Q4S – QUALITY FOR SUSTAINABILITY

Małgorzata Jasiulewicz-Kaczmarek
Poznan University of Technology
Poznań
Poland

SUMMARY

In the following paper an attempt to present the role of quality management in enterprises following sustainable development strategy was taken. Methods striving for quality (defined in their broadest meaning) are the basic catalyzer for changes which enable identification of new opportunities and definition of alternative actions to be taken. They focus on the best practices and means leading to improvement in the areas jeopardizing economic, environmental and social infrastructure. Hence, it seems reasonable to define the next stage of quality development as sustainable quality management which should be interpreted as the framework for management striving for quality improvement towards sustainable development criteria.

Keywords: SQM, SD, megatrends

1. INTRODUCTION

Analysis of changing management paradigms from workshop through mass production, customer orientation and mass customization to the current mass collaboration idea leads to the conclusion that the main cause for them is striving for increased competitiveness of enterprises in dynamic conditions reflecting critical changes in the market. And even though today because of increasing non-linearity (and complexity), and discontinuity as well as pace of changes, forecasting is almost impossible, we still can try to forecast directions of changes, which is simply identification of mega-trends that are likely to appear in the future.

The term "mega-trends" was coined and popularized by John Naisbitt in 1982. He defined [12] mega-trends as broad processes embracing the world, having socio-economic or structural character and influencing a unit and shaping its future. Broader definition was introduced by [13] as they defined mega-trends as "global, solid and macroeconomic development forces which influence business, economy, society, culture and private life and by that defining our future world and its growing pace of changes".

Research on mega-trends refers to thinking about future with application of so-called "oriented forecasting". The perspective enables building scenarios and provides managers with guidelines which can be used in decision-making processes concerning future development and investments. Analysis of mega-trends from time perspective leads to understanding external challenges which are unavoidable for a given region or market and have global consequences and results. The external challenges are to influence functioning of enterprises and decision-making. The model similar to the well-known model of product's life-cycle by [16] can be used for their analysis, with application of its characteristic stages including:

- Stage 1 - Definition, which is convergence of trends connected, leading to creation of mega-trend.
- Stage 2 – Growth, which is fast manifestation of mega-trend and spreading its influence on business, industry and lifestyle.
- Stage 3 – Domination, the stage refers to the results of mega-trend and its influence on all the areas of social and economic life.
- Stage 4 – Decrease, which is a period in which mega-trend is so common it is treated as a normal thing.

The scope of the hereby paper results in necessity to characterize two mega-trends: sustainable development and pro-quality actions. According to D. A. Lubin and D. C. Esty [11] sustainable development is the next, after mass production, quality and IT mega-trend in management and it is transforming conditions and functioning of enterprises. Analysis of the literature leads to the conclusion that "sustainable development" mega-trend is in its growth stage, so it will shape trends and enforce changes in methods of conducting research and building competitive edge of companies. The second mega-trend mentioned is now in its decrease stage, so it is taken as something "normal" from company's point of view. Its role is then supportive.

The question arises: how actions focused on quality support striving for sustainable development?

2. SUSTAINABLE DEVELOPMENT

Since the end of eighties and because of the famous report published by Word Commission on Environment and Development entitled "Our common future", politics, economy and science have been dominated by the term "sustainable development". In the report mentioned above, the term was defined as the process of changes in which exploitation of resources, new investments, orientation to technology development and institutional issues are focused on present and future needs of society. On macro level it is the ethical approach focused on fighting poverty and in the same time preservation of natural environment. The model of economy based on sustainable development idea assumes proper and aware shaping of relations between economic development (economic aspects), care for natural environment (ecological aspect) and quality of life (social aspect).

For many years the term "sustainable" was mostly connected to ecological issues and problems analyzed were usually damages to natural environment caused by civilization. Today, companies striving for sustainable development are the result of more utilitarian and anthropocentric rationales such as protection of environment and surviving. Focusing on human kind and nature prove that enterprises are a mean and support for sustainable development instead of being a reference point only. The consequence is change of the corporate goal definition, as even if the condition of success is the value produced, it cannot be produced at the expense of main stakeholders.

Corporate sustainability in the dynamic complexity of the twenty-first century economy means that businesses need to, through developing and sustaining relationships with key stakeholders, establish a corporate culture "consistent with the concept of sustainable development". To achieve this, [20] identifies the "six shifts": from objects to relationships; from parts to the whole; from domination to partnership; from structures to processes; from individualism to integration; and from growth to sustainability.

Hence, sustainable development can be defined as capability of an enterprise to adjust to changes in business environment to catch currently best performance methods and to achieve and maintain predefined level of competitiveness. It is not revolutionary approach, however it proves capability to use and improve competences, activities and values, which states for

building future, without discrimination of previous achievements but with their help as a strong basis for future success.

3. QUALITY MANAGEMENT

Quality is a relative term as it depends on culture, ethics, civilization, it refers to time, place and is multi-dimensional. Many ways of defining and interpreting quality term in utilitarian sense refers to the level of noticing and range of problems it contains in a company. According to L. Wasilewski [19] „if for any reasons we have to define the term quality, we have to adjust it to the level of system development in a company". As their quality system is developing, companies change main dimensions of quality definition and measures they use. Such evolutionary character of the tem quality can be found in scientific works of [1; 7; 14]. D. A. Lubin and D. C. Esty [11], defined actions undertaken in companies to achieve quality as one of mega trends in management. Development of management ideas can be presented in the form a life cycle as in the scheme below (fig. 1)
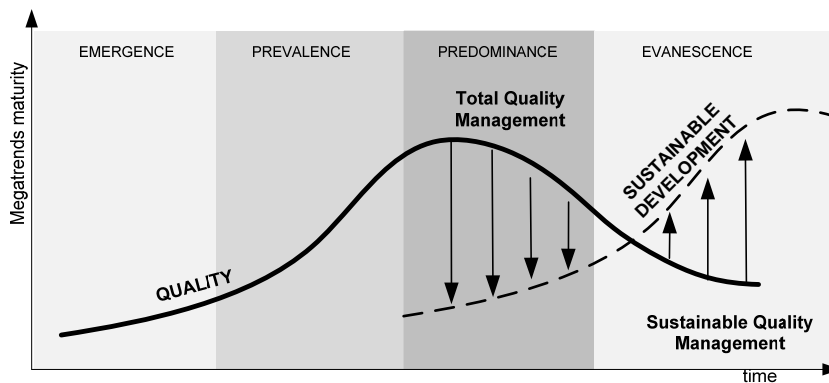

Figure 1. Life cycle of a mega trend „Quality"

In the first stage of this mega trend development, quality was mostly connected with products and the focus was on inspection of some critical characteristics of final products referred to predefined requirements – specifications. Inspection was executed by quality control department employees, without participation of manufacturing department staff. Along with economic development and production scale growth inspection costs have been growing and did not give the results expected by the owners. It was noted that by inspection it is impossible to provide an appropriate level of quality. The scope of activities charged to the quality started to extend the processes of production. This stage of development and the perception of quality in the company in the literature is called quality control. In actions for quality employees were included in the production, drew attention to the skills of workers supervised by them formally established requirements and standards for their implementation. Feedback was created between the result of control and production line. Based on the results of checks production process was modified so as to obtain products that meet the specifications. As in the run-up, the producers did not have much difficulty in disposing of the products, and therefore did not have to take into account customer feedback. Therefore, during this period primarily refined receiver subsystems and supply the current and final product inspection, not paying attention to the information coming from the market.

The next step is the development of quality assurance. It was characterized by a gradual moving away from a narrow perception of quality, treated as compliance with the requirements and technical standards for the quality, expected by the users of the products. During this period there was a significant change of views on the concept of quality and its

place in the management of the company. The essence was to build a quality system, which purpose was aimed at preventing non-conformity, and managers started to be involved in system functioning. Although management involvement was limited, the first declarations for the management of enterprises in the form of so called quality policies, systems and internal evaluation of compliance between declarative and actual commitments, covering all areas of the company appeared.

The fourth stage, therefore, can be described as quality management, where quality has become a strategic issue and its scope extended to the quality of the organization and the quality of the relationship with the environment of an organization (customers, suppliers, competitors, the public in general). Managers began to look for new methods and tools to support collaboration between departments, taking into account information from the market and improve manufacturing processes [8]. European standardization offers the wide range of norms defining specific requirements and guidelines for quality management in predefined branches [13].

The discussion on the future and the role of quality management in the enterprise is ongoing for almost ten years. In the literature we can find two views. The first of these relates to the concept of TQM. It predicts a decrease in demand for quality management function (department, position, etc.), due to the success of total quality management. This paradigm states that the responsibility for quality lies not in one department or one person (the representative of the management), but the whole organization needs to take responsibility for quality and take it as a common value. The second trend is related to the evolution of the semantic, which speaks of "excellence" and not a "quality". The idea of quality has become insufficient for the development of enterprises, many companies benefits from the awards and excellence models and uses them as guidelines. Hence, the term "quality" becomes insufficient for companies' development, and many of them focuses on awards and excellence models taking them as directives or guidelines. Both trends despite of differences have some common elements. They both introduce the next term important for identification of the role of quality management in a company. The term mentioned is "transactivity" [2]. It originates from the basic connection of organization and its broader sociological context and consequently is the key relation between the idea of quality management and more and more important aspect of social corporate responsibility. It is also an attempt to draw attention of managers to necessity to react to needs and expectations of more and more various groups of stakeholders, providing in the same time value for shareholders.

Expectations of stakeholders do not refer only to the direct transaction between the parties, but also to participation in the debate on social and environmental problems, and proactive thinking about the effects of business in society. This growing concern for the public is a part of the change in thinking about quality. In this new way of thinking about money should go back to the definition of the client by Crosby and to the old TQM definitions contained in ISO 8402:1992 as a starting point to define the next dimension of quality. This new dimension of quality must support businesses through the challenges of the next mega trend of "sustainable development". Binding part of the old with the new and the new with the old is the concept of stakeholders and the organizations responsibility for its impact on society.

4. SUSTAINABLE DEVELOPMENT INFLUENCES AND IS INFLUENCED BY QUALITY MANAGEMENT

Analysis of both mega-trends, sustainable development and quality, leads to the conclusion that they much in common [4; 5; 6; 9; 10; 15; 17; 18]:
− both have gone through a historical and conceptual progression from passive reactivity to proactive, strategic integration;

- both impact satisfaction, well-being and safety of customers, employees and other stakeholders
- both are based on a core set of values, such as "create zero waste," "make external costs visible," and "drive out fear" between management and employees. Like quality, sustainable development also has a strong focus on people—not just in terms of customer satisfaction, but related to the quality of working life and employee satisfaction;
- both impact, and are impacted by, every function in the organization. Just as a customer's perception of quality is affected by everything including product design and development, manufacturing, logistics, interactions with marketing, sales, customer service and more, so too is sustainability impacted by every function within the organization.
- both are based on continuous improvement towards a performance ideal: a company will never reach perfection in either quality or sustainability, and it is also never "done," but rather always striving to improve towards the goal of perfection;
- both, if done well, help drive significant financial and strategic benefits to the organization in the form of scrap and rework reduction, cost reductions, increased profitability, improved reputation and customer loyalty. Done poorly or insufficiently, however, both can lead to waste, increased costs, lost customers, degraded company reputation, and other adverse business impacts;
- both impact, and are impacted by, every function in the organization: just as a customer's perception of quality is affected by everything including product design and development, manufacturing, logistics, interactions with marketing, sales, customer service and more, so too is sustainability impacted by every function within the organization;
- in both, senior management holds complete responsibility. The majority of quality problems are the fault of poor management rather than poor workmanship. Likewise, corporate sustainability success is directly related to CEO commitment. Value creation is driven through executive buy-in and execution throughout the organization. Similar to chief quality officers, the chief sustainability officer must lead an effort to institutionalize this new thinking and processes into the company.

I believe that there are three main ways in which experience in quality managemnt and knowledge in the area can support enterprises in realization of the challenges emerging from sustainable development realization. They are the following:

- knowledge and experience in applkying methods such as,
- experience in managing key process and
- knowledge and experience in imlemention of organizational and cultural changes.

However support seems not to be enough. It is necessary to define activities in the area of quality management which need to be taken not to exist for managers only as „somtehing obvious and normal" (fourth stage of a lifecycle), but also as the source of inspiration in creating value for stakeholders and and support in solving potential and existing problems. What can sustainable development teach quality? In which direction quality management systems should develop?

Taking the fact that quality standards according to ISO 900 and branch specific standards are extremely popular within companies into consideration, necessity to update and improve them is obvious. Increasing standards and making them more detailed should refer to:

- including „risk based thinking" to activities and processes of a company,
- better alignment with business management processes which means taking context of corporate operations into consideration,
- knowledge management,
- life cycle management.

Sustainabale development is a current buzzword. However it is not easy to manage various and sometimes contrasting aspects. Organizations should put their actions on solid basis. The basis is provided by experience and knowledge previously gained by quality mega-trend.

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