

Pareto Principle

Pareto Principle : 80% of the problems caused by 20% of the calls.

Introduction:

Pareto Analysis is relevant to quality improvement. Pareto charts are used to display the Pareto principle in action,

The Principle involves arranging data so that the few vital factors that are causing most of the problems reveal themselves.

Concentrating improvement efforts on these few will have a greater impact and be more cost-effective than undirected efforts.

On this worksheet you will find instructions, an explanation and sample data at the bottom.

Any queries with regard to this; email : enquiry@itihelp.com

For a copy of this file emailed to you, please contact:

enquiry@itihelp.com

and use Subject Header : Re: Request for Pareto Spreadsheet

The file is in Microsoft Excel 2002 SP3 format

Things to Look For in the Pareto Chart:

In most cases, 2 or 3 categories will tower above the others. These few categories which account for the bulk of the problem will be the high-impact points on which to focus.

1. Look for a break point in the cumulative percentage line. This point occurs where the slope of the line begins to flatten out. The factors under the steepest part of the curve are the most important.
2. If there is not a clear change in the slope of the line, look for the factors that make up at least 60% of the problem. Improve these few, redo the Pareto analysis, and discover the factors that have risen to the top now that the biggest ones have been improved.
3. If the bars are all similar sizes or more than half of the categories are needed to make up the needed 60%, try a different breakdown of categories that might be more appropriate.

Example

Total Calls	450
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Category	No. of calls	Percent	Cumulative Percent
Bespoke 4	160	35.56	99.56
Bespoke 3	115	25.56	64.00
Bespoke 2	58	12.89	38.44
Speedlink	43	9.56	25.56
Network	32	7.11	16.00
Lotus Notes	15	3.33	8.89
User Error	11	2.44	5.56
Hardware	8	1.78	3.11
Printer	6	1.33	1.78
Lotus Notes	2	0.44	0.44

percent formula is =
sum(100/450)*160

C. Percent formula
is
:=160+64.00

Total Check
= 450 100.00

Example

Setting up your Spreadsheet:

1. Setup a spreadsheet so the 1st column contains the category of the data, the 2nd column the percentages of each category and the 3rd cumulative percentages of each category.
2. Overall calls were 450 for the week. Calculate the % for the numbers and then sort from high to low - Data, Sort, Percent, Descending
3. Calculate the cumulative percentage then create the chart.
4. Highlight the chart data then click Insert, Chart, Custom Types, Line - column.

Calculating cumulative %

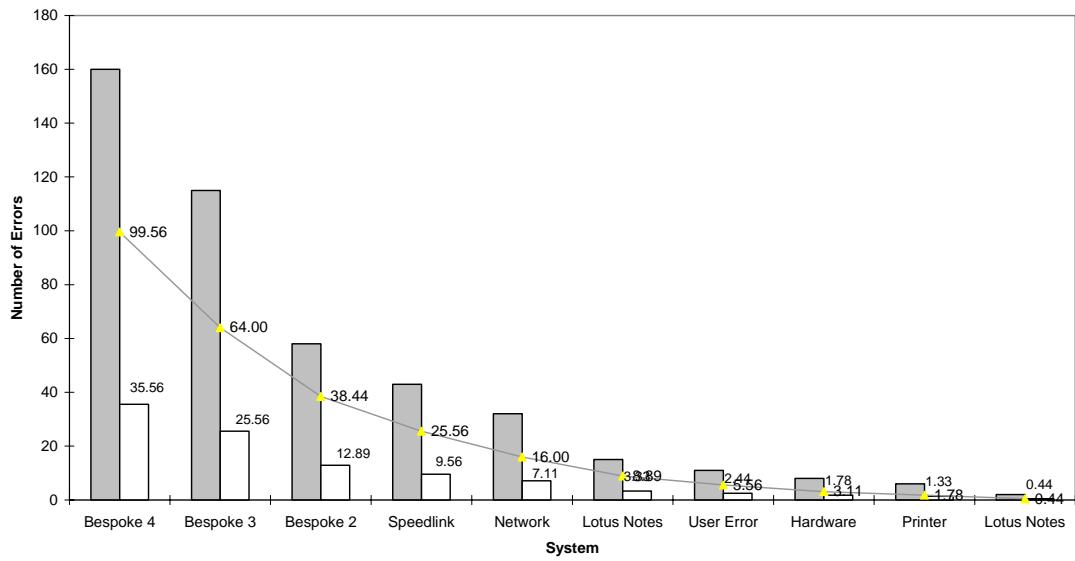
The cumulative % allows to determine what percentage of scores lie above and below any given score.

To make a cumulative percent table you will sum the percentage scores, starting from the bottom.

Click on the cells in the table to see the formula.

In the chart created here, it is Bespoke 4 and Bespoke 3 Systems that are causing the most errors.

Pareto Example : <http://www.itihelp.com>



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