

Quality management theories of edward deming and joseph juran



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Aiming at high quality is a dynamic process, which never ends, so the concept of quality management focuses on the idea of working on better quality. It includes every aspect of the system: environment, employers and the working process.

The structure must effectively use the workforce in the whole – from the line workers to the CEOs to reach the highest quality. Quality management is not considered a suggestion of a single individual. It is a combination of concepts and ideas, and it is associated with lots of notions and famous names. Some resources define Frederick Taylor as the person who invented the concept of quality management, but it is more customary to refer the origin of this concept to the works of Philip B. Crosby, W. Edward Deming and Joseph M.

Juran, due to the significant impact made by these specialists in the USA and Japan economy in the second half of the 20th century. During the period after the World War II the USA did not face any difficulties in selling the goods produced by the USA manufacturers. This situation led the USA manufacturers to constant increasing of production volumes, which affected quality control. The situation in general persuaded the USA manufacturers that they could sell any kind of product even of worse quality, while customers did put severe demands to the quality. The situation in postwar Japan was directly contrary to the situation in the United States. The war left the state exhausted, so the production means were to be rebuilt.

Besides, the manufacturers in Japan were also forced to fight with their poor reputation, because it was customary to treat Japanese products as the products of poor quality. Thus, Japan concentrated on improving quality.

Japanese staff visited foreign countries to learn the approaches implemented in other states to manage and improve quality. Numerous foreign specialists were invited to Japan to give lectures in quality management. These experts significantly influenced the process of improving quality in this country.

Their efforts resulted in improving quality and reducing defects. It took about 20 years to update the industrial system of Japan. The approaches involved teaching the managers of high levels, training on all levels for managing quality, and using the workforce in the whole. As the result, in the beginning of 1980s the Japanese products, especially in automobile industry and electronic industry exceeded the quality of the products of corresponding branches, produced in the United States.

When the US manufacturers started losing markets both in the USA and abroad, they started looking for the treatment. Thus, W. Edward Deming was called to resolve the problem. (Ishikawa) Deming worked in Bell Telephone Company with Walter A. Shewhart in the 1930s. Walter A.

Shewhart was a statistician, and he believed that statistics is the necessary tool for controlling the product. He created a special statistical chart for observing the variables of the products. Deming developed this procedure, using the control techniques of Shewhart. His system informed managers about the necessity to interfere in the process of production. (Pryor et al) Deming improved and used this approach during the second World War in his working for the war production.

In 1947 he was sent to Japan to help restoring devastated manufacturing plants in Japan. He introduced his approach in his lectures on statistics
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methods to Japanese engineers and businessmen. The Japanese professionals eagerly accepted the ideas, presented by Deming. The method of Deming corresponded to the ideas and interests of Japanese audience. His thought went beyond the restrictions of numerical run of excellence and incorporated into the creation of better quality in all phases of manufacture.

The chain, worked out by Deming, produced the following effect: with the improvement of the quality the costs reduce and the productivity increases. As the result, more jobs appear, new markets are added and market shares enlarge. He encouraged the satisfaction and pride of the workers and insisted that the improvement of the process is managers' task, rather than workers'. A central theme in Deming's works, quality circles, was based upon the significance of comprehensive staff discussions of product quality. The gross domestic product in Japan rose by more than 10% yearly since 1960. Deming defined 14 points necessary for successful management.

These points are as follows: " create a plan; publish the aims and purposes of the organization; learn and adopt the new philosophy of quality; understand the purpose of inspection; stop depending on inspection; stop awarding business based on price alone; improve the system constantly; institute training; teach and institute leadership; remove barriers that rob people of pride for workmanship; encourage education and self improvement for everyone; make action to accomplish the transformation, make it everyone's job. (Deming) Joseph Juran moved to Japan in 1954. There he participated in Japanese quest for achieving higher quality. The same as Deming, he insisted that it is important to plan, organize and control.

Unlike Deming, he paid more attention to customers' satisfaction, and he put technical methods with management tools ahead of satisfaction of the workers. By the beginning of 1960s quality control circles, developed by Deming were used in Japan. Juran worked out basic steps to be taken by the companies, but he thought that there should be a specific point where quality meets the needs of consumers, and there is no need to go far beyond this point. For instance, in case the consumer sells his car after 50 thousand miles, the car should be built so as to work for 60 thousand miles without troubles. Higher quality in this case would not justify itself but would increase the costs. Juran determined three elements of quality improvement: planning, controlling and organizing quality.

He also listed to steps that are necessary to achieve quality improvement: " build awareness of opportunities to improve; set goals; provide training; implement projects to solve issues; report progress; give recognition; communicate results; keep score; keep up drive by making annual development part of the systems and processes of the company. " (Juran)

Although both Juran and Deming are the experts of the same sphere - quality management and improvement, there are definite distinction in their concepts and their works. Deming worked out a comprehensive new concept for organization management and human enterprises. He described production as a system of relations, which includes the following elements: market research, design, suppliers' chain, material, the process of production, assemblage, inspection, distributing and consumers. According to the theory of Deming, any system should have an aim, and it is very for everyone involved in the process of production to understand this aim to

effectively manage the organization. Juran, in his turn, developed analytical approach to quality management.

He gave advice concerning planning, control and improvement of the quality, and he supported management practice, which improves products and services. Deming treated organization as a system, while Juran explained how to manage the elements that quality depends upon. Thus, Deming should be treated as a philosopher, who provided theoretical base, rather than practical approaches. At the same time, Juran paid more attention to teaching people successful management practical knowledge.