

# The advantages of implementing quality management systems and efforts enclosed

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**Abstract:** Organizations often deem that "quality" implies outstanding product or service. But, high quality product or service cannot exist unless there is a set of coordinated activities that will produce quality. Therefore, the implementation of quality management system is extremely important and represents the first and basic step to securing complete quality. Once an organization decides to implement a quality management system, it must be documented, implemented, maintained and continuously improved in accordance with requirements of the international standard, under which a quality management system was implemented. The implementation of a quality management system allows for systematic and traceable work process, provided that it will not act in isolation but as integrated part into the overall business practice, which finally results in improving overall business process. The greatest benefit of quality management systems is the trust of customers and users of the organization's products or services. The implementation of quality management system into the organization should be a decision of the top management. The first emerges overall management, meaning that the Leadership is an inherent requirement for an implementation of a successful quality management system. Also of particular importance are human resources, which are the most dynamic resources in an organization. For these reasons, human resources deserve proper attention by the top management, which includes assessment of the overall personnel potential, in order to perform their proper allocation in the organization, canalization of working energy at the right place and in the correct way, which finally results with quality performance of assigned jobs and tasks.

**Keywords:** quality, quality management system, efficiency, effectiveness, human resource

## 1. Introduction

### 1.1 Short overview of quality management systems (QMS)

The quality must be managed. Quality management provides upgrading, maintenance, verification and continuous quality improvement. The several

examinations of some authors reveal ten fundamental concepts or requirements for developing, implementing and maintaining a quality management system, namely: performance objectives, leadership, motivation, change management, employee involvement, long-term top management commitment, training, quality improvement projects, measuring QMS progress and reward accomplishment [1]. Once an organization decides to implement a quality management system, the following prerequisites should be satisfied: it must be documented, implemented, maintained and continually improved with regard to its effectiveness and efficiency and in accordance with the requirements of international standard, according to which the quality management system is implemented [2]. Depending on the activity, the organization implements appropriate international standard. Key requirements of almost all international standards are grouped into five points, with multiple sub bullets, i.e. quality management system, management responsibility, resource management (human, technical), delivering of the product or service, measurement, analysis and improvement [3]. The design of the quality management system can vary depending on the type and size of the organization and on the products or services it offers. The quality management system is needed in organizations, regardless of whether they are small or large, whether they are focused on production or services, whether they belong to the private or public sector. Quality management system can be applied on a wide scale, starting from organizations consisting of a single department all the way to large international corporations. The implementation of a quality management system in the organization should be a decision of the top management. The objectives of the quality management system must be clearly defined so that the system is efficient and effective, and it contributes to strengthening of the confidence of existing customers, gaining confidence with potential customers, or to summarize, it will lead to achievement of general customer satisfaction, achieving and maintaining a stable level of quality of products or services [4].

### *1.2 Advantages and efforts enclosed with quality management systems*

The purpose of implementation of the quality management system is to reorganize the working of the organizations which in turn guarantees for better customers/consumers satisfaction with product or service offered, and finally the implementation of quality management system brings the organizations and their services and products closer to the current and potential costumers/consumers. The implementation of quality management system in the organization should be decision brought by the top management. The objectives of the quality management system must be clearly defined so that the system is efficient and effective, and it contributes to strengthening of the confidence of existing clients, gaining confidence with potential clients, or to summarize, it will lead to achievement of general clients satisfaction, achieving and maintaining a stable level of quality of products or services [5], [6]. Leadership is an inherent requirement for an implementation of a successful quality management system. Leadership involves setting a direction, aligning people and motivating those people. Setting a direction is developing a vision of the future along with strategies for producing the changes needed to achieve that vision. When that new direction is communicated effectively, people get aligned to the set vision and get committed to its achievement. By keeping people moving in the right direction, despite major obstacles to change, by appealing to basic but often untapped human needs, values and emotions, will get people motivation [7]. Involvement of employees in any kind of program will encourage compliance and ownership. QMS is a process that will require a collective effort from everyone within the organization. It is therefore crucial for employees to be involved in the early stages of the program. Organizations are faced with competitive demands for lower costs, higher performance and greater flexibility. As a result they are increasingly turning to employee involvement to enhance the participation, commitment and productivity of their members. It is believed that this increased employee involvement can lead to quicker, more responsive decisions, continuous performance improvement, and greater employee flexibility, commitment and satisfaction [8].

According to the above, the purpose of the present study was to investigate the most commonly critical points and mainly issues in the organizations during the implementation of QMS.

## **2. Materials and methods**

This study was aimed to evaluate the major problems and issues of the organizations during the implementation of QMS. The attention was paid to three major topics: the role of top management, involvement of the human resources and training and other resources including equipment, accommodation etc.

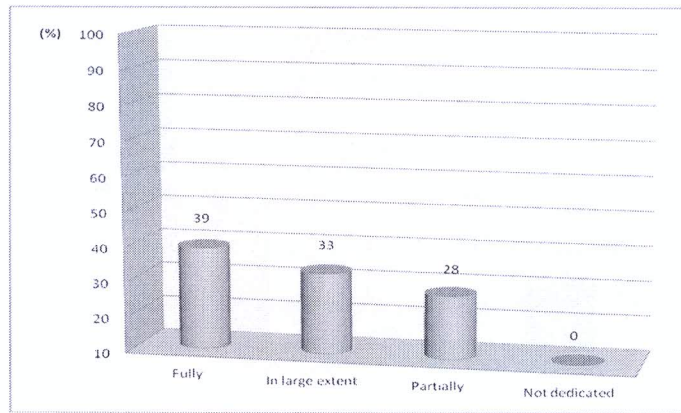
To realize the purpose of this scientific research, method procedure for data collection survey will be applied. It is the method of data collection in writing form for the views and opinions of the target group of investigated institutions. The main instrument for data collection and evaluation of the results used by the study was the questionnaire.

The questionnaire contains opened, closed and combined questions and was distributed to the quality managers of fifty public and private institutions in the Republic of Macedonia which carry out testing, calibration, inspection and certification activities. The data will be summarized and the results will be presented in percentage using histograms. The pareto analysis will be used for analyzing of the results.

## **3. Results and Discussion**

More investigations shows that the most critical problems concern the planning and the implementation of QMS are the lack of standard knowledge and experience, the lack of time and resources, the commitment of top management and personnel and the creation of system ownership [9].

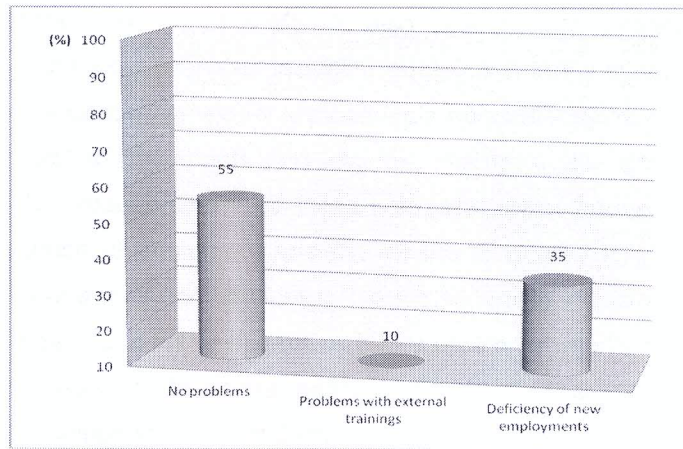
This study covered four key issues regarding implementation of QMS i.e., commitment of top management, competencies of the personnel, technical resources and the benefit of QMS. Fifty conformity assessment bodies (both from public and private sector) were involved in the questionnaire. First question is related to the level of commitment of top management and the results are presented in percentage in Figure 1.



**Figure 1:** The percentage of the level of commitment of top management.

The implementation of quality management system into the organization should be a decision of the top management. The first emerges overall management, meaning that the leadership is an inherent requirement for an implementation of a successful quality management system. The main top management's responsibilities for an efficient QMS are as follows: top management shall be the recognized leader of the QMS and must create an environment in which, the QMS can be effective; top management must assure compliance with a documents, must supply the resources, training and support for employees implementing the QMS; top management must continually review the compliance performance of the organization; top management must recognize the successful efforts of the workforce [10]. Our results show that conformity assessment bodies had support from the management, because the most of them (72 %) answer that the top management was fully or in large extent dedicated to the implementation of QMS. But also, high percentage declares that the management is partially dedicated and it is very important that these institutions are from public sector.

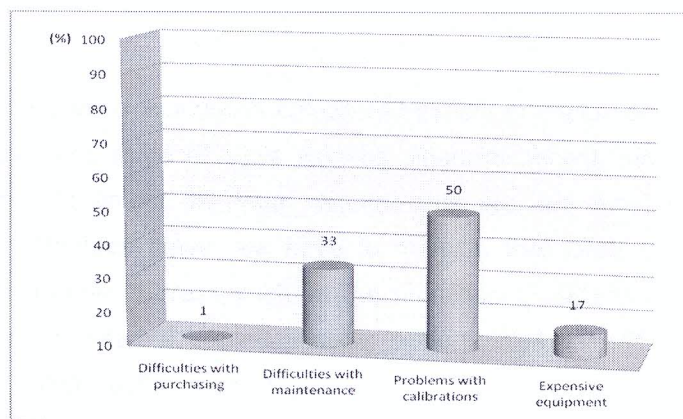
The human resources are also of particular importance because they are the most dynamic resources in organization. The second topic of our questionnaire is related to human resources management. The results are presented in Figure 2.



**Figure 2:** Problems with management of human resources.

The results in Fig. 2 show that 55 % of the conformity assessment bodies have no problems with competencies and management of human resources, but as very important problem they mention the limited resources which do not enable new employments and compensation of retirement persons with new stuff. These obstacles, undoubtedly, are more obvious in small companies with the issues of productive time, financial and human resources being the most critical. This is confirmed by other authors [11].

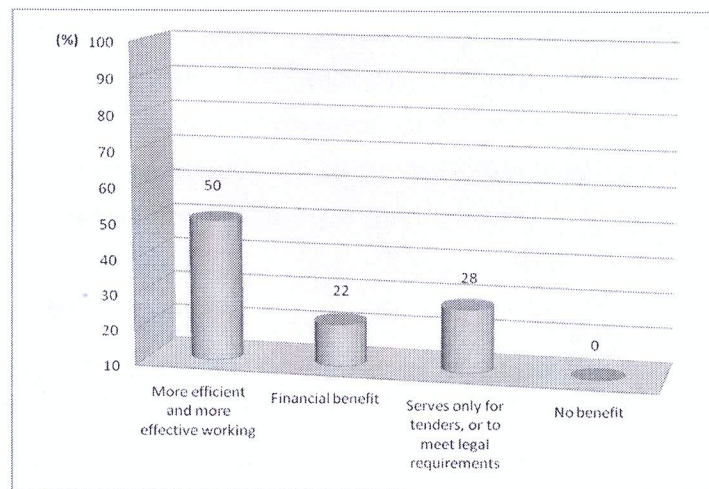
The third question is related to problems regarding equipment. The results are presented in Figure 3.



**Figure 3:** Problems regarding equipment.

The implementation of QMS is also related with financial costs for appropriate technical resources including equipment. Many initial assessments of conformity assessment bodies showed main nonconformities in critical issues such as control of documents and records, internal audits and calibration of equipment. Our results confirmed these data. The major problem is calibration and maintenance of equipment and the reason is located in small number of calibration laboratories and services in the region, which increases the costs for abroad calibration and following administrative problems with transportation.

The forth issue encloses the meaning of QMS. It is related to benefits and advantages of implementation of QMS. The answers are shown in Figure 4.



**Figure 4:** Classification of benefits.

All of investigated institutions considered benefit of implementation of QMS. More efficient and more effective working, financial benefit, increased market competitiveness, fulfillment the legal requirements etc. are most of mentioned advantages. Besides these, we have to mention that QMS would help the organization in critical areas such as the reduction of defective products, the improvement of internal communication, opportunities for infiltration in new markets and global deployment [12].

#### 4. Conclusions and recommendations

QMS would help the organization to better manage human resources and to perform proper allocation in the organization, canalization of working energy at the right place and in the correct way, which finally results with quality performance of assigned jobs and tasks. Also, QMS provides identification of technical resources necessary for ensuring quality of products and services offered. Moreover, through more efficient and more effective working and decreasing of the cost of quality and mistakes, implementation of the QMS will increase customer's satisfaction and finally will contribute to share market. Our results suggested that it is necessary to develop the awareness about the philosophy of quality in small organizations. Promotion of the benefits of implementation of QMS and additional training regarding introducing, maintenance and continual improvement of the system shall be made. The understanding of these benefits will be the motivation force for the organization to continue its journey towards quality improvement.

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