Improvement of business processes in the hotel industry in RN Macedonia

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Abstract This paper presents the findings of the research regarding the managers' approach to the quality of business processes in the hotel industry in R.N. Macedonia. The paper also provides some of the findings regarding the ability of managers toward achieving excellence, as well as directions through which they should follow that path. The research determined "the age" in the management of business processes, i.e., the development of hotel facilities according to the pillars of the House of Quality (from a young and undeveloped system to a mature and developed system).

The paper also provides solutions for the improvement of hotel quality systems through the application of the TQM (Total Quality Management) strategy, staff development, introduction of learning to improve the quality of services, as well as the improvement of processes.

Keywords: business processes, hotel service, TQM (Total Quality Management) system, reengineering

1. Introduction

The hotel sector in R.N. Macedonia is growing, and the Macedonian economy must give it greater importance, which will cause numerous benefits for the Macedonian economy, such as an increase in employment, economic and technological changes, and growth in international trade. Although in Macedonia, the European concept of quality is constantly being discussed, it is necessary to make an effort to be truly accepted and established in all areas of the hotel industry. Encouraging the development process of the hotel sector, increasing the standardization of systems and improving competitiveness and investments, encouraging the export of services, and creating a favorable economic environment for the development of hotels are key tasks that North Macedonia will have to implement in the future (Brannstrom-Stenberg & Deleryd, 1999).

The acceptance of the service sector and tourism, in particular, as effective instruments for inclusion in competition in the international market, is the basis for further economic growth of the country. For this purpose, this paper presents part of the research regarding managers' approach to the quality of business processes in the hotel industry in R.N. Macedonia. The paper also presents some of the findings regarding the ability of managers to achieve excellence, as well as the directions they should take into consideration in that way (Campanella, 1999; Ishikawa & Gakkai, 1995).

In this paper, the focus is on the analysis of the key suggestions related to the way in which hotel activities should be planned, organized, established and controlled, as well as the continuous improvement of quality in the industry. The data received by the research should help with the approach toward the management of quality in the Macedonian hotel industry and the abilities of the managers to build a good quality system. The research has determined the "age" or, i.e., the development of the hotel's capacities in accordance with all the pillars of the house of quality. It has also provided directions that will help advance the performance of business processes and define measures for enabling a sustainable business system and encouraging innovation.

2. Literature Review

The application of the new total quality management (TQM) strategy in the hotel industry means designing a well-documented quality system that covers all business processes of the hotel and is an essential basis for the successful application of statistical process control (SPC) and efficient teamwork, which otherwise cannot be set in the case of a poor-quality system (Dervitsiotis, 2000; Foster, 2001; Lascelles & Dale, 1989). In this way, the views of the top management involved in the quality policy are guaranteed to be implemented, and a climate and information base is created on which teamwork can be developed (Ishikawa & Gakkai, 1995).

Standardization in the management system has become a key task of managers and a priority for the survival of the hotel industry in the twenty-first century (Mitreva, et al., 2015). In addition to the hotel owner, who is mainly interested in profit and the fastest possible fertilization of his/her invested capital, the various interested parties—customers, employees, suppliers and the community—in an organized manner exert pressure and set demands for the hotel to adapt its management system to various standards to ensure that its expectations are met.

Designing management systems in the hotel industry is a task of strategic management. It is implemented through management activities that determine the elements and structure of the organization, delegate tasks and connect the elements as a whole. Within the framework of management activities, a certain balance is achieved between the desired goals and the real possibilities of the hotel. Within the division, the number of parts—organizational units—is defined, and their integration is realized (Latzko & Saunders, 1996; Mitreva, et al., 2015; McHenry & Husvik, 1997).

Within the framework of describing the business process in a hotel, the following questions must be answered:

• To what extent is the given process covered by documented information?

• Does it exist, and in what way does it interact with other processes?

• How will the created document be valorized?

Within the framework of describing the information flows, an answer is obtained to the following question: What information is required for implementing the process, and what information is produced by the process? (Mitreva & Chepujnoska, 2007; Mitreva, et al., 2018).

Within the framework of describing the executor, an answer is obtained to the following question: Who is responsible for the process described in the document?

In describing the authority, the following question is answered: who is responsible for the content of the document, what are the other standards and procedures, and which other parties are interested in the process and the document?

Within the framework of control, an answer is obtained to the following question: Under what conditions and limitations is the document applicable?

Difficulties in the application of the quality system in hotels arise as a result of the difference that exists between the structure of the organization and the structure of the processes that are realized in it. The structure and number of the documents (standard operating procedures and instructions) should correspond to the real needs of the organization and their current connections. In the case of differences, it is necessary to provide appropriate instructions for their use. The documents and information should answer the following questions: who should know, what to know, why to know, where it is happening, when it is happening, to whom the information should be handed over, etc. (Lascelles & Dale, 1989). An education program is the first step in achieving a goal (Parashar & Singh, 2005). The daily practice of employees in the hotel industry should not only be their self-control in their work but also be trained to act preventively. They should be responsible for correcting their mistakes and reporting any quality issues that they will discover (Stoiljković, et al., 1996).

The purpose of the research within this paper is to obtain a realistic picture of the business process management models in the hotel industry. To obtain useful guidelines for the development of a model proposal that will contribute to the improvement of organizational performance, measures that will lead to the realization of sustainable business systems, thereby encouraging innovation and contributing to strengthening the links between the hotel industry, research and innovation, are defined.

3. Description of the Hotel Industry in R.N. Macedonia

Through the research within this paper, a general idea of the business process management models in the hotel industry in the Republic of North Macedonia should be obtained. The problem investigated in this paper refers to the state and improvement of the business processes in the organizations of the hotel industry in the Republic of North Macedonia. The tourist offering is a complex category composed of numerous elements that directly or indirectly affect the quality of services. Moreover, the most characteristic direct receptive factors are the hotel industry, restaurants, trade, traffic, handicrafts, travel agencies as intermediary factors, etc.,, whereas the indirect stakeholders of the tourist offering are public facilities, water and electricity supply companies, parks, etc. Macedonia has a relatively well-developed hotel accommodation offer. As of February 1, 2023, a total of 174 hotels in all categories were registered, as shown in Table 1.

Table 1 shows that as of January 2023, the most numerous are four-star hotels (30%), and the least numerous are superior two-star hotels (1%). Since 2013, new hotel categorization regulations have been enacted, according to which a certain number of hotels have received an additional star as a result of improved standards and thus acquired the mark of superior hotels in their rank. The received categorization decisions are valid for three years. As a result of the increase in the volume of hotel accommodation facilities, the number of hotel rooms and beds is increasing. The existing tourist accommodations offered by R.N. Macedonia are diverse and include all types of basic and additional facilities that provide accommodation and overnight services.

Therefore, the purpose of this paper is to analyze the existing situation in the hotel industry, to analyze the possibilities for the improvement of business processes in the hotel industry, and finally, to propose a model for improving these processes. The specific goal of this research is to create a proposed model for the improvement of business processes in the hotel industry, as well as proposing measures to improve it by determining the maturity in the management of business processes in the hotel sector in R. N. Macedonia.

Table 1 Structure of categorized hotels in R.N. Macedonia as of February 1, 2023.

Type of hotel	Number	%
Superior 5* hotel	16	9%
5* hotel	3	2%
Superior 4* hotel	10	6%
4* hotel	52	30%
3* superior hotel	9	5%
3* hotel	46	26%
Superior 2* hotel	2	1%
2* hotel	31	18%
1* hotel	4	2%
It has not been categorized	1	1%
Total:	174	100%

Source: Ministry of Economy, Department of Tourism and Hospitality, overview of categorized hotels.

4. Materials and Methods

With respect to managers' approach to the quality of business processes in the hotel industry, qualitative and quantitative methods were used in this research. The qualitative approach includes a literature review of many publications that generally address the issue of improving business processes in hotel services and their application in practice (Mitreva, et al., 2019; Mitreva, et al., 2018).

The quantitative approach consisted of a survey aimed at managers of three-, four- and five-star hotels. This research used a convenience sample that was reached through a combined approach of online questionnaires via Google Forms, in person, and via e-mail. The sample was made according to the list received from the Department of Tourism and Hospitality within the Ministry of Economy (Table 2). Moreover, more than half of the hotels identified for the survey had four stars (50.00%), fewer than one-third had three stars (31.25%), and only 18.75% were five-star hotels.

Table 2 Research sample.

Type of hotel	Number	%
5* hotel	12	18.75
4* hotel	32	50.00
3* hotel	20	31.25
In total	64	100

Source: Government of the Republic of Macedonia, Ministry of Economy, Department of Tourism and Hospitality.
Note: Data as of December 2022.

Although the research was conducted on a convenience sample of 64 respondents, 32 respondents (N=32) with senior positions and decision-making power in 32 hotels in the territory of the Republic of North Macedonia participated, as shown in Table 3. The low response rate obtained (N=32) is satisfactory, considering the conditions of the COVID-19 pandemic, and in scientific research of this type, it ranges between the limits of 16% and 25%, which is also considered relevant in our case (Brannstrom-Stenberg & Deleryd, 1999; Medina-Muñoz & García-Falcón, 2000; Latzko & Saunders, 1996).

Table 3 Distribution of answers by type of hotel in percentages.

Type of hotel	Number	%
5* hotel	6	18.8%
4* hotel	11	34.4%
3* hotel	15	46.9%
Total:	32	100%

The survey questionnaire was structured in three parts:

In the first part, answers were sought about the demographic characteristics of the respondents (11 questions).

In the second part, the questions referred to the management systems implemented by the hotel, as well as questions related to describing the business environment in the hotel where the respondents work—for each of the listed factors of managing the management systems (9 questions).

In the third part, issues related to the organizational structure and management of business processes are discussed. Both parts of the questionnaire analyzed 13 aspects related to strategy, leadership, process management, employee management, information technology, communication, a focus on buyers, relations with external suppliers, employee skills,

the reward system, continuous improvement, methods and techniques, defect-free operations, and performance measures. The results are processed via statistical methods.

The following statistical indicators for determining maturity in business process management and hotel competitiveness factors were used: information technology, process management (including methods and techniques for flawless operation), employee management, strategic approach, organizational or business culture) and competitiveness (market share) of the hotel.

The collected data were analyzed via the statistical software tool IBM SPSS Statistical Package for the Social Sciences - 22, and descriptive statistics and Spearman's correlation coefficient, as well as the $\chi2$ test and the cross-tabulation method, were used. During the statistical processing, descriptive statistics were applied, i.e., frequencies, percentages, ranks, arithmetic means and standard deviations. A five-point Likert scale (from 1–5) is used with impact factors of very low (1–1.80), low (1.81–2.60), medium (2.61–3.40), high (3.41–4.20) and very high (4.21–5.00).

In the next section, we present the results from the research related to the capacity of the management, the pillars of the house of quality and the measurement, the assessment, the analysis and the comparison of quality/nonquality in the hotel's services. Table 4 shows the general demographic data for the respondents and basic data for the organizations in which they work.

Table 4 Demographic data for respondents (managers/owners) and general data for organizations (hotels).

	Category	Frequency (n)	Percentage
Gender	Men	21	66.6
	Women	11	34.4
Work experience in the hotel	1-5 years	17	53.1
	over 5 years	15	46.9
	36-40 years	12	37.5
Age	41-45 years old	8	25
	46-50 years	5	15.5
	over 55 years	7	22
Form of hotel ownership	Independent/individual hotel	30	93.8
	Hotel as part of a chain	2	6.2
Function of surveyed person	Manager	23	71.9
	Owner	9	28.1
Hotel category	5 -star hotel	6	18.8
	4 -star hotel	11	34.4
	3 -star hotel	15	46.9
Number of employees	Up to 25	8	25
	26-50	16	50
	Over 51	8	25

5. Results and Discussion

The aim of the questions in the second and third parts of the questionnaire was to define the current degree of application of the management systems implemented by the hotel. Owing to the extensiveness of the research, this paper presents the results regarding the application of management systems implemented by hotels. The questions from the second and third parts of the questionnaire aimed to determine the existing degree of application of different management systems. As statistical indicators for determining maturity in the management of business processes and competitiveness factors of hotels, the following are used: information technology, process management (including methods and techniques for flawless operation), employee management, strategic approach, organizational or business culture) and competitiveness (market share) of the hotel. Afterwards, in Table 5, a more detailed explanation is given for the meaning of each of the individual phases in terms of describing quality, which refer to the items of the "Quality Management" section.

With respect to the perceptions of organizations in quality management, the respondents had to answer 5 questions that referred to different aspects of management/perception of quality as an essential part of the organization's management. All the questions had a response interval from Phase 1 to Phase 5, where a higher stage means a higher level of priority of quality.

Table 5 presents the total results derived from the answers in the questionnaire in relation to the indicators for assessment of the level of implementation of internal standardization in the hotels, as the first pillar of the house of quality. In general, it was concluded from the research that the analyzed hotels have different views about the researched problems.

Table 5 Explanation of the meaning of each individual phase in describing quality in business process management for the items within the "Quality Management" section.

	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
How do you understand the quality management?	Misunderstanding of quality as a management philosophy of operation	The value of quality management is recognized, but the necessary resources and time are not provided	Throughout the process of implementing the quality management program, more and more is being learned about the usefulness of this program	The utility of quality management is understood. Personal roles in the quality improvement process are understood	Quality management is considered key tool for company's success
What is the quality status of the organization?	Quality-related activities are limited to the production and design departments	A leader in the field of quality is established, but the activities related to quality are still only in production	The quality service reports to the management and the quality manager who has an important role in the management of the company	The quality manager is involved in preventive management activities as well as in activities with consumers and their specific requirements	The quality manager is a member of the management board and prevention is his/her main task
How to approach to solving problems	Problems are solved as they arise, without a preprepared plan	Teams are formed to solve the biggest problems. No long-term solutions have been established	Communication and corrective actions are established. Problems are solved in a standardized way.	Problems are identified at an early stage. All sectors offer suggestions and work improvement.	Except in special cases, the occurrence of problems is prevented
What is the cost-of-quality ratio as a % of sales?	Registered: unknown Real: 20%	Registered: 5% Real: 18%	Registered: 8% Real: 12%	Registered: 6.5% Real: 8%	Registered: 2.5% Real: 2.5%
What activities are implemented to improve quality	There are no organized activities	There are short-term activities due to lack of motivation	Implementation of a quality management system with an understanding of the established steps	Certification of the implemented quality management system and implementation of other preventive programs	Quality improvement is a regular and continuous activity and operating philosophy
Summary of the organization's attitude to quality	"We do not know why we have quality problems"	"Do we always have to have quality problems"	"With the help of the commitment of the management and the actions taken for improvement, we identify and solve our problems"	"Defect prevention is a routine part of our operations"	"We know why we do not have quality problems"

For the question "How do you understand the quality management?", more than half or 62.5% of the respondents in the sample answered that the hotel where they work is in Phase 3 or the process of implementing the quality management program where they learn about the usefulness of this program. A total of 15.6% of the respondents answered that the hotel they work in is in advanced Phase 5, where quality management is considered a key tool for company success.

With respect to the quality of the organization where the respondents work, one-third of the respondents considered the status of quality in the organization in which the respondents work, and one-third of the respondents (34.4%) stated that their organization was in Phase 4, i.e., the quality manager was involved in preventive management activities and in activities related to consumers and their specific requirements. A little less, i.e., 31.3%, answered that the organizations where they work are in Phase 3—the quality department reports to the management and the quality manager and has an important role in the management of the company.

Furthermore, in terms of solving problems related to quality, 15.6% of the surveyed organizations are positioned in Phases 4 and 5, i.e., they declare that the problems are identified at an early stage and that all sectors propose suggestions for work improvement, i.e., except in special cases, problems are prevented. At most, 37.5% of the organizations are in Phase 3, i.e., communication and corrective actions have been established in the organizations, and problems are solved in a standardized way.

Exactly half of the hotels in the sample (50%) answered that, in terms of quality costs as a percentage of sales, 8% are reported in Phase 3, whereas the actual cost is 12%. Furthermore, 31.3% of organizations are in Phase 2, with 5% reported, and the actual cost is 18%.

In terms of quality improvement activities, almost two-thirds of the respondents (59.4% of those surveyed) declared that their organizations are in Phase 3, which means that they are in the process of implementing a quality management system with an understanding of the established steps; 15.6% are in Phase 4, i.e., are certifying the implemented quality management system; and 9.4% answered that their organization is in advanced Phase 5, i.e., quality improvement is a regular and continuous activity in the operations of their hotel. Figure 1 shows the results of the research regarding the stages in the management of business processes.
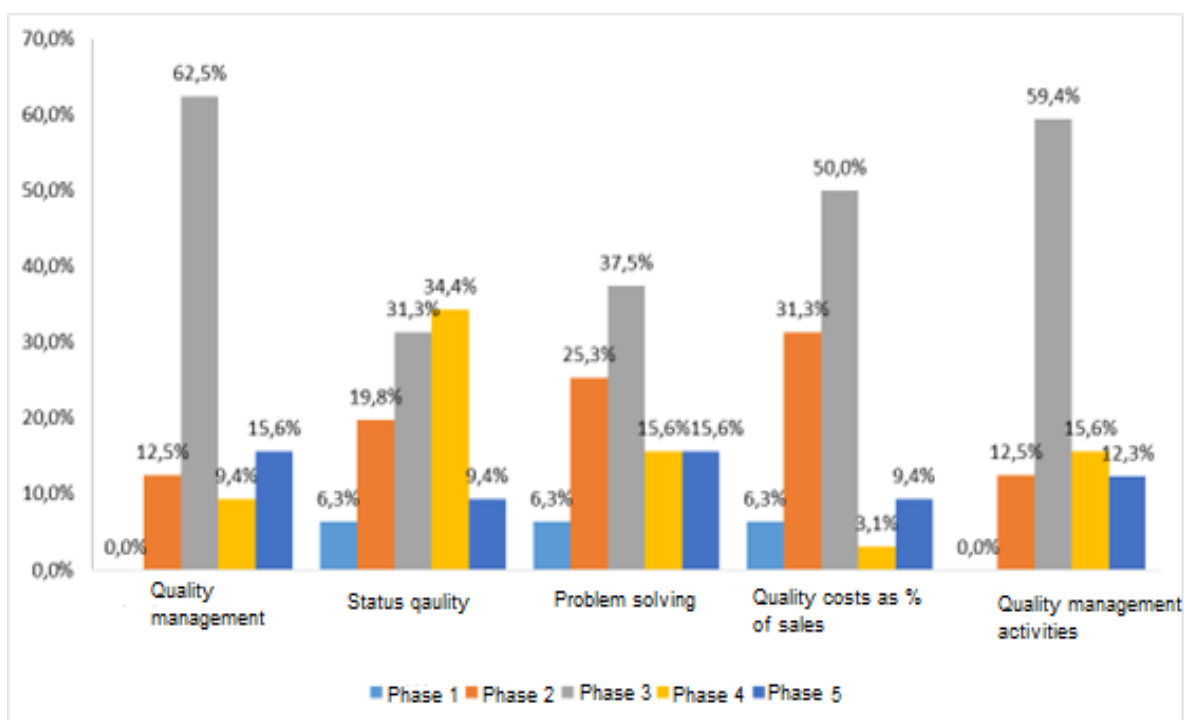

Figure 1 Proportion of hotels in different stages of quality management.

Sublimely, from Figure 1, it can be concluded that the majority of hotels, in terms of how they understand quality management (62.5%), declared that the hotel where they work is in the process of implementing a quality management program and learning about the usefulness of this program. Regarding the status of quality in the organization in which the respondents work, the majority (34.4%) agree that the quality manager is involved in preventive management activities and in activities related to consumers and their specific requirements. As seen from the above, the number of hotels in which the quality departments report to management is very small, and they consider that the role of the quality manager does not play an important role in management. Additionally, in a small number of hotels, problems are identified at an early stage, and suggestions for work improvement are proposed from all sectors. In general, it can be concluded that the hotels are in the third phase (37.5) with respect to establishing appropriate communication and corrective actions through which problems are solved in a standardized way. The hotels are in the third stage in terms of quality costs as a percentage of sales (50%). Figure 2 shows the data that summarize the organization's attitudes toward quality.
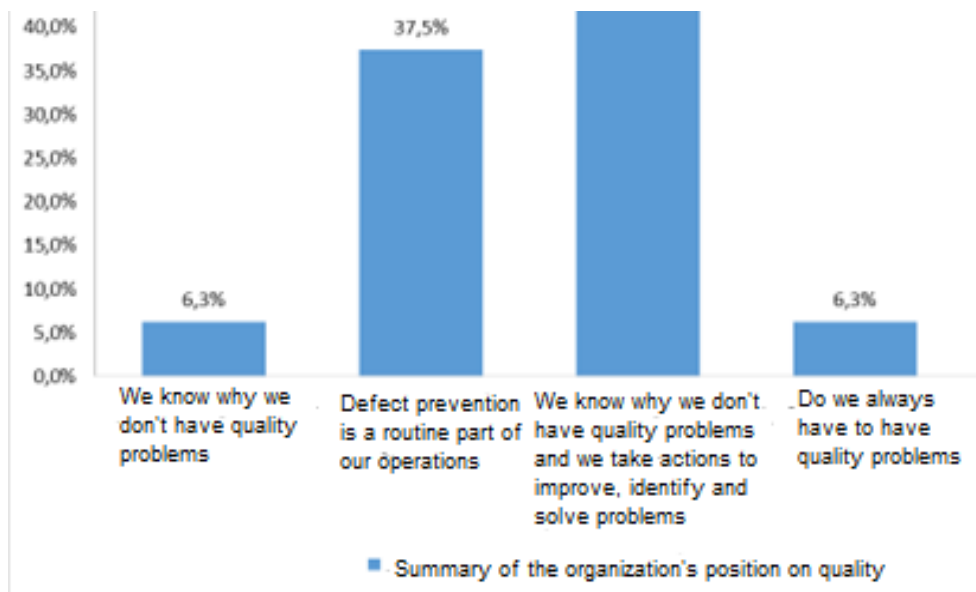
Figure 2 Summary of the organization's management's attitudes toward quality.

In the lowest Phase 1, which refers to "We do not know why we have quality problems", and Phase 2, "Do we always have to have quality problems", 6.3% of the surveyed organizations are positioned. The largest part, i.e., 43.8%, is in Phase 3, which refers to "With the help of the commitment of the management and the actions taken for improvement, we identify and solve the problems".

A total of 37.5% of the respondents declared that the hotels they work in are in Phase 4: "Defect prevention is a routine part of our operations." Like those in Phase 1 and Phase 2, 6.3% of the organizations were in the highest level in Phase 5, i.e., "We know why we do not have quality problems".

Research around the world has shown that many hotels face significant difficulties in the implementation of the total quality management (TQM) system (Mitreva et al., 2019; Dervitsiotis, 2000).

Although it is theoretically well organized, in practice, difficulties arise, and hotels often cancel its implementation regardless of their initial acceptance of the system. The management of hotels often only declares that the introduction of this system is positive, and it later shows unpreparedness to develop support for its realization. Many managers are not enthusiastic enough to transfer positive feelings to other employees to develop a high-quality system. Additionally, many managers do not want to give some of their authority to lower levels. We should also mention the unpreparedness of the employees to change their habits acquired throughout the years while doing the given tasks (Foster, 2001; Lascelles & Dale, 1989). These are some of the reasons for the unsuccessful establishment of a quality system. It is logical to conclude that if the management of an organization shows disinterest or inability to continuously develop quality, it is pointless to expect it from employees. It is expected that before making the final decision, management should check its own readiness and the eventual problems that might arise in the process of establishing and implementing the quality system (Mitreva et al., 2018).

This research was enriched with another analysis of statistical indicators for determining maturity in the management of business processes and competitiveness factors of hotels. As independent variables related to the maturity of business processes in relation to the dependent variable competitiveness, the following variables were examined: information technology, performance measures, process management, methods and techniques, employee management, strategy, work culture and competitiveness.

Table 6 presents the descriptive statistics related to the independent variables, which are related to the maturity of business processes and the dependent variable competitiveness.

In addition, a comment is given on the independent variables that are related to the maturity of business processes and the dependent variable competitiveness, and they are elaborated precisely, as well as to serve the purposes of the business community.

Specifically, for the variable of using information technology as a factor of maturity of business processes, the interval of the obtained results ranges from 2--5. The arithmetic mean is 3.66, which is above the middle of the scale, whereas the standard deviation from the arithmetic mean is 0.87. The negative value for symmetry or skewness of -.518 indicates that the majority of results are located to the right of the arithmetic mean among the higher scores (silos – 1, tactical integration – 2, process orientation – 3, optimized organization – 4, intelligent network – 5). The small negative value for flatness, i.e., kurtosis, indicates a partially flattened distribution but does not exceed the critical value of +/-1. According to the answers of the respondents above, it can be concluded that, in most organizations, the answers are positive and with higher scores, and they

consider that information technology represents a significant factor in the maturity of business processes and indicates a process and optimized organization.

Furthermore, for the variable performance measures as a factor of maturity of business processes, the interval of answers obtained ranges from 2--5. The arithmetic mean is 3.09, which is slightly above the middle of the scale, whereas the standard deviation is 1.03, which indicates more dispersed results. The skewness value is positive and equals 0.18, which means that most results are to the left of the arithmetic mean in the lower scores (silos – 1, tactical integration – 2, process orientation – 3, optimized organization – 4, intelligent network – 5). The measure of flatness, kurtosis, is -1.48, which exceeds the critical value of +/-1 and indicates a flat distribution of the data and a significant deviation from the normal distribution. According to the answers of the respondents above, the majority of the respondents believe that the performance measure represents a less significant factor of maturity of the business processes and indicates a process orientation of the organization itself.

Table 6 Descriptive statistics for the independent variables related to business process maturity and the dependent variable competitiveness.

	N	Min	Max	M	SD	Skewness	Kurtosis
Information technology	32	2	5	3.66	.865	-.518	-.196
Performance measures	32	2	5	3.09	1,027	.183	-1,447
Process management	32	2	5	3.22	1,099	.313	-1.234
Methods and techniques for flawless operation	32	1	5	3.03	1,636	-.100	-1,739
Management of employees	32	3	5	3.72	.683	.423	-.736
Strategy	32	3	5	3.72	.581	.096	-.415
Business culture	32	2	5	3.50	.984	-.108	-.931
Competitiveness	32	2	5	3.22	.86	.050	-1,375

Legend: N – number of respondents; M – arithmetic mean; SD – standard deviation; Min – minimum achieved result; Max – maximum achieved result.

The variable process management as a factor of maturity of business processes, similar to the previous 2, has an interval of answers between 2 and 5. The arithmetic mean is 3.22 and is slightly greater than the middle of the scale, while the standard deviation is 1.01. The value for Skewness is positive and equals 0.31, which indicates that respondents answered more often with lower values (silos - 1, tactical integration - 2, process orientation - 3, optimized organization - 4, intelligent network - 5). Moreover, the kurtosis measure is again above the critical value and is equal to -1.23, i.e., the data distribution is flat and deviates significantly from the normal distribution. From the above, it can be concluded that lower values are observed here, which indicates that process management, according to the respondents, represents a less significant factor of maturity of business processes and indicates answers with lower values such as silos, tactical integration and process orientation.

For the variable "using methods and techniques for flawless operation as a factor of maturity of business processes," the interval covers the entire scale, i.e., the answers range between 1 and 5. The arithmetic mean is almost identical to the middle of the scale and is 3.03, whereas the standard deviation is 1,636, implying variability in the data and dispersion from the arithmetic mean. The value for skewness is negative and is -.10, which is below the critical value of +/-1. That is, the respondents answered more often with higher values (silos - 1, tactical integration - 2, process orientation - 3, optimized organization - 4, intelligent network - 5). The measure of flatness, kurtosis, is -1.74 and significantly exceeds the critical value of +/-1. The kurtosis measure is above the critical value, and the data distribution for this variable significantly deviates from the normal distribution. According to the abovementioned findings, the methods and techniques for flawless operation, as a factor of the maturity of business processes, obtained negative scores, which indicates that they do not represent a significant factor of the maturity of business processes.

For the variable employee management as a factor of maturity of business processes, the interval covers values between 3 and 5. The arithmetic mean is above the mean value of the scale and is 3.72, whereas the standard deviation is 0.68, which indicates that there are no large variations or deviations in the data from the arithmetic mean. The value for Skewness is positive and is .42, which is within the critical value of +/-1 and indicates that many of the data are clustered below the arithmetic mean (silos - 1, tactical integration - 2, process orientation - 3, optimized organization - 4, intelligent network - 5). The measure of flatness, Kurtosis, is .423, which does not exceed the critical value of +/-1; i.e., the distribution for this variable does not deviate significantly from the normal distribution. According to the respondents mentioned above, it can be concluded that in most organizations, the answers are positive and have higher rates, and they consider that employee management is a significant factor in the maturity of business processes in an optimized and process organization and an organization with an established intelligent network.

With respect to the variable strategy as a factor of maturity of business processes, the interval of answers includes values between 3 and 5. The arithmetic mean is above the mean value of the scale and is 3.72, whereas the standard deviation from the arithmetic mean is 0.58. The value for symmetry, i.e., Skewness, is 0.096, which is within the critical value +/-1 and implies that the accumulated data are lower than the arithmetic mean (silos - 1, tactical integration - 2, process orientation -

3, optimized organization - 4, intelligent network - 5). The measure of flatness, kurtosis, is -0.42. It does not exceed the critical value of +/-1, after which it is concluded that the distribution of this variable does not deviate significantly from the normal distribution. Thus, it can be concluded that with the variable "strategy", lower values are again observed, which, in turn, indicates that strategy is a less significant factor of the maturity of business processes and points to answers with lower values.

Furthermore, the variable business culture, as a factor of maturity of business processes, has an interval of answers between 2 and 5. The arithmetic mean is slightly greater than the mean value of the scale and is 3.5, whereas the standard deviation from the arithmetic mean is 0.98. The value for symmetry, i.e., Skewness, is -0.11, which is within the critical value of +/-1, indicating that most of the respondents' answers are clustered at the right end of the distribution and higher than the arithmetic mean (silos - 1, tactical integration - 2, process orientation - 3, optimized organization - 4, intelligent etwork - 5). The value for flatness, i.e., kurtosis, is high and is 0.93 but does not exceed the critical value of +/-1. A high kurtosis value implies that most responses are clustered around the arithmetic mean. As the skewness and kurtosis values do not exceed the critical values, the distribution of responses does not deviate significantly from the normal distribution. According to the respondents mentioned above, it can be concluded that in most organizations, the answers are positive and with higher scores, and they consider business culture as a factor of the maturity of business processes to be highly important.

The dependent variable, competitiveness, has an interval of answers between 2 and 5. The arithmetic mean is 3.22, which is slightly greater than the middle of the scale, whereas the standard deviation from the arithmetic mean is 0.86. The measure of symmetry, skewness, has a low value of 0.50, which means that the responses tend to cluster at lower values, below the arithmetic mean. On the other hand, the measure of flatness, kurtosis, exceeds the critical value of +/-1 and is -1.38, which means that the distribution is leptokurtic, i.e., it is flat. Thus, the obtained distribution of the dependent variable, competitiveness, deviates significantly from the normal distribution. In relation to this question, the largest number of respondents gave lower values, which resulted in lower scores in relation to this variable.

The mean value of the influence factor shows that the hotels are in the initial phase with the activities for the implementation and certification of the quality system. Generally, the managers of the Macedonian hotels have stated that they have certificates for the system of quality, but with a mean value of 3,22, which shows that they are still in the initial phase.

The application and certification of different standards/systems, such as quality, the environment, employees' health and safety, the social responsibility of the corporation, the safety of alimentary products, information conduct, energy, etc.,., require a new and proactive manager style and systematic orientation, as well as reengineering of business processes.

The maturity model with management of business processes allows the identification of the level of maturity in the functioning of the organization, i.e., the degree of representation of the process approach. The level of maturity is determined by elements and factors that are critical for successful implementation in business process management. A higher level of implementation of these critical factors and their continuous improvement indicate a higher level of maturity in the functioning of the organization itself. This research aims to determine the level with which hotels are familiar and use the critical factors that are included in the sample of this research. Higher maturity factors with business process management include strategy, employee management, information technology and business culture. Table 7 provides an overview of the descriptive statistics for the independent variable related to the maturity of business processes and the dependent variable competitiveness.

Table 7 Impact factors related to business process maturity and competitiveness.

	Very low	Low	Medium	High	Very high
Information technology				3.66	
Performance measures			3.09		
Process management			3.22		
Methods and techniques for flawless operation			3.03		
Management of employees				3.72	
Strategy				3.72	
Business culture				3.50	
Competitiveness			3.22		

Note: The influence factor is shown according to the following legend: 1 – 1.80 (Very low), 1.81 – 2.60 (Low), 2.61 – 3.40 (Medium), 3.41 – 4.20 (High), 4.21 – 5.00(Very high).

After reviewing the descriptive statistics shown in Tables 6 and 7, it is determined that all maturity factors in terms of business process management have an arithmetic mean in the interval between 3 and 4, which is higher than the middle of the scale. The factors of maturity with respect to the management of business processes that are mostly employed in organizations are strategy, employee management, information technology and business culture. Managers in the whole industry need to create stations throughout the company to identify and analyze the weak places and to analyze the costs for reclamations, errors, defects or, e.g., all the costs derived from the lack of quality (Mitreva et al., 2019; Mitreva et al., 2015).

On the other hand, most attention is given to performance measures, process management and methods and techniques for flawless operation. However, if one looks at the standard deviation values of these three factors, they are the three highest values in Table 6 for this statistic (between 1.03 and 1.64). The top management needs to build a system for integral control of quality directed to follow the whole production and accommodation process by emphasizing the exceptions and the errors that might influence the quality of the product and, herein, enabling timely measures to be taken if there are reasons for it. A system of quality with an underdeveloped and unapplied concept of statistical process control (SPC) will not guarantee its own survival. On the other hand, the application of SPC without a developed system for saving data and standard operative procedures (SOPs) is illogical, and its application involves recording errors for trained teams. The use of the SPC is one of the requests of ISO 9001:2015. The lack of a statistical approach in the processing of the data, the assessment of quality and the transfer of information cause many problems in Macedonian hotels. The application of statistical process control (SPC) is present in a small number of hotels. The instructions about the importance and usage of SPC and the improvement of service quality need to be available in all fields, such as marketing, sales, production, finance, and human resources, but these fields require regular training for all employees (Mitreva et al., 2018; Stoiljković et al., 1996; Dervitsiotis, 2000).

According to the answers to these three factors (performance measures, process management and methods and techniques for defect-free operation), there is a greater dispersion of answers, which would mean that the organizations that have been examined approach them completely differently from the listed factors (Lascelles & Dale, 1989).

The results of the survey revealed that solutions should be sought to improve the quality of the system through the application of the total quality management (TQM) strategy, staff development, the introduction of learning to improve the quality of services, and the advancement of processes. Adopting a new quality approach should help companies improve the quality of services and business processes as well as their business outcomes.

The recommendations derived from the results of our research are as follows: To successfully implement and develop a quality TQM system, it is necessary for Macedonian managers to make clear decisions and develop quality through practical action. If the answers to these suppositions are satisfactory, then the organization can be confident in its way to success. Additionally, they have to use appropriate procedures while establishing a quality system, which is oriented toward the market and is led by the consumer, with a great emphasis on the role of the employees. Our examination has shown that the hotels that have only formally certified a system for obtaining quality products/services do not fulfill the requests of the ISO standards and do not gain from that formally certified quality system. The main conclusion from our research is that Macedonian hotels need to measure the satisfaction of the users of the services constantly, which means using different methods and techniques for the continuous development of the quality of the hotel's product and succeeding in satisfying the tourists (Latzko & Saunders, 1996; Mitreva, et al., 2015; McHenry & Husvik, 1997).

6. Conclusion

In the direction of excellence in the management of organizations, it is necessary to increase the understanding of the quality of products/services and business processes at all levels. More precisely, this would mean that through the process of implementing the quality management program, through which the usefulness of it is learned, it is necessary to understand that quality management is a key element for the success of the hotel itself; hence, certain improvements are needed, with which it would be possible from Phase 3 to direct quality management to Phase 5, which would mean giving and achieving a higher level of quality priority than the current one.

According to the status of the quality in the organization (which is in Phase 4), according to the respondents and according to which the quality manager is involved in preventive management activities and in the activities related to consumers and their specific requirements, the improvement of the operation of the quality department is necessary in terms of reporting to the management and the quality manager who have an important role in the management of the company, which would make real attempts to reach Phase 5.

The largest number of organizations are in Phase 3 in terms of issues related to solving quality-related problems where communication and corrective actions are established and problems are solved in a standardized way; however, to reach the fifth stage, it is necessary to improve these business processes through strengthening communication and corrective measures and improving ways to solve problems. It is also necessary to improve both the reported and actual quality costs in the organizations through the appropriate implementation of a quality management system and its certification, following the example of 9.4% of the organizations that are in Phase 5, i.e., for whom quality improvement is a regular and continuous activity in their business operations.

To achieve a higher level of maturity in business processes, there is a need for a clear vision that will enable the determination of where the organization is at the moment and where it wants to arrive. After the organization determines the path it will follow and the goal it is aiming for, where it should arrive by following that path, it moves into the process innovation stage, which leads to transformations from the old to the new structuring. In this way, the circle of quality keeps turning.

On the basis of the results of this research, it is recommended that hotel managers in Macedonia focus on improving the quality system through the application of the total quality management (TQM) strategy, staff development, the introduction of learning to improve quality, and improving processes much earlier before new technology is bought. All this

imposes a more systemic effort based on strong leadership (a new style of top management based on market vision, policy and strategy, system orientation and business ethics that will restore trust between management and employees) and the participation of all employees (readiness for cooperation and teamwork, which does not suffocate creativity and individualism). The Macedonian economy must invest in the development of the hotel sector and base its development concepts on this sector, with a special emphasis on the development of tourism, which can lead to increased foreign exchange inflows, employment growth and improvement in the quality of life. The conclusions show that the higher the rating of a hotel is, the greater the perception of the different standards in relation to quality, the environment, safety at work, conduct of information, energy and food safety. The technical and technological equipment of the Macedonian hotels is almost satisfactory and more or less satisfies the current requests of the buyers/users. The problems are mostly derived from badly organized business processes and the inability to satisfy the needed standards of quality. In Macedonian hotels, the same technology is used to achieve lower business results. The reason is not only the lack of modern technology but also the weaker manager abilities, qualifications and satisfaction of employees, and quality of conduct of business processes (Parashar & Singh, 2005). Examples of integral control and self-control appear in the surveyed hotels that have been on the tourist market for the past 15 years. Their consistency in the market is a result of integral control of quality, which is based on the participation of all employees in the development of quality. This has been achieved by changing one's behavior and sense of job, depending on one's knowledge, education, desire and motivation. The application of the model of an integral control of quality does not require equipment investments or new technology but rather a different approach toward the job (Campanella, 1999; Ishikawa & Gakkai, 1995).

The Macedonian hotels have to strive for a minimization of the costs, which means that they need to use only the necessary sources for the given production level. This will mean higher profit for the hotels because there will be greater difference in the production price and the selling price at minimal cost. The general conclusion is the need to apply the integral model of total management for quality, which does not require investments in equipment or new technology but rather a different approach toward the work, the completion of tasks, mutual communication, unity in the realization of quality as well as correctness and greater responsibility toward the job and the consumers. The new approach toward quality seeks new activities in the educational field of employees, which means drastic changes in employees' behavior, radical changes in the organization, and clear definitions of the rights, obligations and responsibilities of every individual at the hotel (Latzko & Saunders, 1996; Mitreva, et al., 2015).

Ethical considerations

He correctly followed ethical policies toward questionnaire respondents. Additionally, we confirmed the consent of all the respondents involved.

Conflict of Interest

The study correctly followed ethical policies for the questionnaire respondents. Additionally, we confirmed the consent of all the respondents involved.

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