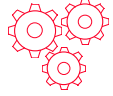


The Blacksmith's Anvil



Barringer & Associates, Inc., P. O. Box 3985, Humble, TX 77347, Phone: (281)-852-6810, FAX: (281)-852-3749

PARETO PRINCIPLE

You must work on the vital few things that influence results while ignoring the trivial many things that do not materially alter performance. You must know the vital few things to correct to get big improvements for your operations. This concept is true for reducing cost, improving quality, or solving business problems. **Build your list using \$'s not #'s of problems.**

Solving problems requires a breakthrough in your thinking to get improvements. You must separate the vital few details from the trivial many items. Vital problems are difficult to solve and produce good results. Trivial problems are fun to solve, never put your reputation at stake, and produce few results.

Dr. Juran, the father of modern quality technology, describes a universal method for solving problems. His recipe comes from studies in economics by Vilfredo Pareto. Juran calls the method the Pareto principle.

J. M. Juran said:

Changing from old standards to new standards for improved results requires a breakthrough recipe. The steps are straightforward but not easy to accomplish:

1. You must prove to people the need for a breakthrough. Set a favorable attitude for an improvement program.
2. Use the Pareto principle. Sort the **vital few** opportunities from the **trivial many** problems.
3. Secure new knowledge about the problem for effective problem solving action. Guide work on projects and guide how the studies are conducted.
4. Analyze or diagnose the vital few problems for corrective action.
5. Deal with cultural resistance. People oppose changes required for making improvements.
6. Set your actions on a course for making effective improvements.
7. Build controls for holding new performance levels. Follow-up on decisions. Get results. Activity alone do not achieve results. Convert activities into accomplishments.

Vilfredo Pareto (1848-1923) said:

Uneven distribution of world wealth fits a logarithmic law of income distribution. A few important nations have most of the wealth. Most nations have little wealth.

Juran generalized Pareto's ideas in 1940. He said the issue is: *Separating the vital few problems from the trivial many problems.*

Juran's description of the Pareto principle is the 80/20 rule where 10% to 20% of the items give 60% to 80% of the effect. Here are Pareto principle examples:

1. Wealth—A few % of the people on earth hold most of the wealth.
2. Marketing—A few key customers account for most of a Company's sales.
3. Purchasing—A few % of all purchase orders account for most \$'s spent.
4. Personnel—A few % of the employees account for most of the absenteeism.
5. Costs—About 20% of the parts made in a factory cause almost 80% of the total factory costs.
6. Population—A few % of countries have most of the world's population.

7. Biological—One biological specie (insects) accounts for the bulk of the world's biological mass.
8. Planet Mass—One single planet (Jupiter) contains the bulk of the solar system mass around the sun.
9. Inventory—a few % of the total catalog items account for most of the inventory \$'s in a warehouse.

J. W. Anson said:

Fixing major problems on the Pareto list requires effort, time, and perseverance. Solving vital problems puts your reputation at stake on high profile tasks for big gains. **Winners work on the vital few problems.**

Losers work on trivial problems without getting big gains. Working on trivial problems makes pretty exhibits without chances for failure. Pareto distributions assign eye-catching activities on trivial problems into last place.

Working on the vital few problems results in major gains on the most important projects! This is an important competitive key for any manufacturing operation.

Use the Pareto principle with these action steps:

- Sort problems in descending order from the most important to the least important—use \$'s cost whenever possible.
- Start work on the top 10% to 20% of the things which produce the vitally important improvements.
- Ignore 60% to 80% of the things on the bottom of the lists—they're the trivial problems producing few gains.
- Solve the really big problems at the top of the \$ list—then sort the list again to revise the priorities.
- Use continuous improvement programs to chip away at the big ticket items for a never ending stream of changes.

Fix the vital few problems for important gains.

Pareto principles result in: Ranking problems in the order of their importance (use money not occurrences) for establishing work priorities. Winners in an organization work on the vital few problems which change the results for the business. Losers in an organization work on the trivial few problems which produces no gains. Set-up your breakthrough plans and make important changes for improvements in your area using Pareto principles.