

The Vital Few

A hundred years ago the Italian Economist Vilfredo Pareto studied the distribution of wealth in his country. He discovered that the wealth was not evenly distributed across the population, but 80% of the wealth was in 20% of the population. His basic premise of a natural imbalance has since been taken and applied to many different situations. In management this has been used successfully to show that there is an imbalance between the inputs and outputs of a process. The outputs are not in proportion to the inputs, but 20% of the input of resources, the people, materials, time and effort, produce 80% of the output.

People have since called this the Pareto Principle, although Juran points out that this is incorrect. Juran was the first to identify the concept in management, drawing analogies with the work of Pareto. It was Juran who coined the phrase “vital few and trivial many” and it is this idea that I want to explore in relation to project management.

The idea of the Vital Few would suggest that we do not waste our effort on the trivial. As in the saying: “There is nothing so inefficient as doing efficiently that which shouldn't be done at all”. So we focus on the critical items to be completed, the quality and not the quantity and be selective in our effort rather than being extensive. Juran in his work on quality applied this to the monitoring of defects, where 20% of the defects caused 80% of the problems. So the focus should be applied to the 20% of the defects to correct these, because that will gain the maximum benefit.

In projects we can apply this in several different ways:

- 80% of the costs can be attributed to 20% of the items on the project. If we want to apply effective cost management we should be concentrating on the 20% of items and control these.
- 20% of the activities consume 80% of the project duration. To be effective in controlling our use of time we need to concentrate our efforts on these 20% of activities.
- 20% of our resources contribute to 80% of our output. So we need to make sure that we make the most efficient use of these resources, to gain the most from our project.

If we are to make use of this idea we need to be able to identify the Vital Few. Work at Dundee has shown a simple but effective way of identifying these critical items. You start by finding the average value of all the items, whether it is the average cost, activity duration, or use of resources. The items with a value greater than average are the Vital Few, and those below are the Trivial Many. For example, if we have a hundred activities on a project and their average duration is 15 days, then typically 20% of the activities will have a duration greater than 15 days. These will be our Vital Few for focussing our effort in managing the duration of the project.

The values will not always work out to be exactly 80/20 as originally suggested by Pareto. They can vary between 70/30 and 90/10. In either case it is easier to focus our efforts on the 30% of essential items, than dissipate our energies over all the activities on the project.

This does not mean we can ignore the Trivial Few. They still need to be managed and controlled because something could go wrong with them, they may spiral out of control and escalate the costs or delay the programme. The aim of this principle is to work smarter and focus effort in the right proportion. If the 20% of the items contribute 80% of our costs we should concentrate 80% of our effort into controlling these, because that is where we gain the greatest benefit in control. The 80% of items that contribute just 20% of our costs should only receive 20% of our effort in control, because they will provide us with the smallest return.

So Pareto provides us with a way of working smarter, and focussing our efforts on the Vital Few, so that we gain the greatest return from our efforts.

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