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The hereby article is a presentation of the researchers results concerning the importance of Quality Management System certification in automotive industry regarding the suppliers for the first assembly. For that purpose several researches were conducted: analyzing the car manufacturers and the clients of the automotive industry. The results should be important to the potential suppliers for the first assembly, but also the companies which are expecting their position in automotive industry. Car parts and accessories market is highly competitive, which influences the requirements that used to be met by the suppliers in automotive industry. The common practice for retaining and developing in automotive industry is the certification of the quality management system in accordance with ISO/TS 16949:2002 standard. The researchers show that ISO/TS 16949:2002 requirement are only a part of the whole set of requirements in the automotive industry, which are very diverse and are not the most important ones. The most known requirements for the first assembly suppliers in automotive industry are:

- standards for Quality Management System certification: above all ISO/TS 16949:2002 but also VDA 6.1 and others,
- legal requirements, regarding the human rights, environment management and environment protection, patent laws,
- rules for contracting audits of the manufacturing and product process, required by ISO/TS 16949:2002, but described in VDA 6.3 and VDA 6.5,
- main tools in automotive industry systems: described in QS-9000: advanced quality planning (APQP), production details approval (PPAP), statistical process control (SPC), measurement system analysis (MSA), failure mode and affects analysis (FMEA),
- ISO/TS 16949:2002 requirements interpretations and rules for certification defined by IATF (International Automotive Task Force),
- and finally the CSR (Corporate Specific Requirements).

The authors in their work made a hypothesis concerning the importance of requirements, which should be the foundation of suppliers quality management system in automotive industry. The results of the researches are conducted to its verification and creating the ranking of quality management system criteria.

Introduction

Among all of the automotive industry suppliers we can point out those companies that are only functioning in that branch and are QS/ QS9000 and MS9000 suppliers. Win, Wroclaw, Lec, Delphi, Fiatet are one of them, but more often we can find companies that weren't connected with the automotive industry at the beginning. Regarding the times changes, MS9000 and MS/9000 are the essential to model organizational, work environment, infrastructure and most of all a passage to suppliers' further development.Owing OHS/ MS9000 suppliers exist in automotive industry is a great challenge for many companies that are unable to fulfill the requirements even though they are oriented in other markets. It's crucial also, that the companies accredited requirements for potential suppliers certified, bench management system isn't enough for obtaining original equipment supplier status. Right architecture of Quality Management System is the basic requirements for obtaining and maintaining OHS/ MS9000 supplier status. In reality universal standards (ISO 9001:2000) and benchmarks (ISO/TS 16949:2002) do not supply sufficient requirements in

References
Characteristics of the conducted researches

The main objective of the researches was to determine the elements of the OE/ OES suppliers quality management systems and to assess their relevance. During the 2004-2005 five researches were conducted to obtain wide spectrum of opinions.

- Research methods
  - Expert method (E1)
  - Internet survey (E2-04)
  - Questionnaire survey (Q4)

- Studied group
  - Car manufacturers
  - OE/OES suppliers

- Research objective
  - Identification and relevance assessment of QMS elements in automotive sector

- Research instruments
  - Research center (C1)
  - Questionnaire (C2-04)
  - Observation form (O2-04)

Fig. 1 Characteristics of made researches - chosen elements
Legend: H1, H2, H3, H4, H5 - sequence of conducted researches
Source: own elaboration

First research was conducted to identify elements of QMS by the experts, with the usage of "Expert method". Eight experts in quality management in automotive industry, amongst OE/OES suppliers was invited to participate in the research. This kind of selection should guarantee the right opinion of system requirements concerning direct cooperation with the car manufacturers and AM suppliers. The research was conducted based on the prepared script. According to the author restrictions allowed to manage the research in a proper way and eliminate random errors which were supposed. They were created by allocation of the suppliers' problems in specific aspects of quality management. As a result of the research list of all QMS elements in experts opinions was created (including ISO 9001:2001 requirements). It was also very useful for orientating and preparing QMS was created. Group of experts shared also the specificity of 5 point scale and the assessment of the specific QMS elements. We can find elements of the case study method in the first research and also in the E2 survey. It is crucial to point out the type of the case study and direct relation with the standardized management system requirements while defining the key elements in quality management system for automotive sector.


2. For example, one of the researchers pointed on the critical meaning of deadlines in the company, which was showed by the evaluation in the first survey, which was carried out by the client during data collection.

3. The researches were conducted by ISO 9001:2001 standards and considered was in a basis of the manufacturer's process.

4. Content analysis is an a priori oriented itself, but to consists element of various methods such as, multiple observation sequences with survey and analysis of the relevant data. Although, many experts consider case study as a method of quality researcher, links in an contextualized researches and conditions in the first stages of researches (I.S. Asher, P. Kumar, Q.0.H. Day Marketing Research, John Wiley & Sons, New York, 1995, p. 187).

Research results (chosen issues) and conclusions

Both objectives and hypotheses were verified positively thanks to the conducted researches, during which:

- elements of OE/OES suppliers quality management system in automotive sector were identified (research 1)
- relevance assessment of the OE/OES suppliers quality management system elements (researches 2, 3, 4, 5)

During the identification of QMS elements changes were made in ISO 9001:2001:2003 primary structure, hence adding a new category of elements. Those are new generic elements, but also concrete tools - very specific for automotive sector:

- verification of confidence, accessibility, complexity (Y1)
- production parts approval process (Y2)
- APQP - advanced quality production planning (Y3)
- benchmarking (Y4)
- key performance indicators (KPI) (Y6)
- assessment of the relevance between FMEA results and control plans (Y7)
- configuration management (Y8)
- relevant methods and techniques of problem solving and continuous improvement (Y9)
- risk management (Y10)
- key performance indicators (KPI) (Y11)
- ISO 9001:2001

Analysis of the QMS elements category relevance shows the importance of specific elements, often specific solutions in the scope of suppliers quality management. Category named as "Others" turned out not to be more important than "Quality Management System" category. Exact verification of the hypothesis is connected with the results concerning the relevance of quality management system elements such as FMEA and APQP. Results were based on the basis of expert opinions, but the correlation with other researches results, as figure 3 shows.

Correlation analysis of the QMS elements relevance, without taking categories and subcategories into consideration, showed the importance of typical elements from other categories, not included in "Other" category. What is only additional factor analysis was conducted to point out hidden connection between specific elements.
PART II.

References

Summary
Research results supply important information both for companies that are functioning in automotive sector supplying the products for OE/ODM management by years and for those who are planning to join the automotive sector. The first group can verify its actual concept of the quality management system, using these cooperation with specific clients. The research verified the common opinion about the necessity of implementing and certifying quality management systems in order to apply for the QS/ ODM supplier status. In reality it isn’t enough despite the declarations of automotive sector clients and imposing such requirements.

Figure 2. Importance of category - set of QMS classes of OE/ODM suppliers from automotive industry (according to average)

Figure 3. Importance of QMS classes from automotive industry (according to average)