

Joseph M. Juran

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Introduction

Joseph M. Juran has led a life of success and accomplishments. Using his intelligence and dedication Juran changed himself from a poor Romanian immigrant into a world renowned quality control expert. He has had a varied successful career as an engineer, as a writer, as an educator and as a consultant. Juran has been called the “father” of quality, a quality “guru” and the man who “taught quality to the Japanese.” Juran has expanded the philosophies of quality from its statistical origins to what is now known as Total Quality Management. This paper contains a short summary of this great man’s achievements.

Background

Joseph M. Juran was born in Brailia, Romania, during December of 1904. When Joseph was five years old his father left Romania and came to the United States in order to make a better life for his family. Three years after he had left Romania Joseph’s father had earned enough money to bring the rest of his family to the United States. When Joseph was eight years old he and his family moved to Minnesota. The Jurans left Romania with hopes of prosperity. Their hopes were unfulfilled; they remained in poverty even after they came to the United States.

Education

During his youth, Joseph excelled at learning. Joseph was so far ahead of the average students that he eventually skipped the equivalent of four grade levels. Joseph’s desire for excellence and education allowed him to become the first person from his family to pursue a higher education. In 1920, Joseph enrolled at the University of Minnesota. In 1924, Joseph graduated from the University of Minnesota with a B.S. in Electrical Engineering. After he graduated from the University of Minnesota, Joseph put his education on hold and went to work. In order to reduce costs, Joseph’s work hours were reduced during the depression. Joseph used these extra hours to attend classes at Loyola University. Juran received a J.D. in Law at Loyola University in 1936.

Professional Career

Joseph started his professional career soon after he graduated from the University of Minnesota. In 1924 he started working with Western Electric. At Western Electric Joseph worked within the inspection department of the famous Hawthorne Works located in Chicago. Hawthorne Works was a very large factory that employed 40,000 workers. The complexity of this factory introduced Joseph to his first challenges in management.

In 1926, while working at Hawthorne Works, Juran received a rare and extraordinary opportunity. At this time a team of Quality Control pioneers from Bell Laboratories designed a program to implement new tools and techniques at Hawthorn Works. In order

to carry out their program effectively the Quality Control pioneers needed to implement a training program for the employees of Hawthorn Works. Juran was chosen as one of the two engineers who were to work for the promising inspection Statistical Department. This quality control department was one of the first of its kind in the nation.

Juran kept working his way up within Western Electric. By 1937, Juran had become the chief of Industrial Engineering at Western Electric's home office in New York. As chief of Industrial Engineer, one of Juran's tasks was to discuss the different methods of quality management with other companies.

During WWII, Juran took a temporary leave of absence from Western Electric. During this time Juran worked in Washington D.C. as an assistant administrator for the Lend-Lease Administration. Juran and his team worked on improving the efficiency and eliminating the excessive paperwork of the Lend-Lease Administration's processes. By making these processes more efficient, Juran and his team hastened the arrival of supplies to the United States' overseas friends.

Juran finished his work with the Lend-Lease Administration in 1945. At this time, Juran's temporary leave of absence from Western Electric had stretched to the span of four years. Juran decided not to return to Western Electric. He decided that his true calling was to devote the remainder of his life to the study of quality management.

In 1945, at the age of 40, Joseph took the position of Chairman of the Department of Administrative Engineering at New York University. This position was not enough to keep Juran busy, so he also started his own consulting practice. Juran worked as a consultant to businesses and organizations in forty different countries. On top of both of these jobs, Joseph continued writing books and delivering lectures for the American Management Association.

The Union of Japanese Scientists and Engineers (JUSE) invited Juran to Japan in the early 1950's. In 1954, Juran arrived in Japan and conducted seminars for the top- and middle-level Japanese executives. Juran's Japanese lectures were taken so well that he was asked to give more lectures to JUSE and to the Japanese Standards Association. After his lectures, Juran's work spread throughout Japan. Large Japanese companies started their own internal training programs, the national radio offered courses for foremen, and booklets were available at newspaper kiosks.

In 1979, Juran founded the Juran Institute. The original purpose of the Juran Institute was to provide a continuity of Juran's ideas through video programs. The video series, Juran on Quality improvement, was very successful. This led to the institute to take on many other activities, and Juran worked as the institute's manager.

In 1986 Juran helped with the creation of the Malcolm Balbridge National Quality Award by testifying before Congress and serving on the Board of Overseers.

Throughout his lifetime Juran had a varied successful career as an engineer, as a writer, as an educator and as a consultant. But eventually Juran decided to end his career. In 1987, Juran quit his job as the manager of the Juran institute. Throughout 1993 and 1994 Juran gave a final series of lectures. After these lectures were finished Juran ceased giving any public appearances. Juran decided to focus the remainder of his life on his family and writing projects.

Writings

Juran has had many of his works published. He has made contributions to literature in more than twenty books and hundreds of published papers. Certain selections of his writings have been translated into seventeen different languages.

Juran started professionally writing in 1928, when he wrote a pamphlet entitled "Statistical Methods Applied to Manufacturing Problems." This pamphlet has since become the basis for the well-known AT&T Statistical Quality Control Handbook, which is still published today.

One of Juran's most influential books is the Quality Control Handbook. The original edition was published in 1951; there are now four published editions. The Quality Control Handbook became the standard reference work on quality control and established Juran as an authority on quality.

Awards and Honors

Nearly thirty years after Juran visited Japan, Emperor Hirohito recognized Juran's contribution to the development of Japan's quality control and the facilitation of a U.S. and Japanese friendship. Juran was awarded the highest award that can be given to a non-Japanese person, the Order of the Sacred Treasure.

Juran's definitions of Quality

In Juran's Quality Control Handbook, he states that the word quality has two different meanings that are spelled the same way. These two different meanings of quality have caused confusion since some people assume you are using one definition of quality rather than the other.

This is an example of the confusion of the word quality that was taken directly out of the Quality Control Handbook.

"At one bank the upper managers would not support a proposal to reduce waste because it had the name "quality improvement." In their view, higher quality also meant higher cost. The subordinates were forced to revise the proposal "productivity improvement" in order to secure approval."

Juran's two definitions of quality:

“1. "Quality" means those features of products which meet customer needs and thereby provide customer satisfaction. In this sense, the meaning of quality is oriented to income. The purpose of such higher quality is to provide greater customer satisfaction and, one hopes, to increase income. However, providing more and/or better quality features usually requires an investment and hence usually involves increases in costs. Higher quality in this sense usually "costs more".

2. "Quality" means freedom from deficiencies-freedom from errors that require doing work over again (rework) or that results in field failures, customer dissatisfaction, customer claims and so on. In this sense, the meaning of quality is oriented to costs, and higher quality usually "costs less"."

Juran's two definitions of quality	
Definition of Quality 1	Definition of Quality 2
<p>Product features that meet customer needs</p> <p>Higher quality enables company to:</p> <ul style="list-style-type: none"> Increase customer satisfaction Make products salable Meet competition Increase market share Provide sales income Secure premium prices <p>The major effect is on sales.</p> <p>Usually, higher quality costs more.</p>	<p>Freedom from deficiencies</p> <p>Higher quality enables companies to:</p> <ul style="list-style-type: none"> Reduce error rates Reduce rework, waste Reduce field failures, warranty charges Reduce customer dissatisfaction Reduce inspection, test Shorten time to put new products on the market Increase yields, capacity Improve delivery performance <p>Major effect is on costs.</p> <p>Usually, higher quality costs less</p>

Making Quality Happen

Juran believed that turning company goals into results, or making results happen, is done through managerial processes. When a company's goal is quality, they need managerial processes that focus on quality. Juran defined three managerial processes that are necessary to manage for quality. The three processes combined are called the Juran Trilogy and include quality planning, quality control and quality improvement.

Juran Trilogy		
Quality planning	Quality control	Quality improvement
Establish quality goals Identify who the customers are Determine the needs of the customers Develop product features that respond to customer needs Develop processes able to produce the product features Establish process controls; transfer the plans to the operating forces	Evaluate actual performance Compare actual performance with quality goals Act on the difference	Prove the need Establish the infrastructure Identify the improvement projects Establish project teams Provide the teams with resources training, and motivation to: <ol style="list-style-type: none"> 1. Diagnose the causes 2. Stimulate remedies Establish controls to hold the gains

Conclusion

Throughout his career Joseph M. Juran has led a very successful life and has made many contributions to the fields of quality control and quality management. During his career Juran taught many of society's leaders and affected the entire world. There are many people who haven't given quotes of approval regarding Juran. Among these people are Steve Jobs founder of Apple Computer and Next, Peter Drucker a writer and theorist and Lawrence Appley chairman emeritus of the American Management Association. The quote that says the most is given by Jungi Noguchi, Executive Director of the Japanese Union of Scientists and Engineers, who stated, "Dr. Juran is the greatest authority on quality control in the entire world." Juran never sought fame through his work; he only wanted to make sure that his accomplishments were purposeful and genuine. Juran was once quoted saying that "...it wouldn't bother me if I'm not remembered at all." As long as there is an interest in quality, Juran will not be forgotten.

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