

Winning at Finance Transformation

R P A

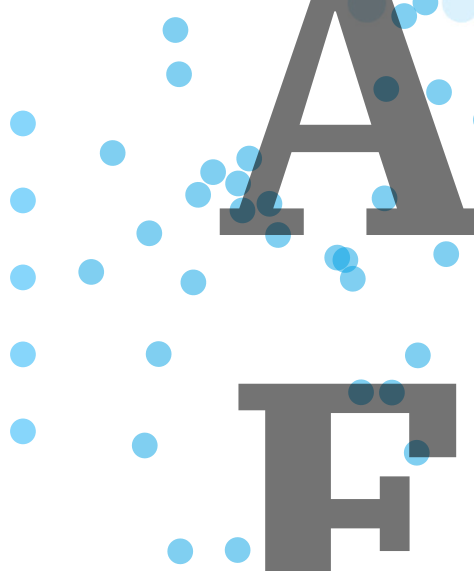
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CONTENTS

Who should read this paper? ³

Automated Finance Tech or
Autonomous Finance Tech? ⁴

What is RPA? ⁶

What is AI? ⁷

How RPA and AI Compare ⁸

How Modern Finance Teams Use
RPA and AI ⁹

What's Next for Modern Finance
Departments? ¹²

Top 3 tips for identifying the best
solution for your finance team ¹³

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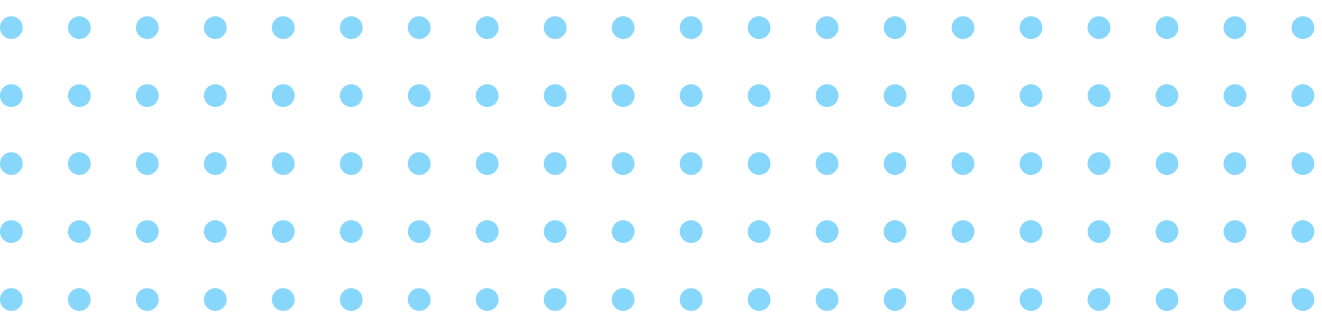
WHO SHOULD READ THIS PAPER?

Financial and IT Decision Makers evaluating finance technology to help them digitally transform their departments.

What you'll learn in this guide:

1. The core differences, features, and benefits of RPA and AI technologies
2. How finance teams are using RPA and AI
3. When and where to use RPA and AI technology for the most significant benefit

RPA and AI are driving a lot of enthusiasm for transformational value within finance teams. Both deliver gains in productivity and reduced operational costs but are designed for very different finance processes. In order to evaluate the best fit for your specific finance transformation, you need to understand the characteristics of Robotics Process Automation (RPA) and Artificial Intelligence (AI), their similarities and differences, and their use cases in finance departments.



AUTOMATED FINANCE TECH OR AUTONOMOUS FINANCE TECH?



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Automation and autonomy sound similar but are actually very different. Understanding the benefits and pitfalls associated with each, and where RPA and AI exist in the landscape, is vital when selecting a finance department’s best-fit solution.

Automated	Autonomous
Rule-based or template-driven software applied to defined, simple processes without human assistance	Performs with complex and unstructured information, taking actions without human assistance
Follows human-defined rules	Develops human-like behaviors and decision-making capability by examining and understanding data and variables
Fails when faced by unexpected data or steps	Adapts and learns when faced with unexpected data or steps

A machine executes an automated process without the need for a human to explicitly control that machine — this is the capability delivered by RPA software. However, all automation, including RPA, only follows an expected set of steps or rules defined in advance.

Simple examples of automation in finance include overdue payment alerts, routing of expenses to managers for approval, and data extraction from invoices in an AP process, which all help speed up processes. But finance automation struggles when faced with the unexpected — missing data, a new invoice style, a British English date format when it is expecting one in American English, and so on.

The predefined rules for finance automation tools allow little room for error and result in humans being pulled into the process to resolve exceptions. This limits the range of processes where automation is applicable to simple, well-defined actions needing repeated, quick, and cost-effective execution.



Autonomous AI software does not aim to follow steps but to deliver human-like reading, understanding, and decision-making capabilities. Autonomous AI software is flexible and able to react to changing data and circumstances and, as a result, can actively make predictions and decisions. To achieve this level of sophistication requires technologies such as machine learning, computer vision, and natural language processing — collectively known as AI.

Example uses of autonomous AI software include extracting data from, reading, and understanding invoices without users needing to define recognition templates, determine the correct values for missing information and appropriate GL codes, or identify risk and fraud. Each of these solutions operates on the learned AI capabilities within the software and not just predefined rules.

To understand best-fit scenarios for automation and autonomy, we refer to the autonomous index, which defines the six levels of autonomy. Automation and RPA occupy levels one through three on the index, with autonomous solutions and AI sitting in levels four and five.



DIGITAL TRANSFORMATION JOURNEY

	LEVEL 5	100% AUTONOMOUS In the future, all manual finance operations are autonomous.	No existing technologies at this time
	LEVEL 4	~80% AUTONOMOUS AI reads, understands, and makes independent decisions based on deep finance expertise and company AP policies. <i>AP team has option to intervene.</i>	Artificial Intelligence
	LEVEL 3	~60% ASSISTED Certain suppliers and invoices are automated. Operator and analyst must be ready to intervene and manually perform tasks.	OCR, EDI, XML, ERP, Supplier portal, Template-based invoice processing software, RPA, BI, Analytics, Predictive intelligence
	LEVEL 2	~40% ASSISTED Automation available in parts of AP process from exchanging invoices to extracting invoice data but AP operator must monitor transactions at all times.	
	LEVEL 1	~20% ASSISTED AP system controlled and operated by the finance person, but offers assist features.	
LEVEL 0	MANUAL	Zero autonomy; the AP system operator performs all tasks.	ERP

The index acts as a benchmarking tool for organizations to establish their current level of automation vs autonomy and understand the roadmap for future investment and improvements. Use cases for both automation and autonomy are clear. But what, precisely, are RPA and AI? And how are they used in different parts of the finance department?

WHAT IS RPA?



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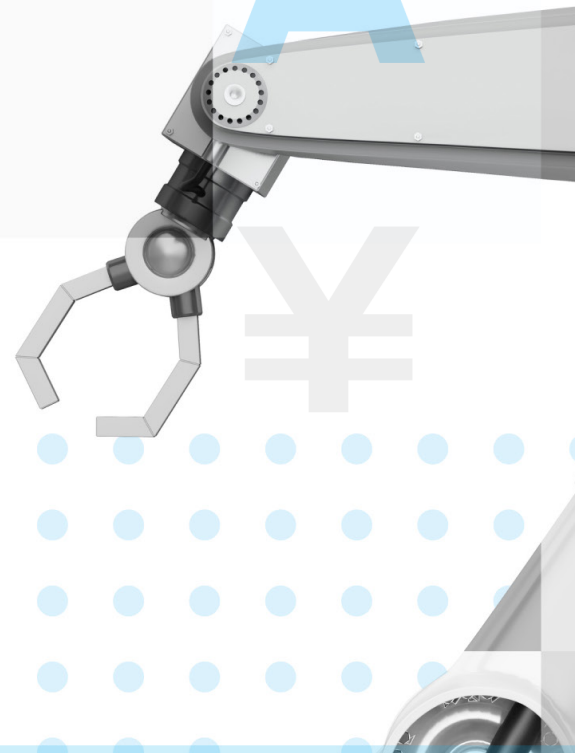
RPA uses software, rule-based “robots,” or “bots,” to standardize and automate repeatable business processes. These robots perform tasks the same way every time. They cannot learn from one repetition to another or improvise to develop a better way of executing a programmed task.

Most modern enterprises work on multiple, disconnected business systems, and RPA can play a valuable role in automating these systems. Structured data, a key requirement for RPA automation, is data that lives in a predefined location — such as within a specific cell in a spreadsheet, a field in a database, or an entry in an online form. RPA thrives when using structured data to work across multiple systems or business applications, eliminating manual processes.

Classic use cases for RPA include:

- Watching a scan folder for incoming invoices and routing them to operators based on the supplier ID, which is embedded in the name of the file.
- Copying data from an XML file (generated by passing an invoice through an OCR engine) to an invoice entry system.
- Creating a new “review” task for a manager when an invoice is marked as “ready for approval” in an invoice entry system.

However, RPA cannot decide *what* needs copying or if the copied data makes sense. For example, if the structure of a website form changes (which they frequently do), the RPA robot will not “know” this. This lack of understanding can lead to situations where data from the first field, which was previously <first name>, is copied even though the area now contains a social security number. Incorrect recognition will lead to numerous data errors further in the process — and require reprogramming of the RPA bot to resolve.



RPA is fantastic at automating simple data transfer exercises incredibly quickly and accurately. However, it does not apply well to more dynamic and complex processes.

WHAT IS AI?

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AI is the use of computer systems to mimic human intelligence. AI systems develop understanding and apply that understanding by making decisions and predictions.

AI is a term used to describe a broad range of technologies, including semantic understanding, machine learning, neural networks, computer vision, and more. Each of these technologies bring unique capabilities but all aim to think and act in ways similar to humans. Concepts such as learning, reasoning, and self-correction are core to how an AI can work with complex business challenges.

One key aspect of AI is that it can work with both structured and unstructured data — including information that is found in PDFs, emails, text documents, images, and so on. This allows AI to read and understand the documents that finance works with every day to perform:

Document classification

- e.g., Identifying invoices versus contracts versus expense forms

Intelligent data extraction

- i.e., Identifying information from paper and digital forms, without needing human definition of templates or zones

Validation of data in context

- e.g., Cross-checking supplier name, address, logo, and invoice terms against the supplier database

Identification of missing or incorrect data values, and prediction of correct values

- e.g., Knowing that 12/12/20 is not a valid supplier ID

Within each of these areas, AI learns by example — working through training sets showing how previous documents were classified, what data was extracted, where the fraudulent activity occurred, and what risk rating was applied. In all cases, AI does not require humans to explicitly guide the learning, to define rules, or to create mappings. Instead, humans validate the AI models once training is complete, coaching and teaching the AI to achieve better results each time.

As a result, AI enables organizations to proactively perform fraud detection, auditing, and due diligence at a much greater scale and accuracy than is possible with human resources.

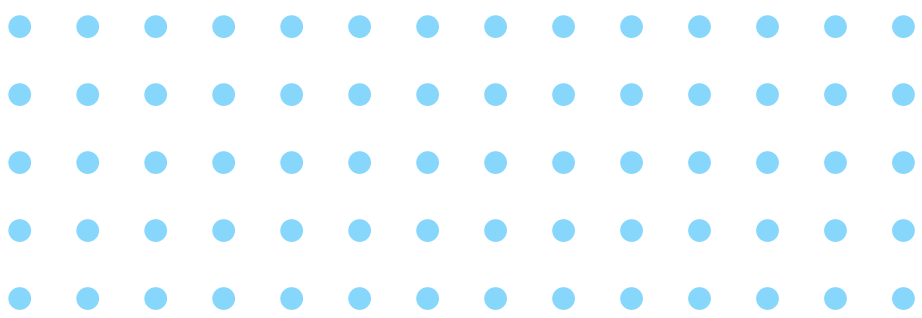
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HOW RPA AND AI COMPARE



The table below shows some of the core similarities and differences between RPA and AI.

RPA	AI
Handles rule-based tasks, mimicking basic human activities by following prescriptive, repetitive steps	Reads, understands, learns, and makes decisions; replicates complex human behaviors
Can process structured (and some unstructured) data	Can process structured, semi-structured, and unstructured data
Rules-based automation – no learning capabilities	Learns processes and policies autonomously to achieve goals
Changes to rules and processes require explicit reprogramming	Changes in behavior automatically occur over time as the AI learns
Technologies include: <ul style="list-style-type: none"> • Screen scraping • Rules engine • Basic analytics • Pre-built automation library • Performance analytics 	Technologies include: <ul style="list-style-type: none"> • Natural Language Processing (NLP) • Machine Learning (ML) & Vision • Advanced analytics • Model library • Automated training and self-learning
Use Cases: Data transfer from structured forms to applications; invoice data extraction for simple, fixed invoices	Use Cases: Risk-factor prediction, autonomous approvals, unsupervised review, and intelligent data extraction from all document types

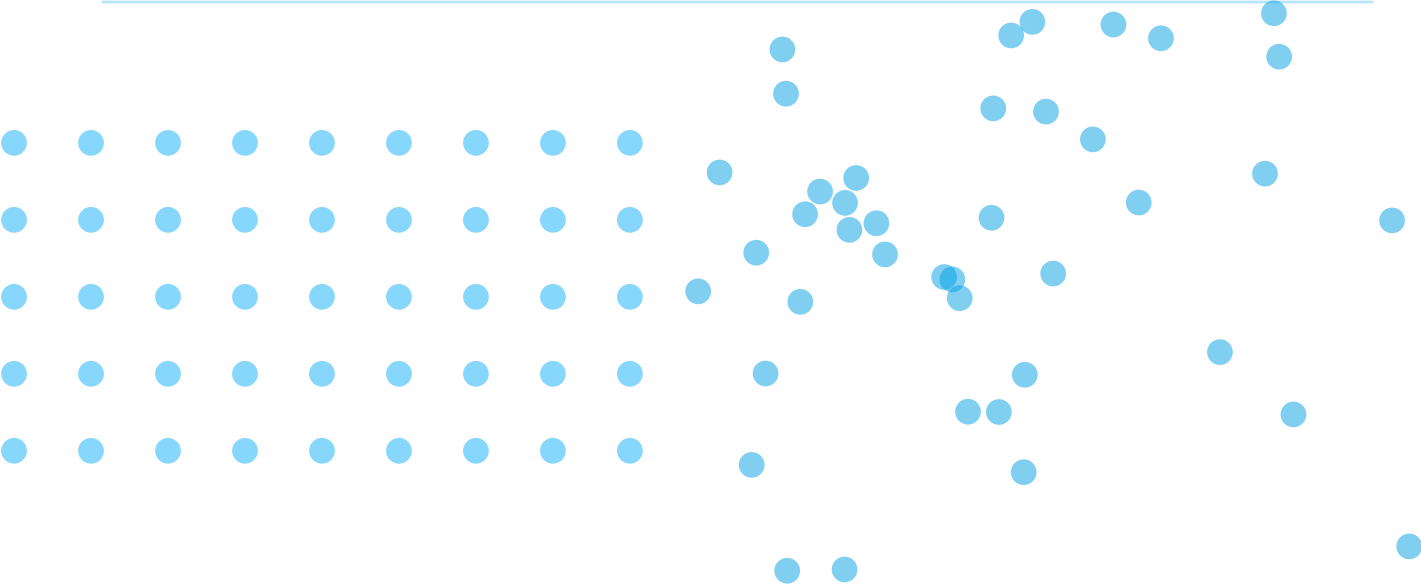


HOW MODERN FINANCE TEAMS USE RPA AND AI



When it comes to finance departments, both RPA and AI add value. However, there are specific scenarios where each technology makes more sense. The table below illustrates use cases for applying RPA and AI in accounts payable and invoice processing.

AP Invoice Processing	RPA	AI
Ingest emails and invoice attachments from AP Inbox	X	X
Search and match invoices to the right PO lines, including multi-line matching scenarios, reliable spend classification, GL and Cost-center coding of non-PO invoices		X
Approve PO-backed invoices	X	X
Minimize incidence of approved invoices lacking sufficient funds for payment		X
Find duplicates across all your spend-Invoices, P-cards, and T&E in under 30 minutes		X
Post processed invoices into ERP and P2P systems and trigger workflow	X	X



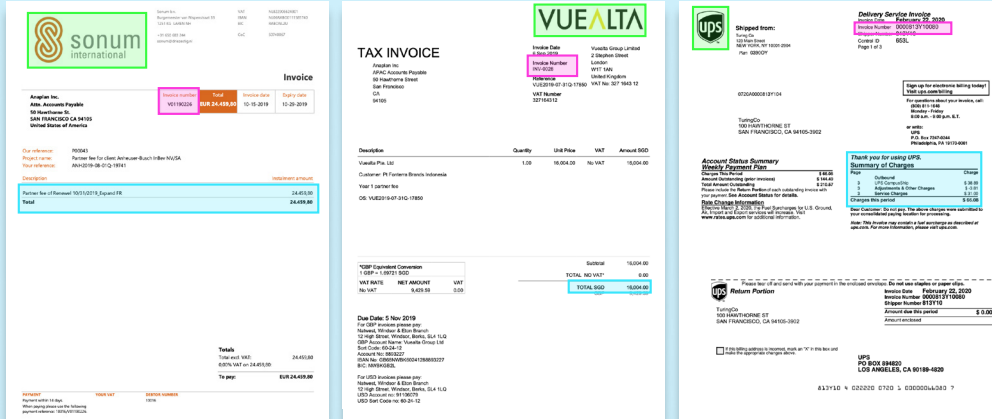
When dealing with more complex processes such as accounts payable (AP), both RPA and AI can play important roles. A primary goal is to ingest the invoice into the AP system — something that RPA can achieve very well if the invoices' formats are consistent. RPA is an excellent choice for those organizations receiving lots of invoices from a small number of suppliers.



RPA works well at:
 Invoice data extraction for fixed invoice formats
 PO-backed, supplier portal-generated invoices

AI technology goes far beyond merely automating parts of the AP process by creating the foundation for end-to-end autonomous processing.

However, invoices come in all different shapes and forms. This is especially true for organizations with a high level of indirect spend, with lots of non-PO-backed invoices, and no supplier portal. In these situations, AI is a better fit.



Finance AI excels at:

End-to-end processing of invoices.

Works well for all invoice formats - including indirect spend, and non-PO invoices.

Beyond simple data extraction, each invoice also requires coding based on spend categories, and careful classification against accounting and business reporting structures. Financial classification treatment is a unique process for every organization. These differentiators are far too complicated for RPA to manage. But they are perfect examples of where AI's more advanced semantic understanding and predictive capabilities shine.

AI can assist with matching, coding, validation, and complex exception management by:

- Accurately identifying and understanding header and line item spend
- Identifying and matching against related purchase order details
- Predicting appropriate spend categories and GL codes
- Suggesting missing data fields

AI technology goes far beyond merely automating parts of the AP process by creating the foundation for end-to-end autonomous processing.

FINANCE AI.

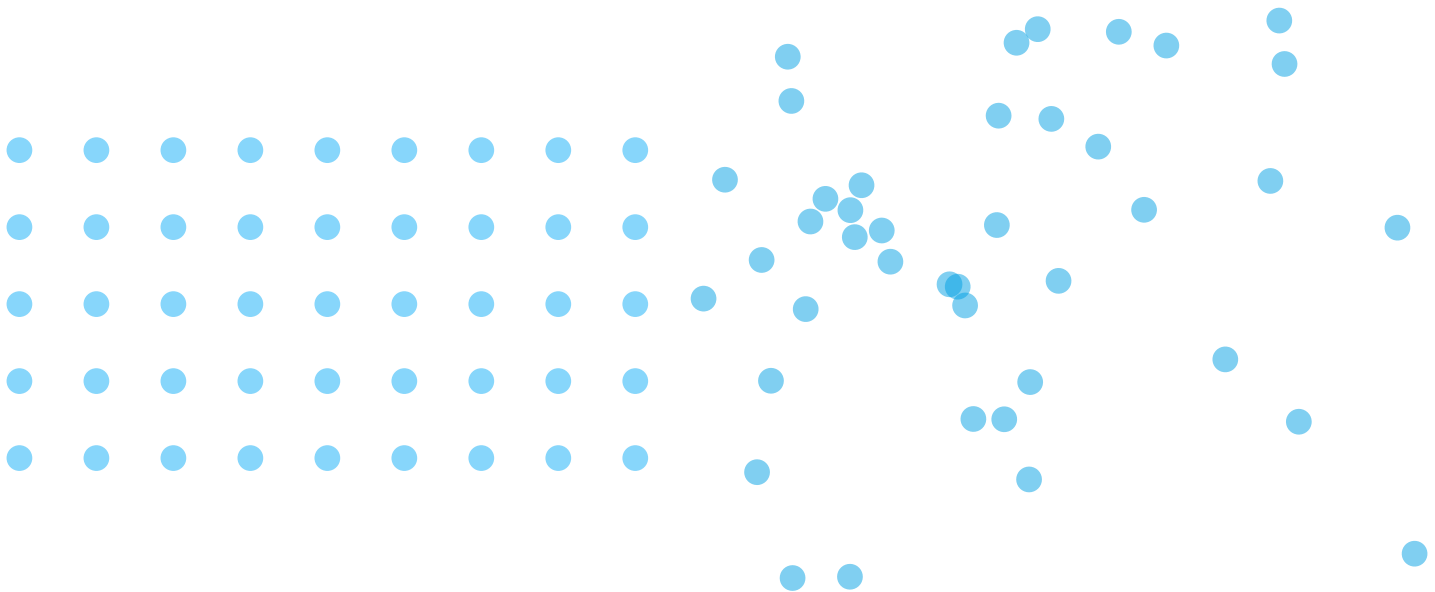
WHAT'S NEXT FOR MODERN FINANCE DEPARTMENTS?



Both RPA and AI have their place within a modern finance department. RPA can replace human copy and paste exercises between disparate systems in a wide variety of examples, creating valuable efficiencies over time in specific areas. However, it requires strict rules and parameters and does not deal well with continually changing systems or requirements.

On the other hand, AI can be applied to far more complex use cases such as Accounts Payable and spend management, delivering genuine autonomy versus the simple automation provided by RPA. AI can work with more dynamic, unstructured materials and apply learned domain knowledge to apply context and financial understanding to situations, thus offering a much more powerful and robust solution for practical use.

Identifying which technology is the best fit for a given business area or process is a relatively straightforward task. Determining specific pain points and requirements will allow organizations to quickly identify the simple, repeatable challenges that will benefit from RPA and the more complex, typically human-intensive processes that AI best serves.



TOP 3 TIPS FOR IDENTIFYING THE BEST SOLUTION FOR YOUR FINANCE TEAM

With so many different products on the market and so much hype around these modern, rapidly-evolving technologies, it can be difficult for an organization to choose the solution best adapted to its business. These three tips will help you identify when to use RPA and when to use AI:

1

Determine the complexity of your needs

Before selecting any process automation technology, organizations must first identify their specific needs. This discovery exercise should include:

- A process audit to clearly define potential areas for improvement. The audit should focus on documenting each process in terms of overall purpose, inputs, outputs, process flow, technical and human resources, and any known bottlenecks or issues.
- Alignment of the process audit with business objectives — specifically, the identification of the processes that can deliver the most benefit against business goals, as well as those that can provide quick wins.

2

Select the right technology

RPA delivers bots to repeatedly follow simple instructions over and over again, such as copying and pasting fixed data between systems. If your process follows simple, set instructions, then RPA is a good fit.

AI offers more intelligent process automation capabilities in areas such as invoice processing and spend management. AI applies semantic understanding, machine vision, and domain knowledge to existing business processes to make intelligent decisions in complex environments. For most finance scenarios, AI is an appropriate fit.

If a process has data, documents, or steps that change regularly, AI is the only choice. AI quickly adapts to new data and new situations, adding to core domain understanding by continuously training itself. Any business use case that requires human-like learning characteristics requires AI.

3

Future-proof

Ripping and replacing current enterprise systems for entirely new process automation technologies is not advisable, nor the desired route for most organizations. Organizations should look to enrich existing systems and processes with RPA and/or AI technology. Identifying tools that integrate with existing business systems and can bring to other processes down the line ensures benefits today and into the future.



About AppZen

AppZen is the leader in Finance AI software. Our patented software is the only autonomous spend software to understand financial transactions and enable automatic decisions based on finance policies. Using AI deep learning, semantic analysis, and computer vision, AppZen accurately processes intelligence from thousands of data sources and images to better understand financial transactions and empower business decisions.

AppZen has saved customers more than \$500M and increased efficiency by 90 percent by eliminating 1M hours of manual work. Over 1,800 enterprises use AppZen for autonomous expense and accounts payable processes, reduced expenditures and real-time insights into business spend trends.

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