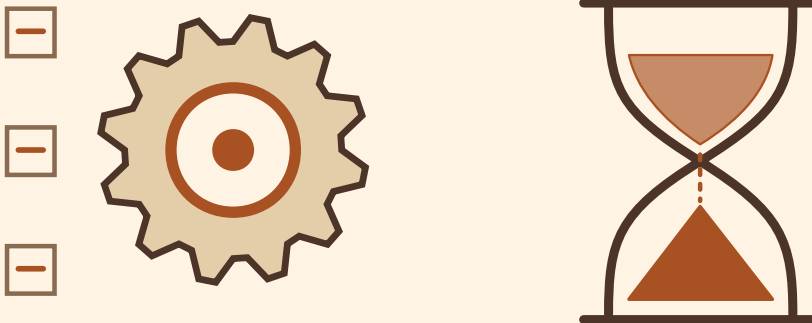




BUSINESS AND CUSTOMER ANALYTICS

Estimate Automation Value with Explicit Assumptions

Model capacity released, exception work and maintenance before promising savings



Sanjaay Gowda T S

FREE SAMPLE / INTRODUCTION + CHAPTER 1 / EDITION 1.0.0

sanjaaygowdats.ai

About this free sample

Estimate Automation Value with Explicit Assumptions

Sanjaay Gowda T S

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This first edition was prepared with AI assistance. The case studies are fictional teaching examples. Any measured outputs come from the supplied examples, not production customer data. The teaching scope, assumptions and limitations are explained in the chapters. Independent human technical, editorial and assistive-technology reader review is pending. Automated tests and accessibility checks do not establish certification or suitability for every use.

Run examples in a separate working folder using the supplied synthetic data. Review inputs and calculations before adapting the techniques to real operations. Model software, service access, subscriptions, ongoing updates and consulting are not included.

Author website: sanjaaygowdats.ai

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Inside this free sample

Start here.....	4
1. Name the operational outcome	5
Continue with the full guide	7

This free sample contains the introduction and Chapter 1 only. The closing link opens the complete guide. The companion project and worked solutions are supplied with the complete ebook.

Start here

Automation proposals often begin with a simple multiplication: task volume times minutes saved. That can be a useful starting point, but it leaves out eligibility, adoption, review, exception work and maintenance. It also confuses time released with money saved. This book builds an operational capacity estimate that exposes those assumptions before anyone promises a result.

The worked case is Maple Operations, a fictional team preparing routine information packets. The base scenario contains two thousand monthly tasks, of which sixty percent are eligible and seventy-five percent of eligible tasks use the new workflow. Every organization, quantity, scenario and proposed decision is synthetic teaching material. No customer outcome, commercial saving or investment recommendation is made.

You will measure a manual baseline, define eligibility, estimate actual adoption, deduct review and exception effort, calculate net monthly capacity and compare scenarios. The optional Python tool reports hours of capacity and implementation-effort recovery in months. Those are operational units. Recovery months are not financial payback, investment return or a promise that staffing costs will fall.

The deliverables are an assumptions register, a scenario table, a pilot measurement plan and a handoff note. The reasoning requires basic arithmetic. The companion needs Python 3.10 or later, uses only the standard library and makes no network requests. Preserve the original fixture and use copies for sensitivity exercises.

This is a practical modeling method with deliberate boundaries. It does not price software, calculate discount rates, value risk, determine staffing policy or approve a business case. Independent human technical and assistive-technology review is pending. A real decision should use the organization's appropriate operational, finance and workforce expertise. The model helps those reviewers see the assumptions rather than replacing their judgment with a precise-looking total.

1. Name the operational outcome

Ask what changes in the work

Maple Operations wants to reduce repetitive packet preparation while preserving required checking. The intended outcome is usable staff capacity for other approved work. That is more specific than "save time with AI" and less presumptive than "reduce cost." The team can measure work minutes and quality before deciding whether the released time can actually be redeployed.

Name the process boundary. Does the packet begin with an approved input and end with a reviewed output, or does it include collecting missing information and correcting later errors? A narrow boundary can make automation look faster by moving work outside the measurement window. Record the start and end events so the baseline and automated workflow cover comparable work.

Separate three claims

Time released means less measured effort is needed for the defined work. Usable capacity means that time can be allocated to another useful task under actual scheduling and skill constraints. Cash reduction means a separate organizational decision changes expenditure. The first does not automatically establish the second, and neither automatically establishes the third.

GOV.UK benefits guidance distinguishes cashable and non-cashable benefits and emphasizes a baseline and explicit assumptions [R1]. Our teaching model uses that discipline while staying in operational effort units. It does not estimate a monetary benefit. A capacity estimate can still support a useful pilot even when no immediate cost reduction is expected.

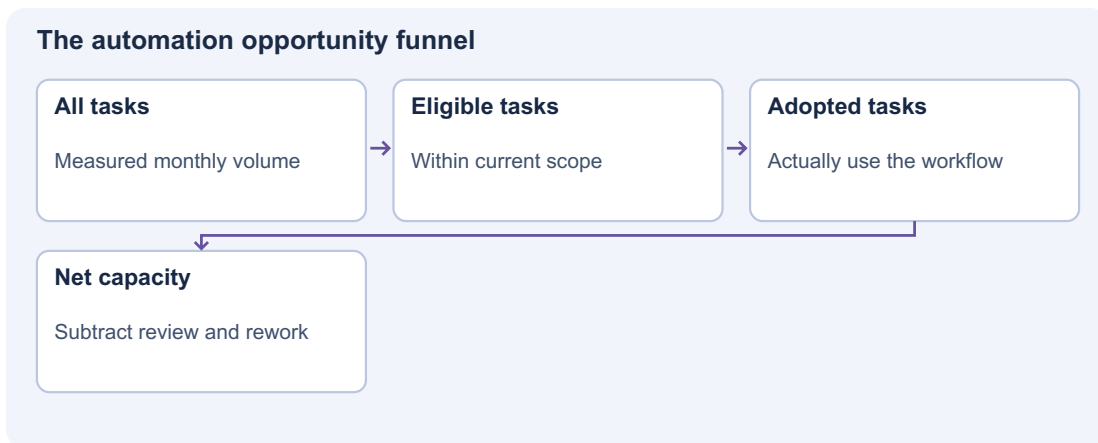


Figure 1. Total tasks become eligible and adopted tasks before review and exception work determine net capacity.

Define success beyond speed

A faster workflow that creates unusable packets may increase total effort. Include quality, completion and exception measures in the pilot. The model deducts expected rework minutes but cannot determine whether the output meets the actual service standard. That needs observation and authorized review of the work.

Write an outcome statement with the process, boundary, capacity use and quality constraint. For example, "Test whether an approved packet workflow reduces end-to-end staff effort for eligible tasks, without increasing correction work, so the team can allocate capacity to its existing backlog." The word test matters: it distinguishes a proposal from a claimed benefit.

Exercise 1: bound the promise

Rewrite "Automation will save two jobs" as an operational pilot question. Include a process boundary, intended use of capacity and quality constraint. Explain why a measured time reduction would not automatically demonstrate a cash reduction or justify a staffing decision.

Continue with the full guide

This free sample ends after the introduction and Chapter 1. The complete guide contains nine teaching chapters, worked exercise solutions, primary references and a separate Python companion project. The full PDF, reflowable EPUB and project files are supplied together.

Use the complete guide to work through the remaining exercises and inspect the supplied examples. The companion code and fictional data are separately MIT licensed; the complete ebook has the single-reader terms described on its product page.

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Primary references

1. [R1] Measuring the benefits of your service

<https://www.gov.uk/service-manual/measuring-success/measuring-service-benefits>

Baselines, explicit assumptions during discovery and distinguishing cashable from non-cashable benefits.