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IMPORTANT ASPECTS OF CONTINUOUS QUALITY IMPROVEMENT IN SLOVAK ENTERPRISES

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Abstract

This paper discusses quality improvement in praxis and its important aspects within applying a principle of continuous improvement in Slovak enterprises. As the first part of conducting a research project, VEGA No. 1/0229/08 Perspectives of quality management development in coherence with requirements of Slovak republic market, research on the use of principles of quality management in some chosen Slovak enterprises, has been completed. The data obtained can serve as a basis for improving the actual situation at hand. Gained information can be utilized for analysis of the situation and comparison of fulfillment of several requirements in various industry sectors. This paper considers methods for quality improvement and aspects of continuous quality improvement in praxis.

Key words

principles of quality management, methods, procedures and tools for improvement, continuous quality improvement, proactive improvement

Introduction

Project VEGA *Perspectives of quality management development in coherence with requirements of Slovak republic market* considers research and analysis of actual situations in theoretical knowledge about quality management and assumed trends of theory development, according with demands and needs of the market.

A proposal of system solutions for efficiently applying quality management principles while considering praxis requirements will be worked out. Analysis and gained information from research for each industry sector will serve as the basis for the proposals. Actual

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situations of quality management processes in several sectors of industry are currently being compared with demands of some quality management system models.

One of the most important areas of quality management is continuous improvement. It is the continuous process that shows whether an organization improves its performance of manufacturing and non-manufacturing procedures. This is an important element in order for an organization to achieve its goal of remaining competitive.

Implementation of Continuous Improvement in Some Chosen Slovak Enterprises

In research project VEGA No. 1/0229/08 *Perspectives of quality management development in coherence with requirements of Slovak republic market* we deal with eight quality management principles in praxis.

In the first phase of the project it has been realized through a questionnaire concerning the application and comparison of principles of quality management in actual situations within enterprises, just how some requirements are fulfilled in several industry sectors in Slovakia.

The questionnaire had been completed by 124 Slovak enterprises, which can be organized into 3 main industry groups:

- 35 % - automotive industry
- 35 % - machine industry
- 30 % - other industry.

The first part of the questionnaire identifies which activities in enterprises are focused on continuous quality improvement, how enterprises understand continuous quality improvement in praxis, and some differences between enterprises.

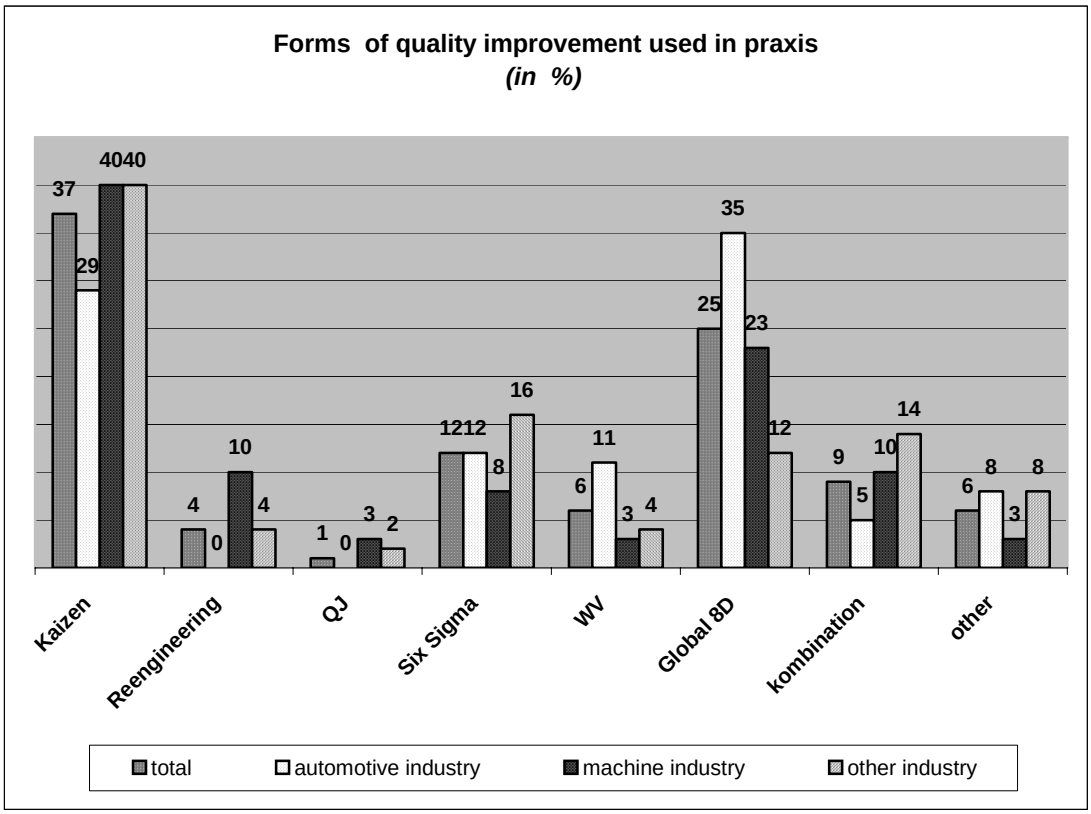
Graph 1. *Results of research about the quality improvement in praxis*

A sample question from the questionnaire is: *How do you understand continuous quality improvement in your enterprise?* (see Graph 1).

- 52 % of the organizations answered that continuous quality improvement means improvement of competitiveness and better position on market for the organization
- Only 15 % of respondents answered that continuous quality improvement means better effectiveness of quality management system
- Only 10 % of respondents answered that continuous quality improvement means cost reduction for variance in production

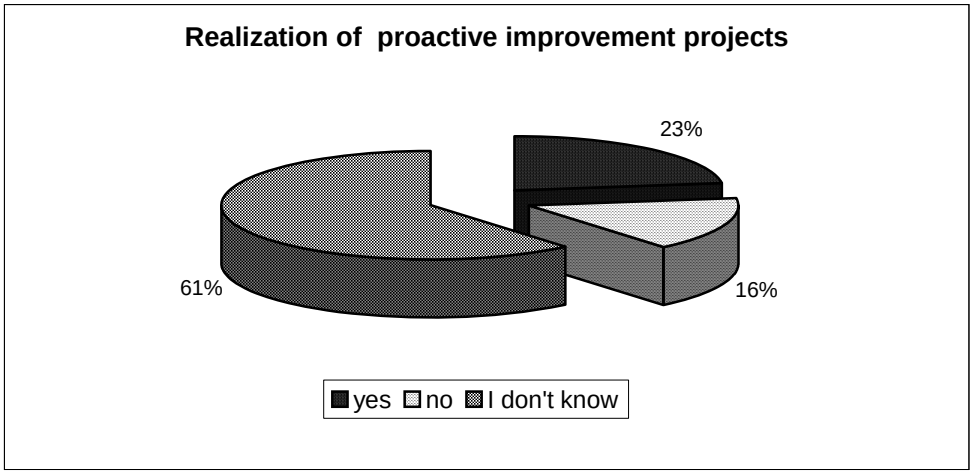
We did not find any significant differences in results between the automotive industry, machine industry, or other industries.

Another important question in our questionnaire regarded methods of improvement used in enterprises. From the research results it is evident that there are some differences in the application of methods for quality improvement in praxis. Results are represented in Graphs 2 and 3.



Graph 2. *Results for forms of quality improvement used in praxis*

We can see that 40 % of the firms in the machine industry and in the *other industry* category use Kaizen compared to only 29 % in the automotive industry. In the automotive industry Global 8D is the most widely used by 35 % of respondents and less used Six Sigma.

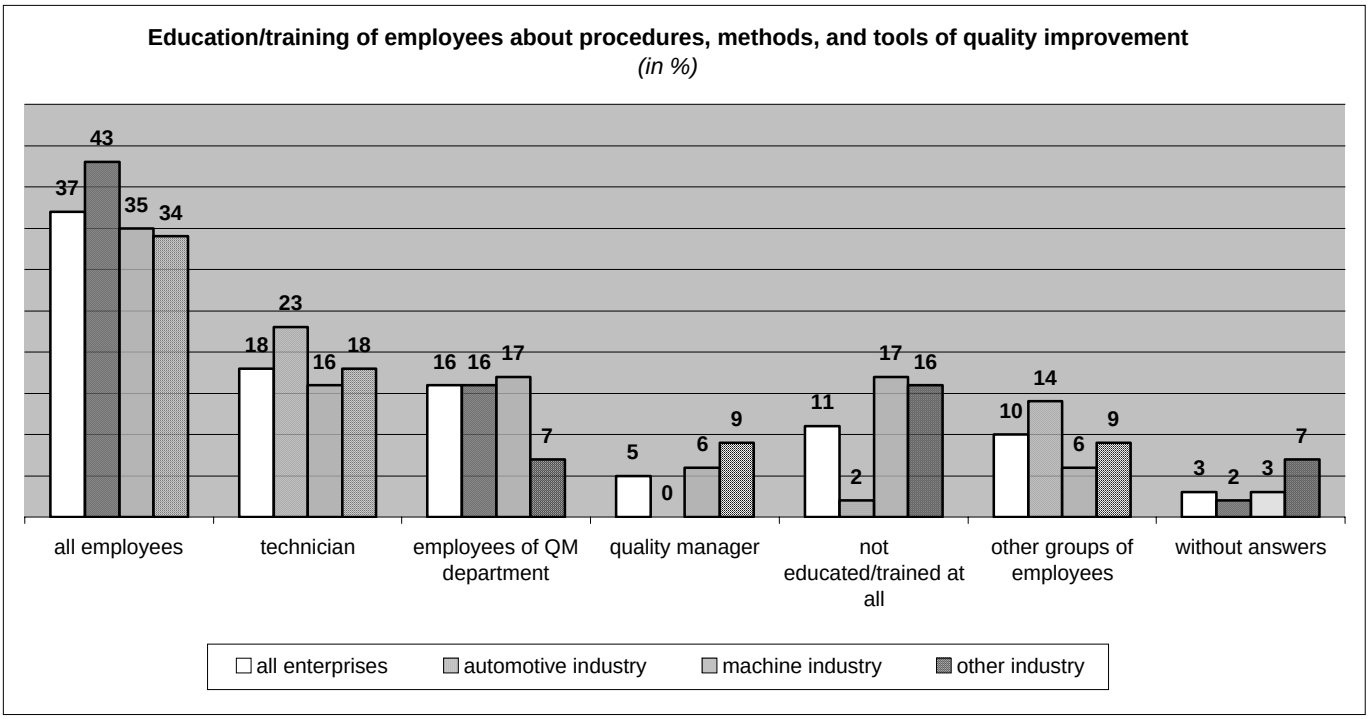


Graph 3. *Realization of proactive improvement projects*

For Graph 3, the survey question asked was: *Are you aware of certain projects focused on proactive improvement in enterprise?*

Based on the responses we suppose that this approach is not applied much in Slovak industry enterprises because 77 % of respondents answered that these projects are not yet realized or they simply were not aware.

Most activities for improvement have the reputation of corrective or preventive actions. One of the reasons for such results could be that the term *proactive improvement* is not well known in Slovak enterprises.



Graph 4. *Results for training of employees about procedures, methods and tools of quality improvement*

Other reasons for this situation are insufficient knowledge and proficiency of employees in the area of progressive methods for improvement. Most respondents answered that employees are educated/trained about methods, procedures, and tools for quality improvement, however, many organizations claim only certain chosen employees are educated in this area (See Graph 4).

Another survey question asked was: *Are employees systematically educated/trained about procedures, methods, and tools for quality improvement?*

In the automotive industry 43% of respondents answered that all employees are systematically educated/trained. We supposed the reasons could be due to strict requirements from technical specification ISO/TS16949 Quality management systems - Particular requirements for the application of ISO 9001:2000 for automotive production and relevant service part organizations, which is valid also in the area of continuous improvement for enterprises of the automotive industry. This specification for the automotive industry is enhanced within the sphere of activities such as permanent improvement of processes, improvement of production process, problem solving, emphasis on failure prevention, influence of corrective activities, etc.

Research Contribution

The principle of continuous improvement is one of the core quality management principles. Following our research we investigated some differences in its use in various industry sectors in Slovakia. The first part of our research project detected some important aspects that will be the objectives of our research issues in the future.

Continuous improvement is an important factor by which competitiveness is influenced in whole enterprises. Therefore it is necessary to find possibilities for quality improvement of processes as prevention and use more proactive approaches, as opposed to only problem solving.

In our further research we will be concerned with trends and perspectives of quality management in enterprises on present turbulent and the global market.

Conclusion

Each enterprise with a quality management system is responsible for application of continuous quality improvement through enhancement of processes and activities in the whole production cycle.

As quality improvement is better understood, all activities will lead to a new level of performance regarding employees, processes, products, and management.

Positive effects of quality improvement are reflected especially in profit of the enterprise. Techniques of quality improvement should be implemented in all organisation structures of enterprise.

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