encompass

consulting services

"For many events, roughly **80%** of the **effects come** from **20%** of the **causes**"

VILFREDO PARETO, Italian Economist

Making decisions in an 80:20 world-Using Pareto Analysis
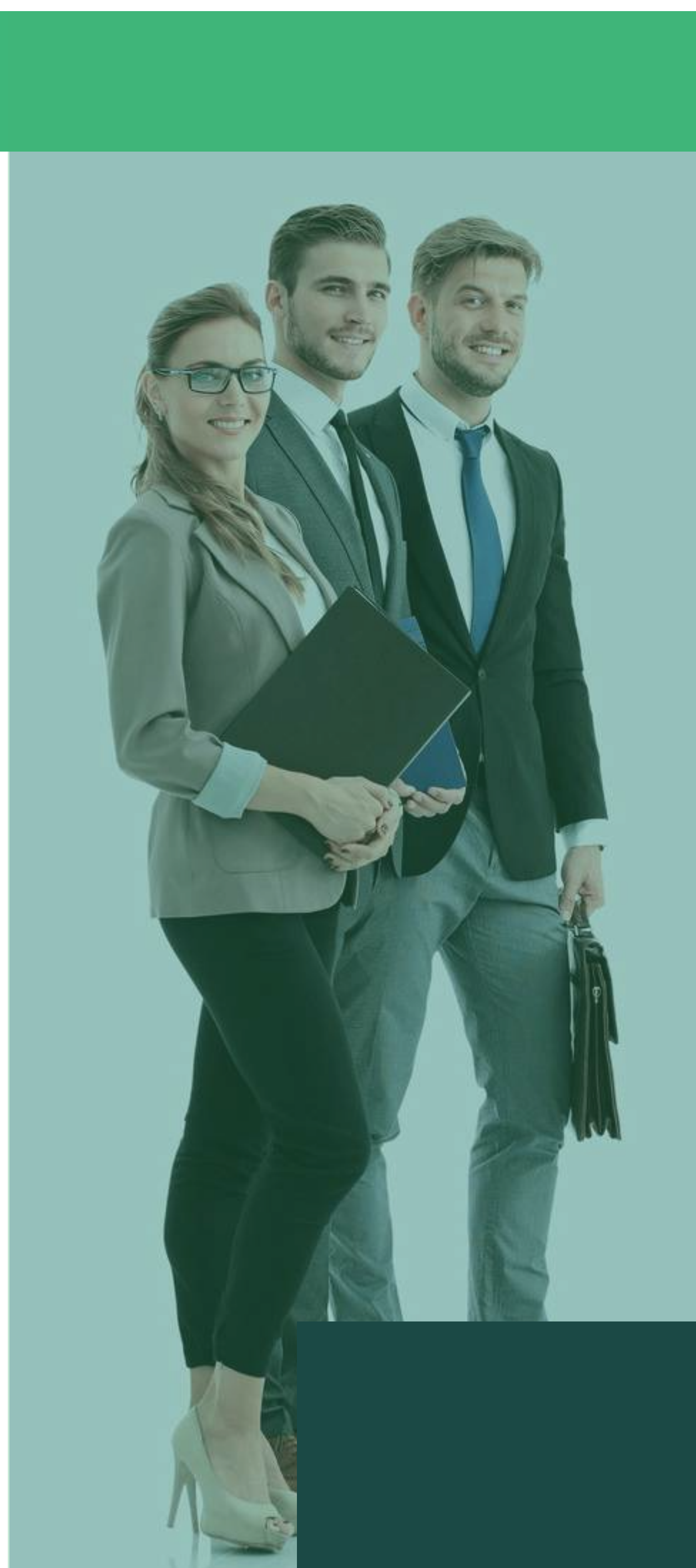
What is Pareto Analysis?

Pareto analysis is a straightforward decision-making tool used to compare and fix problems strategically. It uses the Pareto principle (which is also known by a few names, such as the 80/20 rule, The principle of factor sparsity, and a personal favourite of mine – The law of the vital few). The Pareto principle was named after Italian economist Vilfredo Pareto. His research found that many phenomena or trends follow the 80/20 rule, where an example in Italy at that time was that 80% of wealth belongs to 20% of the people.

Pareto Principle
Law of
80% 20%
rule
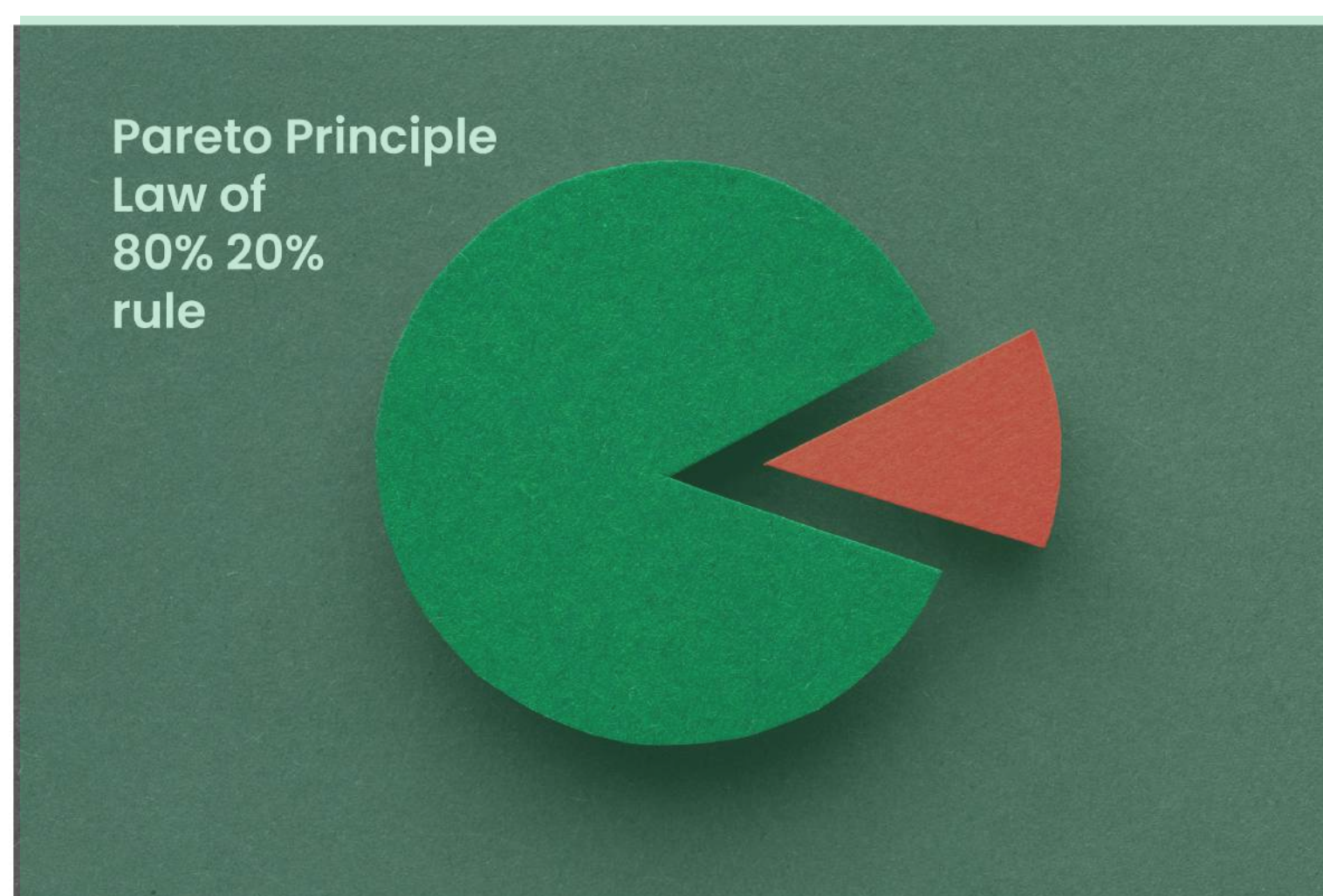
When to use Pareto Analysis?

As a leader of a small start-up a few years ago, I had to make important decisions about how to invest our limited time and money. We needed to invest wisely. Our start-up had a lot of energy and even more ideas – how did we work out which of our many ideas would lead us to the fastest growth? In this situation, it proved useful to perform a Pareto analysis. It showed us which ideas we should prioritise to take our business on the best chance for growth.

In complex and lengthy transformation projects, you will typically have more opportunities than you have resources (and time) to pursue. These constraints on your resources mean you must prioritise. It is in situations such as these, where the time and resources are not available to precisely plot the correct path to take, that conducting a Pareto analysis can be useful. At Encompass, we call it Progress over Perfection.

How to use Pareto Analysis?

1   Identify a list of problems

The list can be complied from many sources, depending on what you are solving for. Ideally your list should be as objective as possible, coming from sources such as Voice of Customer, or events that happen regularly that have a negative impact on your customers, or a break down in a tool or process.

2   Identify the cause of each problem

Identify the root cause of each problem. This does not need to be overly detailed, and may contain hypothesis rather than evidence, however by identifying the root cause it will help you direct your effort where it is most needed and prevent you from only superficially solving problems.

3   Score each problem

Using a relative measure, such as assign a number to each problem based on the negative impact associated with it. The scoring system will depend on the type of problem to be solved. For example, you might use a scale like 1 to 10, where problems ranked 1 have the lowest impact, and those ranked 10 have the highest impact.

4   Group and rank the problems together

Group all the similar problems together and calculate the collective scores. The problem with the highest score will be the one you should try to resolve first and provide the highest return.

5   Act!

Create a plan to address those root causes that are causing you the biggest problem. Ensure you have evaluative measures in place to confirm resolution as you go.

Worked example

Here is an example based on looking at 1000 calls that came into a clients' IT hotline from its employees. We followed the process above to identify where to focus our next actions.

1 Identify a list of problems

Issue Number	Description
1	Password Issues
2	Printer Issues
3	Application for Upgrade
4	Software Installation
5	Network Issues

2 Identify the cause of each problem

Issue Number	Description	Root Cause
1	Password Issues	People
2	Printer Issues	Software
3	Application for Upgrade	Process
4	Software Installation	Process
5	Network Issues	Hardware

3 Score each problem

Issue Number	Description	Root Cause	Impact score
1	Password Issues	People	500
2	Printer Issues	Software	350
3	Application for Upgrade	Process	80
4	Software Installation	Process	60
5	Network Issues	Hardware	10

4 Group and rank the problems together

Root Cause	Score
People	500
Software	350
Process	140
Hardware	10

As can be seen, most complaints (about 85%) stem from either People or Software issues.

Limitations of Pareto Analysis

Like all business analysis techniques, Pareto analysis comes with limitations. The most prevalent is the temptation to overlook small complications during the analysis. These small issues can accumulate over time and would not be captured in this process. Nor does this technique offer guidance on how to find and solve for the root causes of the problems.

Summary of Pareto Analysis

Sometimes we need a technique to help us with our decision-making to ensure we are applying effort in the most pragmatic way. Pareto analysis is used to help you identify the appropriate course of action to take when resources are limited but there are many options available.

This brings us to back to using this technique to maintain progress over perfection, in a resource (and time) constrained project.

How can we help?

Encompass Consulting Services partners with state government, federal government and corporates to develop tailored solutions that turn strategy into results. Driven by evidence-based decisions, data underpins everything we do.

We leverage metrics and analytics to identify gaps, inform priorities and drive delivery. Get in touch to improve your organisation's data fluency, measure performance, and shift from subjective to objective decision-making.