digievo

PLAYBOOK · ARTIFICIAL INTELLIGENCE

ROI of AI Agents

How to calculate, prove and defend the return of AI agents in your company, with the formula, a step by step, a real example and a template to fill in.

Who it is for	What you will take away
Technology, operations and business leaders who need to justify (or defend) investment in AI and agents.	A clear ROI formula, the 6 steps to calculate, a worked example with numbers and a ready-to-use template.

Produced by Digievo LLC, a technology consultancy with 10+ years of experience, partner of OpenAI and Anthropic, specialized in enablement, hunting and AI projects. This material is educational and uses illustrative figures; the numbers for your case depend on your context.

1. Why measure the ROI of AI agents

AI agents are no longer an experiment. The board question is no longer "does AI work?" but "how much does it return for every dollar invested?". Without a return calculation, good projects die in doubt and bad ones consume budget unnoticed.

An **AI agent** is a system that does not just answer, but **executes tasks** end to end: it reads a ticket, queries systems, decides and acts, with supervision. That is what makes the return measurable, because it replaces or accelerates work that already has a known cost and time.

The three sources of return

Source of value	What the agent does	How it becomes money
Time saved	Executes in seconds tasks that take minutes or hours of a person.	Hours freed x loaded hourly cost, redeployed to higher-value work.
Scale and capacity	Handles volume that would require more headcount.	Growth served without growing the team at the same pace.
Quality and risk	Standardizes, reduces error and rework, responds faster.	Less rework, less loss, better experience and less risk.

2. The ROI formula

ROI (%) = (Annual gain - Total cost) / Total cost x 100

Payback (months) = Upfront investment / Monthly net gain

ROI answers "is it worth it?" and payback answers "how long until it pays for itself?". Both come from the same base: a well-captured **gain** and **cost**. Most errors come from forgetting parts on one side or the other.

How to break down the Gain

- **Hours saved:** tasks per month x average time per task x % automatable x loaded hourly cost.
- **Throughput gain:** extra volume handled without new hires (revenue enabled or hire avoided).
- **Error and rework reduction:** average cost of an error x drop in the number of errors.
- **Redeployment, not layoffs:** in most cases the honest gain is the team doing more. Count the value of the higher-value work now done.

How to break down the Cost

- **Build (one-time):** agent development, integrations, testing and go-live.
- **Models and APIs (recurring):** token / call consumption of the AI models.
- **Operation and maintenance (recurring):** tuning, monitoring, evolution, infrastructure.
- **Governance (recurring):** security, cost control, human review and compliance: small, but never zero.
- **Enablement:** preparing the team to use and trust the agent (see Digievo AI Training).

3. The 6 steps to calculate ROI

#	Step	What to do
1	Pick a process	Start with a repetitive, high-volume process with clear rules. Avoid the most complex first.
2	Measure the baseline	Before the agent: monthly volume, time per task, hourly cost, error rate. No baseline, no ROI, just opinion.
3	Estimate the gain	Apply the % automatable to the baseline and add throughput and error reduction. Be conservative.
4	Estimate the cost	Sum build (one-time) and recurring costs: models, operation, governance and enablement.
5	Calculate ROI and payback	Use the section 2 formulas. Look at year 1 (with build) and year 2 (recurring only) separately.
6	Monitor and adjust	Track real vs. estimated gain. AI ROI grows with use; correct course each quarter.

4. Worked example: Tier-1 support assist agent

A support operation with **8 analysts** spends part of its time on repetitive tasks (triage, standard replies, system lookups). The company puts an AI agent on those tasks, with supervision. Illustrative, rounded figures in USD.

Baseline and gain

Item	Value	Math
Automatable tasks	384 h/mo	8 analysts x 160 h x 30% of time
Loaded hourly cost	$60	salary + benefits + overhead
Monthly cost of those tasks	$23,040	384 h x $60
% handled by the agent	60%	conservative for year 1
Monthly gain	$13,800	230 h/mo freed x $60
Annual gain	$165,000	$13,800 x 12 (rounded)

Costs

Item	Year 1	Year 2 (recurring)
Agent build (one-time)	$60,000	$0
Models and APIs	$30,000	$30,000
Operation, maintenance and governance	$20,000	$20,000
Total cost	$110,000	$50,000

ROI year 1	Payback	ROI year 2
50%	~6 months	230%

Year 1: (165,000 - 110,000) / 110,000 = **50%**. **Payback:** build $60,000 / monthly net gain (~$10,000) = **~6 months**. **Year 2**, without the build: (165,000 - 50,000) / 50,000 = **230%**. Return jumps when the build cost leaves the equation, which is why AI is assessed over a 24-month window, not just year 1.

5. Template: calculate the ROI of your case

Fill in with your operation numbers. Highlighted rows are the results.

A) Gain

Variable	Fill in
Tasks per month	
Average time per task (min)	
Loaded hourly cost ($)	
% automatable by the agent	
Monthly gain ($) = tasks x min / 60 x % x hourly cost	
Annual gain ($) = monthly gain x 12	

B) Cost

Variable	Fill in
Agent build (one-time, $)	
Models and APIs per year ($)	
Operation, maintenance and governance per year ($)	
Team enablement ($)	
Total year-1 cost ($)	

C) Result

Indicator	Formula	Result
ROI year 1 (%)	(Annual gain - Year-1 cost) / Year-1 cost x 100	
Payback (months)	Build / monthly net gain	

6. Seven common mistakes when measuring AI ROI

- **Not measuring the baseline.** Without the "before", any gain is a guess. Measure before turning the agent on.
- **Forgetting governance and maintenance cost.** An agent is not "set and forget"; it is maintained and monitored.
- **Overestimating the % automatable.** Start conservative (50% to 60%) and revise with real data.
- **Counting layoffs where there was redeployment.** The honest gain is usually capacity, not cuts.
- **Assessing year 1 only.** Build cost distorts; look at the 24-month window.
- **Ignoring token cost at scale.** What is cheap in a pilot can weigh in production; monitor (AI FinOps).
- **Measuring once and stopping.** AI ROI evolves with use; track it quarterly.

Want to apply this to your case?

Start with the **AI Maturity Assessment** (free, 2 minutes) at digievo.co/ai-maturity-assessment and, when you want to put an agent into production with measured ROI, talk to Digievo about **AI Projects**. We enable the team (AI Training), prepare people (AI-ready Staff Augmentation) and build the solution with governance.

digievo.co · Austin, TX · partner of OpenAI and Anthropic