

Customer Audits as a Quality Control Tool for Both Suppliers and Customers

Denisa Ferenčíková and Petr Briš

Abstract—Customer audits are generally used to ensure customer that supplier is continuously able to meet his requirements while supplying him required products and services. However, customer audits can be considered as a very useful quality control tool for suppliers as well. In our paper, we analyzed the process of customer audits realized in Czech companies from both perspectives: a supplier's viewpoint and customer's viewpoint. At the end, we tried to emphasize some areas that should not be omitted during the audit process.

Keywords—Customer Audit, Quality Control, Quality Management, Product Quality, Service Quality, Process Quality.

I. INTRODUCTION

QUALITY audits and their effectiveness is a very common objects of many investigations, but only a few researchers study customer audits and their impact on the whole quality control process of supplier's company. Therefore, we concentrated just at this area in our investigation and tried to find out and explain positives of customer audits for both supplier and customer companies. As Halles [Halles] says, companies need to configure their internal and external processes in order to maintain flexible operations and remain competitive. Therefore, suppliers' inputs are most valued and suppliers can help with ensuring specification criteria can be met. Customer audits must highlight potential issues that can arise in the supply chain.

II. THEORETICAL BACKGROUND

The role of audit has developed over the years. Its primary function (verification of financial statements) was gradually extended to become a useful management tool for driving the performance of a business. This extended type of audit is called internal audit and it is an important part of management today [5], [9], [11]. According to the Institute of Internal Auditors [6] internal auditing represents an independent, objective assurance or consulting activity focused on improving internal processes and creating added value. Internal audits bring a systematic approach to evaluate and improve all key internal processes such as risk management, control and governance process.

Internal audits can be realized by internal auditors as well as

by external organization (outsourcing). Each of these approaches has some pros and cons. Joe Kausek in his book [7] states some possible benefits that can be derived from the internal auditing process provided by an internal auditor in form of so-called best practices. According to Kausek, internal auditor is in a unique position and therefore he is able to compare processes across the organization and all of its business units and transfer some best practices.

Today, internal audits include several areas such as financial audit, prevention and detection of fraud, internal accounting control, productivity audit, management audit, quality audit, ecological audit, personal audit and many others.

However, our paper is focused especially to customer audits as a special part of quality management. Customer audit includes all procedures in which a customer acts as an auditor who evaluate the quality management system of his supplier. AS Klemens and Kaar [8] say, customer audits should detect any gaps in supplier's systems before these gaps are noted by a regulatory body.

Quality is a very often discussed topic in all possible areas: manufacturing, documentation, process management, services, transportation and many others. It is one of the key competitive forces but as we learned from researches conducted in this field, a lot of organizations have significant lack of a good quality management. Very interesting research was conducted for example by Alabi, Taofki and Olusegun [1] in the field of GSM network calls congestion. Network congestion and signal quality degradation is also a significant qualitative problem which weakens the position of GSM providers and authors tried to propose some scheme that should solve this problem.

Quality management problems and solutions often cross organizational boundaries and influence a lot of external activities and relationships. Gorla and Scavarda [3] in their paper analyzed the Supply Chain Operations Reference model and the effect of IT service quality on supply chain management. They verified the hypothesis that the level of IT service quality is positively related to supply chain performance. Similar study was performed also by Aung, Chang and Kim [2] who identified quality problems of a cold chain monitoring system which can occur at any stage of a cold chain and can seriously impact the final quality of the product.

Examples given above show that cooperation between suppliers and customers is very important in order to obtain and keep satisfactory quality parameters of offered products and services. Just the regular and conceptually conducted customer audits are one of the possible ways how to achieve the quality improvement within the whole supply chain.

D. Ferenčíková is with the Tomas Bata University in Zlín, Faculty of Management and Economics, Mostní 5139, 760 01 Zlín, Czech Republic (corresponding author to provide phone: +420 736 120 790; e-mail: ferencikova@fame.utb.cz).

P. Briš is with the Tomas Bata University in Zlín, Faculty of Management and Economics, Mostní 5139, 760 01 Zlín, Czech Republic (corresponding author to provide phone: +420 576 032 362; e-mail: bris@fame.utb.cz).

Therefore, customer audits should be carried out in a thorough manner that helps to highlight potential issues that may arise later in the supply chain [4].

There are several standards methodologies, norms, agreements and auditing programs developed by various auditing companies or individual researchers that help to evaluate the quality of production and other internal processes of supplier and ensure that all products and services will be delivered in required quality. One of the most widely used agreement is called SAPA (Supplier Agreement Program) which is designed to ensure that supplier understand all needs of customer and will be able to deliver products or services on these requirements [10].

III. METHODOLOGY

The main goal of our study was to identify basic purposes of customer audits in selected Czech companies, considered areas for auditing and their positive and negative experiences with customer audits. We concentrated especially on added value from these audits for individual suppliers and their ability to processes and use reached results to improve their internal processes.

The research methodology consisted of three parts and two data sources:

- Qualitative investigation of Czech manufacturing companies (customer companies) of all sizes conducted as an interview with companies' representatives. Our sample included 10 respondents.
- Quantitative questionnaire-based investigation with short and clear questions focused on the customer audit process realized in Czech manufacturing companies of all sizes (supplier companies). The sample included 70 respondents.
- Qualitative investigation among Czech manufacturing companies (supplier companies) which aim was to verify the results of quantitative study and discuss some problems more in detail. We spoke to 5 representatives of 5 different companies.

The results of the both phases of our study were used to formulate several basic questions that should not be missed on any customer audit in order to ensure its high usability not only for a customer, but also for suppliers.

For purposes of our study, respondent companies were classified into two groups: large companies (companies with more than 500 employees) and small and medium sized companies – SMEs (companies with up to 50 and less than 500 employees).

IV. RESULTS

A. *The Qualitative Investigation among Customer Companies*

We started our study with qualitative investigation realized as a structured interview with several representatives of Czech manufacturing companies. We spoke about their experiences with customer audits and problems that are usually solved in supplier companies. The aim of this step of our study was to

get and summarize some basic information about how customer audits are realized in the Czech Republic and how useful for customers are. We found out several important information described below.

According to our respondents (customer companies), the main purposes of customer audits are:

- Development of mutual relationship and trust between suppliers and customers in form of sharing information, creating collective plans and strategies, planning the future etc.
- Development of the direct, clear and open communication between partners
- Development of the long-term partnership
- Customer audit should evaluate such things that help customer to better understand supplier's processes, recognize his weaknesses and strengths. Customer audit should not repeat or substitute the work of any certification organ. Therefore (according to our respondents), it should concentrate on the following areas and resources:

1. Working Environment

This area includes health and safety of workers, their rights to information, disciplinary practices, reward system, shifting, approaches to motivation and personal development of employees and their education or anti-discrimination policy.

2. The Environment (As an Ecology)

Ecology and environmental policy is a very often discussed problem in many companies today. Therefore, customer audits should concentrate on this area as well in order to evaluate customer's approach to environment protection. It is specifically development and production of safe and ecological products, using ecological materials and technologies, monitoring of emissions etc.

3. Internal Environment

Internal environment includes technical and knowledge quality (facilities, equipment, documentation, know-how, qualification and skills of employees...), social responsibility and general view of a company (cleanness, culture, relationships...).

4. External Environment

This area covers communication with the public, government, educational facilities, suppliers, customers and all other organizations.

5. Customer Orientation

Of course, customer audit has to evaluate also the customer orientation of a company; it means the clarity of customer's attitude and its responsiveness. Customer orientation can include for example organizing specialized seminars, workshop, conferences and other activities for customers, presentations of new products at exhibitions and the level of all marketing activities.

According to customer companies, the key objects of customer audits are:

- **Top managers**– commitment, personal responsibility and relationships between all members of management staff and their family and property relations
- **Economic health**– trends in turnover and profit, comparison of planned and actual achievements, number of investments, level of innovations etc.
- **Management systems**– their quality and level of development
- **Strategy**– strategic planning, quality policy, vision etc.
- **Organization**– organizational and operational rules, job descriptions, responsibility and qualification matrix etc.
- **Documentation**– quality of internal and external documentation
- **Regular and systematic reporting and system analysis** conducted by managers

Customer companies identified several conditions which are necessary for the successful customer audit. The most important from them are the auditor's objectivity, experience and professionalism, openness, interest and cooperative helpfulness on both sides.

B. The Quantitative Study among Supplier Companies

The quantitative study was realized in form of questionnaire survey. Our sample included 70 respondents from supplier companies, 55 of them from the SME segment. Respondents were asked about the frequency, process and management of customer audits realized in their companies.

The results of our quantitative study showed that more than 80% of Czech companies (14 large and 42 SME companies) have some experience with customer audits. The following chart (Fig. 1) shows the frequency of customer audits in respondent companies per one year.

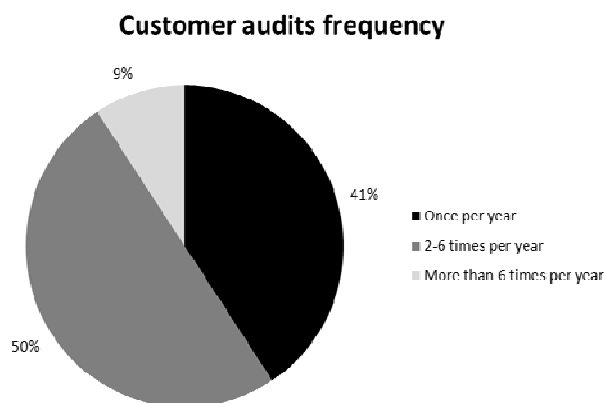


Fig. 1 Frequency of customer audits (Source: authors' own)

Auditors (customer representatives or external auditors) usually stand on the attendance of top managers during the audit process as more than 60% of our respondents confirmed this statement. In the most cases (more than 90%), suppliers are informed about planned audits in advanced. That is the reason why top management can be prepared for this process.

One of our questions was focused on the relevance of audit process to criteria of ISO 9001. A very positive finding was that all respondents confirmed that customer audits realized in

their companies always really meet criteria of ISO standard.

Respondents were also asked about the areas considered during customer audits. It was found out that not only technical characteristics and processes related to final products and services are evaluated, but next areas such as company culture, health and safety compliance, environmental compliance or financial health of a company are considered as well (see Fig. 2).

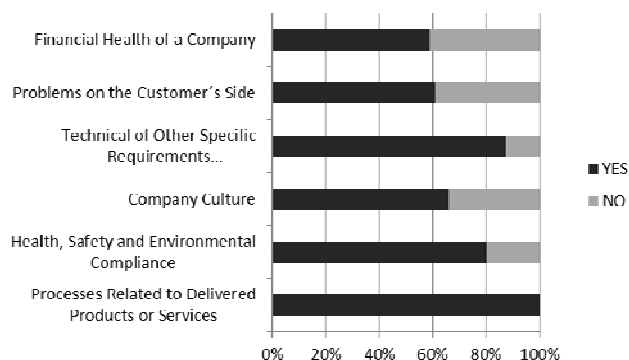


Fig. 2 Audited areas (Source: authors' own)

The quantitative investigation has brought us a brief overview about customer audits from the supplier's point of view. We tried to compare real experiences with the requirements indicated by customer companies which were described in the previous step. Then, in the final step of our study, we contacted 5 supplier companies and carried out more detailed analysis of their experiences with customer audits.

C. Complementary Qualitative Investigation among Supplier Companies

The quantitative investigation presented in the previous part was followed by several interviews with representatives of selected supplier companies. The aim of this step was to get more detailed overview about the process of customer audits and their positive or negative impacts on various internal processes.

All respondents confirmed that customer audits help them to improve their production process and to keep some suitable standard of quality. They can compare themselves with their competitors and eliminate their weaknesses. The greatest benefit according to supplier companies, is the opportunity to see their processes from the customer's viewpoint which is always more critical and relevant.

V. DISCUSSION AND CONCLUSION

The results of all steps of our investigation proved that customer audits have positive impact for both customers and suppliers. However, they must be conducted structurally, systematically and with a clear purpose. Based on the answers of our respondents and realized interviews we tried to formulate the list of questions that should not be omitted during any customer audit process:

- State the share of your major customers on your turnover

including specification of period and dependence on each of them.

- State the share of the company realizing audit process on your turnover.
- Specify the extent of insurance for the material responsibility – damage caused by bad products and expenses caused by its withdrawal from circulation.
- State all quality certifications (ISO 9001, VDA,...) you have.
- What other types of certifications (Environmental, Health and Safety,...) do you have?
- Do you have implemented system of social responsibility under the conditions of standards SA 8000 or ISO 26000?
- Which licenses and certifications for offered products (ISO, GMP, UL,...) has your company reached?
- How did you choose the certification authority?
- How the change management is realized?
- Which position has quality management department or quality managers in your organizational structure?
- Which areas are evaluated under the environmental management (system, process and product)?
- Which of your activities has the most negative impact on the environment?
- How long is the guarantee on your products offered to your customers?
- Are instructions for your products disposal available?
- Are the agreements on quality made?
- Are purchase contracts made?
- Do you have control plans for input testing?
- Do you have control plans for interpretational or running testing?
- Do you have control plans for output testing?
- Are you used to do process audits?
- Are you used to do product audits?
- How do you check (mark) products after testing?
- How the traceability of your products is ensured?
- Do you have some training plans for your top managers?
- Do you have some system of reporting of major indicators and process parameters?
- Do you measure and evaluate the level of satisfaction of your customers? Which benefits do you have from this evaluation?

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Petr Briš graduated from the Faculty of Technology in Zlín, Brno University of Technology, study course Technology of Textile, Leather, Rubber and Plastic Materials with specialization in enterprise economics. The title CSc. (PhD.) he obtained at Moscow Institute of Technology MTILP, he habilitated at VŠB – Technical University of Ostrava in the branch of industrial systems management (the title doc.). He passed his postgraduate pedagogical studies at Brno University of Technology and the distance educational course at Palacký University in Olomouc. He is a holder of the certificate Quality Manager in compliance with ČSN EN ISO/IEC 17 024. He attended study stays in Norway, Poland, Russia, and Great Britain. He worked as an independent research worker at research institute, vocational assistant at university, director of a small company, research worker at university, senior lecturer at university. At present he works as a pedagogical-research worker – senior lecturer at the Department of Production Management - Industrial Engineering, Faculty of Management and Economics at Tomas Bata University in Zlín. He has experience in working on the research projects in the field of industrial systems management (focused on transfer of technologies, innovations, quality management, complete enterprise integration) or in the pedagogical field – quality management courses preparation. Forenamed areas of research are included in his dissertation and habilitation work as well as in domestic and foreign publications. Within the frame of his pedagogical work he provides the subjects Quality Management and Goods Science. Beside of that he operated and operates as a main solver, coordinator or co-operator of many research projects (FRVŠ, GAČR, NROS, ERASMUS, companies in the Czech Republic).

Denisa Ferenčíková is a PhD candidate at Tomas Bata University in Zlín – Faculty of Management and Economics. In 2009, she received a Master's degree in Industrial Engineering. Her current research involves advanced methods for production planning and scheduling, quality management and their support in business information systems. She also teaches several subjects at Tomas Bata University in Zlín such as Business Information Systems, Logistics or Work Measurement Methods Studies.