

# ROI Calculator: Traditional Automation vs Agentic AI

## Architect IT Cloud - Financial Analysis Template

### Instructions for Use

- 1. Fill in the yellow highlighted cells with your organization's data
- 2. Review calculated fields (blue) for accuracy
- 3. Use the results to build your business case
- 4. Save different scenarios for comparison

### Project Information

- Project Name: \_\_\_\_\_
- Assessment Date: \_\_\_\_\_
- Analyst: \_\_\_\_\_
- Department/Process: \_\_\_\_\_
- Current Solution: \_\_\_\_\_

### Current State Analysis

#### Process Metrics

Metric	Value	Unit	Notes
Transaction Volume	_____	per month	Average monthly volume
Processing Time per Transaction	_____	minutes	Current average time
Error Rate	_____	%	Percentage of transactions with errors
Human Intervention Rate	_____	%	Percentage requiring manual handling
Current Success Rate	_____	%	Successful automated processing
Downtime Hours	_____	per month	System unavailability

### Current Costs (Annual)

#### Technology Costs

Cost Category	Annual Amount	Notes
RPA Platform Licensing	\$_____	Bot licenses, platform fees
Infrastructure Costs	\$_____	Servers, cloud, networking
Maintenance & Support	\$_____	Vendor support, internal IT
Development Tools	\$_____	IDE, testing tools, etc.
Integration Costs	\$_____	API management, middleware
Subtotal Technology	\$_____	

Human Resource Costs

Resource Type	FTE	Annual Salary	Total Cost	Notes
Process Operators	_____	\$_____	\$_____	Manual processing/monitoring
RPA Developers	_____	\$_____	\$_____	Bot development/maintenance
Process Analysts	_____	\$_____	\$_____	Process design/optimization
Support Staff	_____	\$_____	\$_____	Help desk, troubleshooting
QA/Testing	_____	\$_____	\$_____	Quality assurance
Subtotal Human Resources			\$_____	

Operational Costs

Cost Category	Annual Amount	Calculation Method	Notes
Error Correction	\$_____	(Error Rate × Volume × Cost per Error)	Cost to fix errors
Rework Costs	\$_____	(Failed Transactions × Rework Cost)	Reprocessing failures
Downtime Costs	\$_____	(Downtime Hours × Hourly Impact)	Revenue/productivity loss
Compliance Costs	\$_____	Audit, regulatory, penalties	Regulatory compliance
Training Costs	\$_____	User training, change management	Ongoing training
Subtotal Operational	\$_____		

Total Current Annual Cost: \$\_\_\_\_\_

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Proposed Agentic AI Solution

Expected Improvements

Metric	Current	Target	Improvement	Notes
Processing Time	_____ min	_____ min	_____ % faster	Time per transaction
Error Rate	_____ %	_____ %	_____ % reduction	Quality improvement
Success Rate	_____ %	_____ %	_____ % increase	Automation success
Exception Handling	_____ % manual	_____ % manual	_____ % reduction	Less human intervention
Capacity	_____ /month	_____ /month	_____ % increase	Higher throughput

Agentic AI Solution Costs (Annual)

Technology Investment

Cost Category	Year 1	Year 2	Year 3	Notes
AI Platform Licensing	\$_____	\$_____	\$_____	ML platform, inference costs
Cloud Infrastructure	\$_____	\$_____	\$_____	Compute, storage, networking
Data Platform	\$_____	\$_____	\$_____	Data lakes, vector databases
Integration & APIs	\$_____	\$_____	\$_____	System integration costs
Security & Compliance	\$_____	\$_____	\$_____	AI governance, monitoring
Subtotal Technology	\$_____	\$_____	\$_____	

Implementation Costs

Cost Category	One-Time	Ongoing Annual	Notes
Solution Development	\$_____	\$_____	Custom AI agent development
Data Preparation	\$_____	\$_____	Data cleaning, labeling
System Integration	\$_____	\$_____	Connecting to existing systems
Testing & Validation	\$_____	\$_____	QA, performance testing
Training & Deployment	\$_____	\$_____	Model training, deployment
Change Management	\$_____	\$_____	User training, process change
Subtotal Implementation	\$_____	\$_____	

Ongoing Operations

Cost Category	Annual Amount	Notes
Platform Operations	\$_____	Monitoring, maintenance
Model Management	\$_____	Retraining, version control
Support & Maintenance	\$_____	Technical support, updates
Continuous Improvement	\$_____	Feature enhancements
Subtotal Operations	\$_____	

## Benefit Calculations

### Direct Cost Savings (Annual)

Benefit Category	Calculation	Amount	Notes
Labor Cost Reduction	(FTE Reduction × Average Salary)	\$_____	Fewer manual processors
Error Reduction Savings	(Error Reduction % × Error Costs)	\$_____	Fewer mistakes to fix
Maintenance Savings	(Current Maintenance - New Maintenance)	\$_____	Lower upkeep costs
Infrastructure Savings	(Current Infrastructure - New Infrastructure)	\$_____	More efficient systems
Downtime Reduction	(Downtime Reduction × Hourly Impact)	\$_____	Higher availability
Subtotal Direct Savings		\$_____	

### Productivity Benefits (Annual)

Benefit Category	Calculation	Amount	Notes
Faster Processing	(Time Savings × Volume × Hourly Rate)	\$_____	Quicker turnaround
Increased Capacity	(Additional Volume × Value per Transaction)	\$_____	Handle more work
Quality Improvements	(Accuracy Gains × Value Impact)	\$_____	Better outcomes
24/7 Operations	(Extended Hours × Hourly Value)	\$_____	Round-the-clock processing
Subtotal Productivity		\$_____	

### Strategic Benefits (Annual)

Benefit Category	Estimated Value	Notes
Customer Experience	\$_____	Faster response, fewer errors
Competitive Advantage	\$_____	Market differentiation value
Innovation Enablement	\$_____	Free up resources for strategic work
Risk Reduction	\$_____	Lower compliance, operational risks
Scalability Value	\$_____	Ability to handle growth
Subtotal Strategic	\$_____	

Total Annual Benefits: \$\_\_\_\_\_

ROI Analysis

3-Year Financial Summary

	Year 1	Year 2	Year 3	Total
Implementation Costs	\$_____	\$_____	\$_____	\$_____
Ongoing Costs	\$_____	\$_____	\$_____	\$_____
Total Costs	\$_____	\$_____	\$_____	\$_____
Total Benefits	\$_____	\$_____	\$_____	\$_____
Net Benefits	\$_____	\$_____	\$_____	\$_____
Cumulative Net Benefits	\$_____	\$_____	\$_____	\$_____

Key Financial Metrics

Metric	Calculation	Result	Target
3-Year ROI	(Total Benefits - Total Costs) / Total Costs × 100%	_____ %	>200%
Payback Period	Time to break even	_____ months	<18 months
NPV (10% discount)	Present value of future cash flows	\$_____	>\$0
IRR	Internal rate of return	_____ %	>20%

Sensitivity Analysis

Scenario	Benefits Change	Costs Change	ROI Impact	Notes
Optimistic	+25%	-10%	_____ %	Best case scenario
Most Likely	0%	0%	_____ %	Base case
Pessimistic	-25%	+20%	_____ %	Conservative estimate

Risk Assessment

Implementation Risks

Risk	Probability	Impact	Mitigation	Cost Impact
Technical Integration Issues	_____ %	_____	_____	\$_____
Data Quality Problems	_____ %	_____	_____	\$_____
User Adoption Challenges	_____ %	_____	_____	\$_____
Vendor/Technology Risk	_____ %	_____	_____	\$_____
Regulatory Changes	_____ %	_____	_____	\$_____

Operational Risks

Risk	Probability	Impact	Mitigation	Cost Impact
Model Drift/Degradation	_____ %	_____	_____	\$_____
Scalability Limitations	_____ %	_____	_____	\$_____
Security Vulnerabilities	_____ %	_____	_____	\$_____
Dependency on Key Personnel	_____ %	_____	_____	\$_____

Comparison Summary

Traditional Automation vs Agentic AI

Factor	Traditional RPA	Agentic AI	Winner
Implementation Speed	_____ months	_____ months	_____
Upfront Cost	\$_____	\$_____	_____
3-Year Total Cost	\$_____	\$_____	_____
Flexibility/Adaptability	_____ /10	_____ /10	_____
Maintenance Effort	_____ hrs/month	_____ hrs/month	_____
Error Handling	_____ % success	_____ % success	_____
Scalability	_____ /10	_____ /10	_____

Decision Recommendation

Based on the financial analysis:

Recommended Solution: \_\_\_\_\_

Key Justification:

- ROI: \_\_\_\_\_ % over 3 years
- Payback Period: \_\_\_\_\_ months
- Strategic Value: \_\_\_\_\_

- Risk Level: \_\_\_\_\_

### Next Steps:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

## Assumptions and Notes

Document key assumptions used in calculations:

### Cost Assumptions:

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

### Benefit Assumptions:

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

### Market/Business Assumptions:

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

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