Management with the Quality Control System in the Hotel Industry in Macedonia

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Abstract – The hotel service product is defined as a chain of mutually related services created to satisfy different needs and demands of the consumers who are primary and are connected with their temporary residence outside their home. The chain of these services is inside a certain place which is technically and technologically defined as well as defined in terms of its organization, process and staff. Services are provided in a definite time and their quality is influenced by numerous subjects such as majority of different suppliers, employees and hotel guests as end users of these services. In that context the quality of the hotel service is observed as the sum of the overall processes leading to a certain result. Each link in that chain of operation reflects the final outcome and the users' attitude to the service and the level of quality. Quality assurance in hotels is related not only to the employees but also to the machines, technology of the production process etc. Therefore, control is necessary to assess the stability and ability of business processes.

This paper presents research findings regarding the approach to quality control in the hotel industry in Macedonia and the ability of managers to build up a good quality system, as well as the directions they need to go to promote business processes, products / services. The research determined the "age", that is, the development of the hotel facilities on one of the pillars of the house of quality that refers to the quality control system.

1. Introduction

The expansion of tourism on international level is a result of the development of different activities involved in the creation of the tourist product where the hotel management has a significant role. The hotel management as an activity offering accommodation and other additional service (food, entertainment, recreation, commerce etc.) covers various kinds of categorized accommodation (hotels, motels, boarding houses, apartments).

In the wide range of facilities offering accommodation services, hotels are the most homogeneous part of this activity, because through their functioning all important features of the business processes are reflected in relation to the other types of accommodation facilities. As such, they present the total accommodation offer and represent a map for the hotel industry, regardless of whether they operate independently (within a certain system) or a hotel group.

In order to provide a quality service, the hotel should meet deadlines, supply complete service, kindness and consistency, permanent and open access. In order to meet the customers' expectations, the producer should adjust the design of the production process, the different performance of the machines, to purchase the necessary equipment and technology, to use the right materials, to provide skilled staff with permanent training and monitoring, all this followed by total quality system implementation.

The final grade of this outcome, i.e. the level of total quality of the hotel service is given by the hotel guest through his own view based on his perception: the technical elements of the offer, the process of the provided service and the quality of the environment where it is delivered. The grade itself is based on numerous measurable and immeasurable (very often dominant) elements, where natural service involves

coordination of the human, technical and natural factors.

The new world approach toward quality demands new activities in the field of employees education, introduction of standardization of all processes, introduction of statistical process control as well as a new approach in the cost analyses. All this requires a scientific, methodological, planned, persistent and systematic approach. At the same time, it means total difference in staff behaviour, vital change in the organizational process, clearly defined rights, duties and responsibility of each individual. The total management system is the newest system in the development of managing quality in the hotel industry. It requires complete involvement of all subjects that participate in creating, making, delivery and consuming the products (service) with top quality. For this purpose, each process, each operation and each position is subordinated in the organization. Thus, each individual, wherever is positioned, takes care of the quality (from the lift boy to the company manager).

The data obtained in this paper research have helped in terms of the approach toward the quality control in the hotel industry in Macedonia and the managers' ability to build up a good quality system.

The research has determined the "age", i.e. the development of the hotel capacities according to one of the pillars of the house of quality and directions were given in order to introduce instructions for improving the performance of the business processes, in defining the measures for achieving the sustainable business systems as well as in initiating the innovations.

2. Literature review

The number of segments which are "responsible" for the ultimate level of given service and its complete quality is large. The standardization in the management system has become a managers' key task and a prior issue for the survival of the hotel industry in the 21st century [1]. The heterogenic hotel structure and its expressed characteristics are also determined by the specifics of the very process of work in this activity [2]. These specificities are the result of the subject of action, i.e. an essential determinant of the services (products) that come as a work effect. Different to the manufacturing sector where the process of production and consumption is spatially and temporally separated, in the hotel industry these processes are simultaneous [3]. The separation of these processes in the production activity enables elimination of bad (blemish) products before they reach the user. As a matter of fact, numerous products in the hotel industry are produced and consumed simultaneously, so there is no possibility for elimination of the bad product / service (the current mood of the receptionist, the cook or the waiters) neither their storage [4]. The bad service causes guests' dissatisfaction.

Namely, most of the individual services are delivered at certain intervals of the hotel guest stay cycle that conditions simultaneous production and consumption of services. This is a serious management problem because the demand is identified with the consumption that becomes determining generator of the hotel product concept. The unity of the production-service process marks the functioning of the food sector, which distinguishes the dual character of the work - the production and service [5]. As a consequence of the influence of numerous and various elements participating in the formation of the hotel service, there is insufficient uniformity in their creation and inequality (variability) in the quality of the individual parts of the service [6]. In the process of harmonizing the performance of the hotel product with the demands of the tourists, various forms of quality manifestation occur. Compulsory or defined quality of the hotel product implies the conformity of the product (service) with the established norms stipulated by the state or other institutions (certificate, licenses, etc.) for which the hotels must stick to it. [7]. The norms determine the spatial - technical (projected quality), the organizational and process elements and the personnel elements of the product (functional quality), which are necessary to be presented to the guests in order to know the quality of the work [8]. The fulfilment of the prescribed minimum conditions for carrying out the catering activity provides a minimum guaranteed quality, which is the basis for levelling in the domain of compulsory quality, i.e. categorization [9]. This level of quality includes spatial, technical - technological and organizational process features of the hotel product. The membership in a certain hotel category guarantees a certain quality, which also entails the price. A higher category means a more quality service, which implies a higher price. It is also protection of the hoteliers from the unrealistic demands of tourists who are not sufficiently familiar with the characteristics of that level [10].

Modern quality control in the hotel industry is directed toward a preventive role in stopping errors and defects. The new approach covers the care of the quality of all employees [11]. The quality control sector must have a necessary cooperation with the marketing and development sector, in order to participate in the definition of product quality standards, define methods for measuring and evaluating quality to the needs of the buyers. In addition to this cooperation, it is necessary to expand

it in the procurement sector for control of incoming materials (as the first quality ramp) [12].

For the success of the control, it is necessary for the path of information to be fast, with a defined feedback mechanism, so that corrective measures can be taken according to the Deming Circle [1]. Complaints from hotel service users need to be analyzed and systematized so that corrective measures and cost analysis can be used [2].

In order to build a good control system, it is necessary to educate and train employees for quality, as well as mastering new techniques and methods [1]. It is a task for employees not only in the control service that must introduce education through quality circle, lectures and various forms of training with instruments, as well as aids necessary for quality testing. To provide quality in control means: on time, correct, accurate and precise measurement of properties, and to obtain objective estimates of variations. The quality information obtained should be given in a suitable form, in the right place and at the right time [1]. In order to raise the quality of control it is necessary to define the responsibilities and obligations of each person in it and to apply the principle of the QC - CE model [2].

Everyday practice of employees in the hotel industry should not only be their self-control in the work, but they must be trained to act preventively. They should be responsible, correct their mistakes and present any quality problem they will discover.

The application of the new TQM strategy in the hotel industry means the projection of a good documented quality system covering all the business processes of the hotel and is an indispensable basis for the successful application of statistical process control (SPC) and efficient teamwork that could otherwise not be set up in the case of a poor quality system. In this way it is ensured that the attitudes of top management are implemented in the quality policy and they create the climate and information base on which team work can develop.

3. Description of the hotel description industry in Macedonia

Macedonia actually has a well-developed hotel accommodation offer. As of 16.01.2018, there are 140 registered hotels of all categories in total, Table 1.

Table 1. Structure of hotels in Macedonia as of 16.01.2018

Type of hotels	Number	%
Superior hotels with 5*	9	6,4
Hotels with 5*	3	2,1
Superior hotels with 4*	10	7,1
Hotels with 4*	46	32,9
Superior hotels with 3*	10	7,1
Hotels with 3*	36	25,7
Superior hotels with 2*	10	7,1
Hotels with 2*	14	10
Hotels with 1*	2	1,4
Total	140	

Source: Ministry of economy, Sector of tourism and hospitality, Review of categorized hotels

Table 1. shows that the most numerous hotels are those with 4* (32,9%), while the least numerous are those with 5* (2,1%). Since 2013, a new Rulebook of categorization of hotels has been brought officially and a certain number of hotels got additional star as a result of improved standards so they achieved the category superior hotels. The received decisions of categorization are valid for three years.

The increased number of hotel accommodation brought about the growth of hotel rooms and beds. The current accommodating tourist offer in Macedonia is versatile and it comprises of all kinds of basic and additional capacities that offer services for accommodation and stay. So, as of December 2017, from total 28.305 rooms and 73.168 beds registered in all the capacities in hospitality, the hotels with three, four and five stars participate with 6.777 rooms (24%) and 14.521 beds (19,8%).

Table 2. shows the dynamic growth of hotel rooms and beds in the period from 2015-2017. It can be realised that the total number of hotel rooms with three, four and five stars has grown to 114,4%, i.e. from 5.802 rooms in 2015 to 6.777 rooms in 2017.

At the same time the increase of 14,7% is registered in the total number of hotel beds (Table 3.), i.e. from 12.390 beds in 2015, to 14.521 beds in 2017.

Table 2. Number of hotel rooms with three, four and five stars in Macedonia according to the structure, 2015-2917. Source: State statistical office. (2017).

Number of hotel rooms in different accommodating objects in Macedonia 2015-2017						
	2015	2016		2016	2017	
	Rooms		%	Rooms		%
Hotels *****	1258	1338	6%	1338	1455	9%
Hotels ****	2588	3005	16%	3005	3321	11%
Hotels ***	1956	2030	4%	2030	2001	-1%

Table 3. Number of hotel beds in different accommodating objects in Macedonia according to the structure, 2015-2017. Source: State statistical office (2017).

Number of hotel beds in different accommodating objects in Macedonia according to the structure						
	2015	2016		2016	2017	
	Beds		%	Beds		%
Hotels *****	2513	2739	9%	2739	2867	5%
Hotels ****	5363	6323	18%	6323	6964	10%
Hotels ***	4514	4657	3%	4657	4690	1%

4. Methods in the research

The research uses qualitative and quantitative methods. The qualitative approach includes a review of the literature of many publications that generally deal with issues of the quality system and its application in practice.

The quantitative approach consisted of an electronic survey designed for hotel managers with three, four and five stars. The survey was conducted in the period March-April 2018, with a reminder of every irresponsible questionnaire sent on a weekly basis.

The sample is made according to the list obtained from the Sector for Tourism and Catering within the Ministry of Economy (Table 4.). In addition, more than half of the hotels identified for the survey have four stars (48.9%), more than a third have three stars (38.3%), while only 12.8% have five stars.

Table 4. Sample in the survey:

Type of hotels	Number	%
Hotels with 5*	12	12,8
Hotels with 4*	46	48,9
Hotels with 3*	36	38,3
Total	94	100

Source: Government of the Republic of Macedonia, Ministry of Economy, Sector for Tourism and Catering. Note: Data as of May 2018.

Although the survey was ambitious and involved a total of 94 hotel managers with three, four and five stars, only 37 of them responded to the electronic survey. The distribution of the responses by type of hotel is visually presented in Table 5. The obtained response rate of 39.4% is relatively high given that it is an electronic survey where, due to lack of personal contact, the percentage of answers usually ranges between the 16- 25% [12][13].

Table 5. Distribution of answers by type of hotel in percent

Type of hotels	Number	%
Hotels with 5*	10	27
Hotels with 4*	17	46
Hotels with 3*	10	27
Total	37	100

The electronic survey consisted of a questionnaire structured in four parts:

Part I: General data (open questions based on the type of hotel, years of function, number of employees, categorization, etc.);

Part II: Total quality management system (thirty-seven yes / no questions related to the design and implementation of a quality system);

Part III: Pillars of the house of quality. The House of Quality is held by four subsystems: internal standardization, methods and techniques of quality, education and motivation and cost-benefit analysis, at the top of which is top management, and basically is measuring, evaluating, analyzing and comparing quality / poor quality thirty-five questions related to the application of the system of total quality management in hotels). The third part of the research should determine the "age", that is, the development of hotel capacities on the pillars of the house of quality (from a young and underdeveloped system to a mature and developed system).

Part IV: Indicators for obtaining a European Quality Award (sixty questions for measuring indicators). The current situation was analyzed through the criteria for obtaining the European Quality Award: leadership, policy and strategy, employee management, resources, processes, customer satisfaction, employee satisfaction, company impact, business results and how much is invested in innovation. Through these criteria, it was assessed where the Macedonian hotels are positioned if they were competing for the European Quality Award.

V part: Managerial assessment (twenty-two questions for measuring the managers' estimates of the advantage and limitations in the implementation of the total quality management system).

The questions from the second and third part of the questionnaire have determined the degree of implementation of the system of total quality management in the hotel industry. The goal is to identify whether higher-rated hotels use the same or different practices when designing and implementing a quality system, compared to lower-rated hotels.

The survey should determine the deviations of the subsystems of the TQM (Total Quality Management System), through the symptoms of the "quality" of the quality system, i.e. the application of the four pillars of the house of quality: internal standardization, methods and techniques of quality, education and motivation and cost-benefit analysis.

The questionnaire consisted of one type of questions: Answers according to the 5-degree Liker scale (where 1 = no, do not plan at all, and 5 = have implemented). Thus, in interpreting the average values of the results, in the quantification of the influence factor, the following scheme is applied: 1.00-1.80 (not, they do not plan at all); 1.81-2.60

(activities are planned); 2.61-3.40 (in the initial phase); 3.41-4.20 (advanced); and 4.21-5.00 (have implemented).

4. Analyses of the results

The questions from the second and third part of the questionnaire were intended to determine the current degree of application of the total quality management system.

The house of quality is held by four subsystems: internal standardization, methods and techniques of quality, education and motivation, and cost-benefit analysis. Due to the scope of the research in this paper, the results are given regarding the application of the system for control and quality assurance. The intention was to identify whether the higher-ranked hotels applied the same or different practices in the implementation of the quality control system, compared to the lower ranked hotels.

In general, the survey concluded that the surveyed hotels have different views regarding the investigated issues. In addition, among the surveyed hotels there are young hotels that exist only five years on the tourist market, but also well-positioned hotels with over fifteen years of work experience.

Table 6. Collective results for questions about the quality control system in hotels (%)

Key	Hotels with 3* %		Hotels with 4* %		Hotels with 5* %	
	yes	no	yes	no	yes	no
There are supervisors to control all operations	33	77	65	35	88	12
It uses the technique of a "blind" guest to make self-assessment of employees and operations	49	51	43	57	66	34
It makes a plan to control all the activities of all operations	21	79	43	57	79	21
It makes reports from the control of all activities of all operations	13	87	58	42	85	15
It makes internal control at the input of raw materials and intermediate goods	56	44	66	34	93	7
It makes anonymous surveys of the guests regarding their satisfaction/dissatisfaction with the services	19	81	36	64	67	33
It accepts the objections and complaints from the guests	23	77	49	51	87	13

Table 6. shows the completed results for issues related to the hotel's quality control system. Namely, it can be noted that five-star hotels show significant care in terms of the quality of products and services.

Thus, they have supervisors for quality control along with the majority of surveyed four-star hotels, which is not the case with lower-rated three-star hotels. The same conclusion comes from the question of using the "blind" guest to make self-assessment of employees and operations, saying that it is surprising that almost half of the three-star hotels claim to use it.

However, what is worrying is the fact that three-star hotels do not prepare plans and reports of quality control of all activities in all operations. Considering that Macedonia is a candidate for membership in the European Union, it is necessary to pay great attention to the hotels to meet the international standards. Most of the hotels with three and four stars do not make a survey of the guests regarding their satisfaction / dissatisfaction with the services (81% of the three-star hotels and 64% of the four-star hotels), and that they do not accept the complaints and complaints by guests (77% of the three-star hotels and 51% of the four-star hotels).

Table 7. Indicators for assessment of the level of implementation system of quality control in hotels

Indicators for assessing the level of implementation of internal standardization	Hotels with 3* Average grade	Hotels with 4* Average grade	Hotels with 5* Average grade	Total Average grade
There are supervisors to control all operations	2,9	3,4	5,0	3,8
It uses the technique of a "blind" guest to make self-assessment of employees and operations	3,4	3,4	4,3	3,7
It makes a plan to control all the activities of all operations	3,8	3,9	4,2	3,9
It makes reports from the control of all activities of all operations	3,8	3,9	4,5	4,0
It makes internal control at the input of raw materials and intermediate goods	4,2	3,8	4,9	4,3
It makes anonymous questioning of the guests regarding their satisfaction / dissatisfaction with the services	3,4	3,4	4,9	3,9
It accepts the objections and complaints from the guests	4,3	4,3	4,8	4,5
Arithmetic mean of values	3,7	3,7	4,7	4,0

The conclusions are quite different when it comes to five-star hotels. Namely, based on the data in Table 6., it is noted that more than half of the surveyed managers of the five-star hotels claim to make anonymous questioning of the guests regarding their satisfaction/dissatisfaction with the services (67%), they accept complaints and complaints by guests (87%), and 88% of the managers claim they have supervisors to control all operations.

Table 7. presents the aggregate results obtained from the answers to the questions from the third part of the questionnaire referring to the indicators for assessment of the quality control system in the hotels.

The impact factor is presented visually with color according to the following legend:

1.00-1.80 (no, they do not plan at all)	1.81-2.60 (activities are planned)	2.61-3.40 (they are at initial phase)	3.41-4.20 (they are at advanced phase)	4.21-5.00 (they have implemented)

Overall, in Table 7., it is noted that the assessment indicators for the management of the quality control system have been assessed with a medium and high impact factor, that is, they are in an advanced phase or have implemented a quality control system.

Thus, managers of all types of hotel categories in Macedonia assess that they have supervisors for controlling all operations (3.8 average), use "blind" guests to make self-assessment of employees and operations (3.7 average value).

Hotels from all categories make a plan for the system of control of all activities of all operations (3.9 average value), as well as reports from the control of all these activities (4.0 average). Hotels of all categories make internal control at the input of raw materials and intermediate goods (4.3 average values) which level indicates that they are in an advanced phase.

Table 7. shows that there is a small number of indicators where the quality control system is at a low level, which refers to hotels with three and four stars. These indicators are related to the questions about the anonymous survey of the guests regarding their satisfaction / dissatisfaction with the services (3.4 average value), using the technique of a "blind" guest to make self-assessment of the employees and operations (3.4 average), as well as the presence of supervisors for controlling all operations (2.9 average for three-star hotels and 3.4 average for four-star hotels). These indicators show that hotels plan activities related to the improvement of business processes.

Namely, it can be noted that five-star hotels show significant care in relation to issues related to quality system control. Thus, they own a large number of supervisors for controlling all operations, use "blind" guest technique to make self-assessment of employees and operations, make a plan and reports for control of all activities of all operations, make anonymous surveys of guests in relation to their satisfaction / dissatisfaction with the services and accept objections and complaints which means that they are continuously working on the improvement of business processes. The surveyed hotels with four stars and lower ranked three-star hotels are at some advanced stage, although in realisty from our experience can be freely stated that they are in some initial phase.

What the hotel industry managers need to do is to set points for identifying and analyzing weak spots in the whole company, and to analyze the costs of complaints, errors, defects, or costs incurred because quality requirements are not met. Due to the lack of statistical approach in data processing, quality assessment and information transfer, there are many problems that Macedonian hoteliers are facing. The use of statistical process control (SPC) is present in a small number of hotels. Guidelines on the meaning and use of the SPC and the improvement of the quality of products / services must be made available in all fields: marketing, sales, production, finance, human resources, but it requires regular training for all employees. In doing so, the conclusions indicate that the higher the hotel is, the perception of different standards in terms of quality, environment, occupational safety, information management, energy and food safety is greater in terms of its implementation.

The technical and technological equipment of the Macedonian hotels is approximately to the satisfactory level and to some extent meets the current requirements of the customers. The problems mainly come from poorly organized business processes and the inability to meet the required quality standards. With Macedonian hotels, the same technology produces lower business results. The reasons are not only lacking in modern technology, but also in the weaker managerial skills of managers, qualifications and employee performance, the quality of business process management. There is an example of integrated control and self-control in the investigated hotels that existed on the Macedonian tourist market for more than 15 years. Their consistency on the market is the result of the integrated quality control applied, which is based on

the participation of all employees in the promotion of quality.

They achieved this by changing their awareness and attitude towards work, depending on their knowledge, learning, desire and motivation for such work. The application of the Integrated Quality Control model does not require investment in equipment, new technology, but only a different approach to work, performance of tasks, mutual communication, unity in achieving quality, as well as correctness and high responsibility for work and customers.

The hotels where a quality system has been introduced certified and developed to ISO 9001: 2015 have knowledge of quality values and are able to manage it. In these hotels there is a firm determination of the top quality management, there is a definition of the organizational structure, there is documentation for the quality system, there are trained people. Our tests have shown that companies that have only formally certified a product / service quality assurance system do not meet the requirements of ISO standards and have no benefits from the formal quality system.

5. Conclusions and recommendations

From the obtained data it was found that on average 61% of the surveyed hotels own supervisors for control of all operations and 69% prepare reports for control of all activities of all operations. However, 67,3% of them do not make internal control in the input of raw materials and intermediate goods, and 50,5% do not use the technique of a "blind" guest to make self-assessment of employees and operations.

70% of them do not make anonymous surveys of the guests regarding their satisfaction / dissatisfaction with the services and do not accept the objections and complaints by the guests (78%). The experience in the world shows that many hotels have significant difficulties in implementing the TQM (Total Quality Management) system. Its principles, although in theory are well built, in practice are implemented with great difficulty, so it is not a rare case for numerous hotels for a variety of reasons to give up its introduction, even though they accepted it.

Namely, in hotels the management very often only declares declaratively about the introduction of this system, and then shows unwillingness to develop broad support for its implementation. Many managers are simply not ready to make the decision to implement TQM, among other things, because they are not capable of upgrading the quality system. There is a large number of managers who do not have enough enthusiasm to transfer it to other employees when it comes to improve the quality system. There are also a number of managers who do not want to transfer some of their powers to a lower level. This should be added to the unwillingness of the employees to change the habits they have acquired over the years in the performance of their tasks. These are just some of the reasons for the unsuccessful attempts to establish a quality system. It is logical to conclude that if the management of an organization is not interested or unable to continuously improve quality, it is difficult to expect this from the employees. The management before making the final decision on the introduction of the TQM system should check for its own preparedness and possible problems that may arise in the process of establishing the quality system and its implementation. The conclusion is that the hotels in Macedonia have to measure the satisfaction of the user of the services constantly, which means using different methods and techniques that serve as the basis for continuous improvement of the quality of the hotel product and providing pleasure to the tourists. The top management must build an integral quality control system aimed at monitoring the whole production-service process, indicating deviations and mistakes that may affect product quality and take timely measures if there are reasons for that. The quality system in which the concept of statistical process control (SPC) has not been developed and applied will not provide sufficient security for its survival. On the other hand, the application of the SPC without a developed data entry system and SOP has no logic, and the application will only be used to record errors, and all this requires well-trained teams. The use of SPC is one of the requirements of ISO 9001: 2015.

Based on the results of the research, there are recommendations that for the managers of the hotels in Macedonia in order to implement and develop a system of total quality management successfully, it is necessary to make a clear and unambiguous decision, while defining its determination to develop the quality through practical action. If the answers to these assumptions are satisfactory, the organization can be assured that it is on a good path to success. In doing so, appropriate procedures must be used in the process of setting up a quality-oriented, market-driven system by the consumer, with an exceptional emphasis on the role of the employees. However, if the answers are not satisfactory, it would be useful to re-examine the views of the top management for the readiness to introduce a quality system. This imposes the need that the planning must include the tourist destination and the activities of other entities within the tourist destination participating in meeting the different needs of the tourists.

Hence, as a general conclusion, the need for the necessary application of the model of integral quality control as a segment of the integral model of total quality management is required, which does not require investments in equipment, new technology, but only a different approach to the work, in the performance of tasks, in mutual communication, togetherness in achieving quality, as well as correctness and high responsibility for work and customers. By undertaking such type of activities, the results can be measured, which directly reduces the operating costs of the hotels operations.

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