

Responding to Customers' Needs



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The global financial crisis stemming from the U.S. subprime loan problem has led to the bankruptcy of several major securities companies, necessitated the infusion of public funds into numerous major banks, and in too many cases caused people to instantly lose financial assets built up steadily over many years. The overemphasis on wealth creation by money games has had a major impact on the real economy and accelerated the energy revolution involving change from dependence on fossil fuels to use of alternative energy sources, perhaps signaling the start of a new industrial revolution in the 21st century. In this situation, customers will begin expressing new needs, and companies unable to respond will be weeded out in all industries. The lesson we learn from the dinosaurs is that when confronted with change, it is not necessarily the strongest that survive but rather those best at adapting. Likewise it is not the biggest companies that will weather the current storm but rather those best at adapting to new circumstances. The need of the hour is to respond quickly and flexibly to the changes taking place in our world while keenly discerning what we should change and what we mustn't.

JTEKT is a "monozukuri" company taking pride in manufacturing excellence and continually striving to be the world's number one. However, being number one means achieving number one customer satisfaction, and technology must achieve such satisfaction to be considered truly number one. In regard to machine tools, for example, no matter how fast our technology is able to make the spindle rotate, unless the spindle cuts the customer's product with optimal precision according to the customer's wishes, the customer will not be satisfied. We need to achieve number one technology accurately meeting the diverse, quickly changing needs of customers in many areas, and cultivating a large number of skilled engineers is important to accomplishing that. My hope in addition is that we will grow from being a monozukuri company that provides optimal products to meet customers' requirements to one that creates new value for customers.

Allow me to share a lesson I learned early in my

engineering career. I was engaged in designing a honing machine to improve bore out-of-roundness in an engine block. The drawing requirement for bore out-of-roundness was maximum 5 μm , but with an engineer's pride I aimed for 1 μm and succeeded in developing a good, albeit costly, machine. However, the blocks manufactured with 1 μm precision showed no improvement over those manufactured with 5 μm precision in regard to fuel efficiency. The reason was that high-speed engine rotation led to high bore temperatures and deformation of 50 μm to an oval shape. It would have been more effective to consider high-temperature deformation than room-temperature roundness. In the end, the effective countermeasure was appropriate placement of the engine block ribs to equalize left/right thermal expansion deformation and prevent the engine block to an oval shape even at high temperature.

There is one more thing I would like to consider, and that is the word "benchmarking." Are you aware of the origin of this word? According to one theory, the term originally meant to "mark" the guilty person among a number of suspects sitting on a bench in a courtroom. But today the word "bench" is perhaps most commonly associated with sports such as baseball. Imagine you are the manager of a pro baseball team. It is the bottom of the ninth with two outs, and your team is behind. Your team could win the game with a hit, and you have a number of good pinch hitters on the bench. Should you aim for a long ball, a bunt, or a walk? Also, the opposing team has a number of relief pitchers on the bench it might send out, some specializing in fastballs and others in control. You must evaluate the players on your bench and decide how to "mark" them based on consideration of the opposing pitchers. Benchmarking is a way for determining your position in relation to competitors and making the best plan to win. It also is the process of reviewing your strategy and strengthening your weaknesses by humbly learning from competitors. In addition, benchmarking ourselves with customers, we will learn their true requirements and establish a firm strategy for success.