

: *What is the Pareto Principle?*

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Becoming agile means a person, a group, and the organization team as a whole understands and applies the Pareto principle. In 1906, Vilfredo Pareto, an Italian economist, observed a pattern for many events and situations. The Pareto principle states that, in many situations, roughly 80% of the effects come from 20% of the causes. This principle is also sometimes stated as 80% of results are due to 20% of the effort. The Pareto principle is also called the 80-20 rule or the principle of least effort. In decision making, project management, operations, and action-taking in general, we must try to determine what the crucial 20% is in a situation.

In his Forbes article, Kruse (2016) provides diverse examples that illustrate the 80/20 rule:

** 20% of the sales reps generate 80% of total sales.

** 20% of the most reported software bugs cause 80% of software crashes.

** 20% of patients account for 80% of healthcare spending.

Mullaiselvan (2009) asserts "Pareto's Principle, the 80/20 Rule, should serve as a daily reminder to focus 80 percent of your time and energy on the 20 percent of your work that is really important. Don't just 'work smart', work smart on the right things." Remember that in general, twenty percent of your efforts yield 80% of the desired results. Fried and Hansson (2010) advocate for a satisficing approach to work effort and expected outcomes. They argue "When good enough gets the job done, go for it".

The Pareto principle has some empirical support, but for managers, the value comes from understanding that all tasks are not delivering equal value. Prioritizing tasks based upon the anticipated contribution to project and organization success helps ensure that resources are used most appropriately. Managers must figure out what tasks are most important to do and who is most likely to do the tasks effectively and then ask them to do the tasks.

The Pareto principle is a heuristic guide to making decisions and allocating resources. Roughly 80 percent of the output from a given situation or system is determined by 20 percent of the input. Pareto Analysis is a decision-making technique that uses data to find out what is most important. To

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use Pareto Analysis, identify and list problems and their causes. Dam (2019) at the Interaction Design Foundation proposes two key questions that may help identify opportunities and address frustrations and resolve issues arising from work effort:

** Which 20% of your current efforts are resulting in 80% of your desired outcomes and happiness?

** Which 20% of your current efforts are causing 80% of your problems and unhappiness?

A Pareto chart analyzes the frequency of problems or causes in a process. It is a bar chart depicting measurements in categories. Common measures include frequency, quantity, cost and time. After ranking the data bars in descending order, a line graph is used to depict the cumulative percentage of the total number of occurrences, total costs or total time. For example, in manufacturing a Pareto chart can be used to show the relative frequency of defects. The chart provides evidence for identifying improvement activities. Another example from operations, categorizing and charting customer complaints can help identify the most important problems to correct. A Pareto chart is a prioritization tool.

Some consider that the Pareto Principle is a principle in Agile Management and even the most important principle. It is similar to the principle stated "Simplicity – the art of maximizing the amount of work **not done** - is essential. Understanding that it is important to "work smart on the right things" is a key to agility.

Overall, Pareto analysis helps managers prioritize and determine what has the greatest influence on overall goals. The 80-20 rule can be applied to any area of business including IT, design, sales, and HR (Dam, 2019). Prioritization helps minimize resource usage. Good enough is often good enough, but people must also know when perfection is really required (Seltzer, 2013).

Agile and agility require that people know when good enough is really good enough. Once 80% of the user stories or requirements are delivered, then ask what is the real cost of attaining the final 20%? Do the benefits of perfection justify the costs?

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