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THE ROLE OF CUSTOMER SATISFACTION IN QUALITY MANAGEMENT

ZNACZENIE SATYSFAKCJI KLIENTA W ZARZĄDZANIU JAKOŚCIĄ

Key words: customer satisfaction, quality management, quality standards

Słowa kluczowe: staysfakcja klienta, zarządzanie jakością, standardy jakości

Abstract. Nowadays, the enterprises need to meet the customers' requirements, which are more specialized, in a rapidly growing economic competition. To meet these requirements the different characteristics and quality of products and services play a primary role. The tasks of quality management are the proper harmonization and development in order to meet the customers' requirements as perfectly as possible. However, the customers' satisfaction is more and more important in the life of the companies, generally there is not enough attention payed to know the opinions of the customers. According to our opinion, focusing on the customers' satisfaction would give the greatest results within the quality management.

Introduction

The customers' satisfaction was always very important for the enterprises. However, in the beginning of the industrial production the enterprise management was rather focusing on the optimalization of costs and production processes. To interact with the customers and to know their opinions about the products was the salesmen's tasks. In the 1930s, partly according to the economic crisis, more attention was payed to the customers' requirements. This philosophy was improved by the value chain theory in the 1970s, which considers that the aim of the business processes is to produce product or service for a certain customer or market. In the 1990s, the special literature focused the soft factors, emphasizing that the customers not only purchase the products or services, but in an indirect way, they buy the whole process which produce the certain product or service for them. Based on this idea, a process, the organization and the whole company are justified if they are able to meet the customers' requirements [Akar et al. 1999].

There is growing need for focusing on the soft factors, which recently appears in the learning organization and the change management. These are the factors where the measurement of customers' satisfaction plays an important role, helping in the evaluation of the factors, in the determination of the needs and directions of adjustments and developments.

The main objective of the business enterprises is to satisfy customer needs, beside making profit. To reach this goal and continuously operate the company, the main factor is the customer orientation which can be considered as the base of the company operation. The definition and requirements of customer orientation are more and more complicated due to the changes of environment of the enterprise, which means that it is really hard to reach this goal. Several factors can determine this, e.g. the need for increasing the variety and quality of products, and deadline of performance. The primary aspect of customer orientation is the fact how the customer can experience this and how he is satisfied with the product or service [Horváth 2001].

The relation of quality and customers' satisfaction

There is a strong relationship among the customers' satisfaction, the quality of product/service and the quality management. The experts dealing with quality management generally apply some basic ideas in connection with the operation of quality management system:

- to transform the company's activity according to the customers' requirements,
- establish a claim to the customers, in case of interaction the operation should be controlled and audited,

- to establish partnerships free of problems and supported adequate communication,
- long-term thinking with continuous return evaluation [Bálint 1998].

To focus on the customers' satisfaction in order to complete the above mentioned quality principles is especially successful method, since it is suitable to recruit customers, and to realize the inner process organization, planning and implementation successfully [Bálint 1998]. The quality:

- means different thing to different people,
- is what the customer considers to be,
- is when the customers are always satisfied, _
- is to meet the requirements,
- competence for use,
- does not depend on price.

According to the third aspect, we can see that the precondition of the customers' satisfaction can only be reached through quality.

The second aspect is about the feeling of the customers. The product or service offered by the company can be extremely perfect if the customer has a different opinion about quality or the product/service do not meet the customers' requirements (fourth aspect), the customer will not feel it as a good quality, he will not purchase it, thus he will not be satisfied.

The ISO 9000:2005 standard determines the definition of quality and customer satisfaction. However, the two definitions are quite similar to each other:

- quality: is the measure how the group of certain characteristics met the requirements,
- customer satisfaction: the customers' observation about how the customers' requirements are met.

The above mentioned two definitions mean basically the same. The standard makes it clear that the word "requirement" appears in both definitions, which indicate that it concerns the fulfillment of the same aspect. The "certain characteristics" mentioned in the definition can only meet the requirements to such an extent as the customers feel and evaluate them.

There are three critical groups of aspect influence customer satisfaction from the quality point of view according to Garai [2002a]: articulated, basic and excitement aspects. It is the easiest to examine the articulated aspects, since these determine quality and the customers know them. The relationship between articulated aspects and satisfaction is generally linear. The basic aspects do not improve satisfaction themselves, but the lack of them can cause great unsatisfaction. The most difficult is to examine the excitement aspects, since they are not required by the customers and they do not feel their lack. However, if these are present and the customers can recognize them then they can cause surprise and excitement which increase satisfaction.

The economic value of customer satisfaction

The value of the customers is coming from the profit of their purchase, which is completed during the time period they belong to the company's customers. The value of the satisfied customer lasts long because it can recruit new customers for the company. To keep a present customer means less cost, than to obtain a new [Garai 2002b].

Several companies examine their costs concerning quality management, classifying them into four categories: internal and external failure costs, evaluation, and prevention. These four categories are generally called as quality costs. The cost of low quality is included in the first two categories, while the other two categories are related to the costs of achieving the quality objectives.

From the customers' satisfaction's point of view, the examination of the first two categories (the cost of low quality) is important [Gryna et al. 2007].

The classification of quality costs by Husti [2009] is very similar to the previously mentioned method. He defines: prevention costs, examination costs, internal and external shortfall costs.

The internal failure costs are resulted from those lacks that are detected before transaction, and they do not meet the customers' requirements or other not specified needs of the customers. The avoidable costs, that also belong to this group, are resulted from the inaccurate operation, which are also present when the requirements are fulfilled [Gryna et al. 2007]. Subcategories of nonconformity costs:

- defective and damaged product,
- cost of repair,
- lost or missing information,

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- fault analysis,
- re-examination, test,
- changing of processes, re-engineering,
- design of products,
- discount.

The external failure costs include those ones that are originated from the failures detected after customer has received the product. The lost revenue coming from the lost selling possibilities is also an external failure cost i.e. the lost profit that would have come from the customers we lost due to the poor quality. Similar to the previous cases, we can mention some subcategories when the customers' requirements are not met [Gryna et al. 2007]:

- costs of warranty,
- costs of the examination of complaints,
- discounts for customers,
- missing discounts,
- re-planning of selling process.

The level of revenue coming from the loyal customers during a certain period can be extremely high due to the repeated purchases. The economic value of this can be calculated as the present-value of the revenue of the certain purchases during the expected period of time of the repeated purchases. This value generally increases as the defection rate (the rate of customers purchasing only once) decreases, and as the customer retention rate increases. Gryna et al. [2007] mentiones Reincheld's researches, in which he found that the 5% decrease of the defection rate can result 35-95% profit increase.

The relationship between the customers' satisfaction and the expected profitability has been proved for a long time, several researchers were dealing with the methods of monitoring and correction. However, the positive correlation between the customers' satisfaction and the financial results is not questioned any more, the results are not convincing enough, we can still find some skepticism in this area. The best method for measuring the customers' satisfaction has not been invented yet, and according to some critics' statements the relationship between keeping the customers and their satisfaction has not been proven yet [Markics 2004].

The relation between the customers' satisfaction and the ISO 9000 standard

The most important new phenomena of the year 2000 issue of the ISO 9000 standard family is the inclusion of the data of the customers' satisfaction, which also remained in the 2008 issue. The real value of processes applied by companies is shown by the customers' satisfaction.

The new standard was well accepted by the concerned companies around the world. One reason for this was a conviction that there is a need for controlled and tested processes in order to produce high quality products or services. The products and services can meet the requirements by the help of the controlled processes.

The other aspect of quality is to satisfy the customers' requirements. According to W. E. Deming the customers' satisfaction has to be regularly measured. The measurement of the customers' satisfaction gives the base for perfection of the products, to develop such properties of the product which mostly meets the final users' need and price [Garai 2002b].

The standard defines 8 principles which contain the most important aspects. These are similar to the TQM principles.

The first principle is being Customer centered. Since the companies depend on the customers, thus, they need to know the customers' requirements, they need to satisfy and even exceed them. This approach is included in the standard as a requirement: the task of the management includes the examination of the demands, needs and also to make them as requirements (the information in connection with this is also included in the standard). To define and fulfill the requirements play an important role in the improvement of the customers' satisfaction [Husti 2004]. The other seven principles are the following:

- responsibility of the management,
- involvement of colleagues,
- process oriented approach,
- system approach in management,

- continuous development,
- decision making based on facts,
- mutually beneficial relationship with the suppliers.

The presence of satisfaction in the chapters of the standard

General chapter of the standard. The satisfaction appears first in the general chapter of the standard. This chapter defines the following: the companies have to apply such a quality control system, which ensures that the products are produced so that the customers' requirements, the related laws, and the authority instructions are satisfied. Furthermore, the customers' satisfaction is enhanced by the continuous perfection and the efficient application of the system [Garai 2002b, Husti 2004]. The standard requires that the audited companies [Garai 2002b]:

- define the requirements of the customers/clients in order to harmonize these processes with these requirements,
- the applied processes should satisfy the requirements of the customers/clients for the products,
- the opinion of the customers/clients should be forwarded to the members of the company to be mutually beneficial.

According to some authors, the measurement of the customers' satisfaction gives subjective results. However, the correct methods of the measurements of customers' satisfaction and the evaluation of opinions provide very important information. Even the subjective opinions can give good ideas to modify and improve the products [Garai 2002b].

Chapter of the management's responsibility. The 5.2 point of the 9001 standard shortly defines the requirements of the customer centered quality control system: they need to define the customers' requirements, by knowing these, they need to specify and accomplish the requirements according to the customers, in order to gain the customers' trust and satisfaction [Husti 2004, Petőcz, Szabó 2003].

The 5.2 point of the 9004 standard further exceeds this. Naturally, the role of the customers' perspective is also very important, but the concerned shareholders are defined in a wide (almost unlimited) range. Within the concerned shareholders, the standard lists the colleagues, the owners, the state organizations, the suppliers, and the communities concerned about the company, beside the customers. It suggests the accurate identification of the suppliers and customers, to survey the requirements and to define the effects of the company's business. It has a subpoint for learning and keeping the requirements of the laws, regulations (standards) [Petőcz, Szabó 2003].

Chapter of producing the product. The 7th chapter of the 9001 standard also contains a subchapter titled "The production of the product": "7.2.3. Relation with clients and customers". The company is forced to develop a relationship, which also helps to meet the customers' requirements. The chapter emphasizes the importance of managing the accessory information, ordering, feedback, modifications and reclamations.

Chapter of measurement, analysis and development. Finally, the 8th chapter ("Measurement, analysis and development") of the standard we can find the topic of "8.2.1. Customers' satisfaction". It is emphasized in this chapter that the customers' satisfaction needs to be considered as a quantitative indicator of the quality control system, since it is a very important indicator of the performance of the quality control system. Thus, a company has to gain information about it in order to audit the system. Furthermore, the company should continuously measure the level of the customers' satisfaction, gather information, and define the methods and instructions to gain and evaluate this information [Garai 2002b, Husti 2004].

The methods of gathering and evaluating the information in connection with the customers' satisfaction have to be documented, according to the regulations of the standard (just like the description of the other internal processes). Also, it has to be created in a form so that it can be audited. The compulsory content of the documentation are the following [Garai 2002b]:

- which information do they wish to gather,
- to define and educate people who are appropriate for the collection,
- to develop the method for gathering the information,
- to designate the list of people appropriate for the analyses,
- plan of the utilization of the gathered information.

Analyzing the opinions of the customers has to include their feelings as well, not only their satisfaction, since further information can be gained by this. Such information [Garai 2002b]:

- hidden demands: the customers only express these if they are specifically asked in questionnaires.
- unsatisfied expectations: the innovations initiated by the competitors are expected by the customers from all companies,
- unsolved problems: often the customers do not express their needs because they think none of the companies could solve that problem,
- future requirements and demands: the customer can draw the attention to certain circumstances, which need modification in the practice of the company.

The management, the colleagues, and the customers have to be informed about the results of the examination of the customers' satisfaction. It is needed to inform the management because they can draw the conclusions, i.e. to change the construction of the product, or to correct the weak points of the processes. The management does not always know the place and source of failures, and how they can be solved. It is important to inform the colleagues about the results of the examinations because they will make the required changes. If they do not know the results of the examinations, they do not understand their need and they can react resistant against innovation. It is important to inform the customers about the results of the examinations because they can see that they did not waste their time on filling out formulas, giving interviews, but they actually endorsed for the perfection of the products, services, and processes of the company [Garai 2002b].

The realization of the development driven from the results of the customers' satisfaction is the most important element of the process, in which almost all departments of the company takes part. The four-field diagram on Figure 1 helps the planning of the realization. The horizontal axis shows evaluation of the performance or satisfaction, the vertical axis shows the importance. The horizontal line shows the general importance of the performance, while the vertical line shows the general performance. Thus, all the properties of the performance can be listed in these four fields [Garai 2002b].

Focusing on one goal (Weak performance on an important area. It is important to improve the performance)	The good performance has to be further kept (Good performance on important areas. Maintenance and support with equipment.)
Less important, weak priority (The performance is proportional to the importance. The present	Over-production is possible (Good performance on not too important areas. This can result over-production,
performance level has to be kept.)	there are possibilities to rearrange resources.)

Evaluation of performance

Figure 1. Four-field diagram to select the priority of the required changes Source: Garai 2002b.

As long as the company really pays attention to its customers, the performance and importance will be proportional to each other. The customers feel that the company meets their requirements or it is close to them. By the help of the diagram, the company can correctly determine those development and perfection areas where it should focus its efforts in order to reach the highest profit. By this way, the most important elements of the customers' satisfaction can be understood. This would make it possible that the goals and the plans of the company would be in accordance with these, and the customer and the company would be satisfied as well [Garai 2002b].

Conclusions

As we experienced, the ISO 9000 standard family requires almost all parts of the processes of the company to focus on the customers' satisfaction. However, it does not deal with it to such an extent, like the total quality management (TQM) theory.

In the model of the total quality management, the customer appears in the center of focus. Its first principle is being customers centered. According to TQM, the success in the market economy depends on how we can arrange the activity of our company so that the customers' requirements are continuously satisfied.

Bibliography

Akar L.,Hegedűs M., Némethné Pál K., Papanek G., Petz R., Somogyi G., Vértes A., Lantos A., Simon G., Tordai N. 1999: A vevői és dolgozói elégedettség mérésének módszerei. GKI Gazdaságkutató Rt. Marketing Centrum Országos Piackutató Intézet; Gazdasági Minisztérium Országos Műszaki Fejlesztési Bi-

zottság megbízásából, Budapest.

Bálint J. 1998: Minőség – Tanuljunk és tanítsuk. Műszaki Könyvkiadó – Magyar Minőség Társaság. Garai T. 2002a: A vevőelégedettség javítása: új kihívás. Minőségirányítás, műszaki ellenőrzés. 2. szám. Garai T. 2002b: Az ISO 9001:2000 és a vevőelégedettség. Minőségirányítás, műszaki ellenőrzés. 10. szám

Gryna F.M., Chua R.C. H., DeFeo J.A. 2007: Juran's quality planning and analysis for enterprise quality. The McGraw-Hill Companies, Inc.

Horváth A. 2001: A logisztika és a vevői elégedettség kapcsolata. [www.phd.lib.uni-corvinus.hu/175/01/horvath annamaria hun.pdf], 27.10.2009.

Husti I. 2004: Minőségmenedzsment. Szent István Egyetemi Kiadó, Gödöllő.

Husti I. 2009: A minőségmenedzsment elemei. Szent István Egyetemi Kiadó, Gödöllő.

Markics J. 2004: Szolgáltatási színvonal, fogyasztói elégedettség és a fogyasztók megtartása. Marketing, 9.
Petőcz M., Szabó J. 2003: Minőségirányítás – minőségmenedzsment. PMS 2000 Mérnöki Társaság, Budapest. p. 107-108.

Streszczenie

W pracy dokonano analizy znaczenia satysfakcji klienta w procesie zarządzania jakością. Wskazano na niedostateczną uwage jaką firmy zwracaja na satysfakcję klienta, wdrażając różne standardy zarzadzania jakością.

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