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FM concepts applied to technical management of Portugal and Spain hotels

Extended abstract

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1. INTRODUCTION

Buildings often correspond to a major investment to the organizations, as embrace and support several activities according to the organization's competing needs. The management of all non-core activities is essential to control costs and define strategies that point towards the objectives direction, creating an advantageous environment to the core activity of the organization.

In the hotels case, their buildings and non-core activities are closely linked to the core activity, as they can directly contribute to one of the main goals: the customer satisfaction. Since hotels represent an important business area, characterized by competitiveness and excellence, a responsible and integrated management of its non-core activities is required.

Facility Management (FM) is a multi-disciplinary activity that can ensure the function of buildings and management and control of non-core activities performance, which still has a modest structured application in Portugal and Spain. In that way, FM and its tools may contribute to increase the performance control of hotels non-core activities.

2. FM TOOLS APPLIED TO HOTELS

2.1. FACILITY MANAGEMENT

Facility Management or Facilities Management (FM) is an area with an increasing development, which still is not widespread among Portuguese and Spanish organizations, however it has a great growing potential, when compared with countries as USA, UK and Japan.

The European standard EN 15221-1 (CEN, 2006a) describes FM as the "integration of processes within an organisation to maintain and develop the agreed services which support and improve the effectiveness of its primary activities". In this way, FM may help organizations supporting its core activity through concepts implementation and management of its non-core activities, by improving the function, interaction and performance of these activities.

The scope of FM includes (CEN, 2006a; Pociña, 2005; RICS, 2009):

- facilities, people, processes and technology integration;
- information transparency on service level;
- efficient use of services synergy, contributing to performance improvement and costs reduction;
- corporative strategy development on real estate assets;
- standards accomplishment;
- costs optimization and property value improvement.

2.2. HOTELS

The hotels belong to a business area denominated by hospitality, which generally corresponds to two simple requirements: accommodation and food providing. In order to reach those requirements, many types of support services are needed, as well as their adequate management, integration and performance. Many of these services are usually outsourced, which may cause difficulties to those last aspects (Cotts *et al.*, 2010).

The hotels activity is deeply related to the tourism strategy of a country or region. The existence of hotels in a region may press forward its tourism, or, on the other hand, tourism approaches may cause the hotels to emerge.

The tourism is a very important economic activity worldwide, providing the creation of many jobs. It actually may have a significant contribute to a country development, as it can enable a very rapid and effective economic growth (OECD, 2010).

2.3. SLA AND PERFORMANCE INDICATORS

The existence, importance and interaction of many services and its requirements in hotels highlight the hotels needs for control, management and performance measurement of its services.

The Service Level Agreement (SLA) is a tool capable of applying FM strategies to hotels and its services, as it is an agreement that formalizes a business relation between the client and service provider that establish a specific service level (Lee and Ben-Natan, 2002; OSDC, 2010).

The SLA is formalised by producing a document that describes the following (Atkin and Brooks, 2009):

- name of each party;
- roles and responsibilities of each party;
- scope of services that are to be provided;
- quality and performance-related targets;
- time-related targets;
- prices and rates;
- resources required;
- method of communication and interaction between customer and service provider;
- change procedures.

To Lee and Ben-Natan (2002) the roles most commonly given to SLAs can generally be grouped into six areas: a) define roles and accountability; b) manage expectations; c) control implementation and execution; d) provide verification; e) enable communications; and f) assess return on investment.

The SLA disadvantages are related to the time and resources consumption. On the other hand, the main advantages are (Lee e Ben-Natan, 2002; Chanter e Swallow, 2007; Shah, 2007; Atkin e Brooks, 2009):

- the client may communicate clearly his expectations to the service provider;
- the minimum performance acceptable limits are defined;
- responsibilities and requires are increased;
- communication is improved;
- risk reduction.

As it was said before, the SLA includes the establishment of a specific service level. This service level can be defined by performance measurements, where the most common in organizations are the performance indicators.

Although the existence of many performance indicators defined by standards or authors, organizations need a deep analysis to define the indicators that can be applied to their activities. The most important performance indicators are the Key Performance Indicator (KPI), which are strategic indicators that have the most important information about the organization performance. Parmenter (2010) concluded that these indicators have the following characteristics:

- are measured frequently;
- are nonfinancial measures;
- are acted on by the CEO and senior management team;
- clearly indicate what action is required by staff;
- are measures that tie responsibility down to a team;
- have a significant impact;
- encourage appropriate action.

To help the indicators definition, the success factors can be used. The identification of these factors allows organizations to concentrate on the actions that guarantee the goals achievement, and that way reach the performance indicators (Atkin and Brooks, 2009).

3. INVESTIGATION METHODOLOGY

The investigation methodology included an internet survey to Portuguese and Spanish hotel managers, a model justification based on the review and survey results and an assessment and improvement of the model through individual interviews to hotel managers, in order to define the final model.

3.1. SURVEYS

Due to the lack of information on buildings and services management of Portuguese and Spanish hotels, a survey addressed to hotel managers was carried out.

In order to obtain a good response rate, the survey had multiple-choice questions, a limited number of questions and it was done through the internet. The survey was divided into three parts: a) hotel general information; b) specific information about the hotel management; and c) FM in the hotel management.

In the first part, some hotel characteristics were collected, like location, association to a hotel chain, time of operation, number of stars and rooms. In the second part, the respondents were asked about some specific information as: what services (maintenance, cleaning, security, catering, gardening, marketing, certification and energy efficiency, air quality and human resources) were outsourced; if maintenance plans are undertaken in the hotel; what type of maintenance (preventive, predictive or corrective) are carried out on different building elements; which elements are the most important in terms of maintenance; and which is the approximate percentage devoted to technical maintenance, of the total costs of the hotel.

The third part intended to verify the existing knowledge or practice of FM in hotels. In that way, the respondents were asked if they know FM; if they apply it to the hotel; if there is any FM department and, in case of knowing FM and not applying it to the hotel, what is the reason for that.

The survey was replied by 28 hotel managers, in Portugal, and 13 in Spain. The samples collected do not allow a characterization of hotels practice in general, but permit to achieve some information that would not be possible to obtain by other means.

The first part of the survey showed the answers were varied in terms of hotels location, connection to a chain, time of operation, number of stars and rooms of the hotels, which indicates that the sample provides a good overview of different types of hotels.

Moreover, some other similarities between both countries were found:

- the majority of the hotels have outsourced services, mainly to maintenance, cleaning and security services;
- in the most cases, maintenance plans are developed in the hotels;
- proactive maintenance related to lifts, heating, ventilation, and air conditioning (HVAC), rooms and roof building elements and electrical systems;
- corrective maintenance linked to telecommunications systems, facade building elements and plumbing.
- rooms building elements with more maintenance care than building envelope and common areas;
- in the most cases, the percentage of maintenance costs are less than 30%, of the total costs of the hotel;
- most respondents do not know the FM concepts;
- FM is applied to a minority of hotels, and mostly without specific departments.

Besides the similarities, it was possible to observe some differences between each country:

- the main elements with proactive maintenance are lifts, HVAC and rooms building elements, but in Portugal the roof building elements were also relevant, while in Spain were the electrical systems and the facade building elements;
- there is a higher percentage of respondents that know FM in Spain, but it does not reach 50%;
- the respondents that know FM but do not apply it to the hotel, justify it mainly with the lack of funds, in Portugal, and the lack of practical knowledge and complex application in Spain;
- there is a higher percentage of hotels with a FM department in Spain, even so it is very low (15% of total samples from Spain).

In general, the rooms' elements are pointed as the ones with more maintenance concerns, as they have more proactive maintenance like lifts and HVAC, but do not have regulatory provisions as these last two, and as the rooms' building elements have more maintenance care than building envelope and common areas.

This may be due to the fact that hotel rooms are subjected to damage and depreciation resulting from ordinary use and exposure to successive rotation of customers. Also, the fact that rooms are the main selling product of hotels and that they are directly related to customer comfort can contribute to that.

Regarding to FM, the results indicate that FM is not widespread in Portuguese and Spanish hotels, and that more information on how to apply it to hotels is required.

3.2. MODEL JUSTIFICATION

The methodology also includes a proposal for a model for establishing a SLA applied to the building elements maintenance service in hotels. This proposal is based on the literature review and survey results, adapted to hotels business and maintenance service. The main objectives of this model are:

- simple and easily applied method for a SLA production;
- definition of the necessary information on the hotel and the service;
- supporting decision for services provision (in-house or outsourcing);
- approximation to the SLA model of European standards (EN 15221-2).

Making a SLA as the model of the standard EN 15221-2 (CEN, 2006b) is a complex and long process, which would be difficult to apply in hotels where FM processes are yet to be supported, as occur in the majority of Portuguese and Spanish hotels.

In order to develop a model that can be applied to real cases, just the main clauses of the SLA and the information needed to accomplish that clauses were studied.

Some of the required information to the clauses definition is the performance indicators to the performance measurement; the hotel analysis for adapting the SLA to the specific hotel; and the service analysis to decide if the service should be outsourced or not.

As stated by Parmenter (2010) and Atkin and Brooks (2009), performance indicators are best found with the definition of the success factors and Critical Success Factor (CSF) of the analyzed hotel. Therefore the model begins with the identification of the hotel success factors to subsequent definition of the performance indicators of the building elements maintenance service.

To Ancarani and Capaldo (2005), FM services recently tend to be outsourced, which was confirmed to the hotels case by the previous survey. To those authors, the decision of what is outsourced or not should take into consideration a deep analysis of the advantages and disadvantages on many levels. Thus, the form of service provision was considered in the proposed model. In this way, the model has three steps (Figure 1):

- Step 1 – Success factors and performance indicators definition: the process for obtaining the success factors is described and the relevant factors are identified, as well as the performance indicators related to building’s elements maintenance;
- Step 2 – Decision on the form of service provision: method definition to decide the form of building’s elements maintenance service provision;
- Step 3 – Relevant specifications for the SLA: clauses definition for a simplified SLA, with the use of the previous steps information; the clauses are: a) service definition and terminology; b) interaction with other services; c) communication; and d) performance measurement and agreed output.

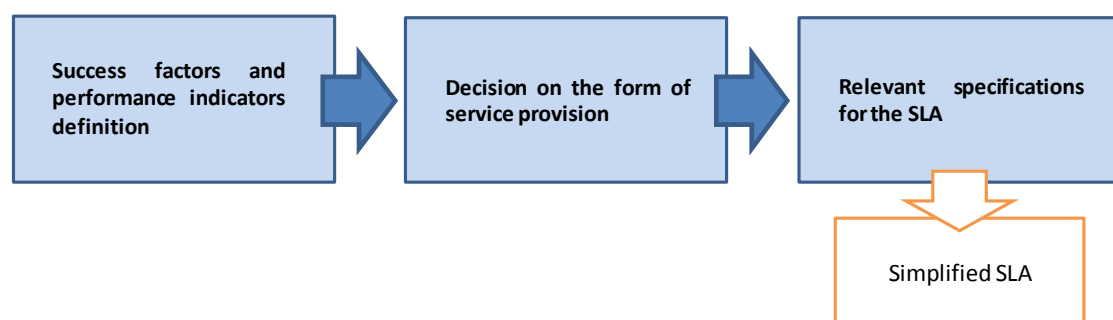


Figure 1 – Steps of the proposed model

3.3. INTERVIEWS

In order to assess and improve the presented model and find some particularities related to the building elements maintenance service, individual interviews to hotel managers from Portugal and Spain were carried out. The purpose of those interviews was to obtain some information on the different steps of the model, as represented in Figure 2.

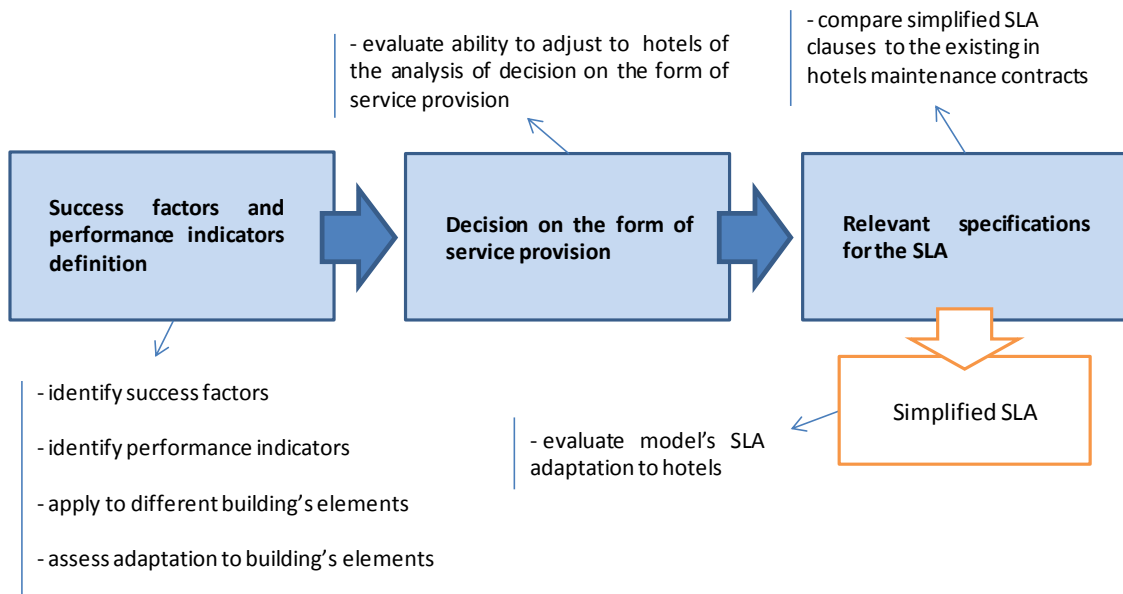


Figure 2 – Interviews’ purpose divided by the model’s steps

The interviews were made with 9 Portuguese hotel managers and 3 Spanish hotel managers. Unlike the surveys, the countries were not compared in assessing the results, as the interviews had more specific questions and the surveys did not find many differences between the maintenance practices of both countries. The main results of the 12 interviews sample are presented in the following paragraphs.

In order to identify success factors, apply and adapt to different building’s elements, the participants were asked to choose the main success factors between the ones shown in Table 1, divided by building’s elements groups. In the table, the percentage of answers for each success factor, out of a total of 12, is presented. The factors “good appearance” and “minimize cost” were the most selected, indicating to be important to verify in hotels.

Table 1 – Success factors results

Success factors	Building’s elements group			
	Wall coverings	Floor coverings and skirting boards	Ceilings (including false ceilings)	Windows and frames
a) good appearance	6%	6%	6%	5%
b) easy cleaning	3%	5%	1%	4%
c) speed of interventions	4%	3%	3%	5%
d) minimize cost	6%	5%	3%	4%
e) allows simplicity and rapidity in future interventions	3%	3%	3%	3%
f) quality finishings	5%	5%	2%	4%

Regarding to performance indicators, the participants were asked to choose some indicators (from a list) that can evaluate the success factors from Table 1. The most selected indicators are shown in Table 2.

Table 2 – Performance indicators results

Success factors	Performance indicators	% of answers
Good appearance	Customer satisfaction	11%
	N.º of complains by time unit	3%
	N.º of complains by sold room	5%
Speed of interventions	N.º of annual total hours of interventions	5%
Minimize cost	Maintenance intensity	7%
	Average annual maintenance cost per costumer	4%
	Maintenance cost / building cost	5%
	Staff cost ratio	4%
Quality finishings	% of specialized staff	7%
	Quality of execution	6%

On the second step of the model, participants were inquired about what aspects of choice they take into consideration for the analysis of decision on the type of service provision. Table 3 shows that “required competencies to service provided” and “direct costs” were the most selected aspects.

Table 3 – Aspects of choice results

Aspects of choice	% of answers
1. Required competencies to service provided	21%
2. Hotel specific needs	11%
3. Impact on customer satisfaction	13%
4. Priority, flexibility and speed of response	14%
5. Management implications and indirect cost	13%
6. Direct costs	20%
7. Activity control	9%

In order to compare simplified SLA clauses to the ones existing in hotels maintenance contracts, it was asked also about what aspects are included in maintenance service contracts, from the 7 aspects of Table 4. The aspect “service description” was the most selected and “performance measurement and service level” and “bonuses and penalties according to the service level” were the less selected.

The interviews also allowed to obtain some other conclusions:

- the majority of hotels do not have or have a modest application of maintenance performance indicators;
- obtaining the performance indicators from a previous definition of success factors can be implemented to hotels;

- all aspects of choice for the analysis of decision on the form of service provision are relevant for hotels;
- it is advantageous that all the aspects of Table 4 are included in SLA clauses.

Table 4 – Aspects included in maintenance service contracts results

Aspects included in maintenance service contracts	% of answers
1. Service description	21%
2. Specific terminology	16%
3. Interaction with other services	14%
4. Contacts list	14%
5. Performance measurement and service level	11%
6. Performance reporting presentation mode	14%
7. Bonuses and penalties according to the service level	11%

4. PROPOSED MODEL

Through the results of the previous interviews, the model developed for establishing a SLA applied to the building’s elements maintenance service in hotels was improved. The proposed model is focussed in the building’s elements maintenance that can be applied to the hotel rooms, as they was considered to be more relevant (by the surveys) and were further analyzed in the interviews.

The model kept the three steps developed before, which are described below.

Step 1 – Success factors and performance indicators definition

The analysis to define the service success factors and performance indicators should be carried out by a group work with a maximum of 4 people. To obtain the service success factors, the next tasks should be taken:

- 1) determine the building’s elements to be considered;
- 2) list the success factors already known or identified by the hotel, for example, through previous documents;
- 3) meet with maintenance department employees to find other success factors;
- 4) build an updated list of service success factors;
- 5) confer the obtained success factors with the maintenance director.

With the success factors, the performance indicators can be obtained more easily, relating one or more indicators to each factor. The model suggests some success factors and respective performance indicators to the building’s elements maintenance, that correspond to the most selected in the interview (Table 2).

Step 2 – Decision on the form of service provision

The main service provision forms may be considered as outsourcing, in-house and partnership (Atkin and Brooks, 2002; Ancarani and Capaldo, 2005). With the aim of deciding the best service

provision form, the model suggests the analysis of the following (in decreasing order of importance):

- required competencies to service provided;
- direct costs;
- priority, flexibility and speed of response;
- impact on customer satisfaction;
- management implications and indirect cost;
- hotel specific needs;
- activity control.

To reach the service provision form, the following steps are proposed:

- 1) from the previous list, the first 3 aspects are taken, and 1 to 4 of the remaining are chosen;
- 2) for each (taken and chosen) aspect a percentage is associated, corresponding to the importance for the choice of service provision form (sum is 100%);
- 3) each aspect is analyzed and the ones that indicate advantages on outsourcing are identified;
- 4) the identified aspects percentage are summed;
- 5) at last, if the percentage is high the service should be outsourced; if the percentage is low the service should be done in-house; and if the percentage is around 50% a partnership must be considered.

Step 3 – Relevant specifications for the SLA

This step includes 4 clauses for the simplified SLA for building’s elements maintenance service in hotels: a) service definition and terminology; b) interaction with other services; c) communication; d) performance measurement and agreed output.

In the first clause, the service is accurately described and its terminology is clarified. The information needed for this clause and its organization are suggested in Table 5.

Table 5 – Organization suggested for service description

	Service description	Equipments	Materials	Specialist	Safety requirements and others	Deadlines
General						
Step 1						
Step 2						

The second clause covers the integration and interaction between the service and other hotel services. To clarify the interaction situations and the necessity of special cares a table like Table 6 is suggested.

To encourage the communication and information flow, the third clause suggests a contacts list as shown in Table 7.

Table 6 – Organization suggested for service interaction

Service	Is it outsourced?	Interaction situations	Special cares
Cleaning	(Yes/No)		
Air-conditioned maintenance			

Table 7 – Organization suggested for contacts list

Responsible for	Name	Contact situation	Telephone/ e-mail

At last, the fourth clause covers the performance measurement and agreed output. The performance measurement proposed is based on the service level accomplishment, which is controlled by performance indicators and competence in meeting deadlines. The indicators were previously obtained in the first step of the model and the deadlines were defined in the first clause. For periodical review of the delivered service two types of frameworks are suggested: a performance indicators frequently updated list and periodical performance reports. Depending on the service level reached, bonuses and penalties should be contemplated in this clause, considering the agreed output, which can be defined with the service or service steps execution deadlines.

5. CONCLUSIONS

The lack of structured FM application in Portuguese and Spanish hotels results in an opportunity to introduce FM and tools like SLA and performance indicators to the hotels business area. The high performance required to hotels services and the need of integrated management of those services arises FM as an improving method for the hotel global performance and quality.

Through the surveys, many similarities were found in the maintenance and service running practices between Portugal and Spain. The main differences were related to FM questions, indicating more knowledge and practice of FM in Spanish hotels.

The identification of performance indicators through success factors were found to be applicable to the hotels case, as well as the proposed aspects to decide the type of service provision and the simplified SLA clauses.

The proposed model allows the required information for a hotel to implement a simplified SLA to its building's elements maintenance service, taking advantages of the FM processes benefits to organizations.

Even without knowing FM, some hotels might apply some FM principles. Still, the introduction of FM in the hotels is recognised to be important since its processes and tools knowledge allows hotels to systematise, consolidate and integrate information that can be targeted to reach best services performance and core activity goals.

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