the assessment of IMSs maturity was reported considering two components. The back office component is sustained on a statistical based structured model where one may distinguish three variables that, statistically, contribute the most to the latent variable “IMS maturity”. This component is not accessible to the end user of the final model being developed for data processing of the collected information provided by the user. Data processing enables the back office component to output information concerning the variables that should be rated higher and the related actions that will be listed by the front office component.

The front office component is based on a CMMi maturity model. This component intends to provide to the end user a graphical interface with an intuitive interpretation and utilisation which complies with the design principles identified on the revised literature. The statistical modelling through multiple regression enabled the identification of the statistically relevant parameters that contribute the most to the variation of the “IMS maturity” latent variable. A tabular grid considering the KPAs and each standard clause (ISO 9001, ISO 14001 and OHSAS 18001) evidences that the main requirements are covered by the developed KPAs. The final CMMi component version considers five maturity levels and a “zero level” that evaluates the evidences from the adoption of the eight excellence management pillars. The “zero level” acts as a pre requirement that any company intending to assess IMS maturity should observe. Other dimension on the current final version of the front office component concerns with external features or externalities that impact on the IMS maturity. Four externalities were identified and inserted on the model: successful sustainability, macro ergonomics, life cycle analysis and management and social responsibility. The third dimension concerns with the identified KPAs. The rise to an upper maturity level occurs only when the IMS complies with the critical KPAs from a certain level, with the related external feature ascribed to that level and with the quantitative score previously defined. Thus, this CMMi based component has a three dimensional nature sustained on the KPAs, externalities and the excellence management pillars.

To sum up, the reported maturity model considers a structured statistical component (back office) that has the potential to assess the efficiency of an IMS and a CMMi based component (front office) that acts as an interface enabling a friendly end user environment. Additionally, concerning future work, several assessment guides could be proposed with the potential to be adopted as an aid to evaluate some parameters encompassed by the model.

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Chapter 12

Integration of Information in Higher Education Institutions for Quality Evaluation

Rui Pedro Lopes, José Álvarez-García, and Encarnación González-Vázquez

Abstract Higher education institutions have adopted education, research, and cooperation as their main missions. Students, teachers, and non-teaching staff articulate for lecturing, researching, and developing projects and internships, according to the institution goals and strategy. Quality evaluation is of the utmost importance in the whole process, as it allows providing a competent and rigorous service as well as maintaining high level of attractiveness for additional funding, through cooperation and research projects. In this process, well-supported management through rigorous information is necessary, providing a sound basis for reasoning and improvement. In this paper we present a custom made application, which we call JagPAD, to integrate, process and visualize information from several departments and sections, such as student records, human resources, scientific repository, and others. This application is in use at the Polytechnic Institute of Bragança and constitutes a valuable tool for overall evaluation of the mission compliance.

12.1 Introduction

Higher education institutions (HEI) have three primary missions: education, research and cooperation (Kyvik & Lepori, 2010). While in different weights and strategic importance, most institutions try to cope with these missions to contribute

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for population education at high level, scientific and technological advances, and economic and social development.

The Basic Law for the Education System, in Portugal, was changed recently in order to implement the Bologna Process (Law 49/2005 of 30 of August and Law 74/2006 of 24 of March). The new structure was divided into three cycles of studies and was completely implemented in 2009/2010 (Neave & Amaral, 2012). The first cycle, known as Licenciado Degree, has 180 credits and a normal length of six curricular semesters of students' work (level 6 of the EQF). The second cycle, known as Mestre Degree, has from 90 to 120 credits and a normal length of three to four curricular semesters of students' work (level 7 of the EQF). The third cycle, Doutor Degree (level 8 of the EQF), is only conferred by universities and is conferred to those that, after finishing all the curricular units that integrate the study course of the Doutoramento (doctorate) course have successfully defended their thesis in the public act (Fig. 12.1).

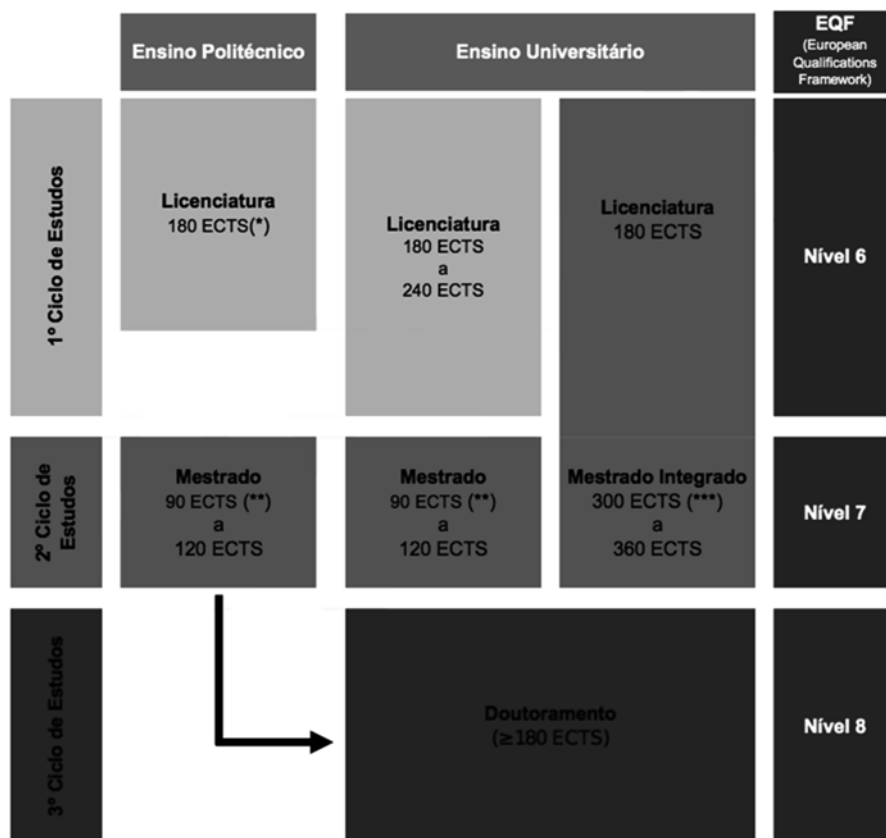


Fig. 12.1 Levels of study in Portugal

The research mission has always been embraced by higher education institutions in a way that governments, as well as private institutions, have begun to recognize the research role of these institutions, to provide them with research funding and to initiate various measures for enhancing research activities. Research remains the primary path not only to individual and institutional prestige but also to support teaching excellence.

Finally, the cooperation mission includes international, regional, social, culture, and science promotion and cooperation with enterprises. In broad terms, cooperation aim to bring together higher education institutions and enterprises in order to promote entrepreneurship, creative thinking and innovative approaches as part of the curriculum for students and as a skill for teachers/researchers and to reinforce the link between studies and employment needs.

12.1.1 Quality in Higher Education

The concept of Quality Management (QM) in Higher Education, although it is diverse, is assumed with the purpose of securing and improving teaching and learning. A Higher Education Institution (HEI) which encompasses quality management may follow various theoretical and conceptual approaches, ideals, blueprints or inspiration in the implementation process (Pratasavitskaya & Stensaker, 2010). The application of popular industrial and economic quality management models have been increasing and several institutions have adopted such models, aiming at customers' satisfaction. However, due to the specificities of the customers and organization, these models have failed in several aspects, not achieving the expected results (Seymour, 1991). In fact, the customers present a different requirement and purpose of the investment they are doing. Moreover, the characteristics of the institution, related to the resistance to change, insufficient administrative commitment and others are specificities that separate these institutions from industrial quality management approaches.

The sectorization of the HEI mission also differentiates between types of quality values, focusing, essentially, on academic, managerial, pedagogic and employment (Brennan & Shah, 2000). Each of these values varies in requirements, authority, and others. Academic quality is related to knowledge generation and scientific development, and is under the professorial authority. Managerial quality has institutional focus and is associated to the organization policies and procedures. Focusing on people, the pedagogical quality is related to building skills and competencies, of educationalist influence. Finally, the employment of graduates and postgraduates is also an important quality value, dependent on successful learning outcomes of graduates.

From an external approach, several legal diplomas were defined to ensure quality in HEI. Law 38/2007 of 16 of August, describes the evaluation of HEI quality, through the assessment of the degree of compliance of their mission through

parameters related to their performance and the results arising therefrom. Evaluation includes several parameters and indicators, such as (Allison & Kaye, 2003):

- The teaching staff scientific level
- The learning methodology and the student evaluation process
- The teachers qualification and adequacy and the produced scientific, technological, and artistic activity
- The adopted strategy for quality improvement and how it is enforced
- The international cooperation, efficiency, and organization of the management body
- The infrastructures and pedagogical and scientific equipment, among others

The consequences of quality assessment are reflected in the accreditation of courses and institutions, of the responsibility of the National Agency for Evaluation and Accreditation of Higher Education (A3ES). The A3ES is independent of the government and has the role to perform a quality evaluation of all HEI and respective courses.

From the higher education institutions perspective, quality enforcement demands the involvement of all the actors: the management body, teachers, students, non-teaching staff, and external community, around a strategy for quality. The required tools and resources are available to the management body, considering that information is central to this process (Mishra, 2007). Information is initially collected, processed and analyzed and then used to extract knowledge, that ultimately influence mechanisms through reasoning. Information is collected and organized according to the institution mission, related, in particular, to academic information, scientific, technical, and artistic, and cooperation (Yanosky, 2009).

12.1.2 Information and Data Analytics

Knowledge is fundamental to decision making and strategic planning. Managers need to analyze and to transform raw data, from several sources and with different types, into knowledge. HEI generate a huge amount of raw data, which is usually sectorial and scattered by several departments and administrative offices. Although it is apparently independent, data integration can help capture the complexities of different approaches, which may result in optimizations that are not obvious and that can help defining institutional policies and procedures. This results in the definition of good management practices towards increasing the overall quality.

The conversion of raw data into knowledge depends on some form of analysis, usually based on artificial intelligence and data mining to produce outputs (Hosseinioun, Shayeghi, & Rostam, 2012). Several questions are constantly raised by managerial staff in a HEI. As an example, consider the following:

- What are the total teaching hours by teacher, department, and faculty?
- Which teachers are currently in training and for how long?

- What is the student dropout rate per area and faculty?
- What is the number of different courses each teacher is responsible for?
- What are the students' conditions of access to higher education?
- What is the current state of scientific production of the teaching staff?

In order to answer these questions, data has to be gathered, integrated, and analyzed by automated tools that generate reports or useful and insightful visualizations. These tools are software application, designed for specific processes so that the information can be adequately analyzed and presented. These custom-made tools are usually very expensive to develop and demand a strong knowledge of the institutions' organization, processes and data structure (Guster & Brown, 2012). Moreover, there is a substantial difference between the kinds of metrics and indicators that are meant to measure students' information needs when compared with traditional consumers (Barneveld, Arnold, & Campbell, 2012).

The differences of the data generated in HEI when compared with the business and industrial fields have given place to the definition of specific analytics methodology and definition (Guster & Brown, 2012). This term, applied to the concept of data-driven decision making, relies on data mining techniques to provide managers access to indicators, either historical or real-time, of how the business (higher education institution) and its units (colleges, schools, or departments) are performing (Barneveld et al., 2012).

12.1.3 Data Visualization

In addition to the data gathering and processing towards knowledge extraction, data visualization is a valuable tool to represent and interpret data. Sight is, probably, the most valued human sense. The huge amount of information that is absorbed by the eyes and processed by the human brain is higher than any other sense. A single picture can be used to convey large quantities of information. From a photograph of a landscape to the graphical representation of numbers, images provide a high bandwidth communication channel.

Data visualization can be defined as the process of generating images from data. Consequently, there is a correspondence between data and its representation (Marty, 2009). The user's cognitive capacity is more effectively harnessed to obtain, explore and interpret information (Teyseyre & Campo, 2009). The main problem to solve for data visualization is to define the visual structures that will be used to correspond data to a location in an image. Not all data will have representation, although some will have easy framing and visual meaning (Card, Mackinlay, & Shneiderman, 1999). For example, geographical data is easily represented in positions in a map. Hierarchical data is also easy to represent in a tree or graph.

The possibility of interaction with the user is also an issue. It is possible to have a static view, to print on paper, for example, a transformable view, allowing

changing values of mapping parameters, or manipulated, in which the user can modify the parameters that regulate generation the view (scale, color, ...).

The process to make data essential to foster quality in Higher Education Institutions is to integrate it, extract knowledge and represent it in a useful format for students, teachers, and management.

12.2 Data Integration

The diversity of raw data in a HEI is immense and the structure is, sometimes, difficult to apprehend, making it difficult to integrate. We classify academic information as all the information that is related to the teaching process. In this context, the central entity is the student, and we gather information about several indicators, such as student enrolment (type, sex, age, region of provenance, ...), educational success (percentage of approvals, dropout rate per year, ...), and teachers' schedule and load. Many other indicators and statistics can be obtained through the history of students' records.

Under scientific, technical and artistic information we include the qualification of teachers, their degrees, date when each degree was obtained, how long did it take, and others. We also maintain record of the number, category, start and end date of each contract. A complete record of scientific publications, scientific projects and research units is also registered and accounted. This information allows directing resources to more demanding or urgent areas as well as to balance workload among teachers and departments. Another legal aspect, enforced by Portuguese law, is the teaching staff evaluation process. Teachers are evaluated every 3 years in many aspects, including scientific, technological, organizational, cooperation and teaching. It is essential, for the management body of HEI, to have a complete record of the activities performed by teachers.

Cooperation is also considered in the form of a record of cooperation projects, internationalization, internship organization and supervision among others. Many of the cooperation projects are responsible for research and development funding, in addition to supporting local economy and social development. Students are usually involved in such projects or initiatives, in the form of curricular internships or research grants.

Usually, all this information is scattered through several departments and sections of the HEI. Most of the times there is no business intelligence methodologies that can build on this information meaningful or useful information. In the following sections we describe a custom-made data integration tool, which we call JagPAD, that has the ability to integrate information from students' records, teachers' productivity in all the areas, institutional scientific repository management, and contract management. We start by describing the elementary database entities and proceed gradually to describe some of the features of the application.

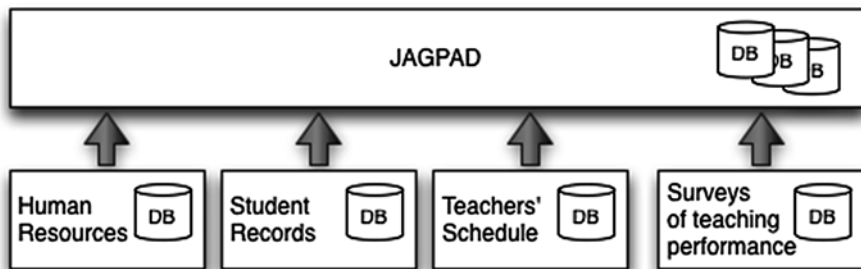


Fig. 12.2 Data integration in JagPAD

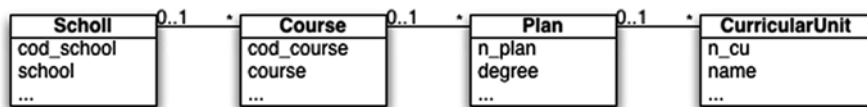


Fig. 12.3 Curricular structure

JagPAD collects data from several databases in the HEI, each under management of a different department or section (Fig. 12.2). The information is stored in a local database, to allow making complex, inter-database queries without overloading the original database. Moreover, this approach allows creating middle-level tables, with preprocessed information that further enhances the quality and the speed of access to the information.

The information retrieved from all these databases is converted to a structure of entities, where each entity groups data related the concept it represents. For example, a School provides several Courses. Each course’s Plan changes through time, and it is composed of several Curricular Units (Fig. 12.3). In this chapter we chose not to extensively describe all the attributes of all the entities because it would be too verbose.

The student records are associated to the previous structure, including a set of more entities, such as Enrolment (information about student enrolment), Grade (student grades and evaluation), Subscriptions, Country, District, and others. Still in relation to school, another branch of information stores information about the scientific structure, namely, Departments and Teachers. Additionally, there are many entities associated to a teacher, such as the workload (DistServ). Around the Teacher entity there are several other entities, to store information about research and cooperation Projects, qualification (Title), contracts (Category), organizational functions (Position), research units with which he collaborates and others (Fig. 12.4).

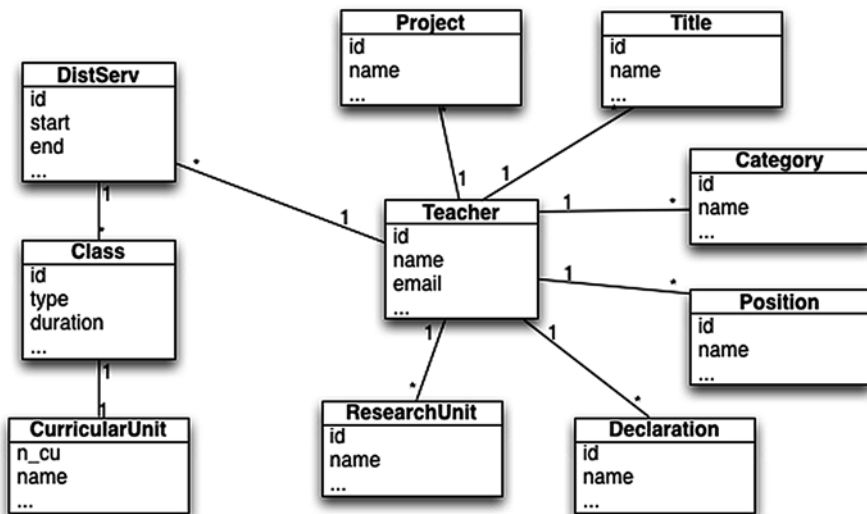


Fig. 12.4 Teacher related information

12.3 Features and Functionality

JagPAD presents a Graphical User Interface (GUI) with rich and flexible controls that allows the user to make prebuilt queries and to generate reports. Each report contains tables, charts and graphs, to better illustrate the meaning of the information. JagPAD is structured in several independent modules, albeit they are interrelated, that can work stand-alone or in articulation with others. At the moment, it has the StoresQueries, Repository, HRM and TeacherService modules, described in the following sections.

12.3.1 Stored Queries

This module is built on the student records and academic information. It allows getting a full set of statistics and information from a large historical database (Fig. 12.5). On the left side of the window there is a tree of queries. Queries can be added or changed at runtime, without needing to rebuild or redeploy the application. On the top of the window, it is possible to add filter conditions to the query, by selecting the school course, plan, and curricular unit. Results are shown in the lower area in tabular format. Data can be exported to PDF, XLS, and ODS, to be able to be processed in a spreadsheet. This module is also used to generate annual reports for the course commissions, containing several indicators related to success, dropout characterization of students and others.

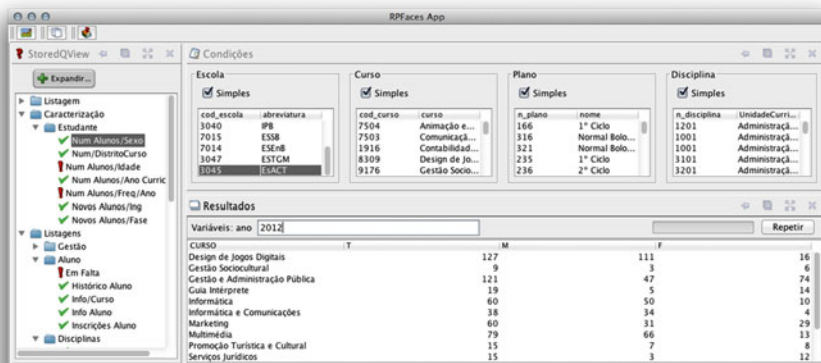


Fig. 12.5 Stored queries

12.3.2 Teachers' Service Allocation

According to Portuguese law, teachers can accumulate up to 12 h per week of contact hours. Service allocation is discussed in the school departments and approved in the scientific council. After approval, service allocation is used to produce teachers, classrooms and students schedules. Teachers are assigned to departments according to specific scientific areas. For example, it is possible to find departments of Informatics and Communication, Mathematics, Visual Arts, or Biology. Due to this structure, each teacher can supervise and lecture curricular units from different courses and each curricular unit can be lectured by more than one teacher. It is useful, from a management perspective, to get the broad picture of teacher/curricular unit relation, inter-department and through different courses (Fig. 12.6).

In a single school there can be as much as 35 courses (CET, Licenciatura and Mestrado), totaling over 800 curricular units and 180 teachers. This amount of entities makes it very difficult to get a clear view of the situation. JagPAD allows building a graph connecting teachers, courses and curricular units, in an easier way to picture the service allocation (Fig. 12.7). The graph is browsable, meaning that it can adapt the topology (manually or automatically), and changing the center, and consequently, the connections, through a simple click of the mouse. The information can also be exported in tabular format, used, for example to fill the self-evaluation report required by the A3ES.

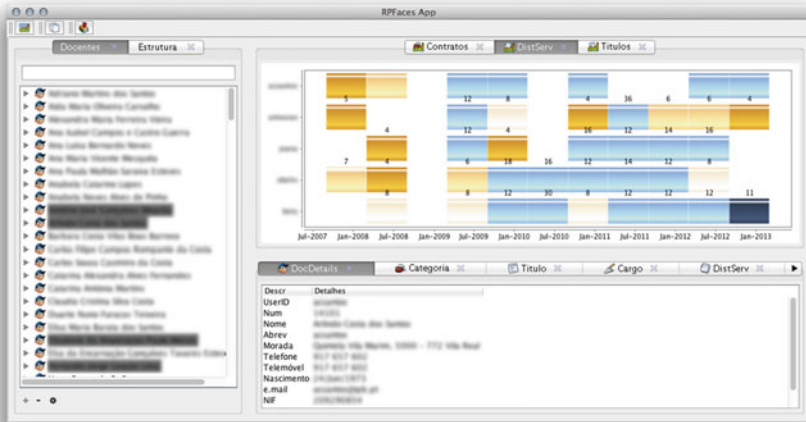


Fig. 12.6 Teaching service allocation historical data

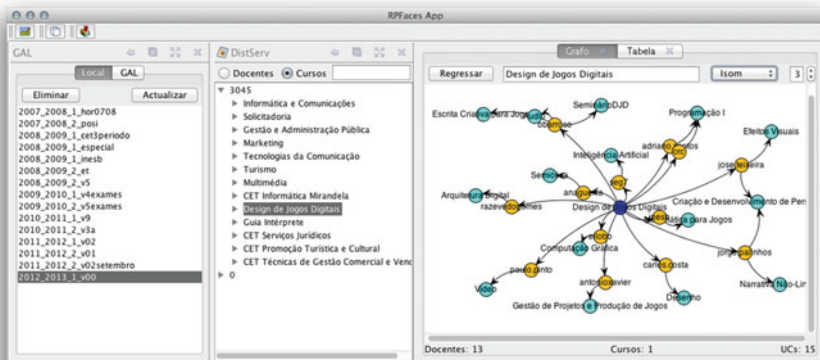


Fig. 12.7 Teacher service allocation

12.3.3 Scientific Repository

The scientific repository (Digital Library of IPB) promotes and provides open access to scientific literature produced by the IPB academic community, promoting integration, visibility, and sharing of scientific information and granting the preservation of intellectual memory of the institution. According to the IPB regulations, only the papers and publications currently in the scientific repository are used for teacher's evaluation. Papers are valued differently, according to the prestige of the

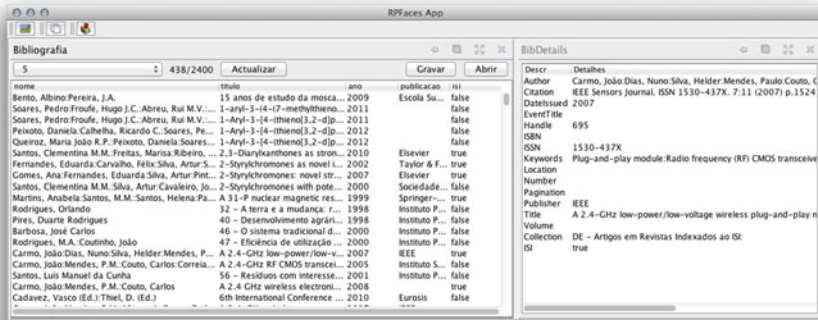


Fig. 12.8 Scientific repository

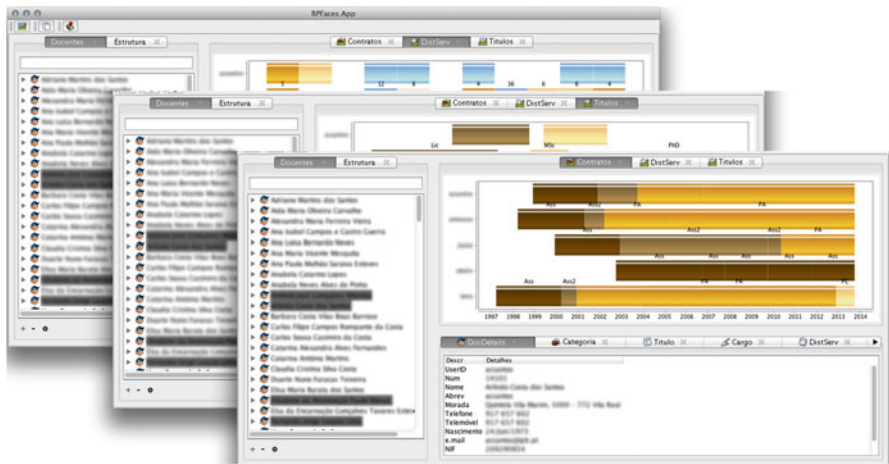


Fig. 12.9 Human resources management

publication and citation index. JagPAD allows retrieving statistics from the scientific repository, per teacher, per department, or per school, giving the percentage of indexed papers and the overall percentage of publications among the different schools. This allows assessing the balance between schools and areas (Fig. 12.8).

12.3.4 Human Resources Management

This particular module organizes all the information related to the teachers' qualification, contracts, organization activities, the full history of service allocation and others (Fig. 12.9). To facilitate visualizing the information, it also presents the data in a bar chart, showing all the transitions, beginning date, end date following a color code.

12.4 Conclusions

Management of higher education institutions poses several difficulties, resulting from the threefold mission of education, research and cooperation. The diversity of actors (teachers, students, non-teaching staff, and community), generates very different information and situations, sometimes difficult to integrate. Usually, HEI are not ready to adopt a business intelligence view of the degree of compliance of the defined strategy and missions, relying on outdated and on unrelated pieces of information.

In this chapter we describe a custom made application to integrate information from several departments and sections, such as students' records, teachers' service allocation, scientific repository, and others. The application allows making queries and generating reports with integrated information that can provide valuable insight into how the institution works and the degree of compliance with the adopted quality strategy. This application is currently in full use in the IPB, as a support for the management body and, in particular, for the courses commissions and pedagogical council.

The rich graphical user interface and the possibility to interact with the parameters that generate information allow for getting immediate knowledge concerning several parameters and even relate them with other domains. Moreover, for more complex analysis, data can be exported to spreadsheet software of statistical processing packages, such as SPSS or R.

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Chapter 13

Quality in the Spanish University System: Challenges and Opportunities

Alberto Vaquero-García, Francisco Jesús Ferreiro-Seoane,
and Carlos Rueda-Armengot

Abstract *Purpose of paper:* Today the search for quality is present in all public and private activities. Public managers are required to make maximum use of their budgets. It is necessary “to do more with less”. The institutions of higher education (IHE) are no exception to this general requirement. The IHE are immersed in internal and external processes to achieve the highest quality in their services. The evaluation of IHE should be a common practice. This in turn requires a proven methodology, ensuring the highest quality of the services offered. Therefore, the participation of IHE in curricula and assessment projects, allows awareness of weaknesses and threats, and turns them into strengths and opportunities. The aim of this article is to point out the relevance of these issues for the IHE.

Design, methodology and approach: This will involve a theoretical approach to the concept of quality in general, to subsequently deepen the implementation and outcome of quality systems in the IHE. In addition, the great potential of this important tool in the management of public resources will be designated, as well as the main limitations encountered. This study is complemented by determining the applicability of quality systems in the IHE in Spain, through a study of the main initiatives undertaken at these institutions, completing the work with a series of conclusions based on what is stated in the preceding paragraphs.

Findings: The approach of this article will allow analysis and reflection, both from a theoretical and practical perspective of what quality should be in the IHE,

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conducting a comprehensive review of the most recent economic literature on these issues. At the same time, some of the most important results of the introduction of quality procedures in IHE will be presented.

Theoretical and practical implications: This article aims at defining the actions that are being carried out in the IHE and their potential benefits, both for educational institution users and funders of this public service. It should not be ignored that IHE must manage their resources in the best possible way and this happens, inevitably, to ensure quality in all the processes that are carried out. Efficiency is a maxim that must be met and therefore the mechanisms that guarantee quality must be present on the day-to-day basis of the IHE. This is even more important when significant budgetary restrictions are evident. Those institutions that manage their resources better and maximise their results from a given level of resources are examples of reference for the rest of IHE.

Research implications: The implications of this article are of interest, both from a theoretical and practical perspective, since the results are widely used in the reality of the Spanish University. The results will help determine to what extent the IHE in Spain are on the road to ensuring the highest quality of the services offered. The IHE should take into account the contents of this article in order to improve their internal action plans. Without a doubt, this will result in improved academic, research and transfer results, but at the same time, ensuring more and better resources in the financing of these institutions.

Originality and value: In addition, this article will indicate the degree of adaptation of the IHE in Spain to the growing demand for quality by educational administrations, ensuring added value and originality to the objective of this publication.

13.1 Introduction

For more than two decades all public activity has been immersed in a continuous process of seeking quality in products and services that are offered. The institutions of higher education are not excluded from this situation and have the need and duty towards their citizens to evaluate the services provided. The pursuit of quality in general, and excellence in particular, is a key principle of educational institutions.

The aim of this article is to describe the concept of quality from the perspective of higher education institutions and to define the actions that are carried out from a national and European perspective. To do so, after this introduction, the second section of this article describes the concept of quality from a general perspective. In the third section, a quality approach to higher education is presented. In the fourth section, quality systems are analysed from the perspective of the institutions of higher education. The fifth section deals with the situation in the Spanish case. Finally, a set of recommendations are designated.

13.2 The Concept of Quality: Quality Objective and Perceived Quality

There is no single definition of quality. Perhaps the most widespread definition of quality is by Zeithaml (1988), stating that quality is a complex, subjective and changing issue. Thus, quality is something multidisciplinary consisting of several components: (1) evaluative, that enables the establishment of value judgements in relation to quality from various alternatives; (2) comparative, which allows the comparison between different options, by means of different levels or degrees of quality¹; (3) multidimensional, which requires that for something to be of quality, it should have certain properties or characteristics; (4) abstract,² which means that the quantitative and qualitative measurement of quality should allow for organisation and information processing; and (5) subjective, since the evaluation of the quality level may be to a great extent, a fundamentally subjective process, and therefore, highly conditioned to the characteristics of each individual.³

Taking into account the multiple dimensionality of the concept of quality, there are different perspectives for analysis (Huber, Herrmann, & Braunstein, 2000; Kashyap & Bojanic, 2000; Lapierre, 2000; Oliver, 1999; Petrick, 2002). According to Zeithaml (1988), quality can be distinguished between objective quality and perceived quality.

Objective quality focuses on the technical aspects of the process, which are easily measurable, both from a qualitative and quantitative perspective. So, it is necessary to establish some kind of objective reference, enabling to point out which particular product or service is more or less closest to what is considered an ideal standard. For example, a particular product made with more expensive raw materials or with a better design is supposed to be of good quality, due to being technically superior to the rest. Meanwhile, perceived quality refers to the assessment of the superiority of a product or a service from the point of view of the demand. For example, if consumers perceive that a particular product is of quality, the price will act as a differentiating element, since it is seen as a product of quality in business terms.

While the first analysis on quality came from the objective side, gradually the subjective perspective gained ground, especially due to important marketing campaigns, trying to convince consumers of the benefits of the products. Moreover, if proven that the objective quality is inferior to the subjective one, it will be necessary to focus on the technical improvements of the product or position it in the market segment more in accordance with its properties. If the subjective quality is inferior to the objective one, marketing campaigns that improve the perspective of the product from the viewpoint of the consumer must be designed. Currently, both approaches exist side by side, so a quality integrator concept should be aimed at (Muñoz et al., 2004).

¹Therefore, the level of quality can vary in different situations (Holbrook, 1999; Lapierre, 2000; Woodruff, 1997).

²This appreciation also appears in Dodds, Monroe, and Grewal (1991).

³This approach is also contained in Babin, Darden, and Griffin (1994).

13.3 The Concept of Quality in Higher Education

Until the decade of the sixties of the twentieth century, it was common to assume that more years of education were sufficient guarantee to improve the productivity of individuals and at the same time, qualify them better for labour challenges. In this context, the institutions of higher education (IHE) played the role of the culmination of knowledge, which there was no doubt about. However, what was happening within the IHE was unknown, since society assumed that was the universities' own role. It is true that the quality of the IHE was also analysed, but this exercise was carried out from a totally different perspective to the current one. The measurement of the quality of IHE came from merit, tradition and prestige of the institution. The use of performance indicators and efficiency of processes were rather secondary.

The situation since then changed significantly. The economic and social scenario was transformed, therefore traditional teaching and research approaches were no longer valid. The transformation from an elite University to a universalist university system involved a change in the performance and requirements of the university. To this, we must add increasing competition from formative offers similar to those offered by the university. The IHE had to adapt to the new situation (Vaquero, 2004).

This process of adaptation introduced the new term of accreditation, which meant that it was not possible to offer what had been offered until then. The right to offer certain studies, conduct research, sign contracts with companies, etc had to be "earned". Furthermore, the IHE are immersed in an unstoppable process of internationalisation, where distance teaching has a major presence, which implies global competition. All these elements involve facing new challenges that can be overcome only if the quality of IHE⁴ is evaluated correctly.

In the same case as with the definition of quality, it is very difficult to establish a single concept of what should be understood by quality in higher education (Calvo de Mora & Criado, 2005, 2008). This limitation is due to the fact that it is a question with a multidisciplinary perspective, by interacting different beneficiaries (students, companies, institutions, ...), as in the origins of these quality measurement techniques, which we must not forget were born in the business world and were exported to the management of IHE.

This process of translation of business skills to the IHE is a very complex task and does not always achieve the desired success (Harman, 1996). Even taking into account these limitations, several approximations to what should be understood as quality in higher education and the impact that its application can have (Winn & Cameron, 1998) on the IHE, can be mentioned. Thus, the IHE could benefit from the introduction of incentive mechanisms that would promote an improvement in the efficiency and quality of university activities (Bricall, 2000).

⁴In recent years, the European Education System has tried to introduce quality indicators at all levels, changing a much more abstract concept of quality to something more measurable and concrete, by using quantitative and qualitative methods.

Regardless of the approach used for the introduction of quality systems in the IHE, there are elements that are always present. Quality understood as a measure of production, must take into account the resources of IHE, the execution of processes (IHE can be considered a multiproduct institution) and the results achieved. It is therefore the search for maximum efficiency through an input–output analysis. Considering this approach, the functioning of IHE is to a great extent similar to that of a company, since it has some of the most important basic features of an enterprise system. However, and unlike business management, where everything is easily quantifiable, IHE find quite a few problems when it comes to reliable and uniform measures for resources used, processes implemented and results.

In parallel, a second approach to the functioning of IHE (Lindsay, 1992) seeks to know the opinions on the quality of the services offered from interest groups (students, teaching and research personnel, staff administration and services, companies and public and private institutions, etc.). In the same vein are the works of Vroeijenstijn (1992), Middlehurst (1992), Harvey and Green (1993). In these investigations the need to consider quality ratings of IHE from the perspective of interest groups is highlighted.

In Harvey and Green (1993), five perceptions of the concept of quality that can be applied to IHE are described: (1) quality as excellence, satisfaction of requirements and exclusivity; (2) quality as equivalent to the absence of defects; (3) there will be quality if the service conforms to the objective for which it was designed; (4) quality as an economic efficiency and (5) qualitative change (which understands quality as the achievement of some improvement). In (Winn and Cameron 1998) an interesting categorisation of the concept of quality for IHE is established from a series of indicators: (1) human and physical resources; (2) contents transmitted to society and/or the scientific world; (3) the results of the institution; (4) educational impact on university collectives; (5) efficiency of the institutions; (6) needs of users and finally, (7) achievement of the prestige of the higher institution.

The World Conference on higher education in Paris, in July 2009, indicated the convenience of putting into practice in all the higher education system, national mechanisms of regulation and quality assurance of the services offered by universities. Only then will excellence and equitable access be achieved and it will promote graduates to have quality training.

In the Spanish case (Bricall, 2000), states that a higher education of quality must achieve a number of objectives: (1) it is necessary to have an internal and external assessment system of the IHE, which transmits information to the agents that participate in the financing of universities; (2) to achieve academic excellence, it is necessary to evaluate the activities carried out by the IHE; (3) it is vital to improve the efficiency and management of the resources of IHE; (4) minimum quality standards should be achieved for the accreditation of IHE services⁵; (5) it is necessary for government teams to achieve certain objectives within the vision and mission of the IHE approach and finally (6) satisfy the needs of the users.

⁵The potential impacts of the accreditation process changes include qualifications, institutional policies and improvements in the process of strategic assessment and greater integration between educational demand and supply.

Due to all the above, this exercise in pursuit of quality requires up-to-date and continuous information that determines strengths and weaknesses, so that the IHE are able to establish the areas of improvement. Failure to do so, would cause the evaluation process to become a bureaucratic formality, very far from what is expected of the quality systems of IHE (Pérez Esparrells, Rahona, & Vaquero, 2003, 2004).

13.4 Analysis of Quality in Higher Education

The first attempts to introduce procedures that evaluate the quality of IHE were related to the university administration and the management of human resources. Over time, evaluation mechanisms of teaching quality were introduced (Klaus, 1997). University quality should be understood as a need to improve the provision of the service, demanding a commitment from public managers towards continuous improvement, management of key processes at an educational level and the establishment of quality indicators (Del Campo, Ferreiro, & Camino, 2013)

In the last two decades, a special interest is shown at international level, by trying to guarantee the quality of higher education studies. Thus, in the communiqué of September 8, 2009, the World Conference on Higher Education of UNESCO (2009) states in its preamble that “at no other time in history has the investment in higher education been more important than now, due to its condition of primordial force for the construction of inclusive and diverse societies of knowledge, and to foster research, innovation and creativity”. The same document states, in the section on access, equity and quality of higher education that “increasing access poses a challenge to the quality of higher education. Quality assurance is an essential role in contemporary higher education and must have the participation of all stakeholders. It is a task that requires both the implementation of systems to ensure the quality of evaluation guidelines, as well as the promotion of quality culture in establishments.”

As it has been proven, it is complex to define and apply the concept of quality, both for a generalist perspective and focused on higher education. Similarly, a perspective analysis of the quality of IHE from the perspective of the offer (or internal) and applicant (or external) (Muñoz et al., 2004) can be used.

From the point of the view of the supplier, quality assessing would involve the internal effectiveness of the IHE, since it offers a series of services. It would therefore involve determining the use that is made of the resources that the IHE has and the results obtained. To do this, some of the inputs to be considered (volume and quality of human resources, materials and financial resources and the resources used both in teaching, research, etc.). These figures should be compared with the outputs (undergraduate and postgraduate degrees, publications, research and development, transfer, etc.).

The evaluation of quality from the perspective of the demander should take into account the management results of the IHE in terms of social impact. It is therefore, an analysis that exceeds the internal competences of IHE, requiring a study of the

results at external level, to see to what extent the results satisfy social needs. A similar approach is proposed in Moreno-Luzón, Peris, and González (2001). Thus, an internal perspective is established, which is to determine if the IHE are efficient. For this, it is necessary to study the adequacy of the educational supply when the demand far outweighs the supply. But the quality in IHE should also ensure an external perspective. An example will allow a better approach to these two realities. If you consider the time it takes a student to complete a specific programme of studies, an analysis from the internal perspective of efficiency would be carried out. If you take into account to what extent the training received by the graduate conforms to what is demanded in the market, this would be the external perspective.

If you want to perform an inclusive analysis of the quality in IHE, the two previous perspectives should be sought, which are complementary. Thus, to achieve quality in IHE, not only is it necessary for IHE to do their work well (internal perspective), but they must also respond to the demands of society (Muñoz et al., 2004). Figure 13.1 summarises this approach.

Therefore, although IHE are not business organisations, some relationships between universities and interest groups have an economic aspect. For example, the fact that an IHE improves its research quality can involve higher allocations of funds to universities, because of their increased competitiveness. The same reasoning is valid for the acquisition of resources by means of transfer. This allows the

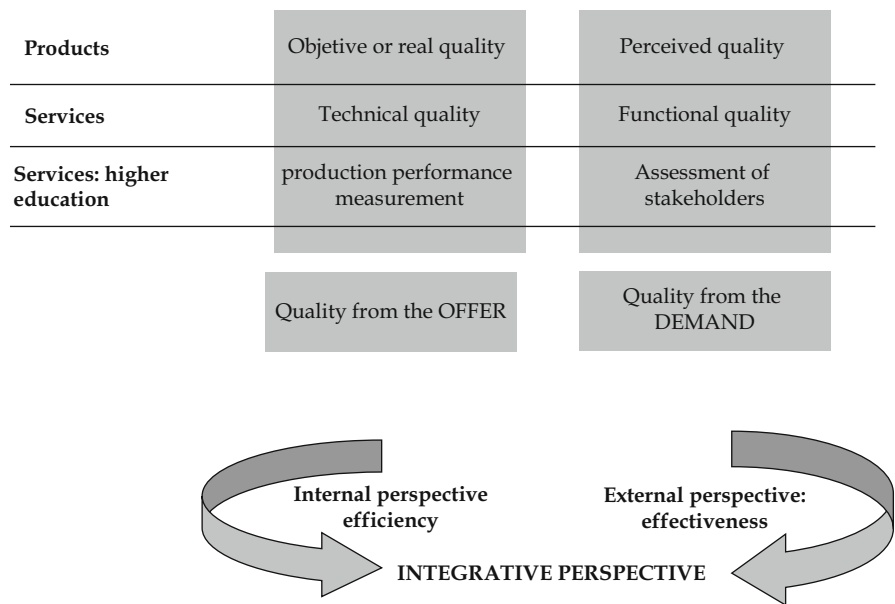


Fig. 13.1 Approaches to the analysis of quality. Source: Muñoz et al. (2004)

Table 13.1 Quality framework based on the input–output in higher education analysis

	Input	Process	Output
Education	Management	Programme curriculum	Stakeholders satisfaction
	Policy	Teaching and learning	
	Student selection	Assessment	
	Teaching facilities	Community services	Graduates
Research	Staff	Staff on the job training	Scientific papers
	Laboratory equipment		Patents and IP
	Funding		Financial benefits
Services	Lifelong training	Community services	Social benefits

Source: Arjomandi et al. (2009)

application, with certain adjustments, of the European Foundation for Quality Management (EFQM) model to higher education, as noted, among others in Beket and Brooks (2008), Boele, Burgler, and Kuiper (2008) or Arjomandi, Kestell, and Grimshaw (2009). Precisely with the EFQM model, the different areas of the institution can be evaluated by comparing them with the ideal of excellence, allowing to set plans to improve, in order to achieve total quality (Del Campo et al., 2013). Table 13.1 shows the framework of the classification of quality, on the basis of the main activities of higher education

13.5 Applicability of Quality Systems in the Institutions of Higher Education in Spain

To understand the applicability of quality systems in Spanish IHE, it is essential to know the European reality, as University management is clearly determined by the guidelines of the European Higher Education Area (EHEA).

A set of criteria that determine internal and external quality assurance in the IHE in Europe is designated from Marcellán (2005). For internal analysis, the IHE should: (1) have policies and procedures to guarantee the quality and criteria on the degree programmes taught, so that the student has complete information about his/her learning process; (2) have procedures that make it possible for the approval, monitoring and review of the degrees offered, that determine the characteristics for which they were designed; (3) have criteria and public procedures for the evaluation of the students; (4) have mechanisms that ensure the level of qualification and competence of teachers, both in their teaching and research activity; (5) have the material and human resources adequate to the demands of the training programme; (6) collect the information necessary for the evaluation process and (7) all the information of the activities of the IHE must be publicised.

This internal approach should be complemented by a series of external quality criteria: (1) the use of internal quality assurance procedures that facilitate the external review of the criteria; (2) the development of external quality assurance

procedures, which are translated into a commitment of the IHE on the suitability of the services offered; (3) the existence of criteria for decision-making in the process of external evaluation; (4) the design of evaluation processes in accordance with the objectives pursued; (5) the establishment of mechanisms and procedures for the publication of reports; (6) the definition of the procedures for monitoring internal and external reports and action plans; (7) cyclical evaluation of processes and (8) general education system analysis. At European level, the European Association for Quality Assurance in Higher Education (ENQA), is the entity responsible for establishing the guidelines on quality material. To do so, the ENQA establishes a series of criteria and guidelines for quality systems (Cardona, Barrenetxea, & Echebarría, 2007). Table 13.2 summarises this information.

Table 13.2 Criteria and guidelines recommended by the ENQA for quality systems in the IHE

Criteria	Guidelines
<i>Evaluation of the students</i>	
Students should be evaluated based on criteria, regulations and procedures published and applied by IHE.	The assessment procedures must have a design appropriate to the learning process. In addition, they must be adjusted to the purposes set out and with clear qualification criteria known by the students.
<i>Learning resources and student support</i>	
The IHE must ensure that their students' learning resources are the most suitable.	These resources must be accessible and appropriate to the needs of the students. In addition, they should be reviewed and improved to ensure greater effectiveness of services.
<i>Information systems</i>	
The IHE should collect, analyse and manage information for effective management of training programmes.	The IHE should include information on the progress of students, level of employability of graduates, resources for learning, etc.
<i>Public information</i>	
The IHE must publish up-to-date information on training.	The IHE should provide information on its training programmes, academic qualifications, teaching and evaluation procedures.
<i>Policies and procedures for quality assurance</i>	
IHE must be committed to the development of the quality policy.	The institutional strategy and the responsibility of the management bodies in pursuit of quality should be established.
<i>Approval, control and periodic review of programmes and degrees</i>	
The IHE should have mechanisms that allow approval, control and periodical reviews of their programmes and degrees.	The IHE must ensure the proper design of the content of the curriculum and study programme, progress control and student success.
<i>Quality assurance of teaching staff</i>	
The IHE should have the means to ensure that their teachers are qualified.	The IHE should ensure that the teacher is an expert in the subjects taught.

Source: Cardona et al. (2007)

For the last two decades in Spain, a strong interest is shown to introduce quality in the education systems. In the non-university system, educational laws that seek to improve the quality of education have been approved: the Organic Law of Quality of Education (LOCE), the Organic Law of Education (LOE) and the Organic Law for the Improvement of Educational Quality (LOMCE). In 2001 the Ministry of Education, Culture and Sport (MECS, 2001) prepared, using the EFQM model, an application guide for secondary education centres.

In higher education, the Law 6/2001, of 21 December, Organic Law of Universities (LOU) and the Law 4/2007, of 12 April, Organic Modification of the Organic Law of University (LOM-LOU) also have as their objectives to improve the quality of the IHE.⁶ The LOU established an accreditation guide of universities based on the EFQM model of excellence.

Thus, the need for accountability by the IHE is established, being transparent with information and undergoing evaluation, certification and accreditation⁷ of their qualifications, academic, research and management of teacher activities (Barrenetxea, Cardona, Echebarría, 2005). Thus, alongside the debate on autonomy, joint responsibility, government accountability, effectiveness or efficiency of the IHE, there is a growing interest in improving the quality. This concern has a greater emphasis, due to heavy budget cuts approved by the central and regional government, in higher education. This has forced universities to have to do more with fewer resources.

The legislation that established the organisation of University teaching in Spain gives each IHE full competence and autonomy to establish their undergraduate and postgraduate degrees. But, at the same time, there has to be a periodic inspection of the offer in order to ensure the fulfilment of the commitments undertaken. This process of verification and monitoring involves all the IHE, in the fields of teaching, research and management services. The different services offered by the IHE should be monitored periodically by external evaluators and their continuity depends on the result of this process. Therefore, we move from an analysis of self-assessment (internal) to an improvement of quality objectives, based on an external certification process of the IHE.

As a result, IHE have an obligation to coordinate this activity by means of the Internal Quality Assurance System (SGIC) which seeks the overall effectiveness of the activity as a whole, but at the same time, is delegated to management teams, centres, departments, services and users. This activity should be set up as an internal audit system, to then carry out an external audit from the results obtained and the improvement outline given.

Due to the importance of this process and the implications involved when not passing the verification of degrees, this quality evaluation process has motivated a

⁶ Both the LOU and the LOM-LOU establish the need for accreditation of centres of higher education, based on the model of the European Foundation for Quality Management (EFQM).

⁷ Quality accreditation is the process that allows to create and promote a quality education, convert the evaluation of institutions of higher education into something common, in order to improve accountability and strengthen the internal and external analysis for strategic decision-making.

strong interest to ensure good results. Thus, regardless of the form established, in all Spanish IHE there are departments focused on this process. To this, the development of strategic plans for IHE must be added, which is an instrument that enables to detect strengths and weaknesses and strengths and opportunities. In this way, the strategic plan becomes a tool that offers a better service to the entire University community, in teaching, research, transfer, human resources, services and funding.

Throughout this process, Spanish IHE have the collaboration of the National Agency of Quality Evaluation⁸ (ANECA) and autonomous agencies.⁹ In this way, the evaluation of the services offered must allow for the achievement of effectiveness and efficiency of IHE, the compliance with international quality standards for students' training, a fundamental issue to ensure international mobility and meet graduates' needs.

13.6 Conclusions

The pursuit of quality is very present in the management of IHE. The concept of quality as a synonym of doing things properly with public resources is very present in the daily life of IHE.

Assessment processes must be understood as procedures that seek collective improvement of the IHE and not punitive mechanisms. Thanks to these procedures, we achieve to detect those practices that do not respond to the initial objectives and, at the same time, mechanisms are designed to correct them. It is necessary to seek the efficiency and effectiveness of these actions.

Evaluation of the IHE should be something habitual and continuous in time, for which contrasted and transparent methodologies are needed, to ensure the highest quality of the services offered by the IHE. The participation of IHE in curricula and assessment projects, allows these institutions to become aware of their weaknesses and threats and turn them into strengths and opportunities. Only by acting in this way, will internal action plans be designed to improve the levels of university quality and prestige. This will allow not only to improve academic, research and transfer results, but also to increase resources.

To do this, the IHE should be supported throughout the process by evaluation agencies, which are ultimately responsible for ensuring greater efficiency levels of the University System. These agencies carry out continuous evaluation processes, based on international quality standards, which all IHE should aim at. This exercise

⁸The EAHE establish that the supervision of the quality of institutions of higher education must be competition of each national (or regional) agency. In Europe, the reference is the European Association for Quality Assurance in Higher Education (ENQA).

⁹This is precisely one of the recommendations of the World Conference on higher education in 2009, where it is designated that the public (and private) sector are obliged to ensure a quality higher education, and must create this national accreditation bodies that allow the achievement of this objective.

of responsibility requires the collaboration of all the university collectives, as well as public and private institutions, collaborating with universities. This is the only way to design a dynamic, adaptive and closer to reality university, but at the same time efficient.

Therefore, the IHE must carry out internal and external evaluations, subjected to formal accreditation processes, accountability to society, through standardised and internationally accepted procedures. Only by detecting the problems, can solutions and areas of improvement be established.

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Chapter 14

How Communication and Control Processes Improve Quality

Margarida Saraiva, Jorge Casas Novas*, and Patrícia Guerreiro Gomes

Abstract In order to achieve excellence, an organization should use two key instruments—quality and an efficient and effective communication process amongst all employees—so it can attain quality management. This chapter aims to examine whether organizational communication and quality are interrelated, in order to answer the following question: Is it necessary to improve communication within an organization so that quality management can be efficiently and effectively pursued? For this purpose, data were collected through the administration of a questionnaire to the staff of a Portuguese public organization. The findings showed that, in this organization, communication among employees of various sectors is satisfactory and that there is mutual help between them in order to improve the organizational performance.

14.1 Introduction

Any organization, which wants to be seen as excellent, can never be disconnected from quality and communication, since quality management can only be achieved through an efficient and effective communication process.

Individuals have an ability to communicate, yet the quality and the meaning of their messages are often far from good, thereby putting at risk organizational

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outcomes and even interpersonal relationships. Feedback is what makes you sure that the message was sent and understood by the recipient, and it is used as measure of the outcome of communication.

According to Filipe (2007), quality and communication are also key instruments in implementing processes of productivity improvement and costs reduction, and to achieve a more accessible and fast adaptation of organizations to the environments where they operate.

According to Cunha, Rego, Cunha, and Cabral-Cardoso (2007), communication is the “blood” of an organization. Such as this is vital for the proper functioning of the body, also communication is important for the “health” of organizational management.

Organizations should be regarded as a whole, with an organizational culture of their own and with processes that connect all their employees, since these are the main competition factors within organizations (Santos, 1993).

Quality is another factor of productivity improvement in an organization. This can only be achieved through good performance of the organization’s employees. Furthermore, discussion of the strategy to be adopted is paramount, so that the chance of error can be minimal (Filipe, 2007).

Since they tend to be influenced by the surrounding society (Teixeira, 1998), organizations that aim success should be attentive and responsive to changes that emerge, both inside the organization itself and in society, and be able to handle problems by innovating (Ribeiro, 2008).

Nowadays many organizations are resistant to change. In order to counter this, there is a need for effective and standing communication between all the employees, by allowing them to participate and to be involved in the processes, thereby minimizing their resistance to change (Sousa, Duarte, Sanches, & Gomes, 2006). Therefore, for an organization to be competitive and keep pace with fast evolution in society, it needs to have abilities such as adaptation, innovation/quality, and technological dynamics (Bertrand & Guillemet, 1988), as well as good communication and efficient and effective interaction skills (Motley, 1990). Thus, it is the top management’s responsibility to ensure that appropriate communication processes are put in place inside the organization (Bouillon, 2010).

The chapter is structured as follows: the next section begins with a discussion of the relationship between Quality and Organizational Communication; Sect. 14.3 presents the methodological issues; Sect. 14.4 sets out the main results of the statistical analysis; finally, Sect. 14.5 discusses the results and presents the conclusions of the study.

14.2 Theoretical Background

Organizations operate in a market of increasing competitiveness and permanent change, and feel a need to change, improve, and innovate (Bertrand & Guillemet, 1988). According to the same writers, organizations by all means seek to gain

competitive advantages, through the difference of their administration, which is only possible through their employees.

In the same line, Silva and Saraiva (2012) state that an organization builds a competitive advantage when there is a relationship between four factors: efficiency, quality, innovation, and ability to respond to the client. These authors describe that it is vital to bet in a quality service that may differentiate organizations among their competitors, since this is the only way for them to succeed and be competitive.

For Ribeiro (2008, p. 4), organizations “as living dynamic entities should have some abilities, such as to renew themselves, innovate, learn, adjust to internal and external changes, turn information into knowledge, solve problems, add value.”

14.2.1 Quality in Organizations

Quality has become a current increasingly discussed topic, and one about which the whole organization has to be concerned. According to Antunes (2010), quality is a subject matter that most people cannot accurately describe, but can identify when they see or feel it.

To set a definition of Quality or Quality Management is not an easy task because these are a very subjective concepts. From this point of view, Andrade, Rietow, and Moraes (2007) argue that all organizations live in a Quality Age and that the word Quality draws from a wider concept, which is global and able to identify the different methods and events that have built and guide this very same concept.

Douglas and Judge (2001) also argue that, within the concept of corporate strategy, Quality is oriented to the client’s satisfaction, by setting programs for continuous enhancement and alignment of the quality objectives with the organization’s objectives. On the other hand, Moura (1999) refers to Quality as the matching between what is generated and what clients require, so that the expectations of these can be met.

Similarly, the concept of Quality in work is a multidimensional concept. For Moretti (2012), organizations should create a work environment where employees can feel good about themselves and among their coworkers, and be confident about the satisfaction of their own needs and at the same time contribute to the group. Thus, innovation, productivity, and the initiative of employees are more and more a product of a new work environment, where more and more is required from professionals (Hackman & Wageman, 1995; Pires, 2012). Therefore, life quality in work becomes a concern increasingly present in organizations. The aim is to create value and to develop a unique positioning of the organization between its competitors, which can be identified through its employees culture and behavior (Oliveira & Limongi-França, 2005). Thus, enhancement of quality in work interacts with progress in the setting up of a knowledge-based competitive economy, and it has to be supported by the joint efforts of all participants and boosted mainly by social dialogue (Ilies, 2011).

On the other hand, in Quality Management, efficient and effective communication among all employees in the organization and external clients is a key success factor

(Choudhary & Rathore, 2013). In this sense, the strategy, change and culture, which are established within an organization, as outcomes of the philosophy of Quality Management should be communicated in a direct clear way, from top management to all employees and clients (Oakland, 1993).

14.2.2 Communication in Organizations

The lack of communication or poor communication are some of the main problems that organizations face at present (Vercic, Vercic, & Sriramesh, 2012). According to Shermerhorn (1991), organizational communication is a specific method by which information circulates within an organization and between the organization and its environment.

In this sense, Katz and Kahn (1978) and Miles, Patrick, and King (1996) state that there is some kind of relationship between organizational communication and job satisfaction. It is through these two roles that the members of an organization convey the meaning of their behaviors and their organizational relationships (Mayère, 2010; Papp, Albert, & Tuvahoy, 1997; Ruck & Welch, 2012).

Nikolic, Terek, Vukonjanski, and Ivin (2012) refer to the existence of a strong relation between internal communication and the economic and strategic effects of business. Whenever the internal level of communication increases, the economic and strategic effects in organizations enhance.

From this point of view, within an organization, several steps should be set for building change, where communication is key to mutual understanding of problems (Elving, 2005; Sousa et al., 2006; Welch, 2012). Therefore, communication emerges as a key element in the functioning of organizations in order to “ensure the effectiveness of their technical systems by facilitating a minimum of interdependence between the different elements (individuals, groups, services, workshops, offices, etc.) of their internal systems.” (Petit & Dubois, 1998, p. 35).

On the other hand, efficient and effective organizational communication must be clear, coherent, appropriate, up-to-date, well distributed, adapted, and uniform. Furthermore, it must be of interest and be accepted (Snell & Dean, 1992; Smith et al., 1994). Besides, coherent communication establishes an effort to improve commitment towards that communication, by seeking understanding and highlighting language comprehension (Redfield, 1985). According to these writers, communication aims to ensure the perfect flow of information, and it is necessary to find the exact balance point between received communication and used communication. Thus, communication is a key tool in organizations, through which information, thoughts, and ideas are shared (Kreps, 1990; Ruão, 1999; Skyrme, 1995; Webster & Trevino, 1995).

Therefore, communication is a *sine qua non* condition of both social and organizational life. Without communication, such things as organization, management, cooperation, motivation, sales, supply or demand, marketing or coordinated work processes are not possible (Wiio, 1995). Actually, a human organization is just a

communication network: “if communication fails, a part of the organizational structure also fails.” (Cunha et al., 2007, p. 434).

As Elving suggests, organizational communication has two aims. The first aim of organizational communication is to provide employees with information about their tasks, policy and other organizational matters. The second aim is to use communication as a means to create a team within the organization itself. This way, a distinction can be made between organizational communication as a means to provide information and/or as a means to develop team spirit.

On the other hand, communication in organizations contributes to the employees satisfaction, dedication, and performance, as well to their leaders’ efficiency and effectiveness and even to organizational performance. We can thus state that communication is the pillar of all human interaction (Bisel, Messersmith, & Kelley, 2012; Rego, 2013; Ribeiro, 2008).

14.3 Research Method

14.3.1 Issue and Objectives

The research issue we intend to address starts with the following question: why has the interconnection between quality and organizational communication become more and more indispensable in organizations?

Therefore, this study aims to examine how organizational communication and quality are interconnected. This means, how necessary it is to improve communication inside a Portuguese public organization, in order to efficiently and effectively develop quality management. The objectives are the following:

1. To identify the importance of quality organizational communication in organizations
2. To analyze how quality and organizational communication can become factors of success in organizations
3. To establish the importance of the interconnection of quality and organizational communication in organizations

Thus, this study can be of interest to all organizations that are willing to change, aim success, and use quality and organizational communication as a frame of reference.

14.3.2 Method

14.3.2.1 Participants

141 individuals out of 539 employees in a Portuguese public organization (the study’s target population) participated in the questionnaire. This stands for a respondents’ rate of about 26.2 %.

14.3.2.2 Variables

The variables included in the study were Organizational Communication and Quality Management.

The first variable (Organizational Communication) included the following items:

- Habit of communicating and dialoguing
- Understanding organizational problems
- Acknowledging
- Information needed for performance improvement
- Incentives
- Available technology
- Training sessions
- Internal communication and internal information sharing
- Decision making
- Power sharing
- Team spirit

The variable “Quality Management” includes:

- Leadership
- Definition of the organization’s mission, vision, and values
- Responsiveness to organizational change
- Identification of problems
- Training sessions
- Participation in events outside the organization
- Acknowledging
- Empowerment
- Team work
- Integration of new elements in work teams
- Continuous enhancement
- Identification of clients
- Clients’ satisfaction

14.3.2.3 Instruments

Survey, through an opinion questionnaire, which was administered to the employees of a Portuguese public organization, with an aim to inquire about the interconnection between Organizational Communication and Quality. The design of this instrument was based on the studies by Downs and Hazen (1977), Goldhaber and Rogers (1979) and Quintino (2009), but it does not overlook all the other approaches, previously introduced, and the factors associated with those.

In this questionnaire we used Likert’s five-level scale (1—Totally Disagree; 2—Disagree; 3—Neither Agree Nor Disagree; 4—Agree; 5—Totally Agree), since this is the most used scale in opinion studies.

14.3.2.4 Procedures

This research was undertaken between July and August 2014. The questionnaires were handed in to someone in charge of the Portuguese public organization, who, after a small non-structured interview, volunteered to distribute those to all employees of the target organization. The questionnaires were accompanied by a cover letter, which outlined the importance of the study, requested maximum sincerity in responses, and ensured response confidentiality.

All the data collected were processed through techniques of descriptive statistics, with the SPSS 21.0 software.

14.4 Results

14.4.1 *Characterization of the Respondents*

In summary, drawing from the given responses, we can deduce that the respondents' average age is plus 44, with 70 (49.6 %) women and 69 (48.9 %) men.

The majority of respondents are married (51.1 %); hold a secondary education diploma (45–31.9 %); work into open-ended contracts (121–85.8 %); hold 11–20 year professional experience (55–39 %); have a job as Operational Assistant (48–34 %) and Technical Assistant (30–21.3 %); have worked in the target organization for 11–15 years (40–28.4 %).

After some comparisons, we can see that the majority of the male respondents have lower qualifications (4th Grade—12.2 %; 9th Grade—12.2 %; 12th Grade—11.5 %; Graduation—9.9 %) than the female respondents (12th Grade—22.9 %; Graduation—10.7 %). Yet it is worth noting that in this organization the majority of the employees hold an academic qualification at the 12th Grade level or higher (75–57.3 %), which allows us to confirm that the employees of this organization are highly qualified.

Furthermore, we can say that the majority of the respondents, both men (43–37.6 %) and women (32–28 %), are highly professionally experienced, 10–26 years and 6–20 years, respectively. We can also say that the majority of the respondents with that professional experience hold more academic qualifications (12th Grade: 34–30 %; Graduation: 10–8.8 %) and have jobs as Operational Assistant (30–29.2 %), Technical Assistant (21–20.5 %), and Senior Technician (13–12.7 %).

As for the position hold in the organization, the majority of male respondents (31–25.6 %) are Operational Assistants, while female respondents (26–21.5 %) are Technical Assistants. It is to be highlighted that this is more evident in the age groups between 30 and 49 years (72–63.7 %). It is also to be noted that the position of Senior Technician prevails in women (11–9.1 % vs 6–5 %). However, it is worth noting that the majority of Operational Assistants hold low academic qualifications (4th Grade: 15–12.5 %; 9th Grade: 18–15 %) as compared to the majority of Technical Assistant respondents (12th Grade: 23–19.2 %). The majority of Senior Technician respondents hold a higher education degree (15–12.5 %).

14.4.2 Organizational Communication

Based on the results we can briefly highlight that the majority of the respondents:

- Use to communicate and dialogue with one another (104–73.7 %).
- Think that the information is effectively disseminated (63–44.7 %); that they receive enough information about policies and objectives (44–31.2 %) and about changes (56–39.7 %).
- Think that their superiors show to understand their problems (89–62.2 %) and encourage them for a better task performance (81–56.4 %); as a rule accept their ideas in the decision making process (68–48.2 %); congratulate them when they go beyond their regular tasks (59–41.9 %).
- Have easy access to necessary information (112–79.4 %), the necessary technology (Internet, telephone, etc.) (98–69.5 %) for good performance of functions/tasks, and receive feedback about their own performance (64–45.4 %).
- Feel encouraged to attain objectives (49–34.7 %) and to make decisions (46–32.6 %).
- Deem the intranet is useful (108–76.6 %), that it facilitates communication (97–68.7 %) and that they find what they look for when they use this (63–44.7 %).
- Report that they are aware of internal communication (e-mails, placards, circular letters, meetings, etc.) (71–50.4 %); acknowledge those types of communication as a way of sharing knowledge (101–71.6 %); are provided with secure up-to-date information through internal communication and intranet (59–41.8 %).
- Think that, on their own, they do what they are supposed to do (86–61 %).
- Show team spirit (81–57.4 %).

It is to be noted that only one disagreement was seen on the part of the majority of the respondents, that the organization does not take such initiatives as to organize distant courses through Internet (e-learning), which can help the employees improve their performance (60–42.5 %).

In a nutshell, we can say that the employees deem the communication processes in the target organization as reasonably efficient and effective. On the one hand, they usually make use of internal communication and of the intranet, which they value as a way of sharing knowledge inside the organization and as a positive bond among everyone. On the other hand, they report that the information is efficiently and effectively disseminated in the organization; and that they consider that the information on policies, objectives, and changes delivered in the organization is enough.

14.4.3 Quality in Organizations

Based on the results we can briefly highlight that the majority of the respondents:

- Identify problems and solve them in the best possible way (82–58.1 %).
- Are aware of the organization's mission (117–82.9 %), vision (110–78 %), and values (97–68.7 %). However, 42 (9.6 %) individuals tell that they were NOT

involved in the definition of the organization's mission and vision, and 63 (44.7 %) are uncertain.

- Take advantage of all their abilities to improve their work (68–48.3 %).
- Care about the integration of newcomers or those who moved to a new professional activity/workstation (72–51 %).
- Know the organization's clients (51–36.1 %). It is to be noted that 53 (37.6 %) individuals say they neither agree nor disagree.
- Participate in the design of projects related with quality of work (48–34 %). To be noted that 62 (44 %) individuals say they neither agree nor disagree.
- Help one another in the different sectors (52–36.9 %). However, it is noted that 51 (36.2) individuals say they are not sure and 37 (26.2 %) disagree.

In what concerns the issue of training provided by the organization in order for employees to refresh their skills, respondents were divided in their opinions: 40 (28.3 %) reported that disagree with the statement; 47 (33.3 %) neither agree nor disagree; and 52 (28.3 %) agree.

On the other hand, when asked about:

- Regular attendance of training sessions: 59 (41.8 %) neither agree nor disagree; 41 (29.1 %) disagree; and only 39 (27.6 %) agree.
- Participation in workshops and courses out of the organization: 56 (39.7 %) neither agree nor disagree; 52 (36.9 %) disagree; and only 31 (22 %) agree.

In the face of these responses, a problem can be found, which has to be overcome by the organization, since only 54 (38.3 %) of respondents find that training sessions raise and enhance knowledge and 60 (42.6 %) are uncertain about this.

As for discussion about changes carried out inside the organization before they are put in place, 49 (34.8 %) disagree with the statement; 49 (34.8 %) neither agree nor disagree; and only 43 (30.5 %) agree. Another problem identified.

Quality is oriented to the client's satisfaction, by designing programs of continuous enhancement with quality objectives in line with the organization's objectives. In this study some difficulties in the organization have been found (e.g., training sessions, employees involvement in decision making) in order to achieve the so desired improvement of processes.

On the one hand, a need for investment in training, in or out of the organization, is paramount. Training sessions should be more frequent and adapted to fit specific needs, in order to promote continuous enhancement in the organization.

However, it is disturbing to realize on various issues that respondents were undecided (neither agree nor disagree), perhaps out of fear or reluctance to express their true opinion.

14.5 Discussion and Conclusion

From the results we have obtained a conclusion can be drawn, that the employees think there are satisfactory communication processes in the organization, and that Quality Management is an approach aimed at making the organization more

efficient and effective. This promotes the performance improvement of employees and organizations and it is the primary strategy for success. The conclusion does not diverge from other studies (e.g., Andrade et al., 2007; Antunes, 2010; Bertrand & Guillemet, 1988; Bisel et al., 2012; Bouillon, 2010; Choudhary & Rathore, 2013; Cunha et al., 2007; Douglas & Judge, 2001; Downs & Hazen, 1977; Elving, 2005; Filipe, 2007; Goldhaber & Rogers, 1979; Hackman & Wageman, 1995; Ilies, 2011; Katz & Kahn, 1978; Kreps, 1990; Mayère, 2010; Miles et al., 1996; Moretti, 2012; Motley, 1990; Moura, 1999; Nikolic et al., 2012; Oliveira & Limongi-França, 2005; Papp et al., 1997; Petit & Dubois, 1998; Pires, 2012; Quintino, 2009; Rego, 2013; Ribeiro, 2008; Ruão, 1999; Ruck & Welch, 2012; Santos, 1993; Silva & Saraiva, 2012; Skyrme, 1995; Smith et al., 1994; Snell & Dean, 1992; Sousa et al., 2006; Teixeira, 1998; Vercic et al., 2012; Webster & Trevino, 1995; Welch, 2012; Wiio, 1995).

In summary, the employees of this Portuguese public organization find that the existence of efficient and effective communication among all members is vital for excellent quality management, namely to improve life quality in work, and, consequently, make the organization competitive, as is noted by Choudhary & Rathore (2013), Downs and Hazen (1977), Katz and Kahn (1978), Goldhaber and Rogers (1979), Santos (1993), Miles et al. (1996), Oliveira and Limongi-França (2005), Andrade et al. (2007), Cunha et al. (2007), Filipe (2007), Quintino (2009), Antunes (2010), Ilies (2011), Moretti (2012), Nikolic et al. (2012), and Ruck and Welch (2012).

In this perspective, employees mention that they usually communicate and dialogue between themselves; are provided with the necessary information and technology (Internet, intranet, telephone, fax, ...) for an excellent job performance; that it is possible to identify problems in the organization and that these are solved in the best possible way, thereby contributing to the quality of the organization service. This is in line with the studies by Bertrand and Guillemet (1988), Petit and Dubois (1998) and Filipe (2007).

On the other hand, the members of this organization take advantage of all their abilities in order to improve work, care about the integration of newcomers and/or the employees who have moved to a new workstation, help each other in the different sectors, and regard the organizational performance as satisfactory. They also report that there is integration with the superiors and coworkers, always showing their understanding of their needs, which meets the studies by Katz and Kahn (1978), Miles et al. (1996), Elving (2005), Oliveira and Limongi-França (2005), Ribeiro (2008), Ilies (2011), Bisel et al. (2012), Moretti (2012), Ruck and Welch (2012), and Rego (2013).

By the same token, employees claim to know and agree with the Mission and Vision of the organization, although they have not been involved in the definition of those; know the organization's clients; and claim that the changes made within the organization are not discussed before being put into practice, as referred by Douglas and Choudhary & Rathore, (2013), Oakland (1993), Teixeira (1998), Moura (1999), Douglas and Judge (2001), Elving (2005), Sousa et al. (2006), Ribeiro (2008), Pires (2012), Silva and Saraiva (2012), and Welch (2012).

Employees also mention that internal communication and technology are available and familiar to everybody, they are useful and facilitate information exchange; they are a form of knowledge sharing within the organization and are a positive connection between all, as had previously been shown in the studies by Bertrand and Guillemet (1988), Skyrme (1995), and Petit and Dubois (1998).

Yet employees do not often attend training courses and the organization does not have a plan of regular training inside and outside the organization and does not encourage the employees' participation, although this is mandatory by law. This is a detected problem that must be corrected and improved. Another worrying problem within the organization is the fear of employees in expressing their true opinion, as Cunha et al. (2007) and Vercic et al. (2012) point out in their studies.

Effective communication requires people in the organization have access to adequate and timely information necessary to perform their activities. In this way, quality and communication have become issues to which organizations have to pay attention. This study intended to show that communication can be determining factor for the processes of development and improvement of quality management (Andrade et al., 2007; Antunes, 2010; Cunha et al., 2007; Downs & Hazen, 1977; Filipe, 2007; Goldhaber & Rogers, 1979; Kreps, 1990; Quintino, 2009; Ruão, 1999; Santos, 1993; Vercic et al., 2012; Wiio, 1995).

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Chapter 15

Experience in Adapting E-S-QUAL to Different Sectors or Settings

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Abstract Throughout the last decade, we have witnessed the rise of online service quality models that aim to support managers in the evaluation and improvement of their service offerings. The existing literature indicates that among the various instruments that have been proposed, the generic parsimonious E-S-QUAL has received the most recognition. However, critics have argued that the scale is not generic but is specific for e-services that sell physical goods. Accordingly, the present study aims to resolve the matter based on two relevant sources of information. First, this study reassesses the scale in three different sectors including retail service (e-supermarket), soft retail service (e-travel agencies), and non-retail service (e-banking). Thereafter, the Delphi analysis method is used to survey experts who have previously used the scale. The overall results confirmed that the E-S-QUAL is effective in capturing the core of e-service quality. However, the results also reveal that the scale appears to be very unstable because there were important differences in the final number of dimensions (e.g., four for the e-supermarket, three for online banking and one for the e-travel agencies). The extant literature on the topic points toward online service quality as a multidimensional (rather than a unidimensional) construct. In other words, E-S-QUAL has fallen short in assessing the quality of service of e-travel agencies on its entire domain. Consequently, this study argued that the four dimensions of E-S-QUAL may have several limitations in assessing e-service quality in some sectors. In addition, the Delphi results indicate that the fulfillment dimension of E-S-QUAL is one of the prominent dimensions referring only to online services that sell physical goods. Finally, the output results confirmed the service quality–perceived value–loyalty chain. In addition, loyalty intention was shown to be a strong predictor of actual purchase.

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15.1 Introduction

In the last few years, the promotion and use of e-services have become a general routine, because e-services have been transformed into an important component of the overall service offerings provided by any type of industry. Indeed, e-services is a fast-growing sector, and increasingly more consumers are taking advantage of the opportunities offered by online services. Accordingly, no organization can afford to be complacent, and many are already using online services as a new opportunity to gain competitive advantage. However, as the Internet becomes more global and the number of users exponentially increases by millions, online consumers are becoming increasingly knowledgeable and are increasingly keen to use search engines and comparison websites to evaluate and select products and services. Moreover, online consumers are ever more eager to share their good and bad experiences through social media. As a result, the novelty of e-services has faded. In addition, more and more online consumers are less willing to accept or tolerate poor service and product offers online.

In such an environment, some researchers have argued that quality may be the most important determinant of long-term success in the context of e-services (e.g., Wolfinbarger & Gilly, 2003; Zeithaml, Parasuraman, & Malhotra, 2000) based on the fact that key determinants of success or failure of e-tailers are not merely Web presence or low price but delivering high quality e-services. It was widely accepted that to deliver superior online service quality, managers of companies with a Web presence must first understand how consumers perceive and evaluate online customer service (Parasuraman, Zeithaml, & Malhotra, 2005). Subsequently, an increasing number of research studies have focused on understanding online service quality, and many different scales measuring online service quality have been proposed (see for example Barnes & Vidgen, 2002; Parasuraman et al., 2005; Wolfinbarger & Gilly, 2003; Yoo & Donthu, 2001). These studies provided useful insights about criteria that are relevant for evaluating e-service quality.

The conceptualization and measurement of e-service quality are still at an early stage of development. Perhaps for this reason, the number and nature of the factors influencing consumer perceptions of e-service quality in the plethora of existing studies appeared to be unclear and undefined (Ladhari, 2010). Moreover, most of the online service quality dimensions identified in previous studies are to some extent incomplete and incongruent (Yaya, Marimon, & Casadesus, 2011), principally because many prior service quality measures do not take into account the entire service process. Notwithstanding the critics, the proposed scales (E-S-QUAL) by Parasuraman et al. (2005) have received considerable attention from practitioners and researchers because they have been shown to have good psychometric properties to evaluate e-service quality. In addition, this scale appears to capture the general domain of e-service quality fairly well.

Nevertheless, there is an ongoing debate among practitioners and academics regarding the usefulness of the E-S-QUAL as a generic measure to evaluate any e-service. For example, Yaya, Marimon, and Casadesus (2012) undertook a comprehensive review of the existing studies that had used the E-S-QUAL and

concluded that the dimensional structure of the E-S-QUAL appears to be unstable across countries. Furthermore, the authors also observed disparities among the studies in terms of the methodology used, sample characteristics, data analysis procedures, and nomological validity, among other issues. Based on this background, the aims of the present study are twofold:(1) to reassess the E-S-QUAL in the same country but in three different sectors, namely, online banking, online travel agencies, and online supermarkets by using the same methodology, data analysis procedure, and nomological validity and (2) to develop an agenda (based on the experts' opinions) of what to consider while adopting the generic instrument of E-S-QUAL in the future.

After this introduction, in the literature review section, we discuss the conceptualization of e-service quality and present the existing scale in the field. Thereafter, we discuss the E-S-QUAL scale development and some key conceptual and empirical issues from the previous studies on the adoption of the scale. Then, the methodology used in the study is presented followed by results of data analysis of the customer's perception of service quality; based on the data analysis, we developed an agenda (based on the experts' opinion) of what to consider while adopting the generic instrument in the future. This chapter ends with the study's general conclusions.

15.2 Literature Review

15.2.1 *Measuring Online Service Quality*

Due to e-commerce escalation and rapid technological advances, conceptualizing and assessing e-service quality have gained ground. Indeed, e-service delivery is different from traditional service delivery, because the human interactions that are so fundamental to traditional service encounters have been replaced by technology. In other words, customers' interaction, contact or encounter with the service providers occurs via technology. The existing literature indicated that e-service quality has been defined in different ways. For example, Rowley (2006) defines e-service quality as "deeds, efforts, or performances whose delivery is mediated by information technology." In contrast, Santos (2003) defines e-service quality as "the consumers' overall evaluation and judgment of the excellence and quality of service offerings in the virtual market place." These definitions have been criticized as being circular and for not capturing all the aspects of the purchasing process (Kim, Kim, & Lennon, 2006; Parasuraman et al., 2005). Nevertheless, the present study adopted one of the widely accepted definitions of e-service quality conceptualized by Zeithaml, Parasuraman, and Malhotra (2002), who stated that e-service quality is "the extent to which a website facilitates efficient and effective shopping, purchasing, and delivery of products or services." This choice was motivated by the fact that this definition encompasses all phases of a customer's interaction with the website, by capturing all the aspects of the purchasing process from pre-sale to post-sale.

Despite the unresolved debate on the definition of e-service quality, a number of efforts have been made to conceptualize scales to evaluate e-service quality.

Unlike the service quality literature, studies on e-service quality are still in a preliminary phase, both from theoretical and empirical perspectives. The extant literature indicates that numerous researchers have sought to identify the service attributes that contribute most significantly to relevant e-service quality. However, the absence of a valid and reliable scale to measure e-service quality has forced early researchers to make use of unsatisfactory alternatives, because many of the earlier proposed scales to evaluate e-service quality do not provide a comprehensive evaluation of the service quality of the website. For example, Gefen (2002) applied an adapted SERVQUAL scale to measure electronic service quality and reported that the SERVQUAL dimensions did not fit the data adequately because service quality dimensions tend to be context-bounded and are dependent on service type. In addition, the five dimensions of SERVQUAL primarily address service quality based on human to human interaction, not human to technology interaction.

However, other researchers have attempted to identify key attributes that best define the online business environment. These scales include: WebQual (Barnes & Vidgen, 2002), WebQualTM (Loiacono, Watson, & Dale, 2000), SITEQUAL (Yoo & Donthu, 2001), e-SQ (Zeithaml et al., 2002), eTailQ (Wolfenbarger & Gilly, 2003), E-S-QUAL and E-RecS-QUAL (Parasuraman et al., 2005), eTransQual (Bauer et al. 2006), and PeSQ (Cristobal et al. 2007). Nevertheless, many of these proposed scales to evaluate e-service quality do not provide a comprehensive evaluation of the service quality provided by the website concerned. For example, according to Wolfenbarger and Gilly (2003), the 12 dimensions of the WebQualTM scale (Loiacono et al., 2000) are the most comprehensive research, both theoretically and empirically, on identifying a website's technical quality. However, the study was conducted using a convenient sample of students rather than actual purchasers and did not include fulfillment as a dimension of the service quality. In addition, the proposed scale was geared toward helping website developers to better design their websites rather than providing specific service quality measures from the customer perspective.

Furthermore, like the WebQualTM, the SITEQUAL scale proposed by Yoo and Donthu (2001), which contains nine items grouped in four dimensions, used convenient samples of students and did not capture all aspects of the purchasing process. Similarly, Szymanski and Hise's (2000) proposed scale excludes dimensions considered to be central to the evaluation of website service quality, such as "Fulfillment." In addition, their study focuses strongly on satisfaction rather than service quality (Boshoff, 2007; Zeithaml et al., 2002). Other scales, such as Barnes and Vidgen's (2002) four dimensions of WebQual (originally given the same name as that of a scale developed by Loiacono et al., 2000), provide a transaction-specific assessment rather than a detailed service quality assessment of a website and would, therefore, be equally unsuitable for measuring e-service quality (Parasuraman et al., 2005). Moreover, Wolfenbarger and Gilly (2003) used a robust psychometric method (online and offline focus group, a sorting task, and online customer panel survey) to develop 14 items grouped into a scale with four distinct factors initially entitled. comQ, which later became eTailQual. However, the scale was criticized for lack of

both consistency and appropriateness of the dimensions used. Thus, the dimensions of privacy/security and fulfillment/reliability show strong face validity, whereas the statements defining the other two dimensions do not have internal consistency.

Overall, the major shortcomings of these previous studies indicate that:

- Most of the authors neither define the exact domain of their quality construct nor provide a clear-cut definition of electronic services.
- Most of the scales that have been developed, or are currently under development, do not provide a comprehensive evaluation of e-service quality.
- The proposed scales have not been examined in terms of their psychometric properties or the possible improvements that may be required.
- The focus of the scales only provides a transaction-specific assessment rather than a detailed service quality assessment.
- Most of these studies often conceptualize electronic service quality as being identical to Web interface design quality.
- In general, the factors listed are taken from studies on service quality in the physical offline domain.
- The factors or items included have often been selected very arbitrarily.

15.2.2 E-S-QUAL development

More recently, in an attempt to address all the concerns mentioned above, Zeithaml et al. (2000) systematically investigated, analyzed and identified a number of website features at the perceptual attribute level and categorized them in terms of an e-SERVQUAL scale. Moreover, based on a comprehensive review and synthesis of the extant literature on e-SQ, (Zeithaml et al., 2002) they detailed five broad sets of criteria as being relevant to e-SQ perceptions: (a) information availability and content, (b) ease of use or usability, (c) privacy/security, (d) graphic style, and (e) reliability/fulfillment. Thus, e-SERVQUAL was painstakingly examined to develop a more comprehensive conception of e-service quality by evaluating the entire service encounter, including both the transaction and the post-transaction process. The results produced seven dimensions: efficiency, reliability, fulfillment, privacy, responsiveness, compensation, and contact for evaluating e-service quality.

Based on this explorative study by Zeithaml et al. (2000), the authors have recently refined and validated the instrument. Consequently, the seven dimensions were divided up and two different scales were derived from them to measure e-service quality (Parasuraman et al., 2005). The result is an “E-S-QUAL” scale that addresses core service quality aspects and consists of 22 items that have been grouped into four quality factors that capture the critical dimensions of service quality outlined in the extant literature. Note that the authors changed one of the dimensions slightly from “reliability” to “system availability.”

1. Efficiency: The ease and speed of accessing and using the site.
2. Fulfillment: The extent to which the site’s promises about order delivery and item availability are fulfilled.

3. System availability: The correct technical functioning of the site.
4. Privacy: The degree to which the site is safe and protects customer information.

Additionally, Zeithmal et al. (2002) observed that “recovery service” involves different dimensions than the core dimensions and that most of the “personal service” issues such as product returns, problems, compensation for problems, ways to reach the company for information or to address problems are part of recovery service rather than of core service. Thus, the second scale, entitled E-RecS-QUAL, was designed to be appropriate when customers had non-routine encounters to measure the effectiveness of handling problems and returns, compensation for problems that have cropped up and availability of assistance. The E-RecS-QUAL scale is composed of 11 items and grouped into three quality dimensions:

1. Responsiveness: Effective handling of problems and returns through the site.
2. Compensation: The degree to which the site compensates customers for problems.
3. Contact: The availability of assistance through telephone or online representatives.

Both scales were subjected to exploratory and confirmatory factor analyses and advanced the conceptualization of e-service quality because they address and resolve many of the concerns about previous scales. Above all, the E-S-QUAL was applied in a variety of settings and countries (see for example, Akinci et al., 2010; Boshoff, 2007; Marimon, Vidgen, Barnes, & Cristobal, 2010; Yaya, Marimon, & Casadesus, 2013). However, the question remains regarding whether the scale is an appropriate tool to capture customers’ perception of service quality for the entire field of e-service and whether it can be universally applicable, as claimed by the authors, because the scale development, as described by Parasuraman et al. (2005), focused only on websites that sold physical goods. Please note that the present study emphasizes only E-S-QUAL and not E-RecS-QUAL, because the extant literature indicates that the subject of service recovery in the context of e-services has received very limited attention to date. Accordingly, this study reassesses the E-S-QUAL on three different e-services, namely, online banking, online travel agencies, and online supermarkets.

15.3 Methodology

15.3.1 *The Motivations for the Study of the Selected Service Sectors*

This study attempts to reassess the applicability of the e-service quality scales as proposed by Parasuraman et al. (2005) in retail service (e-supermarket), in a soft retail service (e-travel agencies) and in a non-retail context, such as financial services (e-banking). The non-retail service was carefully selected for the purpose of having fewer tangible elements, thus representing the main difference between products and services on a tangibility spectrum. On the other hand, e-supermarket

sand e-travel agencies were primarily chosen because (1) E-S-QUAL was developed based on customers' perception of online retail service quality, and (2) the authors claimed that the scale is a generic measure to evaluate any e-service.

The cherry-picking of the service sectors was also motivated by the economic environment of the country in which the study was conducted, because the purchase of travel products represents most of the e-commerce in Spain. According to Llach, Marimon, Alonso-Almeida, and Bernardo (2013), 84.1 % of all tourism products, such as accommodations and transportation, are purchased online. The purchase of travel products represents the largest proportion of e-commerce sales in any sector in Spain, followed by leisure products, which represents 36.5 % of the total e-commerce. In addition, the average expenditure (approximately €1,014 per purchase) on each tourism product is high. In fact, 58.7 % of e-shoppers are considered to be constant, having purchased via the Internet for 2 consecutive years and expressing the intent to continue to do so in the future (Bernardo, Marimon, & Alonso-Almeida, 2012).

15.3.2 Questionnaire and Measures

A structured questionnaire was designed specifically for each of the three sectors.

The questionnaire was organized topically and was structured into three sections. The first section contained "filter" questions to ensure that all respondents used e-banking, e-travel agencies and the selected e-supermarket. The second section was devoted to assessing the constructs of service quality, perceived value and loyalty. The final section sought respondents' demographic data of gender, age and education level.

Evidently, e-service quality was adapted from the original E-S-QUAL (Parasuraman et al., 2005). However, some items in the original scales were reworded or discarded to facilitate application of the scales in soft retail and non-retail service settings. For example, of the 22 items originally developed for the E-S-QUAL scale, three items (FUL2, FUL4, and FUL5) in the "fulfillment" dimension were removed because they evaluate "items available for delivery in a suitable time frame, accurate item order and having in stock what the company claims to have" all of which were deemed irrelevant in the case of online banking. Hence, only 19 items were adapted, and the four e-service quality dimensions were: efficiency (8 items), system availability (4 items), fulfillment (4 items), and privacy (3 items). All of the retained items were reworded to fit the context of online banking as suggested by Parasuraman et al. (2005). For example, the word "delivers" was replaced by "performs."

Analogously, the same treatment was performed for the e-travel agencies. Customers' perception of e-service quality was assessed based on the four dimensions of E-S-QUAL as follows: efficiency (6 items), system availability (2 items), fulfillment (6 items) and privacy (3 items). Finally, all 22 items of E-S-QUAL were adopted to assess e-supermarket service quality. Nonetheless, a slight modification

was made on the item FUL7 because the supermarket delivers customer orders daily on a fixed delivery schedule. To reflect this operating environment, item FUL7 was reworded to assess delivery convenience rather than delivery forecast accuracy. As in the original E-S-QUAL model, all the item statements were recorded on a five-point Likert-type scale (1 = strongly disagree; 5 = strongly agree).

Additionally, the four items for assessing Perceived Value and the five items to evaluate Loyalty were adopted from Parasuraman et al. (2005) with minor alterations. Responses to the items constituting Perceived Value and Loyalty were also measured on a five point Likert-type scale (1 = strongly disagree; 5 = strongly agree). Nonetheless, to assess actual purchase, respondents were provided a small reward with a unique voucher code that was used to link to the respondent's actual purchase. The actual purchase was assessed based on two variables, namely, "the numbers of online orders" and "the total amount spend in euro." In the analysis, the numbers of online orders were categorized as follows: 1 = one or two orders, 2 = three or four orders; 3 = between 5 and 9 orders; 4 = between 10 and 19 orders and 5 = 20 orders or more. The total amount spent was categorized as follows: 1 = <€175; 2 = between €176 and €500; 3 = between €501 and €1,000; 4 = between €1,001 and €1,500; and 5 = >€1,501.

15.3.3 Sampling and Data Collection

The sample data were collected based on the Spanish general population. Respondents were randomly invited to participate in the survey. Those who agreed to participate were interviewed over the phone based on the preestablished structured questionnaire. The interview began with screening questions to identify respondents who are consumers of e-banking, e-supermarkets, or e-travel agencies. All of the fieldwork was performed by a specialized company in Spain and was concluded in September 2010. After rejecting incomplete questionnaires, 428 valid questionnaires remained from Spanish customers of e-banks, 617 for e-travel agencies and 413 for e-supermarket customers. Those figures represented response rates of 26.75, 39.36 and 31.71 %, respectively.

15.4 Data Analysis

15.4.1 Demographic Characteristics Profile

A summary of the demographic characteristics profile of the e-banking respondents presented in Table 15.1 indicates that there was a slight gender difference detected, with approximately 2.6 % more females than males. In addition, approximately 60 % of the respondents were less than 35 years of age, and 34.8 % were between

Table 15.1 Demographic characteristics of the samples

		e-Banking		e-Travel agencies		e-Supermarket	
		N	%	N	%	N	%
Gender							
	Male	203	47.4	317	49.8	32	24.4
	Female	225	52.6	300	50.2	99	75.6
Age							
	Between 18 and 25 years	106	24.8	169	27.39	32	24.4
	Between 26 and 35 years	150	35.0	192	31.12	37	28.2
	Between 36 and 45 years	149	34.8	170	27.55	36	27.5
	>45 years	23	5.3	86	13.94	26	19.8
Education							
	High school diploma	49	11.4	89	14.42	15	11.5
	Vocational qualification	63	14.7	104	16.86	37	28.2
	University degree	287	60.5	414	67.10	75	57.3
	Others	29	6.8	10	1.62	4	3.1

Source: Authors’ own data

36 to 45 years of age. The educational level of the sample was high, with more than two-thirds of the sample having a university degree. Encouragingly, two-thirds of the respondents had used e-banking in the preceding week. Recent events and evaluations are especially powerful because they are more accessible and more “salient” and thus are easier to retrieve from memory (Oliver, 2010).

However, there was a similar proportion of male and female respondents for the e-travel agencies; thus, no gender bias was detected. Regarding the age of the respondents, the vast majority were less than 35 years of age (58.51 %). In addition, the educational level of the sample was high, with two-thirds having a university degree and less than 15 % having only a high school diploma. Finally, the demographic characteristics profile of the e-supermarket sample shows a gender bias (75.6 % female). Moreover, approximately half (52.6 %) of the respondents were less than 35 years old. The educational level of the sample was high, with more than half (57.3 %) having a university degree.

To confirm the validity conditions, it was necessary to ensure that the final data collected were undeniably comparable among the three chosen sectors. Assessment of the data distribution for significant difference of the demographic variables among the three samples was conducted using the Chi-Square test. This assessment was conducted based on the three variables of Gender, Age and Education by assuming a null hypothesis. The results show that no significant differences were detected in terms of “Age” and “Education” level. However, the Chi-Square test on the characteristic of “Gender” indicates that there was some difference ($\chi^2 = 16.317$, $df = 2$; $P < 0.01$). A thorough analysis shows no differences between the e-banking and e-travel agencies. In contrast, the analysis shows that there was a difference of approximately 20 % more females in the e-supermarket sample than in the other two samples. This gender difference was not surprising, because only respondents

who used the incentive voucher were included in the study. According to a poll conducted by the largest digital coupon website on its shoppers in the United States, women are more likely than men to use coupons or discounts received via email (RetailMeNot, 2013). In summary, the output results of the significant differences based on the data distribution indicate that the data are comparable across the three samples. Therefore, the collected information of E-S-QUAL in this study has certain reference value.

15.4.2 Results

15.4.2.1 Evaluation of the Service Quality Measurement Scale

Exploratory Factor Analysis (EFA)

The first step of the analysis was to assess the stability of the service quality measurement scale items. The a priori assumption is that any indicator may be associated with any factor, and factor loadings are used to discern the factor structure of the data (Yaya et al., 2012). Based on that assumption, SPSS 19 software package was used to perform arrays of EFA using normalized varimax as the rotation method with the Kaiser criteria of eigenvalues greater than 1. A series of iterations were performed, each of which involved erasing items that (1) highly cross-loaded on two or more factors as well as (2) those with loads lower than 0.3, then a new principal components analysis was performed using the remaining items. The results showed that the Kaiser–Meyer–Olkin (KMO) measure for the e-banking sample was 0.935, which was higher than the acceptable threshold of 0.7. In addition, the Bartlett’s sphericity (BS) test was 5,125 with $df = 171$ and was significant at $P < .001$. The corresponding results for e-travel agencies showed the $KMO = 0.967$, $BS = 8,254$ and $df = 231$. However, the results of the e-supermarket revealed the $KMO = 0.967$, $BS = 8,254$ and $df = 231$. The KMO for both samples was significant at $P < 0.001$.

The EFA results summarized in Table 15.2 indicate that three dimensions, which accounted for 64.11 % of the variability of the e-banking sample, were identified. The first factor was labeled “Efficiency” and included seven of the eight efficiency items. Nevertheless, item EFF5, “The website loads its pages quickly,” migrated from this factor to the second factor, “system availability,” which was composed of seven items: the original four items of the system availability dimension, the first two items of the original fulfillment dimension and the item EFF5 previously noted. The third factor included all three items of “privacy.”

In contrast, the CFA results of e-travel agencies confirmed only one factor that was explained by 67.12 % of the variance. The factor was labeled “efficiency” and gathered nine items: all six items of efficiency, the first item of system availability and the first two items of fulfillment. As expected, despite some discrepancies from the original composition, the CFA confirmed the four dimensions of E-SQUAL for the e-supermarket sample. As in the original scale, the first dimension was

Table 15.2 CFA loads on quality factors and goodness of fit indices

e-Banking			e-Travel agencies			e-Supermarket		
		Efficiency						
Efficiency	EFF1	0.81		EFF1	0.81		EFF4	0.77
$\alpha=0.90$	EFF2	0.81	$\alpha=0.93$	EFF2	0.82	$\alpha=0.86$	EFF8	0.90
RCA = 0.88-0.90	EFF3	0.71	RCA = 0.92-0.92	EFF3	0.77	RCA = 0.56-0.81		
RC = 0.62-0.80	EFF4	0.82	RC = 0.72-0.79	EFF4	0.76	RC = 0.44-0.65		
AVE = 0.64	EFF6	0.81	AVE = 0.63	EFF5	0.78	AVE = 0.67		
	EFF7	0.75		EFF6	0.84			
	EFF8	0.86		SAV1	0.79	Fulfillment	FUL1	0.69
System availability	EFF5	0.68		FUL1	0.83	$\alpha=0.75$	FUL2	0.63
$\alpha=0.88$	SAV1	0.72		FUL2	0.81	RCA = 0.68-0.73	FUL4	0.63
RCA = 0.85-0.88	SAV2	0.85				RC = 0.43-0.60	FUL7	0.62
RC = 0.57-0.79	SAV3	0.78				AVE = 0.50		
AVE = 0.60	SAV4	0.78				System availability	EFF5	0.81
	FUL1	0.76				$\alpha=0.88$	SAV2	0.86
	FUL2	0.82				RCA = 0.83-0.86	SAV3	0.81
Privacy						RC = 0.71-0.79	SAV4	0.76
$\alpha=0.88$	PRI1	0.88				AVE = 0.74		
RCA = 0.85-0.88	PRI2	0.90				Privacy	PRI1	0.82
RC = 0.57-0.79	PRI3	0.92				$\alpha=0.87$	PRI2	0.84
AVE = 0.82						RCA = 0.81-0.83	PRI3	0.85
						RC = 0.75-0.77		
						AVE = 0.80		

(continued)

Table 15.2 (continued)

e-Banking	e-Travel agencies			e-Supermarket	
	χ^2	df	CFI	BBNFI	RMSEA
	323.63	116	0.93	0.92	0.94
				0.91	0.93
				0.92	0.94
				0.05	0.05

Source: Authors' own data

α Cronbach's Alpha, χ^2 Chi-Square, *RCA* range for Cronbach's Alpha removing one item, *RC* range for correlations of the items and the sum of the subscale, *AVE* average variance extracted, *BBNFI* Bentler–Bonett Non-normed fit index

composed of EFF1, EFF4, and EFF8 and was labeled “Efficiency.” The second dimension of “Fulfillment” included all the items of the original dimension except FUL3 (which was erased as previously explained during the survey design) and FUL 6, which highly cross-loaded in more than two factors. As in the e-banking sample, the third factor was labeled “System Availability” and included the original items of system availability and EFF5. Finally, all three privacy items loaded cleanly.

Reliability and Validity of the Adapted Scale

Even though the items used to measure service quality in this study were based on items from E-S-QUAL, it was necessary to confirm their validity in the current context by conducting tests to evaluate the reliability of the individual items, as well as their internal consistency, convergent validity, and discriminant validity. A first-order confirmatory factorial analysis was performed using EQS software. In view of the sample size (e.g., 131 for e-supermarket), a robust maximum-likelihood estimation method was chosen. The overall results summarized in Table 15.2 show that the Chi-Square (χ^2) was 323.63 (df=116), 750 (df=05) and 112.69 (df=84) for e-banking, e-travel agencies, and e-supermarket samples, respectively. The output results for their corresponding Comparative Fit Index (CFI) were 0.93, 0.92 and 0.94, respectively. In addition, their Bentler–Bonett Non-Normed Fit Index (BBNFI) was 0.92, 0.91, and 0.93. Moreover, their corresponding Bollen’s (IFI) fit index was 0.93, 0.92, and 0.94, respectively. Finally, the Root Mean-Square Error of Approximation (RMSEA) was 0.06 for e-banking and 0.05 for both e-travel agencies and the e-supermarket. The fit indices were all above the acceptable threshold (Hu & Bentler, 1999).

Furthermore, the satisfactoriness of the measurement scales was first assessed by evaluating the reliability of the individual items. The internal reliability of the dimensions was assessed based on two indicators, namely, the Average Variance Extracted (AVE) and the Cronbach’s Alpha (α). The overall results presented in Table 15.2 indicate that all the retained dimensions possess a high internal consistency and reliability, given that each individual Cronbach’s Alpha was greater than the minimum acceptable value of 0.7 (Nunnally & Bernstein, 1994) and the AVE value was greater than the cutoff value of 0.5 (Fornell & Larcker, 1981). In addition, the validity of individual items in relation to the relevant factors was confirmed by load values greater than 0.7 (Carmines & Zeller, 1979), with the exception of several items (e.g., EFF5 for e-banking; FUL1, 2, 4, and 7 for e-supermarket), whose load values were slightly lower. However, because it was so close to the threshold, it was decided to retain this item, in accordance with the relaxed criterion suggested by Barclay, Higgins, and Thompson (1995). Furthermore, the CFA results also confirmed that item loadings on their respective factors were statistically significant at $P < 0.001$. Altogether, the results of EFA and CFA provide evidence of a considerable degree of convergent validity.

Relationships Between the Adapted Service Quality and the Predictive Dimensions

Nomological validity of the adapted scale: The testing of the relationship strength between the adapted scale and the predictive dimensions is intended to demonstrate further validation of the instrument. If the constructs perform as predicted by theory, then one can infer that the measurement of the constructs is nomologically valid (Yaya et al., 2012). To test the nomological validity, we used structural equation modelling (SEM). In the models, we formulated service quality as a first order exogenous construct that influences the higher order constructs of the predictive dimensions of perceived value, loyalty, and actual purchase. The means-end-framework was modeled based on the existing literature (e.g., Bernardo et al., 2012; Marimon et al., 2010; Parasuraman et al., 2005; Yaya et al., 2013). In the three samples, we modeled service quality to be an antecedent of perceived value, which in turn was posited to be a strong predictor of loyalty. Additionally, in the structural model of the e-supermarket sample, loyalty was posited as an antecedent of actual purchase.

The proposed structural models were individually estimated by means of partial least squares (PLS version 2.0). The scale for the constructs of perceived value, loyalty and actual purchase were all found to be unidimensional, all the item loadings were greater than the acceptable cutoff limit of 0.7, and their Cronbach's exceeded the recommended value of 0.7. Moreover, a discriminant validity test was performed to confirm that each factor represents a separate dimension, following the criteria of Hair, Sarstedt, Ringle, and Mena (2012). The output results indicated that discriminant validity was confirmed because no indicator loads higher on an opposing construct and the inter-factor correlations were less than the square root of the AVE.

The significance of the paths in the SEM was assessed using bootstrapping based on 5,000 re-samples to ascertain that the inner model parameter estimates were stable (Yaya, Marimon, & Casadesus, 2014). The overall results for the SEM of the three samples summarized in Table 15.3 indicate that three dimensions of service quality in e-banking and its corresponding single dimension in e-travel agencies were positively related to perceived value, which in turn was a strong predictor of loyalty intention. However, the overall results of the e-supermarket sample confirmed perceived value to be directly and positively related to loyalty, which in turn directly and positively caused actual purchase. Likewise, fulfillment and system availability were also directly and positively related to perceived value. Contrary to our expectation, the results of the study showed that efficiency and privacy were not related to perceived value. Altogether, the output results collectively support the adapted service quality nomological validity.

Even though the scale is an acceptable tool to assess online service quality, the dimensional structure appears to be unstable in the three different e-service sectors. Thus, this study questions whether the dimensional instability is due to non-measurable causes such as sampling errors, or whether the scale is not, in fact, generic but rather specific to e-services that only sell physical goods.

Table 15.3 Structural models causal path results

	e-Banking		e-Travel agencies		e-Supermarket	
	Path ^a	Conclusion	Path ^a	Conclusion	Path ^a	Conclusion
Efficiency → perceived value	0.35***	Accepted	0.53***	Accepted	0.07	Rejected
Fulfillment → perceived value	–	–	–	–	0.34*	Accepted
SystAvailab → perceived value	0.22**	Accepted	–	–	0.30**	Accepted
Privacy → perceived value	0.26***	Accepted	–	–	0.02	Rejected
Perceived value → loyalty	0.63***	Accepted	0.95***	Accepted	0.65**	Accepted
Loyalty → purchases					0.28*	Accepted

Source: Authors’ own data

^aPath coefficient

Significant at two tail: **P*-value < 0.05, ***P*-value < 0.01, and ****P*-value < 0.001

In an attempt to answer some of these key questions, we first identified from the previous studies some key conceptual and empirical issues related to the adoption of the E-S-QUAL. Then, we developed an agenda (based on the opinion of experts who have previously used the scale) of what to consider while adopting the generic instrument in the future.

A total of 21 published articles since the appearance of the E-S-QUAL from 2005 to 2011 and 61 potential respondents (authors and co-authors) were invited to participate. The Delphi method was selected as the most appropriate method and was used to survey 17 experts from around the world. Experts were asked to surmise the reasons for the instability in the scale dimensionality. The experts identified the service industry analyzed as the primary contributor to instability, followed by the cultural profile of the Web users, variations in the analysis methods used across studies, appropriateness of the analysis methods used and, finally, rapid technology development.

It was also observed that the dimension of Fulfillment, which is related to the extent to which the site’s promises about order delivery and product availability are fulfilled, was ostensibly problematic, because approximately half of the published papers preliminarily disallowed from one item to the entire dimension. The results showed that no consensus was reached among the experts. However, the majority agreed that the Fulfillment dimension is one of the prominent dimensions of the E-S-QUAL referring to the websites that only sell physical goods.

Notably, because the scale was published in 2005, the technology related to computers, telecommunications, and websites has undergone significant development (e.g., the current generation of computers is at least three times faster than those of 2005). In addition, intensified competition in the industry has forced most Internet providers to deploy a broadband or fiber-optic plan that offers more reliable and faster Internet speeds. Against this background, experts were asked to express their

thoughts on the usefulness of the Efficiency dimension. It was unanimously agreed that the Efficiency dimension must not be discarded. However, the majority of experts agreed that the dimension must be reviewed and improved.

Furthermore, the experts were asked if items of Efficiency, such as EFF5 “The site loads its pages fast,” or EFF 7 “This site enables me to get on to it quickly,” should now migrate to the dimension of System Availability due to rapid computer technology improvements. The results show that no consensus was reached on this issue.

15.5 Conclusions

In the increasingly competitive and changing world of online services, the management of online services has emerged as a strategic imperative for most companies. For that reason, it is of paramount importance that online service providers know how to improve the quality of their service offerings. However, in this new environment of online service, the absence of a valid and reliable instrument to measure e-service quality led early researchers to use inadequate alternatives, such as subjective quality attributes or selected generalizable items from the SERVQUAL. This approach confused the accomplishment of the end goal of both scholars and practitioners, namely, to effectively measure and manage e-service quality strategies. Nevertheless, in their literature review on E-S-QUAL, Yaya et al. (2012) suggest that among the various instruments proposed for assessing online service quality, the E-S-QUAL has received the most recognition. E-S-QUAL has been, to some extent, successfully replicated and applied in 11 countries and in a variety of languages—English, Turkish, Chinese, Croatian, Taiwanese, Hindi, Spanish, Catalan, etc.—and a variety of e-services, such as online stores, job portal, auction, taxation filing, etc.

Practitioners need a generic scale that provides the potential for cross-industry and cross-functional comparisons. However, in the E-S-QUAL case, critics often argued that the scale is not generic but is specific for online services that sell physical goods. Accordingly, one of the goals of this study was to try to resolve the matter by reassessing the scale in three different sectors including retail service (e-supermarket), soft retail service (e-travel agencies) and non-retail service (e-banking).

The overall results confirmed that the E-S-QUAL is effective in capturing the core of online service quality. However, the study results also expose important differences in the final number of dimensions. For example, the four original dimensions of E-S-QUAL, namely, Efficiency, System Availability, Fulfillment, and Privacy were confirmed for e-supermarkets. In contrast, the analysis of results for the online banking services indicated that the fulfillment dimension was erased and only the remaining three dimensions were confirmed. In the same vein, the EFA scale assessment for the online travel agencies failed to confirm three dimensions of E-S-QUAL; only the efficiency dimension was confirmed.

Moreover, the results show that the dimensional structure of the scale appears to be unstable not only in terms of the final number of dimension but also in terms of the number of items that frame each dimension. For example, the study results show that efficiency had 7 items in online banking and 2 items for online supermarket. On the other hand, the efficiency dimension in online travel agencies had 9 items and included items that merged from the fulfillment and system availability dimensions. Moreover, the item EFF5 loaded on system availability in online banking and the online supermarket. Closer inspection of the wording of the item (“It loads its pages fast”) may explain this migration, because it is understandable that this item could be interpreted as being more closely related to the factor of system availability than to that of efficiency. Altogether, this study raises questions about the number of scale dimensions and their stability from one context to another.

In addition, drawing on the theoretically driven links between service quality, perceived value and loyalty, this study proposed the means-end theoretical framework that examined the service quality–perceived value–loyalty chain in the three services of interest. In addition, the theoretical framework also posits that loyalty intention in online supermarkets can have an impact on the actual purchase. For each sample, we conducted SEM analysis in which the dimensions of service quality were the independent variable and perceived value served as the dependent variable. The study results showed the quality dimensions of efficiency, system availability and privacy for e-banking and the quality dimension of efficiency for e-travel agencies directly and positively affects perceived value, which in turn was positively related to loyalty.

Furthermore, the study results for the e-supermarket also show the effects of the quality dimension of system availability and fulfillment on the dependent variable of perceived value to be positive and significant. In addition, the results indicate that customer perceived value of e-supermarkets positively and significantly influences loyalty, which in turn was found to be a positive and significant driver of actual purchase. Nonetheless, the study results show that the quality dimensions of efficiency and privacy appear not to have significant effects on e-supermarket customer perceived value.

In addition, this study also attempts to identify and characterize, from the expert point of view, possible factors that may cause E-S-QUAL instability. The Delphi method was used to survey 17 experts who agreed that the fulfillment dimension of E-S-QUAL is one of the prominent dimensions that refers only to online services that sell physical goods. The experts also agreed that the efficiency dimension must be reviewed and improved and that items such as EFF5 “The site loads its pages fast” or EFF 7 “This site enables me to get on to it quickly” must migrate to the system availability dimension.

This study has elucidated the criticisms of several authors who have argued that the E-S-QUAL scale is not generic but rather is specific to online retail services.

The findings of this study disagree with Parasuraman et al. (2005), who argued that the four universal dimensions of E-S-QUAL can be used to measure e-service quality in any sector. For example, the results of this study only confirmed a single dimension

for e-travel agencies. The extant literature indicates that various studies appear to show an emerging consensus that online service quality is a multidimensional (rather than a unidimensional) construct. In other words, the E-S-QUAL has fallen short of assessing the quality of service of online travel agencies for its entire domain.

Because the results indicate that the dimensions of online service quality are dependent on the type of user service, this study argues that online service quality is contingent upon the online service industry involved. For example, the privacy dimension appears to be important for online banking and online supermarket service but is less important for online travel agencies. However, this study indisputably confirms that the E-S-QUAL scale is relatively stable for websites selling physical goods.

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Chapter 16

Tensions Raised by TQM Demands Upon Work Design in Technologically Controlled Environments: The Case of a Call Centre

Patrícia Moura e Sá and Ana Cristina Pinto de Sá

Abstract Work design is an essential component of the operations strategy of any organisation. Total Quality Management (TQM) calls for the adoption of certain behaviours and attitudes which place conflicting demands upon employees. Such conflicts are particularly relevant in service organisations, which expect frontline employees to be able to deliver a highly consistent service while customising it to each customer. Combining such competencies becomes even more difficult when cost-saving measures are added to this scenario. This paper discusses the tensions raised by TQM implementation upon work design in contexts where technology plays an important role in service delivery. Call Centres have adopted complex technologies which tend to direct customers towards well-defined problem categories and within each of them contribute to highly standardised answers. Consequently, customer expectations of individual care might well not be met. These issues are studied using a large Portuguese telecommunications company, where questionnaire surveys were administered to both service users and frontline employees of a Call Centre. The questionnaires use the job description model proposed by Hackman and Oldham (Work redesign. Addison-Wesley, 1980) and, in the customers' case, the assessment of some service quality determinants is also made. The findings show that customers and employees share the perception that the task is highly significant to the organisation's success. Overall, customers consider that the five dimensions of the job are more fulfilled, than employees do. There is a need to redesign the job in terms of more autonomy and feedback if employee and customer satisfaction are to be enhanced.

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16.1 Introduction

Job design has a great impact on the way work is undertaken and on the overall functioning of an organisation. A vast literature has shown that job design has important consequences in terms of individuals' commitment and satisfaction (Hackman & Oldham, 1980).

The focus in this paper is on the work performed by frontline employees given their role in the so-called "moments of truth" (Grönroos, 1984), when customers come in direct contact with service providers. It is in such moments that the customer builds an image (either positive or negative) of the organisation (Gil, Berenguer, & Cervera, 2008). The way employees behave in such circumstances strongly depends upon the way their work is designed, and this has a strong impact on customer satisfaction. In fact, most of the service quality determinants suggested by Parasuraman, Zeithaml and Berry (1988), are linked to the way frontline employees enact their role, and to the attitudes and behaviours they adopt.

The issue is analysed with reference to technologically controlled environments, since these environments increasingly feature in situations where customer-contact functions are involved. Technology is regarded as a solution to reduce costs and enhance consistency when the volume of customers served is significant, the workforce is geographically dispersed, and the turnover rate is high. In such cases, customer-contact employees tend to perform a job that is highly standardised and closely monitored. Scripts play an important role in shaping employees' behaviours, and reduce human autonomy by defining standard answers to customer demands.

Over the two last decades, Contact Centres have been more and more in the spotlight in terms of the commercial strategy of organisations. Organisations expect Call Centres to provide a service that is well regarded by customers while simultaneously complying with tight cost-control targets. Contracting out has been adopted by many organisations as a solution to reduce costs and increase flexibility. However, companies take some risks by losing direct contact with their customers, not least of which is the inability to track changes in customer needs.

In addition, Contact Centres use a workforce that is not highly valued, and that demonstrates a significant turnover rate (Castanheira & Chambel, 2010). Facing considerable pressures to reduce costs, the tendency is to implement high-technological solutions as a replacement for human intervention. Detailed scripts establish how tasks are to be performed (including what is to be said to the customer in each predefined scenario). Employees thus have very limited freedom to decide the content of the answer to be given to customers. Yet, when contacting call centres, customers might well have different expectations in terms of customisation and individual attention (Leelakulthanit & Hongcharu, 2011). Often, customers perceive the responses they receive as being too mechanical and not sufficiently linked to their own/specific problems. Current work design can, therefore, prevent employees from displaying a flexible and kindly attitude, and can in turn, produce a negative impact on customer satisfaction. Frontline employees thus face contradictory demands, and tensions are likely to arise (Dean & Rainnie, 2009).

This research takes the case of a large Portuguese telecommunications company, and uses two questionnaires surveys, applied respectively to the employees and to the customers of a Call Centre. By using the Hackman and Oldham model (1980) that characterises work according to five key dimensions (skills variety, task identity, task significance, autonomy and feedback), two questionnaires following the lines of the JDS—Job Diagnostic Survey—instrument were developed. One was administered to a sample of 424 customers and the other was applied to 484 front-line employees of the Call Centre. The findings from both surveys were compared and integrated to obtain a more comprehensive view of how work design needs to be modified if the satisfaction of both customers and employees is to be enhanced.

The remainder of the chapter is structured as follows. Firstly, the influence of the main organisational theories on work design is analysed based on a summary of the most relevant literature on the matter. Then the job design prevailing in contemporary Contact Centres is briefly described. Section 16.4 presents the methodological approach used in the empirical study. Next, the main findings are presented. Based on the results, the various dimensions of the work design and its implications for satisfaction and service quality are discussed. Finally, some conclusions and implications are derived.

16.2 Work Design Perspectives and Total Quality Management

As an important predictor of employee satisfaction and as a possible mediator of the relationship between the customer's assessment of the service encounter and customer satisfaction (Gil et al., 2008), job design is an interesting topic of research (Spinelli & Canavos, 2000).

According to Hackman and Oldham (1980), work satisfaction results from the job characteristics and from the degree of satisfaction the employee feels towards his/her job. Employees' satisfaction is connected with the way employees perceive the meaningfulness of their work, the responsibility they feel for the outcome of their work, and also with the knowledge they have about this outcome. Hackman and Oldham (1975, 1980) developed a Model of Job Characteristics that is regarded as a conceptual reference to study problems related with employee motivation, satisfaction and performance. They also developed a measuring instrument to validate their model, the Job Diagnostic Survey (JDS), which was adopted in this research. Studies confirm that the dimensions of the job characteristics are properly represented in the five factors identified in the model: skill variety; task identity; task significance; autonomy; and feedback.

Work design has changed over the years and also varies across organisations. It essentially reflects the various organisational models that have emerged. For the purposes of this paper, two main models are discussed: the scientific model and the organic model.

At the shop floor level, the scientific model is associated with the works of Taylor, who has conducted several studies to find the “one best way” to perform a job (i.e. the sequence of tasks and moves that leads to the maximum efficiency). To achieve this, each work is decomposed into smaller steps and its complexity is reduced. In accordance, workers are quickly trained to perform the tasks assigned to them and the degrees of freedom to perform the jobs are virtually non-existent. The emphasis is on compliance and conformity (Clemmer, 1992). The Weberian perspective is somehow similar, since it also emphasises rationality and compliance with procedures.

On the other hand, the organic model regards the organisation as an open system and takes a holistic perspective of its components. Consequently, interdependency and sense of purpose are stressed and the need of the organisation to make adjustments according to the context, acknowledged (Katz & Kahn, 1966). The organic model challenges the simplistic perspective of work design adopted by the scientific model, namely the over-specialisation and the idea that the worker is a mere operative while the manager is responsible for making every single decision. The main reasoning behind these criticisms is the lack of creativity and innovation that results from the scientific management model and which jeopardises the survival of the organisation as a living system. It is within the systemic approach that the concept of role emerges. The role clarifies what is expected from each worker and embraces a set of values that is shared by everyone. It is regarded as essential to avoid ambiguity and give a sense of security to workers. A certain degree of autonomy is considered essential to promote adaptation of the system to new circumstances. Accordingly, the role is not something static but rather changes over time as a result of negotiation processes that occur inside the organisation (Ferreira, Neves, & Caetano, 2001). Similarly, contingency approaches emphasise the importance of considering the characteristics of the external environment when designing jobs within an organisation, and stress diversity and variability (Burns & Stalker, 1994).

Total Quality Management (TQM) philosophy combines elements of both paradigms (Spencer, 1994) even if the organic view is somehow dominant. In fact, TQM also looks for efficiency, and values a certain degree of standardisation in the way jobs are performed with the aim of ensuring consistency (Phelps, Parayitam, & Olson, 2007). As Victor, Boynton, and Stephens-Jahng (2000:104) state, “TQM relies on the tools of scientific management and experimentation to define the “best practices” used in production”. However, TQM clearly criticises the scientific model leaning to over-specialisation and the planning/execution dichotomy, which together kill employee creativity and lead to lack of innovation. The importance of removing barriers between departments/functions and creating a unity of purpose are obvious inheritances of the systemic approach. In line with the organic model, TQM gives emphasis to continuous improvement, innovation and learning, while integrating doing and thinking (Victor et al., 2000).

Quality management tends to put some conflicting demands on work design. As Victor et al. (2000) stress, TQM requires a “dual work design”, which is not easy for workers to adopt since they are expected to “perform two distinct types of

Table 16.1 Contribution of organisational theories to work design

Organisational theory	Features of work design
Scientific management (Taylorism) and rational bureaucracy (Weberism)	Mechanistic, specialisation, routine tasks, close control; professionalism, formalisation, rules compliance
Systemic and socio-technical approaches (Parsons, Katz and Kahn, Tavistock Institute)	Interdependency among different jobs, adaptation and dynamism, responsibilities and roles
Total quality management	Consistency, efficiency, employee participation, continuous improvement, learning

Source: Authors' own data

tasks—standardised production and continuous improvement, execution and conceptualisation—into one job” (Victor et al., 2000: 103).

Employee involvement is a key element of the TQM philosophy. Employees are expected to be more autonomous, control the quality of the work they are doing, and continuously suggest improvement actions. TQM argues that decisions should be located at the lowest level in the organisation (Lawler, 1994). To meet these challenges, TQM argues that education and training for all employees is essential and that job enrichment is beneficial (Lawler, 1994).

Table 16.1 synthesises the demands raised by different organisational theories upon work design.

16.3 Work Design Issues in Contact Centres

Companies tend to conceive Contact Centres as “mass services” (Silvestro, 1999), and the jobs of employees as standardised and routine. As suggested by Bowen and Lawler (1992), services based on standardised tasks, performed by people with limited skills, are good candidates for replacement by technology.

The job follows the scientific management perspective according to which it is possible to define the single and most efficient way to perform the work, giving little room for employees to decide on how to behave when in contact with customers.

As Collier (1990) highlights, control of quality in mass services generally uses standardised processes and a clear hierarchical chain of command. Scripts are clearly one of the mechanisms to ensure that rules are strictly followed (Tansik & Smith, 1991). Technology further reinforces this control. It is possible, for example, to know how long each contact lasts, to have a written record of the call, to have full information about the applications/tools used by the employee, and to have access to all the registers he/she made.

The impersonality of the job and its extreme control are factors which inhibit the development and demonstration of an autonomous, flexible, and comprehensive attitude by employees. This problem becomes visible when such attitudes are

essential to deliver the kind of service which customers want. In fact, for more than two decades, service quality has been consistently associated with five dimensions proposed by Parasuraman et al. (1988), namely tangibles, reliability, responsiveness, assurance, and empathy. With the possible exception of tangibles, all the remaining are clearly heavily dependent upon the attitudes and behaviours of frontline employees. The way the job is designed, the importance given to speed in meeting targets, the degree of autonomy required to develop individualised answers to customers' demands, all influence service quality and, consequently, customer satisfaction.

16.4 Research Approach

The selection of a telecommunication firm was logical as a setting in which to analyse the tensions raised by job design when attempting to meet service quality demands, since telecommunication companies extensively use Call Centres and have developed sophisticated solutions to standardise the work using complex technologies and information systems. A self-care system is in place and often the customer simply interacts with the machine without human intervention on the company side. Organisations increasingly invest in more intelligent machines to enable them to give automatic responses to a greater number (and variety) of customer demands. On the other hand, tasks that imply direct contact with the customer are becoming more complex, and the contact employee is expected to answer the requests in a flexible way, thus providing a personalised and individually tailored service. Therefore, job design has suffered contradictory pressures, making it increasingly difficult to define the characteristics of each job.

The biggest telecommunication company in Portugal was selected as the research site for the study. According to the institutional information available, the firm's Contact Centres have the following mission: "to deal with each customer as if it was the only one". And with respect to values, Contact Centres should promote "innovation, flexibility, empathy, closeness and experience". These statements apparently contradict the traditional view of standardisation as the ultimate priority.

The organisation holds quality certificates for its quality management system, environmental management system, and health and safety management system. Furthermore, the company has received several awards over the last decade, both for its customer service, and for being one of the best firms to work for.

One Contact Centre in particular was selected for this study. It interacts with residential customers on non-technical matters, has around 1,000 employees, and deals with about five million calls a year. In the Contact Centre each computer is used by the operator to receive inbound calls or make outbound calls. These calls are processed, distributed, and controlled via ACD—Automatic Call Distribution. Another key system is the IVR—Interactive Voice Recognition, which is responsible for distributing the calls by predefined routes, guaranteeing the most adequate and timely treatment to the customers, according to the commercial strategy of the company.

Table 16.2 Scale properties

	N° of items	Cronbach alpha	Intra-scale correlation	Inter-scale correlation
Skill variety	3	.742	.510	.213
Task identity	3	.745	.491	.262
Task significance	3	.768	.527	.270
Autonomy	3	.838	.633	.221
Feedback	3	.792	.567	.260

Source: Authors' own data

The employee survey adapted the JDS instrument to the specific context in which it was applied. A preliminary version of the questionnaire was completed by 70 employees at the pre-test stage (January, 2010). Accordingly, some questions were changed for improved clarity. The questionnaire was available from 22 March 2010 to 1 April 2010, in an electronic display, and the confidentiality of the answers was ensured. For each item, respondents were asked to indicate the degree of agreement with each statement, where 1 represented the maximum degree of disagreement and 7 the maximum degree of agreement.

The customer survey also used the JDS instrument as its basis and the same scale of measurement so that it would be possible to compare customers' perceptions of the job done by the frontline employees, with the views of the Contact Centre workers. Additionally, it included some questions to measure certain aspects of service quality and so-called "trade-off questions" that made the customer decide between two opposing features (e.g. speed vs. long explanations). The resulting questionnaire was pre-tested in March 2010 by applying it to a sample of 15 customers. The final version of the questionnaire was administered by telephone in April and May 2010 to 2,257 customers. Of these, 424 customers successfully answered the survey.

The Alpha Coefficient of Cronbach is used in this research as an indicator of internal consistency. As shown in Table 16.2, the value is above 0.7 for all dimensions, which is a good indicator of the quality of the scales used. The comparison of the internal scale consistency values (Cronbach's alpha values) with average inter-scale correlations indicates that all scales have high homogeneity. Moreover, the average correlation between the scale and non-scale items is substantially lower than between items that belong to the same construct.

16.5 Main Findings

16.5.1 *The Employees' Perspective*

As one would expect, the vast majority of the Call Centre employees are young in age (over 70 % have not yet reached their 30s). The high turnover is also well visible with half of the respondents being in this job for less than 2 years.

Table 16.3 Top and bottom five items of work design

	Questions	Mean	Standard deviation
Strengths	3.5 I feel good and happy when I discover that I have performed well in this job	6.15	1.03
	3.1 My opinion of myself goes up when I do this job well	5.93	1.22
	3.3 I feel a great sense of personal satisfaction when I do this job well	5.87	1.27
	2.5 Lots of people can be affected by how well the work gets done	5.40	1.35
	1.4. I feel that my job is significant and important	5.36	1.37
Weaknesses	5.3 People in this job seldom think of quitting	3.17	1.38
	1.1. I have a considerable degree of autonomy	3.28	1.42
	2.9 This job gives me considerable opportunity for independence and freedom in how I do the work	3.51	1.63
	5.2 Most people in this job are very satisfied with it	3.63	1.43
	2.6 The job gives me a chance to use my personal initiative and judgment in carrying out the work	3.71	1.60

Source: Authors' own data

Table 16.4 Employees' assessment of JDS dimensions

	No. of items	Mean	Std. deviation
Skill variety	3	4.8313	1.2176
Task identity	3	4.4242	1.1354
Task significance	3	5.3423	1.1339
Autonomy	3	3.5034	1.3497
Feedback	3	4.8567	1.1050
Intrinsic motivation	6	5.4263	0.8898
Overall satisfaction	5	4.3045	1.1350
Satisfaction with development opportunities	4	4.4644	1.2778

Source: Authors' own data

In order to understand how the employees perceive the characteristics of their job, we began by identifying the five questions that have a greater score, as well as the five questions that have the lowest value, thus corresponding respectively to the job features about which the employees are most and least satisfied.

As shown in Table 16.3, the items with the highest scores concern the self-perceptions of the employees regarding the job importance and significance, while the least scored statements are related with the lack of freedom to use initiative, and the low external recognition of their job.

By aggregating the items as suggested in the model (Hackman & Oldham, 1980), the scores for each dimension were calculated (see Table 16.4).

Unsurprisingly, it was found that the dimension with the lowest score was Autonomy, followed by Task Identity. In contrast, the highest scored dimension was Task Significance, followed by Feedback, and Skill Variety.

In addition, employees indicate that they are intrinsically motivated by the work they perform. On the other hand, even if the value remains positive, overall satisfaction is considerably lower, due to some items related to turnover and hetero-perception of the job. This result reflects the instability of the contracts and the willingness of the employees to look for more rewarding work opportunities.

16.5.2 *The Customers' Perspective*

Customers were asked to evaluate a set of items related to service quality. Table 16.5 shows that the level of satisfaction is quite high (always above 5 out of a 7-points maximum). The highest score was given to the employees' effort to satisfy customers' demands, while the lowest score concerns effectiveness in solving problems. It is interesting to notice that the items with an above average score are related with the frontline employees' attitudes and behaviours, while those with which customers are less satisfied are concerned with procedural issues, namely the possibility of having the problem effectively sorted in a single contact.

The trade-off questions included in the questionnaires made customers decide between opposing service features (e.g. speediness versus long explanations). By analysing their answers, it is possible to affirm that customers give preference to effectiveness (over kindness) and being dealt with by a single operator in a single contact (over shorter multi-contacts with more specialised operators).

Customers have also evaluated the various dimensions of the job performed by Contact Centre employees. Table 16.6 indicates that Task Significance and Autonomy are the most fulfilled dimensions of the job. There is thus a strong conviction among customers that the success of the organisation highly depends upon the role of frontline employees. Perhaps more surprisingly is the fact that customers

Table 16.5 Service quality assessment

Items	Mean	Standard deviation
The Call Centre gives simple and easy to understand answers to customers' questions	5.51	1.546
In the Call Centre matters are dealt with from the beginning to the end	5.31	1.862
Problems are effectively solved	5.11	1.966
Employees make an effort to satisfy customers' demands	5.72	1.574
Employee autonomy is needed to solve customers' problems	5.22	1.656
Call Centre employees know their job	5.31	1.835
The Call Centre looks for individualised answers to the specific problems of each customer	5.49	1.595
The Call Centre values customers' feedback and uses it to improve the service provided	5.18	1.733
The Call Centre looks for innovation and anticipates customers' demands	5.12	1.720

Source: Authors' own data

Table 16.6 Customers’ assessment of JDS dimensions

	Mean	Standard deviation
Skill variety	5.01	1.87
Task identity	4.74	2.43
Task significance	6.14	1.48
Autonomy	5.21	1.98
Feedback	4.24	2.28

Source: Authors’ own data

Table 16.7 Comparison of customers’ and employees’ perceptions

JDS dimension	Customers	Employees	Difference
Skills variety	5.01	4.83	0.180**
Task identity	4.74	4.42	0.32***
Task significance	6.14	5.34	0.80***
Autonomy	5.21	3.50	1.71***
Feedback	4.24	4.86	0.62**

Source: Authors’ own data

Note: * significant at 0.1, ** significant at 0.05, *** significant at 0.001

believe that frontline employees have the freedom to decide how to do their jobs. On the other hand, customers consider that frontline employees do not have enough feedback from previous calls and consequently, often ask for the same information as has been given before.

To analyse the extent to which the views of customers and employees converge/diverge when assessing the dimensions of work design, the scores were compared and a means difference statistical test performed. As Table 16.7 shows, customers perceive the job design as more robust, while employees think there is still room for improvement, especially in connection with the levels of autonomy devolved to them. In any case, with the exception of autonomy, there is a relative consensus in the identification of the strengths and weaknesses of the job design.

16.6 Conclusions and Recommendations

The way frontline employees behave during the “moments of truth” seems to be strongly associated with how jobs are designed. Job standardisation, through rigid guidelines, may prevent an autonomous, flexible, unique, and creative attitude on the part of the contact employee, yet these features are precisely the ones that have been identified as associated with work satisfaction.

Despite the considerable research on work design over the last decades, studies that analyse the tensions raised by TQM and service quality are rare and very few have taken place using Call Centres as their sample. Another important novelty of this study concerns the inclusion of customers’ perceptions on the assessment of work design. Taking customers’ views into account is important to understand how work design can be improved to the benefit of service users.

Findings show that Call Centre employees perceive their job as having great relevance to the organisation and demanding a great variety of abilities. On the other hand, autonomy and task identity are regarded as less fulfilled. This result indicates that employees feel that they have limited freedom, independence, and discretion to determine the procedures to be used in performing their tasks. Moreover, employees are relatively dissatisfied with the fact that they do not perform their tasks from beginning to end and would prefer to finish what they have started.

Based on these findings, some recommendations can be derived. In line with previous studies (Eskildsen & Dahlgaard, 2000), employee satisfaction can be enhanced if the job design incorporates more process ownership and task identity. It would be beneficial to increase the degree of delegation and to widen the scope of the tasks, thus enhancing decision-making and making it possible to solve a customer issue, from beginning to end, in a unique contact. Furthermore, scripts should be more flexible, releasing the communication standard from the mandatory pre-defined speech, which would allow contact employees to have a more active role choosing the language and the style more appropriate to each customer.

The way the job is designed influences the process of recruitment and selection, as well as initial training. Introducing the changes recommended calls for greater investments in employees' selection, training and job satisfaction monitoring.

The current research has some limitations, some emerging from the methods employed to conduct the study, and others from the fact that the tensions resulting from work design were analysed based on the use of a single service industry and a particular case study. Yet, both the industry (Call Centres), and the case study (a big telecommunication company), were carefully selected to illustrate the issues outstretched by a highly technological environment. Perhaps the most important constraint relates to the adoption of a traditional job design instrument—the JDS—which puts a strong emphasis on autonomy and job control but ignores some other elements of modern job content such as attentional and problem-solving demands and knowledge-based mechanisms.

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Chapter 17

The Relationship Between the Online Consumer's Profile and the Type of Service Encounter in the Online Travel Agencies

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Abstract In the context of B2C electronic commerce, two different service encounters can take place: (1) service encounters without incidents during which customers get the service for themselves and without the presence of employees and (2) service encounters with incidents with interpersonal and non-interpersonal interactions. Taking the sector of travel agencies as a reference, the results of our study shows that there is a statistically significant relationship between the sociodemographic profile of the online consumer and the type of service encounter. In this sense, our research suggests that sociodemographic variables have a statistically significant influence on the type of service encounter. On the other hand, the evaluation of the service quality by online shoppers is quite homogeneous in each service encounter. At least, we have not found great differences according to gender, age, educational level, or frequency of Internet use.

17.1 Introduction

Internet has revolutionized commerce and business (Hoffman & Novak, 1996) and one of the most significant indicators of this transformation has been the adoption of the online retail channel. Specifically, 40 % of the population of the EU27 has purchased goods or services through the Internet (Eurostat, 2014). 14 % of the total turnover of companies in these countries is accounted for by the business volume generated by B2C e-commerce. In addition, 70 % of households and 85 % of companies in the EU27 are connected to the Web (Eurostat, 2014). In Spain, the estimated figure of the total volume of B2C e-commerce is 12,383 million euros and the products most in demand are related to the tourist sector: the purchase of travel tickets and accommodation booking (Observatorio Nacional de las Telecomunicaciones y de la Sociedad de la Información, 2013).

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The number of travel-related Web sites has grown rapidly over the past decade, and competition has become ever more intense (Ho & Lee, 2007). In this situation, it is generally not easy for online retailers to gain competitive advantages based solely on a cost leadership strategy (Jun, Yang, & Kim, 2004). Many researchers point out that to deliver a superior service quality is one of the key determinants of online retailers' success (Parasuraman, Zeithaml, & Malhotra, 2005) and it is a major driving force on the route to long-term success (Fassnacht & Koese, 2006).

In the context of electronic services, many works have analyzed whether the Internet user's sociodemographic profile is related to their purchasing behavior on the Internet. Amongst the variables most used, those which stand out are gender, age, educational level, and the frequency of Internet use. In this sense, previous research suggests that online consumers, unlike non-buyers, are mostly male and younger, have a higher educational level and use Internet more frequently (Allred, Smith, & Swinyard, 2006; Bhatnagar & Ghose, 2004; Chang & Samuel, 2004; Donthu & García, 1999; Fuentes & Gil, 2011; Ruiz & Sanz, 2006; Swinyard & Smith, 2003; Vrechopoulos, Siomkos, & Doukidis, 2001). In line with previous works, our research analyzes two issues. Firstly, if there is some kind of relationship between the sociodemographic variables of online buyers and if they have had any problem or doubt during the service provision. Secondly, the usefulness of these variables to examine whether there are differences in the consumer's electronic service quality perceptions. To carry out the aims of our research, we take as a reference the purchase of travel tickets and accommodation booking, as they are the Internet services most in demand in Spain (Observatorio Nacional de las Telecomunicaciones y de la Sociedad de la Información, 2013).

To achieve the objectives proposed, the article is structured as follows. First, we review the most relevant research to help us identify the dimensions of e-service quality. We describe the sample and measures used in the study. Then, we show the results of the empirical research. Finally, we discuss the conclusions and implications for management, the limitations, and future research lines.

17.2 Theoretical Background

Since the pioneering work of Zeithaml, Parasuraman, and Malhotra (2002), the quality of online services has been explored in some depth. Parasuraman, Zeithaml, and Berry (1985) suggest that service quality is an abstract and elusive construct because of three features that are unique to services: the intangibility, heterogeneity, and inseparability of production and consumption. The best-known approach for measuring service quality is the SERVQUAL model (Parasuraman, Zeithaml, & Berry, 1988). The original five dimensions of SERVQUAL are tangibles, reliability, responsiveness, assurance, and empathy. Some academic researchers have extended the SERVQUAL dimensions to the online context (Kaynama & Black, 2000; Sánchez-Franco & Villarejo Ramos, 2004). However, traditional theories and concepts about service quality cannot be directly applied to the online context due to the important

differences between the two settings. First, the service quality literature is dominated by people-delivered services, while in online services, human-to-human interactions are substituted by customer-to-Web site interactions (Parasuraman et al., 2005). Therefore, responsiveness and empathy dimensions can be evaluated only when the online customer contacts a member of the organization. Second, although reliability and security dimensions may be useful, tangibles are irrelevant as the customer only interacts with the Web site. Third, new dimensions are relevant, such as Web site design or information quality. Fourth, if the evaluation of the quality of a traditional service is going to depend especially on the personnel in charge of the service provision, the quality of the services which are offered through Internet are going to largely depend on the consumers themselves and their interaction with the Web site (Fassnacht & Koese, 2006). Fifth, compared to the traditional quality of service, the e-service quality is an evaluation which is more cognitive than emotional (Zeithaml, Parasuraman, & Malhotra, 2000). In this way, these authors state that negative emotions such as annoyance and frustration are less strongly shown than in the quality of the traditional service, while positive feelings of affection or attachment which exist in traditional services do not appear in the Internet context.

Various conclusions can be inferred from reviewing the literature: (1) e-service quality is a multidimensional construct (Zeithaml et al., 2000) whose measurement must gather the evaluation of the interaction with the Web site, the evaluation carried out by the customer of the product or service received and, if any problem arises, how the Web site of the online firm handles it (Collier & Bienstock, 2006). Although most researchers are in favor of the evaluation of this latter aspect, Fassnacht and Koese (2006) state that we should not evaluate the human interaction which can take place in the electronic services provisions, given their self-service nature. (2) There are basically two approaches when tackling the conceptualization and measurement of e-service quality. The epicenter of the first approach is the technical characteristics of the Web site (technical quality). The first studies about Internet service quality belong to this first group (e.g., Aladwani & Palvia, 2002; Liu & Arnett, 2000). They centered uniquely on the interaction that takes place between the customer and the Web site. None of this research gathers all the aspects of the online purchasing process, and therefore, they do not carry out a complete evaluation of e-service quality. The main proposal of these measurement instruments is to generate information for the site designers, more than measuring the quality of the service which customers perceive (Parasuraman et al., 2005). This weakness is the main motive for the appearance of a second approach (service quality) which offers a more complete vision of the field of the e-service quality construct (e.g., Collier & Bienstock, 2006; Parasuraman et al., 2005). The dimensions and the measurement instruments gather not only the technical aspects of the Web site, but also how the customers perceive the quality of the product or service received and how their problems or doubts were solved during the service provision. (3) The researchers do not agree when identifying the dimensions of the quality of an electronic service. Moreover, the meaning, the importance, and the items of the same dimension vary from one study to another. These differences are partly due to the scales being focused on one service in particular. (4) The evaluation of e-service quality is carried out at different levels of abstraction depending on the

study. Most researchers offer a set of dimensions (first-order constructs) and a series of indicators to measure each of them (e.g., Ho & Lee, 2007). However, other authors propose second-order hierarchical models (Wolfinbarger & Gilly, 2003), or even third-order models (Fassnacht & Koese, 2006). (5) Some authors propose scales in which problem solving does not appear (e.g., Liu, Du, & Tsai, 2009) or is evaluated for the whole sample (e.g., Wolfinbarger & Gilly, 2003). However, this last aspect must only be evaluated by those people who had problems during the transaction (Collier & Bienstock, 2006; Parasuraman et al., 2005).

If we set out from the conceptualization proposed by Collier and Bienstock (2006, p. 263), the domain of the service quality construct should gather the evaluation of the quality of the process of online interaction (technical aspects), the result of how the service or the product is delivered (result) and the way in which the service failures (if they occur) are managed (service recovery). The technical characteristics of the Web site must consider: (1) the design (Yoo & Donthu, 2001), also called appearance (Aladwani & Palvia, 2002), the visual aspect (Loiacono, Watson, & Goodhue, 2002), or aesthetics (Zeithaml et al., 2000); (2) the functionality (Collier & Bienstock, 2006), also called technical adequacy (Aladwani & Palvia, 2002), efficiency (Parasuraman et al., 2005), or ease of use (Janda, Trocchia, & Gwinner, 2002); and (3) privacy (Collier & Bienstock, 2006) or the security that the Web site offers (Wolfinbarger & Gilly, 2003). Secondly, the evaluation of the product or service delivery has been carried out with a single dimension generally called reliability (Fassnacht & Koese, 2006; Wolfinbarger & Gilly, 2003; Yang & Jun, 2002) or performance (Janda et al., 2002; Parasuraman et al., 2005). Thirdly, if we take as a reference the works of Parasuraman et al. (2005) and Collier and Bienstock (2006), the evaluation of the quality of the e-service recovery responds to two aspects: the possibility of getting into touch with the firm (access or contact), and the effectiveness of problem solving (usually called response capacity). Following some works published in the tourist sector (Chen & Kao, 2010; Ho & Lee, 2007; Kaynama & Black, 2000; Tsang, Lai, & Law, 2010), the dimensions proposed to evaluate e-service quality are: design, functionality, privacy, reliability, and recovery. These dimensions are herewith defined and explained.

17.3 Dimensions of Service Quality in the Online Travel Agencies

Design The design of a Web site plays an important role in attracting, sustaining, and retaining the interest of a customer in a site (Ranganathan & Ganapathy, 2002). Numerous studies in the literature consider the Web site design as a dimension of e-service quality (Aladwani & Palvia, 2002; Liu et al., 2009; Loiacono et al., 2002; Yoo & Donthu, 2001; etc.). The literature review about the key factors of a Web site design highlights three important issues: attractiveness, proper fonts and proper colors. Although it has sometimes been regarded as a purely aesthetic element, prior studies

have demonstrated the influence of Web site design on site revisit intention (Yoo & Donthu, 2001), customer satisfaction (Tsang et al., 2010), and loyalty intentions (Wolfinbarger & Gilly, 2003).

Functionality Functionality refers to the correct technical functioning of the Web site. It is one of the most basic requirements for any kind of Web site and its meaning is closely related to the dimensions of the system availability (Parasuraman et al., 2005), or technical adequacy (Aladwani & Palvia, 2002). The five items of functionality that we considered were: always up and available, has valid links, loads quickly, enables us to get on to it quickly, and makes it easy and fast to get anywhere on the site. Its impact on online customers' higher-order evaluations pertaining to Web sites has also been observed. For example, Tsang et al. (2010) conducted an investigation in the travel online context in which functionality was found to be the most important dimension in increasing customer satisfaction.

Privacy Web sites are usually collecting and storing large amounts of data concerning their users' activities, user evaluations of online questionnaires and personal data. As a result, one of the aspects that most concerns online consumers is the privacy of personal information (Observatorio Nacional de las Telecomunicaciones y de la Sociedad de la Información, 2013). In our study, privacy refers to the degree to which the customer believes that the site is safe from intrusion and personal information is protected (Parasuraman et al., 2005; p. 219). The privacy of a Web site should be reflected through symbols and messages to ensure the security of payment and the customer's personal information not being shared with other companies or Internet sites. As such, there appears to be a high degree of support for privacy as an important e-service quality dimension and it was found to be one of the most significant dimensions in increasing customer satisfaction (Janda et al., 2002).

Reliability The evaluation of service delivered quality has been carried out with the dimensions of: fulfillment/reliability (Wolfinbarger & Gilly, 2003), reliability (Yang & Jun, 2002), performance (Janda et al., 2002), fulfillment (Parasuraman et al., 2005), etc. Congruent with these articles, our study considers reliability as an important dimension of e-service quality. Moreover, in the context of online services, the information made available by the Web sites is an important component of the service delivered. Therefore, reliability refers to the accuracy of the service delivered by the company, the billing process being correct and the information that appears on the Web site being clear, current, and complete. The service delivered quality or reliability has been empirically shown to have a strong impact on customer satisfaction and quality, and the second strongest predictor of loyalty intentions and attitude toward the Web site (Wolfinbarger & Gilly, 2003).

Recovery An essential aspect in the evaluation of the quality of an electronic service is the way in which the company solves problems or doubts which may arise during its provision. There is no doubt that errors in the electronic service provision cause the loss of customers in many cases and a negative word of mouth. What is more, the physical separation between the customer and the supplier and the fact that customers can choose another company with a simple click accentuates even more

the importance of solving these mistakes (Collier & Bienstock, 2006). Different dimensions have been proposed in the literature to evaluate this aspect: responsiveness (Zeithaml et al., 2000), customer attention (Wolfinbarger & Gilly, 2003), communication (Cai & Jun, 2003), access (Yang & Jun, 2002), etc. In our study, service recovery refers to the customer's capacity to communicate with the organization and how any problem or doubt that may arise is solved. Thus, the Web site should show its street, e-mail, phone or fax numbers, the customer service must be available 24 h a day/7 days a week and the response to the customer's inquiries must be quick and satisfactory. Moreover, this latter measure should only be evaluated by individuals who needed help or the solving of a problem.

17.4 Data Collection

Data collection was obtained from a convenience sample of online shoppers (Table 17.1). We surveyed purchasers who had already completed online transactions and who had sufficient online shopping experience. The respondents were asked to evaluate a particular Web site of their choice, through which they had recently made a purchase of the selected services. We followed a quota sampling approach, with the intention of reproducing the sociodemographic profile of the population of Spanish online shoppers. The respondents were able to access the Web site where the online questionnaire was posted and they received a small incentive for participating. The field work took place from April to June 2012, and 915 questionnaires were received. 718 of them were valid questionnaires and this sample is divided in two groups: 451 participants said that the service delivery was carried out without any problem

Table 17.1 Profile of the respondents per service encounter

	Service encounter without incidents		Service encounter with incidents	
	(451 participants)		(267 participants)	
	<i>n</i>	%	<i>n</i>	%
<i>Gender</i>				
Men	266	37.05 %	134	18.66 %
Women	185	25.77 %	133	18.52 %
<i>Age</i>				
24 years or less	106	14.76 %	127	17.69 %
25 years or more	345	48.05 %	140	19.50 %
<i>Level of education</i>				
Without a university degree	248	34.54 %	171	23.82 %
With a university degree	203	28.27 %	96	13.37 %
<i>Frequency of Internet use</i>				
Everyday	229	31.89 %	195	27.16 %
Not every day	222	30.92 %	72	10.03 %

Source: Authors' own data

(service encounter without incidents) and 267 respondents said that they had a problem or doubt during the online service delivery (service encounter with incidents). Regarding the type of service, most respondents chose the purchase of online travel reservations (417), followed by accommodation booking (301).

17.5 Results

17.5.1 Assessment of the Profile of the Respondents and the Type of Service Encounter

Next we use the Chi-square test and corrected typified residuals to analyze if there is dependence between the categorical variables related to the sociodemographic profiles of the respondents and the type of service encounter. As can be observed in Table 17.2, the type of service encounter (without incidents vs. with incidents) significantly depends on gender, age, and the frequency of Internet use. In this sense, the analysis of the typified residuals shows that the proportions of people who have had a problem or doubt during the service provision are significantly greater in women, people who are 24 years old or less and people who use the Internet on a daily basis (Table 17.3).

Table 17.2 Chi-square test in contingency tables

	χ^2	d.f.	Sig. Asynt. (bilateral)
Gender	5.255*	1	0.022
Age	44.298**	1	0.000
Level of education	5.660	1	0.017
Frequency of Internet use	34.360**	1	0.000

* $p < 0.05$; ** $p < 0.01$

Source: Authors' own data

Table 17.3 Analysis of adjusted residuals in contingency tables

	Service encounter without incidents	Service encounter with incidents
<i>Gender</i>		
Men	2.292**	-2.292**
Women	-2.292**	2.292**
<i>Age</i>		
24 years or less	-6.656**	6.656**
25 years or more	6.656**	-6.656**
<i>Frequency of Internet use</i>		
Every day	-5.862**	5.862**
Not every day	5.862**	-5.862**

Note: * $p < 0.05$ (Adjusted residuals greater than 1.96); ** $p < 0.01$ (Adjusted residuals greater than 2.58)

Source: Authors' own data

17.5.2 Comparison of Means

Next, we carried out the Student *t*-test and the Mann-Whitney test to analyze if the perceived quality assessment differed according to the type of service encounter (Tables 17.4 and 17.5). The results show that the mean scores of the e-service quality are significantly greater for the service encounter without incidents. Therefore, the consumers who did not have any problem or doubt during the service encounter have a significantly greater valuation of the Web site’s service quality than those who had an incident during the service provision. With respect to the comparative analysis according to the Internet users’ sociodemographic variables in the service

Table 17.4 Student *t*-test and Mann-Whitney test (Service encounter without incidents)

	Mean	Mean	Levene’s test		T-test		Mann–Whitney test	
			F	Sig.	T	Sig. (2-tailed)	Z	Asym. Sig. (2-tailed)
<i>Gender</i>	<i>Men</i>	<i>Women</i>						
Design	4.850	4.930	0.437	0.509	−0.792	0.429		
Functionality	5.442	5.264	2.297	0.130	1.668	0.096		
Privacy	4.957	4.982	0.621	0.431	−0.217	0.829		
Reliability	5.643	5.800	8.200	0.004			−1.330	0.184
<i>Age</i>	<i>24 years or less</i>	<i>25 years or more</i>						
Design	4.950	4.830	1.193	0.275	1.952	0.051		
Functionality	5.325	5.261	2.274	0.132	1.021	0.307		
Privacy	5.003	4.961	0.063	0.801	0.585	0.559		
Reliability	5.595	5.653	0.364	0.546	−1.034	0.301		
<i>Level of education</i>	<i>Without a university degree</i>	<i>With a university degree</i>						
Design	4.879	4.887	0.030	0.862	−0.077	0.939		
Functionality	5.337	5.408	1.231	0.268	−0.670	0.503		
Privacy	4.980	4.952	1.324	0.250	0.245	0.807		
Reliability	5.713	5.701	0.855	0.356	0.134	0.894		
<i>Frequency of Internet use</i>	<i>Every day</i>	<i>Not every day</i>						
Design	4.868	4.898	2.370	0.124	−0.305	0.761		
Functionality	5.367	5.370	0.549	0.459	−0.035	0.972		
Privacy	4.911	5.026	0.010	0.920	−1.025	0.306		
Reliability	5.745	5.669	1.280	0.258	0.851	0.395		

Source: Authors’ own data

Table 17.5 Student *t*-test and Mann-Whitney test (Service encounter with incidents)

	Mean	Mean	Levene's test		T-test		Mann-Whitney test	
			F	Sig.	T	Sig. (2-tailed)	Z	Asym. Sig. (2-tailed)
<i>Gender</i>	<i>Men</i>	<i>Women</i>						
Design	4.600	4.842	2.822	0.094	-1.839	0.067		
Functionality	5.030	5.060	0.144	0.704	-0.195	0.846		
Privacy	4.751	4.662	0.138	0.710	0.564	0.573		
Reliability	5.174	5.350	2.409	0.122	-1.280	0.202		
Recovery	4.469	4.556	1.890	0.170	-0.504	0.615		
<i>Age</i>	<i>24 years or less</i>	<i>25 years or more</i>						
Design	4.801	4.648	0.548	0.460	1.153	0.250		
Functionality	5.219	4.888	4.930	0.027			-1.717	0.086
Privacy	4.832	4.593	0.960	0.328	1.509	0.133		
Reliability	5.191	5.325	0.998	0.319	-0.972	0.332		
Recovery	4.513	4.512	0.003	0.957	0.004	0.997		
<i>Level of education</i>	<i>Without a university degree</i>	<i>With a university degree</i>						
Design	4.789	4.597	3.488	0.063	1.395	0.164		
Functionality	5.127	4.898	3.923	0.049			-0.957	0.339
Privacy	4.770	4.594	1.312	0.253	1.066	0.287		
Reliability	5.249	5.284	0.005	0.944	-0.246	0.806		
Recovery	4.528	4.485	0.203	0.652	0.237	0.813		
<i>Frequency of Internet use</i>	<i>Every day</i>	<i>Not every day</i>						
Design	4.697	4.782	0.514	0.474	-0.568	0.570		
Functionality	4.988	5.198	0.049	0.825	-1.199	0.232		
Privacy	4.643	4.880	0.025	0.875	-1.327	0.186		
Reliability	5.255	5.278	1.833	0.177	-0.146	0.884		
Recovery	4.538	4.442	0.028	0.868	0.492	0.623		

Source: Authors' own data

encounter without incidents, the results only show significant differences ($p < 0.05$) between men (5.643) and women (5.800) in the Web site reliability dimension. With respect to the service encounter with incidents, significant differences appear between people under 24 (5.219) and those over 24 (4.888) and between people without a university degree (5.127) and people with a university degree (4.898) in the Web site functionality dimension.

17.6 Conclusions, Implications, Limitations and Future Research

The tourist industry is strongly influenced by the development of new technologies and, more specifically, by e-commerce. Online travel agencies face intense competition, and thus have a great need to evaluate the electronic service quality of their Web sites to succeed or even just to survive. Firstly, the present study explores the underlying dimensions used by online customers to evaluate the electronic service quality of online travel agencies. Secondly, we focus on the relationship between the online consumer's sociodemographic variables and if he or she has had some problems or doubts during the service delivery. Thirdly, we consider the usefulness of these variables to examine whether there are differences in the consumer's electronic service quality perceptions. As far as we know, no article has until now dealt with these issues. This work therefore covers an important research gap and the main conclusions of this study are now shown.

Firstly, the results obtained show that there is a statistically significant relationship between the online consumer's sociodemographic profile and the type of service encounter (without incidents vs. with incidents). In this sense, our research suggests that women, people who are 24 years old or less and people who use the Internet on a daily basis show greater rates of having some problems or doubts during the Internet purchase.

Secondly, from the literature review, the evaluation of the electronic service quality has been carried out with five key dimensions: design, functionality, privacy, reliability, and recovery. Furthermore, this last aspect must only be evaluated by those people who had problems during the transaction. Moreover, the consumers who did not have any problem or doubt during the service encounter have a significantly greater valuation of the Web site's service quality than those who had an incident during the service provision.

Thirdly, although in the area of traditional services the literature shows that the service quality perception varies significantly depending on the customer (e.g., McDougall & Levesque, 1994), our study shows that the evaluation of the service quality by online shoppers is quite homogeneous in each service encounter. At least, we have not found great differences according to gender, age, educational level, or frequency of Internet use.

These results have the following implications from the management point of view. Firstly, although the sociodemographic variables are losing importance in the defining of the online buyer as the use of the Internet and Internet purchasing becomes more widespread, these variables are closely related to the type of online service encounter. In other words, there are segments of the population which appear more vulnerable to having problems or doubts during the Internet purchase. Secondly, unlike traditional services which are characterized by a high degree of heterogeneity (Kotler, 2000), the delivery of an electronic service is quite homogeneous and the evaluation which consumers make of the service quality received in

each service encounter is also very similar according to the sociodemographic variables which we have taken into account in this study.

Some limitations of this research should be acknowledged and directions for future studies ought also to be suggested. Convenience sampling does not permit results to be generalized to a larger population. A future study should try to validate and generalize the findings of this study by using a wider sample. The sample sizes of respondents who needed help are small. It is necessary to conduct future analysis that has a higher incidence of encountering problems. Finally, the results of this research are linked to the services chosen: the purchase of travel tickets and accommodation booking through Internet. It is necessary to carry out new research in other sectors to validate these conclusions.

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17.7 Electronic Service Quality

Design

DES1: The Web site looks attractive

DIS2: The Web site uses fonts properly

DIS3: The Web site uses colors properly

Adapted from Liu et al. (2009)

Functionality

FUN1: This Web site is always up and available

FUN2: This Web site has valid links

FUN3: This Web site loads quickly

FUN4: This Web site enables me to get on to it quickly

FUN5: This Web site makes it easy and fast to get anywhere on the site

Adapted from Aladwani and Palvia (2002), Parasuraman et al. (2005) and Collier and Bienstock (2006)

Privacy

PRI1: In the Web site appear symbols and messages that signal the site is secure

PRI2: The Web site assures me that personal information is protected

PRI3: The Web site assures me that personal information will not be shared with other parties

Adapted from Janda et al. (2002), Collier and Bienstock (2006) and Parasuraman et al. (2005)

Reliability

REL1: The service received was exactly the same as what I ordered

REL2: The billing process was done without mistakes

REL3: Web site information is clear

REL4: Web site information is current

REL5: Web site information is complete

Adapted from Parasuraman et al. (2005), Wolfinbarger and Gilly (2003) and Aladwani and Palvia (2002)

Recovery

REC1: The Web site shows its street, e-mail phone or fax numbers

REC2: The Web site has customer service representatives

REC3: If I wanted to, I could easily contact a customer service representative

REC4: The Web site responds to my inquiries

REC5: The Web site gives me a satisfactory response

REC6: When I have a problem the Web site shows a sincere interest in solving it

REC7: The Web site responds quickly to my inquiries

Adapted from Collier and Bienstock (2006) and Parasuraman et al. (2005)

Note: All items are measured with a seven-point Likert scale, anchored at 1 “strongly disagree” and 7 “strongly agree”.

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Chapter 18

The Influence of Institutional Environment on Quality Management in Hotels

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Abstract The purpose of this investigation is to study the link between Institutional Theory and quality practices in three, four and five star hotels located in Galicia (in northwest Spain). This investigation aims to characterize the institutional environment of these hotels, which will allow the various determinants explaining the implementation of quality management practices to be measured. To achieve these objectives, a research model that links the pressures of the institutional context with quality practices, and the latter with legitimacy, was developed and used. A quantitative study was carried out in which the referred model was applied to a sample of the hotel population using the partial least squares (PLS) technique and Visual-PLS software. The primary results of this investigation show that the hotels are incorporated in an institutional context mainly marked by normative pressure. This pressure tries to determine the norms and values through the accreditation of their behaviour. However, legitimacy and social support are the result of the behaviour of the hotels under study. It is important to note that the originality of this work derives from the set of main contributions based on the theoretical framework, Institutional Theory, objects under study and geographical area (the higher rank hotels in Galicia); the socio-economic context marked by the economic crisis; and the type of hotel entities (private and profit making).

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18.1 Introduction

In this study, the institutional influence in the hotels of Galicia (in northwest Spain) in relation to quality practices was investigated. It intended to find out which of the institutional pressures, normative, coercive or mimetic (DiMaggio & Powell, 1991) exerted greater influence on three, four and five star hotels in this autonomic region of Spain. To achieve these objectives, a research model that links the pressures of institutional context with quality practices, and the latter with legitimacy, was used. It is considered of great importance to study these factors, although this subject has been widely ignored by academic literature. To fill this void, Institutional Theory was used as a theoretical reference frame in this investigation; therefore it means that the results contribute to the progress under this theory.

The postulates classified in Institutional Theory have been studied and verified by different authors (Arend & Ferraz Cairó, 2005; Bastidas Bermúdez & Moreno Freitez, 2006; Dias Alperstedt, Martignago, & Gonçalves Silveira Fiates, 2006; Llamas-Sanchez, Garcia-Morales, & Martin-Tapia, 2013; Mellinger, 2014; Moyano-Fuentes, 2001; Murillo Vargas, González Campo, & Rodriguez Orejuela, 2010; Restrepo & Rosero, 2002; Riquel-Ligero, 2010; Rivera, 2004; Shah & Rivera, 2007, 2013; Vargas-Sánchez & Riquel-Ligero, 2012; Zapata & Hall, 2012; Zhu, Sarkis, & Lai, 2011) in different types of organizations (golf courses, public administrations, non-profit making human services organizations). In the field of social responsibility under this framework, recent investigations by Sánchez-Fernández, Vargas-Sánchez, and Remoaldo (2014) and sustainable practices by Glover, Champion, Daniels, and Dainty (2014) can be highlighted.

It is the works framed within Institutional Theory that have been especially investigated in the areas of environment, sustainability and social responsibility.

However, there are not many empirical studies that have examined the effect of quality practices on the institutional environment. One of these works was carried out by Sila (2007), which focused on investigating the different levels of isomorphism that can appear when carrying out quality practices (although the author did not study the behaviour of institutional pressures). Therefore, this investigation proposed to investigate what the influences of institutional pressures were on profit-gaining organizations (hotels) in a geographically delimited area (Galicia).

The tourism sector is one of Spain's main economic engines. Both the official statistics and authors such as Gessa, Ruiz, and Jimenez (2008) and Álvarez García, Vila Alonso, Fraiz Brea, and Río Rama (2013) recognize the huge economic weight of this sector in Spain. This investigation analyzed the hotel subsector when it comes to quality practices within the tourism sector. To give uniformity to the investigation, three, four and five star hotels located in Galicia were selected as a study unit.

This chapter is divided into four parts. In the next section, there is a review of literature in which Institutional Theory, quality and the relationship between both is addressed. It is followed by a methodology part presenting the research method and the model on which the investigation and the proposed hypotheses were based. The following section analyzes and discusses the results and the final part offers the study conclusions.

18.2 Theoretical Background

The three institutional pillars identified by DiMaggio and Powell (1991) are coercive, normative and cognitive. Three mechanisms are present in this institutional context; coercive, normative and mimetic (Scott, 1995). The *coercive* mechanism develops due to legal requirements. Organizations that implement these practices, adapting to generalized standards to achieve social legitimacy, address the pressures of the *normative* mechanism. When an organization is influenced by the tendency to imitate the practices of other organizations they consider to be excellent and which have high social legitimacy, it is acting under the *mimetic* mechanism.

The fundamental basis of Institutional Theory is legitimacy. Sila (2007), Braun and Gearhart (2004), Egels-Zandén and Kallifides (2006), Galaskiewicz (1985) pointed out that some organizations create structures to appear legitimate to their stakeholders. Ahlstrom and Bruton (2001), Chen et al. (2006), Scott (1995), Suchman (1995), Deephouse (1996), Ruef and Scott (1998), Kostova and Zaheer (1999), Kostova and Roth (2002), Golant and Sillince (2007), Baum and Oliver (1991), Hunt and Aldrich (1996), Egels-Zandén and Wahlqvist (2007), Díez Martín, Blanco González, and Prado Román (2010), Baum and Oliver (1991) and Castelló and Lozano (2011) identified in their investigations that legitimacy is essential for organizations. It allows them to survive and affects their growth. Therefore, companies must take into consideration adequate adaptation to the institutional environment to achieve or maintain social legitimacy for their strategic development. All of this entails that the directors of the companies manage the legitimacy of their organizations (Castelló & Lozano, 2011).

Institutional Theory is a framework for studying the institutional context of organizations and their impact on legitimacy in the implementation of quality practices in entities.

With reference to quality, there are many definitions related to this subject. They range from those that are conceptualized on the basis of the perception of the service provider to those that rely on the product as well as those that guide the user. Therefore, the criteria to find the definition of quality most suited to the object of research and the informant, the perspective of whom sets the quality strategy to be followed in the organization, is the management of the company, as established for this study.

The choice of this definition is based on the tendency towards universality of the quality management in companies, in this case the UNE-EN ISO 9000:2008 standard. It is an international standard adopted for managing quality in the business environment and is widely implemented in both public and private organizations in Spain. There are standards that refer to the normalization of very diverse aspects of business activity. The UNE-EN ISO 9001:2008 standard, as well as relevant studies, point out that the management of the company takes on an important role in the implementation of quality practices. Through their leadership and actions, top management can create an environment in which the staff is completely involved and in which a quality management system can operate effectively. That is why it is believed relevant to define quality from the perspective of the management of the

company. As a result, based on the definition provided by the ISO (2008), this study defines quality as the degree to which a set of distinguishing features inherent to the product, process or system adheres to the needs or expectations established in an implicit or obligatory way to its stakeholders.

Several authors have relied on Institutional Theory to develop their research, mainly directed towards the environment (Ganapathy, Natarajan, Gunasekaran, & Subramanian, 2014; Rivera, 2004; Vargas-Sánchez & Riquel-Ligero, 2012). Sánchez-Fernández et al. (2014) and Glover et al. (2014) developed their research related to responsibility and sustainability. Within the main academic literature, in terms of quality and taking institutional theory as a framework, is the investigation of Sila (2007). This study is focused on investigating different levels of isomorphism that may occur in the application of quality practices. From the main academic literature, one can conclude that there are not many empirical studies that have examined the effect of the measures of quality practices in the Institutional Theory framework.

It must be pointed out that this investigation was carried out in a specific geographical area so it is believed important to contextualize quality in the autonomous community of Galicia, specifically oriented to the tourism sector. In the tourism sector in Galicia, competitiveness, quality and accessibility are encouraged as well as the promotion of professionalization of the sector on the basis of Law 7/2011 of 27th October on tourism in Galicia (Presidencia de la Xunta de Galicia, 2011). The fundamental objective of this legislation is to encourage, promote and support necessary quality initiatives to comply with the stringent standards set by the Institute for Spanish Tourist Quality (ICTE), which consider prestige, reliability, thoroughness and professionalism of guaranteed establishments.

Among the basic objectives of the Galician Tourist Administration—a regional public agency that promotes, coordinates and manages the regional policy on tourism (Presidencia de la Xunta de Galicia, 2011)—is the development of tourism in the region in accordance with the principles of quality. Therefore, it can be said that institutions favour the implementation of quality practices in companies established in Galicia, especially through the certification of recognized quality management systems. Certification that is most favoured is the Q mark for Spanish Tourist Quality from the ICTE. This brand stands at an intermediate level between ISO 9000 (International Organization for Standardization) and the Excellence Model of the European Foundation for Quality Management (EFQM). All this contributes to the pressure that has a greater influence on companies within the tourism sector located in Galicia in the institutional context, be it normative pressure.

18.3 Methods

This investigation has been largely based on a quantitative study, which collected information by means of a questionnaire from the directors and managers of the hotels in the area under study (Galicia). The questionnaire was divided into five

blocks. The first two included characteristics of the hotels and socio-demographic information on the hotel directors. These two sections were elaborated based on reports and documents produced by the main official statistical agencies (Institute of Tourism Studies in Spain, Tourism Satellite Account of Spain and the Galician Institute of Statistics).

The remaining three sections corresponded to different scales that were already validated in other investigations (Deephouse, 1996; Fernández, 2001; Gallardo Vázquez & Sánchez Hernández, 2012; Gallardo Vázquez, Sánchez Hernández, & Corchuelo Martínez-Azúa, 2013; Kostova & Roth, 2002; Llamas, 2005; Llamas-Sanchez et al., 2013; Riquel-Ligero, 2010; Vargas-Sánchez & Riquel-Ligero, 2012) that measure institutional context, quality practices and legitimacy. In this investigation, the scales were validated as a whole and as preliminary tests to reduce the bias that could be produced (Sila, 2007).

The institutional context scale was adapted from the investigations by Kostova and Roth (2002), Vargas-Sánchez and Riquel-Ligero (2012) and Llamas-Sanchez et al. (2013). It was composed of three factors that define the three institutional pressures (DiMaggio & Powell, 1991). The quality practice scale was adapted from the investigation by Gallardo Vázquez and Sánchez Hernández (2012) and Gallardo Vázquez et al. (2013). The legitimacy scale was taken from the investigations of Deephouse (1996), Vargas-Sánchez and Riquel-Ligero (2012) and Llamas-Sanchez et al. (2013).

Among the items that make up the institutional context, the normative pressure [Pq N] was composed of three items: moral obligation (Pn 1), harmony with environmental values (Pn 2) and social guidelines (Pn 3). Coercive pressure [Pq C] was composed of four items: knowledge of laws (Pc 1), law implementation (Pc 2), legislation (Pc 3) and existing agreements (Pc 4). Mimetic pressure [Pq M] was composed of four items: knowledge of environmental practices (Pm 1), models (Pm 2), imitation of practices (Pm 3) and knowledge of successful practices (Pm 4).

These three pressures were linked to quality practices [PQ] a factor composed of five elements: Quality of employees' work (Pq 1); products and services that adhere to standards (Pq 2); better price levels (Pq 3); accurate information on products and services (Pq 4) and consumer rights (Pq 5).

Quality practices are linked to legitimacy. This second order construct was made up of two first order constructs *Lq gi* y *Lq go*: The constructor *Lq gi*—Legitimacy stakeholders—was made up of nine elements: public administration (*Lq gi* 1); employees (*Lq gi* 2); citizens (*Lq gi* 3); media (*Lq gi* 4); customers (*Lq gi* 5); suppliers (*Lq gi* 6); associations (*Lq gi* 7); business sector (*Lq gi* 8) and relationships with other pressure groups (*Lq gi* 9). The other construct [*Lq go*]—Legitimacy organizational—was made up of two items: social recognition (*Lq go* 1) and organizational values (*Lq go* 2).

When the questionnaire was drawn up, it was revised by three specialists in the areas of management, geography and tourism. Once the specialists proposed some revisions, a pre-test was carried out considering their suggestions, during the month of April 2012, on five hotel managers in Galicia. Some other minor changes were taken into account and finally the survey was applied from May until August 2012

to the total hotel manager sample in various ways (mail, fax, e-mail, on-site visits and telephone contact).

The total sample size is made up of 211 hotels. A response rate of 31 % (65 valid responses) was obtained, with a 6 % error rate in which $p=q=0.5$. They were considered to be appropriate percentages, seeing as the most demanding level was established based on the study of Vargas-Sánchez and Riquel-Ligero (2012) that had a response rate of 33 %. Lower response rates were ruled out, such as those obtained by Llamas-Sanchez et al. (2013), Gallardo Vázquez and Sánchez Hernández (2012) and Gallardo Vázquez et al. (2013), with percentages ranging from 21 % to 14 %.

To carry out the research, four hypotheses were proposed to see if there was an institutionalized setting in three, four and five star hotels located in Galicia. The intent was to answer the question “Which of the mechanisms proposed by institutional theory exerts greater pressure?” The related hypotheses are:

- H1. Coercive pressure generated by law and other regulations applicable to activities within the organization has a positive influence on adopting quality practices.
- H2. Acceptance of values and norms from regulatory pressures in the organizations’ context has a positive influence on the adoption of quality practices.
- H3. Imitating quality practices perceived as successful within organizations has a positive influence on the adoption of such practices.

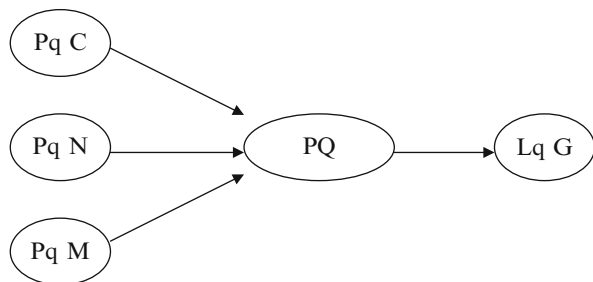
Finally, addressing the connection between quality practices and legitimacy led to:

- H4. The main reason for developing quality practices is to search for social legitimacy.

The following investigation model was proposed to analyze the link between institutional pressures (PqN, PqC and PqM) and quality practices (PQ) and those with legitimacy (LqG). The aim was to be able to answer the hypotheses in the study (Fig. 18.1).

The proposed research model was made up of 6 first order constructs (Pq C, Pq N, Pq M, PQ, Lq gi, Lq go) and one second order construct, legitimacy (LqG), which is made up of two first order constructs (Lq gi and Lq go). The institutional context was composed of three first-order constructs, which correspond to the three

Fig. 18.1 Proposed research model



Source: Own elaboration

institutional pressures Pq N, Pq C and Pq M. In total, they made up a total of 22 indicators. This set of observable variables was obtained after testing the one-dimensionality of the scale, i.e. the items that remained were those that added value to the factors.

To analyze the study data, an SPSS (version 18.0) statistical package was used in the preliminary tests (Aymerich Martínez & Meseguer Artola, 2004; Bartlett, 1951; Kaiser, 1970; Nunnally, 1978; Pérez López, 2005; Verdu Jover, 2002; Wang, 2005; Wubneh, 1987). In the second stage to apply the methodology and structural equations (SEM), PLS software was used according to Barclay, Higgins, and Thompson (1995). This technique allowed reducing the information contained in a set of original variables to a smaller set of items with a minimum loss of information.

18.4 Results and Discussion

First, the results highlighted the main characteristics of the studied hotels. The geographical distribution of the hotels was 46 % in Pontevedra, 37 % in A Coruña, 9 % in Lugo and 8 % in Orense. Consistency in the geographical representation of the hotels between the sample and the complete study was maintained. Distribution according to hotel category was also consistent between the sample and the complete study, 57 % were three star hotels, 33 % were four star hotels and 5 % were five star hotels. As for the categorization of the hotels, 59 % were national, 26 % were international, and 15 % corresponded to other areas including local, regional, autonomic and provincial.

Next the main socio-demographic characteristics of the hotel management were explained. Gender wise, 30 % were executive women and the remaining 70 % were executive men (Alonso-Almeida, 2011, 2013). 80 % of managers were aged between 18 and 45 years and the remaining 20 % of managers and directors were over 45. With reference to the level of education, 15 % had postgraduate degrees (Masters or Ph.D.), 65 % had higher education (university degrees), 15 % had only secondary education and 5 % had only basic studies (obligatory education). The data showed that the typical profile of the hotel managers under study was a male aged between 36 and 40 years with higher education (university degree).

The results obtained were then analyzed using the methodology of structural equations, applying regressions based on the partial least squares (PLS) technique.

18.4.1 Analysis of Measurement Models

From the initial 22 items in the proposed model and after analyzing the individual reliability of these items, the model applied gave a result of 21. This result is explained below with the set of items that made up the model. This is because for the variables that did not reach the value of the charges stipulated by Falk and Miller (1992), which must be greater than 0.505, were eliminated. (**Note that those values marked

with an X are the values that were eliminated because they did not fulfil the established requirements.)

Loading the Institutional Context test:

Coercive pressure [Pq C]: (Pc 1) [knowledge of laws]: 0.74; (Pc 2) [law implementation]: 0.77, (Pc 3) [legislation]: 0.70; (Pc4) [existing agreements]: 0.6;

Normative pressure [Pq N] (Pn 1) [moral obligation]: 0.81; (Pn 2) [harmony with environmental values]: 0.90 (Pn 3) [social guidelines]: 0.74;

Mimetic pressure [Pq M]: (Pm 1) [knowledge of environmental practices]: X**, (Pm 2) [models]: 0.74; (Pm 3) [imitation of practices]: 0.74; (Pm 4) [knowledge of successful practices]: 0.93.

**A variable was eliminated because it did not fulfil the requirements established by Falk and Miller (1992).

Loading the Quality Practices test:

Quality Practices PQ: (Pq 1) [Quality of employees' work]: 0.83; (Pq 2) [products and services that adhere to standards]: 0.59; (Pq 3) [better price levels]: 0.84; (Pq 4) [accurate information on products and services]: 0.78; (Pq 5) [consumer rights]: 0.83.

Loading the constructs that make up the Legitimacy test:

Lq gi [Legitimacy stakeholders]: (Lq gi 5) [customers]: 0.79; (Lq gi 7) [associations]: 0.66; (Lq gi 9) [relationships with other pressure groups]: 0.89;

Lq go [Legitimacy organizational]: (Lq go 1) [social recognition]: 0.82; (Lq go 2) [organizational values]: 0.82.

Once the reliability of items was obtained, the results of the reflective constructs tests were checked with the exception of the training constructs, which in this study was the legitimacy construct (LqG) (Sarabia Sánchez et al., 1999). It was taken into account that the measurements of a construct, in the case of formative constructs, did not need to be correlated and were not applicable measurements of internal consistency, for example Cronbach's Alpha, Composite Reliability, AVE.

Composite Reliability must be greater than 0.7 for early stages of the investigation (Calvo de Mora & Criado, 2005; Nunnally, 1978). The results of this investigation were as follows:

Pq C [Coercive pressure]: 0.82; Pq N [Normative pressure]: 0.86; Pq M [Mimetic pressure]: 0.85; PQ [Quality Practices]: 0.88; Lq go [Legitimacy organizational]: 0.80; Lq gi [Legitimacy stakeholders]: 0.88.

According to Fornell and Lacker (1981), convergent validity AVE, must not exceed the value of 0.5. The results of this investigation were that AVE was larger than the squared correlations between that construct and others that made up the research model. All the first order reflective constructs complied with this condition:

Pq C [Coercive pressure]: 0.52; Pq N [Normative pressure]: 0.67; Pq M [Mimetic pressure]: 0.65; PQ [Quality Practices]: 0.61; Lq go [Legitimacy organizational]: 0.67; Lq gi [Legitimacy stakeholders]: 0.64.

18.4.2 Analysis of Structural Model

The β coefficients were analyzed to verify and contrast the hypotheses. According to Chin (1998) and Vargas-Sánchez and Riquel-Ligero (2012), the hypotheses in which the β is higher than 0.2 were accepted. The results obtained in the study were the following:

H1: Coercive pressure generated by law and other regulations applicable to activities within the organization has a positive influence on adopting quality practices. $PqC \rightarrow PQ$: 0.26;

H2: Acceptance of values and norms from regulatory pressures in the organizations' context has a positive influence on the adoption of quality practices. $PqN \rightarrow PQ$: 0.37;

H3: Imitating quality practices perceived as successful within organizations has a positive influence on the adoption of such practices. $PqM \rightarrow PQ$: 0.23;

H4: The main reason for developing quality practices is to search for social legitimacy. $PQ \rightarrow LqG$: 0.40.

To be able to analyze the model's predictive power, R^2 was used. According to Falk and Miller (1992) the value of R^2 must be equal to or greater than 0.1. The results obtained were:

R^2 : LqG [Legitimacy]: 0.16; PQ [Quality Practices]: 0.28.

The three hypotheses related to institutional context (H1, H2, H3) were verified. The mechanism that exerted the most pressure on implementing quality practices was normative pressure, which was consistent with Jennings and Zandbergen (1995) and Voss, Cable, and Giraud (2000). In the case of the relationship between quality practices and legitimacy the hypothesis (H4) was also accepted.

18.5 Conclusions

In the hypothesis tests based on the proposed model, it was concluded that all four hypotheses were accepted (H1, H2, H3 and H4).

With the results obtained in the research, legitimacy is of the utmost importance to the managers of the hotels located in Galicia to be able to grow and survive (Baum & Oliver, 1991; Deephouse, 1996; Suchman, 1995) when applying quality practices. The search for legitimacy and social support affects the implementation of such practices. The main interest of hotel managers is to maintain stable relations with stakeholders, especially clients and employees. Based on Institutional Theory, organizations create structures to seem legitimate to their stakeholders (Sila, 2007). In this case, it was observed that the method perceived as being most legitimate was the implementation of quality practices when it comes to the rules aimed at customers and employees.

In relation to the institutional context, the mechanism that had the most impact on the implementation of quality practices was normative pressure. This result is

consistent with the principles defended by Jennings and Zandbergen (1995) and Voss et al. (2000) as well as the great proliferation applying quality management systems with a seal of recognition in the tourism sector of Galicia (ISO, Q mark for quality recognized nationally, etc.). Next it was coercive pressure that had an impact on the implementation of these quality practices in hotels, and finally the mimetic mechanism exerted the least pressure.

Finally, the limitations of this study are noted from which future lines of investigation are proposed. The sample size was small and one cannot generalize the results to the entire country. However, it is useful information for hotel companies and research related to this subject. Based on this limitation, the authors recommend working with larger geographical areas throughout the country in future research. It would also be of great interest to perform a comparison between the hotels located in different countries to verify the isomorphic behaviour of these organizations. Another limitation of this study was related to data collection via a single informer (hotel managers), a bias that was minimized with different validity tests and scales. Along these lines, following the recommendations of Kumar, Stern, and Anderson (1993) it would be relevant to gather information from various different stakeholders. When it comes to marking out stakeholders, based on the results of this study, the most important are the clients and employees.

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Chapter 19

The Contribution of TQM to Organizational Ambidexterity: The State of the Art and Promising Research Streams

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Abstract The purpose of this chapter is to present the state of the art of research on the impact of TQM implementation on organizational ambidexterity. The widespread diffusion of TQM in organizations in all sectors and the already established importance of ambidextrous capability for achieving long-term competitiveness make understanding the connection between both fields a worthwhile objective. We underline the need to include in the analysis the broad and complex nature of TQM. Due to the interactions between its principles and practices, total quality management can act as a platform in creating an ambidextrous organizational context. We also underline the importance of clarity in research on the specific quality management approach, and of the treatment of the ambidexterity concept, which is subject to substantial variability both in relation to the type of ambidexterity selected, and because measurement and scales can differ widely. We conclude by highlighting the role of cultural change brought about by TQM for generating organizational ambidexterity as a future promising research stream.

19.1 Introduction

Ambidexterity is a metaphor—the ability to use both hands with equal skill—which is used to describe organizations that are capable of exploitation (activities and learning through a specific search, a fine-tuning and improvement of what already exists) and exploration (learning through completely new processes, planned experimentation and play). In other words, ambidexterity entails being aligned with

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current activities and being efficient enough to meet demands while simultaneously adapting to, and anticipating, future change (Gupta, Smith, & Shalley, 2006; March, 1991; O'Reilly & Tushman, 2013). In short, it implies achieving opposing objectives: efficiency versus flexibility, stability versus adaptation, short-term profits as opposed to long-term growth (Moreno-Luzon & Valls-Pasola, 2011).

The concept has been interpreted from many angles and perspectives, such as the innovation management perspective (He & Wong, 2004; Rothaermel & Alexandre, 2009), organizational theory (O'Reilly & Tushman, 2008), organizational learning (Levinthal & March, 1993), organizational behavior (Gibson & Birkinshaw, 2004), and strategic management (Smith & Tushman, 2005). The concept itself has been interpreted as a manager's behavioral orientation (Mom, Van der Bosch, & Volverda, 2009), as a top management team capability (Lubatkin, Simsek, Ling, & Veiga, 2006; Smith & Tushman, 2005), as an organizational capability (O'Reilly & Tushman, 2008), linked closely to the organizational context (Gibson & Birkinshaw, 2004), and as a way of designing an organizational structure (Duncan, 1976; O'Reilly & Tushman, 2004).

Quality management adopts many different approaches as well, which explains the *what* and *how* of this diversity of practices, methodologies, and models. Firms design and implement their own specific QM system according to their framework of principles and the approach adopted. Sometimes the approach is made explicit but sometimes it is implicit, but in any case we can infer the QM approaches by analyzing the system being applied and the principles it displays.

QM is a broad, rich framework under which many approaches can be developed, from highly technical ones to others that are almost entirely focused on the customer or on human and organizational aspects. In Fig. 19.1 we can see the main approaches described by the specialized literature, highlighting the wide range of perspectives. Organizations that apply QM can combine different approaches and can choose from the many different techniques and practices. Indeed it is common to simultaneously find a variety of approaches or perspectives within the same organization (Moreno-Luzon & Peris, 1998; Prajogo & Sohail, 2004).

With regard to TQM's contribution to ambidexterity, there are very few studies that tackle this important issue specifically. As far as we know, only three papers refer explicitly to ambidexterity in the context of TQM: Moreno-Luzon & Valls-Pasola (2011), Moreno-Luzon et al. (2014), and Asif & de Vries (2015). Nevertheless, there is previous research that gives us some clues that lead us to consider this contribution to be significant. Some studies have underlined the capacity of TQM for confronting paradoxes (Thompson, 1998). It has also been proven that the use of TQM principles and practices can build two different models: one mechanistic and the other organic (Prajogo & Sohail, 2004). Other interesting studies have proved that TQM can adopt diverse forms following principles that could be seen as alternatives, such as control and learning, and, depending on the practices implemented, the company can adapt itself more or less successfully to different environments (Sitkin, Sutcliffe, & Schroeder, 1994). Benner & Tushman (2002, 2003) addressed the influence of process management on exploitation and exploration; they laid the

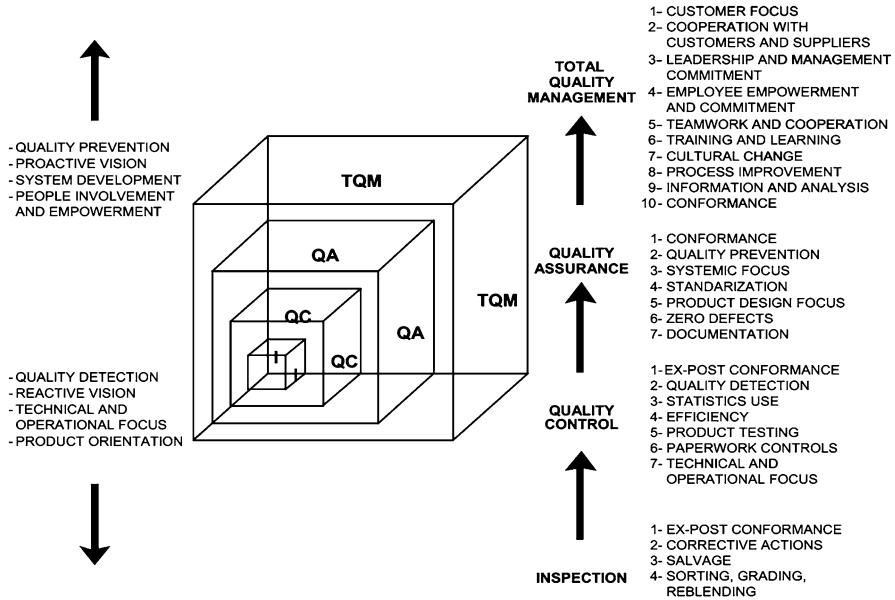


Fig. 19.1 Different approaches to quality management. Source: Adapted from Dale et al. (1999), Moreno-Luzon et al. (2001)

path towards a crossover of the two fields and concluded that process management is more effective for exploitation and can hinder exploration.

In this chapter we analyze the potential risks and challenges involved in this crossover; we summarize the main findings of the current literature on the topic and discuss a research stream which, in our view, has great potential to explain the phenomenon. In next section we focus the analysis and measurement of organizational ambidexterity, while in Sect. 19.3 we tackle the diversity of TQM. Section 19.4 presents the connection between the two fields and in Sect. 19.5 we present future promising research streams, ending with our concluding remarks in the final section.

19.2 The Analysis and Measurement of Organizational Ambidexterity

In recent years, there has been an explosion of publications on ambidexterity. Many prestigious management journals have turned their attention to the topic. Journals such as the Academy of Management Review, Academy of Management Journal, Journal of Management, Journal of Management Studies and Organisation Science have published numerous articles on ambidexterity. Some journals have even

devoted special issues to the area: *Academy of Management Journal*, 2006; *Organisation Science*, 2009; and *Academy of Management Perspectives*, 2013. Some scholars even called it an emerging paradigm in organizational theory (Raisch & Birkinshaw, 2008; Simsek, Heavey, Veiga, & Souder, 2009; Raisch, Birkinshaw, Probst, & Tushman, 2009), and a promising research stream (O'Reilly & Tushman, 2008, 2013). We can find research on the state of the art in Lavie et al. (2010), O'Reilly & Tushman (2013), Raisch & Birkinshaw (2008), and Turner et al. (2013).

However, after such an explosion of research and publications on the issue, a number of ambiguities still exist that future research should clarify. Firstly, there still remains some confusion about what precisely the term “organizational ambidexterity” means. The generic use of organizational ambidexterity is often vague in the literature, simply referring to the ability of a firm to do two things simultaneously. “As the research base has broadened, ambidexterity has been applied to phenomena such as strategy, networks, new product development, technology, software development, intellectual capital and other topics that, while interesting and important, may have little to do with the practical tensions involved in how managers and organizations deal with exploration and exploitation. The risk in applying the term so broadly is that the research moves away from the original phenomenon and loses its meaning” (O'Reilly & Tushman, 2013: 332).

In their review, Raisch & Birkinshaw (2008) also note that, as the research has broadened it has become less focused and more complex. In the same sense, Nosella et al. (2012) state that “the organizational ambidexterity literature has departed from the original definition of the construct as a capability for resolving tensions.... Future research may therefore benefit from a return to the construct's definition which emphasizes the nature of ambidexterity as a capability” (Nosella, Cantarello, & Filippini, 2012:459). And in this sense, “if the term “organizational ambidexterity” continues to be used to describe highly disparate phenomena, our insights into how firms actually explore and exploit are likely to become less and less useful” (O'Reilly & Tushman, 2013: 332).

One factor that adds complexity to the analysis is the wide typology that embraces the concept. Ambidexterity typology has been refined in relevant studies (Gupta et al., 2006; Simsek et al., 2009; Simsek, 2009). One of these typologies, introduced by Moreno-Luzon & Valls-Pasola (2011) differentiates between structural ambidexterity, managerial capability at an individual level, a top management team capability, and a capability embedded in organizational behavior.

The first type, structural ambidexterity, implies the design of organizational units according to exploration and exploitation (Duncan, 1976; Tushman & O'Reilly, 1996; O'Reilly & Tushman, 2004, 2013). This type of ambidexterity involves the separation of units and the subsequent coordination costs. There is also the added need for ambidextrous top managers or management teams having to understand and accommodate the needs of such diverse units in order to coordinate them (O'Reilly & Tushman, 2004).

Secondly, we can comprehend ambidexterity as a managerial skill. It is an individual capability to see the future, and get the most from the past. This implies a mental balancing act, which, according to O'Reilly & Tushman (2004: 74), “could

be one of the hardest of all the management challenges". Ambidextrous managers renew and refine their knowledge and are capable of dealing with contradictions (Smith & Tushman, 2005).

Thirdly, we can consider ambidexterity as a capability of the top management team. This implies complementing individual members' exploitative and exploratory abilities. Lubatkin et al. (2006) proved that the behavioral integration of top management teams correlates strongly with top management team ambidexterity.

Fourth, ambidexterity as a capability embedded in organizational behavior. This type of ambidexterity is called contextual ambidexterity, and has been considered as a capability rooted in organizational behavior (Gibson & Birkinshaw, 2004; O'Reilly & Tushman, 2013). It is the result of designing and establishing processes and systems that encourage employees to allocate time to different activities, either by continuing previous activities or changing to meet environmental demands (Gibson & Birkinshaw, 2004).

There is another source of potential confusion that stems from the way ambidexterity is measured. While the psychometric properties of these measures are normally well documented, the underlying meaning is often ambiguous. Many times it is difficult to know what "exploration" and "exploitation" mean in the context of the specific research, especially when compared to studies about different industries and from different perspectives. Due to the fact that studies categorize very different phenomena as exploration and exploitation, any findings may reflect the idiosyncratic nature of what exploration and exploitation mean in that particular context. If the underlying phenomenon is different, it is likely that the antecedents and outcomes might also vary. The risk is that, by using the same terms to describe what are likely to be very different phenomena, we lose accuracy, which may go some way to explaining the confusion and conflicting results we see in the empirical research (O'Reilly & Tushman, 2013).

In relation to the process of obtaining ambidexterity measurement, consistent with Floyd & Lane's (2000) assertion that these two orientations are "inseparable", researchers have combined both measures, exploration and exploitation, to create the ambidexterity scale. Gibson & Birkinshaw (2004) obtained a measure of ambidexterity by multiplying exploitation and exploration; this way they aim to capture their interaction, because the index grows in relation to higher levels of both exploitation and exploration. He & Wong (2004) opted for another method by subtracting exploitation from exploration and using an absolute difference score. In this way they capture both balance and imbalance in the two measures.

Nevertheless, in order to refine the measurement, Lubatkin et al. (2006) highlight the fact that whenever two or more measures are combined into a single index, enough information may be lost that the index cannot be accurately interpreted. That is, it is good to know whether each component of the final index contributes uniquely to predicting outcomes or if only one component does so. Lubatkin et al. (2006) combined both measures of exploration and exploitation. First, they ran an unconstrained regression equation in which firm performance was the dependent variable, and the orientations of exploration and exploitation were treated as

separate independent variables. Then they ran three constrained regression equations in which exploration and exploitation were combined into a single index, first by subtracting exploitation from exploration, second by multiplying exploration and exploitation, and third by adding the two. The “additive” model proved to be superior; its regression beta weight indicated no significant loss of information, whereas the beta weights for the “difference” and “multiplicative” models indicated significant loss of information relative to the unconstrained regression equation (Lubatkin et al., 2006:657).

19.3 Quality Management, a Wide Umbrella under which many Approaches can be Implemented

Quality management embraces many different practices. In fact QM constitutes a way of managing that is driven by a set of particular values and principles (e.g., continuous improvement, customer satisfaction, learning, cooperation, stakeholder satisfaction) that has a wide range of tools and techniques at its disposal (e.g., Control Graphs, Process Maps, Ishikawa Diagram, Pareto Diagram) and methodologies (e.g., Plan-Do-Check-Act, 6 Sigma, 5 Ss, Benchmarking, Quality Function Deployment, Process Standardization and Procedures).

This way of managing can use standardized models (e.g., ISO 9001, EFQM, Baldrige, Deming) that can serve as a learning reference on how to apply QM, but also as a way of comparing the firm with others implementing QM and using the same model, as well as a means of self-evaluation and auditing.

Sometimes the difference between QM approaches and their values, tools, techniques, practices, models and systems is paid scant attention or vanishes completely from the literature. However, from our standpoint, it is important to preserve clarity and rigor in these differentiations.

Due to this diversity of principles and practices, it is very useful to differentiate the dimensions around which the practices could be linked. In this sense we find the categorization of three dimensions to be useful: process management, people management, and customer focus (Dean & Bowen, 1994; Moreno-Luzon, Peris, & Gonzalez, 2001). Most of the principles, practices and techniques can be grouped around these three dimensions.

According to the diversity of approaches of QM, we would highlight the fact that the object of the investigation must be explicit to avoid a misinterpretation of results. Including companies in the sample that apply a QA approach or considering others that apply TQM can lead to very different results. The dimensions and practices taken in the analysis should also be explicit, and the coherence and complementarity between the practices can make the difference. Research findings reveal that the value of an individual QM practice is tied to other QM practices. Therefore, highlighting just one or only a few QM practices or techniques may substantially condition research results (Kim, Kumarb, & Kumarb, 2012).

19.4 TQM Contribution to Organizational Ambidexterity

As we highlighted in the introduction, there are some previous studies that demonstrate the capacity of TQM to confront paradoxes (Thompson, 1998). Some authors also point out its capacity for building two different models; one mechanistic and the other organic (Prajogo & Sohal, 2004), as well as the fact that it can be configured for the purposes of control or learning, depending on the environment (Sitkin et al., 1994). Other research addresses the influence of quality management practices on exploitation and exploration (Benner & Tushman, 2002, 2003; Chang, Chang, Chi, Chen, & Deng, 2012).

Nevertheless, very few papers explicitly tackle the TQM contribution to ambidexterity. As far as we know, only three papers do so: Moreno-Luzon & Valls-Pasola (2011), Moreno-Luzon et al. (2014), and Asif & de Vries (2015). The first one is a theoretical contribution that is pioneering in its discussion of the main issues in the relationship and proposes a research agenda. The second presents the results of a research project focusing on the links between TQM and ambidexterity, with particular attention to the impact of process management on ambidexterity. The third is a theoretical analysis of the contribution to ambidexterity of some of the practices that TQM embraces.

In their analysis Moreno-Luzon & Valls-Pasola (2011) used a categorization that included three dimensions: process management, people management, and customer focus, in light of the fact that most of the principles, practices and techniques can be grouped around these three dimensions. They found that the two main approaches to QM (QA and TQM) (see Fig. 19.1) give an unbalanced degree of importance to the three aforementioned main dimensions.

QA is more focused on the design and improvement of processes, yet it introduces some elements of the people dimension and, due to its concentrated focus, it does not include any of the aspects of the third dimension, customer focus. The emphasis on continuous improvement creates, above all, discipline and lends support to exploitation activities. Such practices intensely reinforce exploitation and if they are not complemented by development in other dimensions, they may represent a substantial obstacle to ambidexterity.

Conversely, TQM has a more intense and balanced treatment of the three dimensions. This fact can allow firms to avoid the risks of the excess of control expected from the intense application of control techniques and process improvements to the detriment of human and commercial aspects, which can inhibit exploration and the modalities of ambidexterity based on behavioral characteristics. Moreno-Luzon & Valls-Pasola (2011) also indicate that the emphasis on human aspects in the TQM framework can have a positive effect on the ambidexterity of the top management team by improving the integration of their behavior thanks to the application of teamwork, cooperation and participation.

Likewise, TQM development of hard cultural values, such as discipline and stretch and soft ones, such as trust and support, can contribute to generating contextual ambidexterity. Moreover, opening up to the outside environment and widening objectives

toward the satisfaction of stakeholders can be expected to build ambidexterity because the company no longer finds itself limited to the search for current customer satisfaction and broadens its horizons to potential customers and other external stakeholders.

“The synergy between the principles and practices of TQM, if the focus is complete and advanced, might also turn out to be a key element for TQM to become an enabling platform for the three types of ambidexterity linked to behavior. It could thus be expected that a total quality management approach may fit better with the generation of the capacity for ambidexterity – individual, team and organizational—than a quality assurance approach in which the relative importance of process management is sizeable” Moreno-Luzon & Valls-Pasola (2011: 942).

With regard to structural ambidexterity, this study suggests that there is no connection between the application of TQM and the creation of organizational units for exploration. Normally, the implementation of total quality management implies the creation, if it does not already exist, of the quality department and, sometimes, of the customer care department, while the rest of the organizational structure is unaltered. So we can conclude that total quality management does not promote structural duality, in the sense of structural ambidexterity.

19.5 Promising Future Research Streams: Cultural Change in a TQM Framework and Ambidexterity

There is a stream of research that, in our view, can yield interesting results; understanding the role of cultural change in the contribution of TQM to contextual organizational ambidexterity. On the one hand, the hardest challenge for a firm to face in the implementation of TQM is simply to achieve the level of cultural change this demanding way of managing requires to achieve excellence, and on the other, risk aversion and continuous improvement have been signaled as two of the major obstacles to exploration. It is thus worth determining whether the appropriate culture in the framework of TQM can contribute to ambidexterity.

Many research studies acknowledge that achieving deep-rooted cultural change is a key factor in successfully implementing TQM, because high-level commitment on the part of managers and employees to the principles and values of TQM is essential for improving quality performance (Green, 2012; Tata & Prasad, 1998). The reason why cultural change is so important in the success of TQM is its emphasis on values and principles. Some authors have highlighted that the essence of TQM is cultural change and that TQM practices are merely tools for cultural transformation (Flood, 1993).

We assume that culture consists of the beliefs, values and underlying assumptions supporting behavioral patterns and artifacts (Schein, 1986: 6), and the literature identifies the drivers of TQM values, assumptions and behavioral pattern as cooperation, stakeholder satisfaction, manager and employee commitment, continuous improvement, learning and employee participation.

There is a debate in the literature as to whether TQM practices contribute to cultural change or if it is the previous corporate culture that hinders TQM developments and results (Irani, Beskese, & Love, 2004; Prajogo & McDermott, 2005; Santos-Vijande & Alvarez-Gonzalez, 2007).

On the one hand, there is evidence on the cultural context that facilitates the implementation of TQM, thereby favoring its success (Dellana & Hauser, 1999; Prajogo & McDermott, 2005). On the other hand, the effects of TQM on organizational culture have less empirical support and there is a need for further research (Ghobadian & Gallea, 1996; Naveh & Erez, 2004; Irani et al., 2004; Santos-Vijande & Alvarez-Gonzalez, 2007). Ghobadian & Gallea (1996) conclude that TQM practices, such as education and training, employee participation, enhanced communication, revision of procedures and policies, and the behavior of top managers, promote cultural change. They also underline the idea that “the level of commitment and support generated by a quality improvement team can directly and indirectly influence the change in corporate culture, a key factor in the successful implementation of TQM” (Ghobadian & Gallea, 1996: 89). Naveh & Erez (2004) also analyze the impact of TQM practices on cultural change, considering the impact on two different types of values; on the one hand on control and attention to detail, and on the other hand on creativity, flexibility and experimentation. According to their results, when the implementation of TQM is diverse and wide-reaching in terms of practices, there is a positive impact on these two different types of values.

In the search for the key variables that can aid the understanding of the TQM contribution to ambidexterity, the path of analysis that incorporates cultural values is a promising one. On the one hand, some studies have shown the mediating role that an innovative culture plays in the TQM-innovation relationship (Santos-Vijande & Alvarez-Gonzalez, 2007). According to the results obtained by these authors, TQM is a management system capable of creating an organizational culture that is open to innovation. On the other, the importance of the principles and values necessary for applying TQM has been reiterated (Moreno-Luzon & Valls-Pasola, 2011), and obtaining true cultural change is recognized as a key factor for the success of TQM implementation, although the cultural change driven by TQM is neither simple nor quick, as cultural values are complex and will be resistant to direct manipulation (Denison, 1990). Other research has made similar theoretical developments; Dellana & Hauser (1999) on competing values were pioneers in empirically showing that TQM is simultaneously related to different cultures, applying a model of competing values that was initially created by Quinn & Rohrbaugh (1983), and which has been used in studies within the TQM framework (Prajogo & McDermott, 2005). The empirical study by Naveh & Erez (2004) points out that, if different TQM practices are applied jointly, they have a positive impact not only on values such as control and attention to detail, but also on creativity and experimentation.

Innovation literature normally emphasizes values such as risk-taking or creativity to define an innovative culture (Santos-Vijande & Alvarez-Gonzalez, 2007). However, some authors suggest that an innovation culture must, by definition, be paradoxical (Khazanchi, Lewis, & Boyer, 2007), requiring flexibility and empowerment, as well as control and efficiency. Similarly, Tatikonda & Rosenthal (2000)

highlight the fact that not only flexibility is necessary, but also firmness in order to achieve greater project execution effectiveness in incremental and radical innovation projects. Although the creation of a contradictory culture with the application of TQM has been studied by certain authors, and others have highlighted the need for a paradoxical innovation culture, there is an absence of studies that empirically connect a TQM culture defined in this way with ambidexterity.

In this respect, the paper by Moreno-Luzon et al. (2014) presents a line of research that deals directly with cultural change as a moderating factor between process management implementation and ambidexterity. They conclude that process management practices, traditionally viewed as the mechanical part of TQM, can contribute to generating cultural change that helps to enable organizational ambidexterity insofar as they can promote a specific organizational culture made up of diverging values: on the one hand security, discipline, control, improvement and precision; and on the other, creativity, experimentation, risk-taking and flexibility. These findings contribute to the empirical evidence on the antecedents of organizational ambidexterity, and suggest that the implementation of process management may influence the organization's basic beliefs and values, and therefore support the development of OA capabilities. The importance of cultural change as a mediator reveals that having a balanced culture comprising cultural values in conflict can be a key for success (Prajogo & McDermott, 2005).

19.6 Conclusion

Our analysis of the research on TQM's contribution to ambidexterity enables us to point out several challenges that still need to be addressed in the field.

First of all in relation to the quality management field, we highlight the fact that quality management is a broad framework, in which very different approaches are included, and each of the approaches embraces their own values, practices, models and systems. We therefore stress the importance of the clarification of the approaches adopted in research because they can substantially condition the results.

Secondly, although there has been an explosion of research and publications on the concept of ambidexterity, a number of ambiguities still exist that future research should clarify. As the research base has broadened, many disciplines are analyzing the concept from very different perspectives and there is the risk of applying the term so broadly that the research may become distanced from the original phenomenon and lose its meaning (O'Reilly & Tushman, 2013).

Another factor that adds complexity to the analysis is the confusion between different types of ambidexterity, such as the capability of managers at an individual level, of top management teams or a capability embedded in organizational behavior (Moreno-Luzon & Valls-Pasola, 2011). To avoid misinterpretations in the analysis of this topic, it is important to clarify the type of ambidexterity the study addresses and the specific meaning and interpretation of each concept, as well as the justified perspective used to approach them.

According to Moreno-Luzon & Valls-Pasola (2011), if the quality management focus is complete and advanced, the synergy between the principles and practices of TQM can make it an enabling platform for the three types of ambidexterity linked to behavior—individual, team and organizational—while a quality assurance approach can bias the company towards exploitation. With regard to structural ambidexterity, this study suggests that neither total quality management nor quality assurance promote structural duality in terms of structural ambidexterity.

In this chapter we have also shown the potential importance of taking into account the cultural change that TQM promotes. If this culture is divergent, in the sense of embracing opposing values, e.g., improvement, safety, control, precision and discipline on the one hand, and flexibility, creativity, tolerance to uncertainty, risk-taking and interest in experiencing new environments on the other, it can be crucial for generating organizational ambidexterity. The simultaneous presence of competing cultural tensions can become then an important driver of ambidexterity.

One managerial implication of this analysis is the need for senior managers to be aware of the effects that applying the quality program may have on corporate culture. To achieve a cultural change that can nurture contextual ambidexterity, leaders should empower employees and expand internal communication to instill confidence, explaining policies and interacting frequently with employees. Managers can inspire employees to be creative and flexible, while also being disciplined, reconciling the need for standardization practices while continuing to search for new approaches to solving problems. To achieve an ambidextrous culture, people must not be afraid of complexity or conflict, and be ready to explore and take risks but with a measure of caution, developing constructive attitudes towards change and a willingness to take calculated risks. A supportive response to failures is also critical for stimulating a paradoxical culture-oriented change.

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