

On the Relationship between Quality and Sustainability

Mats Deleryd

IAQ Academician, Sweden

Senior Vice President Quality, Safety & Environmental Care, Volvo Group

Abstract

The most common definition of the concept of sustainability was developed in 1987 and presented in the so-called “Bruntland-Report” where sustainability is defined as; “Meeting the needs of the present generation without compromising the ability of future generations to meet their own needs” (World Commission on Environment and Development (WECD) 1987). Sustainable development can be described as a process for meeting human development needs and goals while sustaining the ability of natural systems to continue to provide the natural resources and ecosystem services upon which the economy and society depend. Hence, sustainable development ties together concern for the carrying capacity of natural systems with the social, political, and economic challenges faced by humanity. In most references, the concept of sustainability is therefore defined in the three areas of environmental-, social- and economic sustainability.

Trying to relate the concept of quality to the concept of sustainability, it is clear that the concept of quality as such has a much longer history. The concept of quality has developed over time and many authors have focused the definition of quality. In the very first phases of the industrial revolution, the function of a given piece of machinery was enabled by filing and fitting of different parts in order to achieve functionality. With the industrial revolution the concept of tolerances made mass-production possible and parts of machinery could for the first time become interchangeable. Still, the definition of quality was very much focused on production and the ability to meet very tight tolerances. Concepts like Statistical Process Control (SPC) took the concept of quality further but providing the possibility to control production processes by elimination waste. These concepts and additional quality improvement tools have then been further developed into the “LEAN-approaches” we see in most companies today. With the Total Quality Management (TQM) revolution, the concept of quality turned clearly towards a definition of quality being focused on customer satisfaction. Still, today the prevalent definition of quality is focused on the needs of the customers and the ability the products and services of an organization has to fulfill these needs.

With the entry of the concept of sustainability, also the concept of quality is taking a further step, looking beyond the satisfaction of the customers. The trend we now see is that any organization needs to have an even broader view of its operations aiming not only for the satisfaction of its customers but actually the total role the organization plays in achieving a higher level of “societal satisfaction”.

The speech and presentation will focus on the development of the concept of quality and sustainability and elaborate on the links and future alignment between these concepts.