

The Ultimate Guide to AI in Finance

From Automation to Optimization: The Benefits, Challenges and Best Practices for Implementing AI in Your Department





AI by the Numbers

In September 2023, AvidXchange conducted a “2024 Trends Survey” of 500 finance executives at mid-market companies. Throughout this report, we’ll highlight results and insights from that survey.



Introduction

It may feel like you can’t escape talk about artificial intelligence (AI) these days. Whether you’re watching the news, attending a conference or scrolling social media — it’s everywhere!

AI is a powerful technology that can help finance departments create efficiencies and streamline processes. Many teams are using it to augment human capabilities, empowering better decision-making, improving outcomes and delivering more value for their organizations.

Though AI offers many opportunities, as with any new technology, businesses may experience implementation challenges. Organizations are struggling to create policies and guidelines to ensure their data and other proprietary information is protected. Some are building their own internal AI platforms to avoid the potentially negative implications of using public tools.

Additionally, organizations are realizing that employee training is essential to empowering their workforce with AI. Teammates need to acquire new digital skills and learn to mitigate AI-related risks, including inaccuracies, plagiarism and bias.

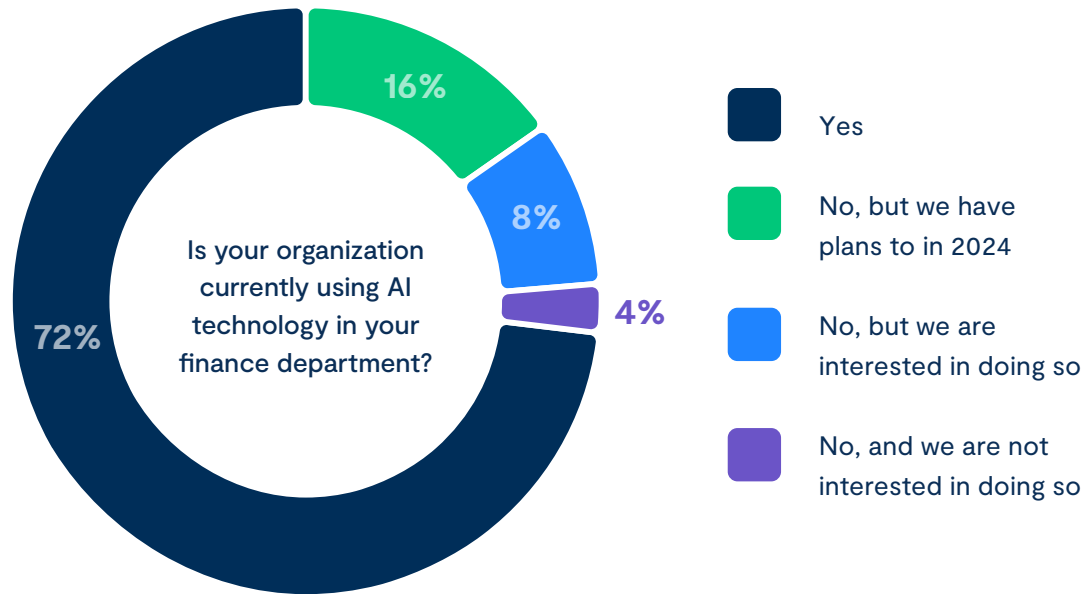
This report will highlight the ways finance departments are using AI today, best practices for implementation and how to navigate the challenges AI brings into the workplace.



Finance Pros Embrace AI

The **Pew Research Center** reports that 19% of U.S. workers are employed in jobs that are exposed to AI. Our “2024 Trends Survey” found that number is much higher for finance professionals, with almost three-quarters of respondents sharing that their organization currently uses AI within the finance department.

Of the 28% of respondents not currently using AI in the finance department, the vast majority are either interested in implementing the technology or have plans to do so in 2024.



72% of organizations are currently using AI technology in their finance department

Source: 2024 Trends Survey, AvidXchange, September 2023



Types of AI for Finance

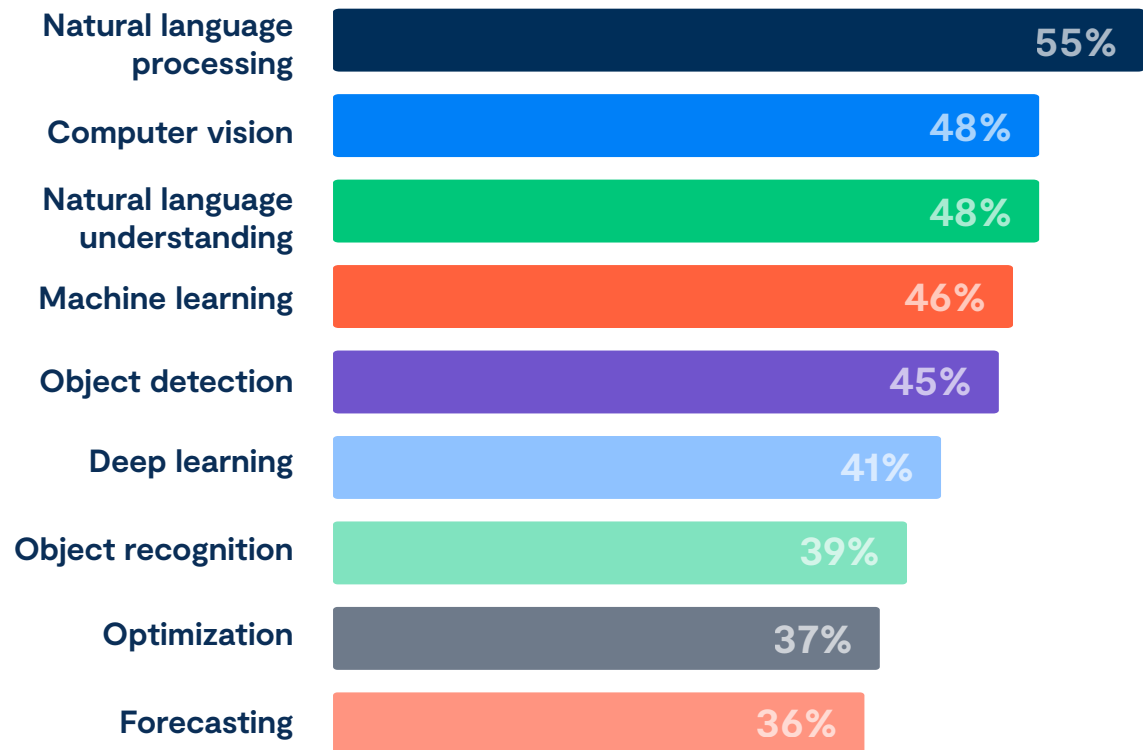
“AI” does not refer to a single technology. Instead, it signifies a category of computer systems that can perform tasks that typically require human intelligence.

Most of the finance leaders we surveyed said their departments are using **natural language processing** (NLP). NLP tools can automatically extract financial data from documents like balance sheets and enter them into financial systems and spreadsheets.

Computer vision is another popular AI tool for finance departments. Computer vision can “see” and extract data from images. Finance teams use computer vision to improve accuracy and efficiency in data entry.

The most popular types of AI in finance departments today are **natural language processing** and **computer vision**

What type of AI is your finance department using?



Source: 2024 Trends Survey, AvidXchange, September 2023

AI Tools Defined

Aside from NLP and computer vision, the following AI tools are popular amongst finance teams

Machine learning: Ideal for finding patterns and relationships within large data sets.

Deep learning: Similar to machine learning, but for very large and complex data sets such as (but not limited to) video data.

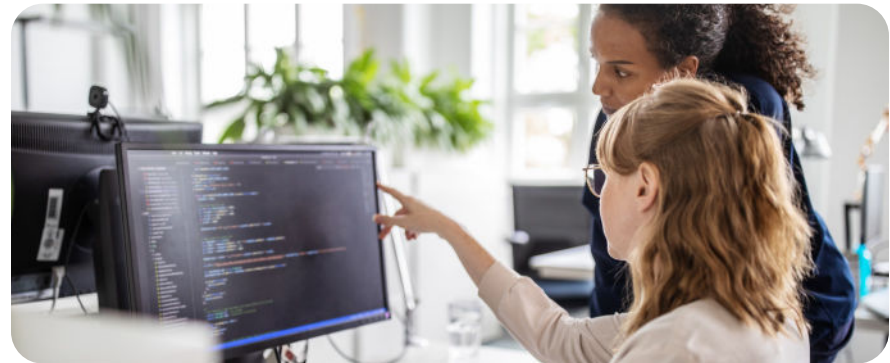
Natural language understanding (NLU): Recognizes text or speech input. Used to process textual data.

Object detection: Identifies and locates objects in an image or video. Used for inventory management and improved security.

Object recognition: Sees objects in images or videos. Extracts information from financial documents like invoices and bank statements.

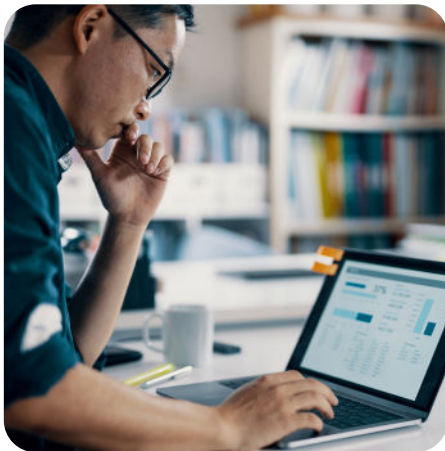
Forecasting: Creates predictions based on algorithms. Improves forecasting accuracy.

Optimization: Builds models using mathematical logic. Informs strategy and decision-making.





67% of finance departments use AI for customer service, one of the most common business applications of the technology

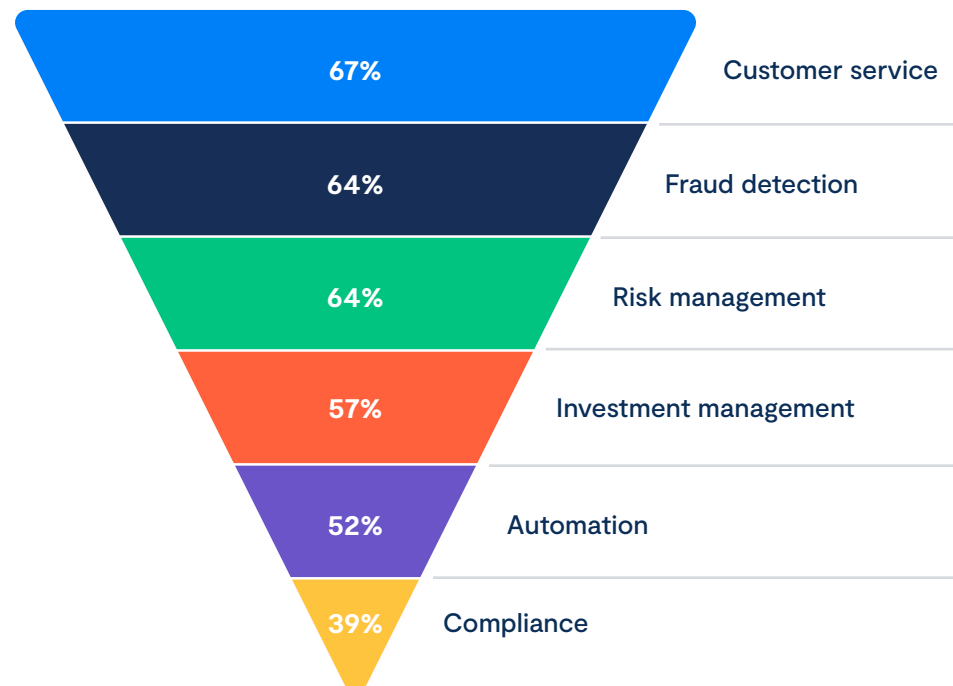


Popular AI Applications

While customer service via chatbot is a well-known way many organizations are using AI, there are other valuable use cases that can improve operations in the finance department.

Some of the most impactful include anomaly detection that reduces risks, data analysis that identifies opportunities and automation that streamlines processes.

What are the main AI use cases in your finance department?





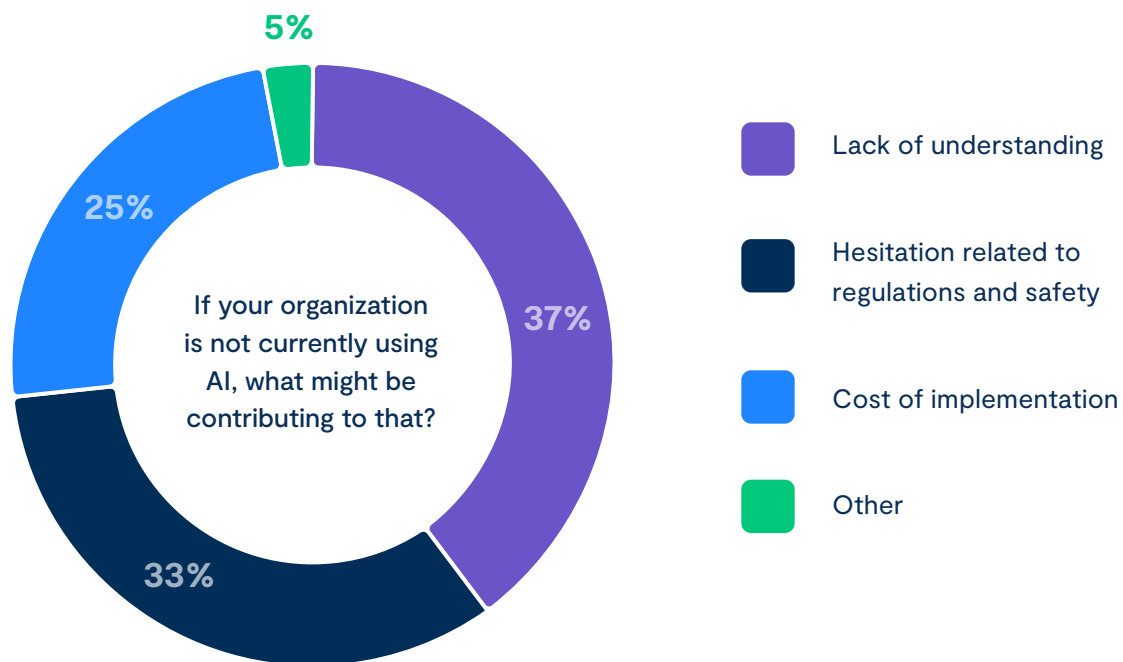
71% of finance leaders say their organization is establishing AI technology in-house, while **29%** are outsourcing it



AI Confusion and Concerns

Most organizations are establishing AI technology in-house instead of using public-facing tools like ChatGPT. This is not surprising, given that 33% of survey respondents whose organizations are not currently using AI told us that concerns related to the regulation and safety of AI are fueling that decision.

With **AI-related lawsuits** on the rise and headlines surrounding **AI hallucinations** and **misinformation**, it's no wonder that some companies are taking a more measured approach to employing AI, especially in finance departments where financial data and banking information must be protected.



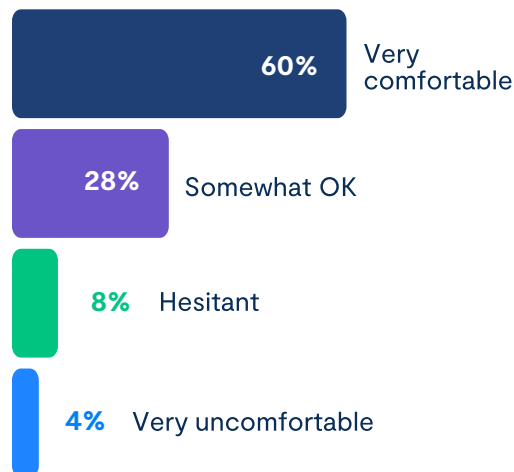
Source: 2024 Trends Survey, AvidXchange,
September 2023



Finance Pros are Comfortable with AI

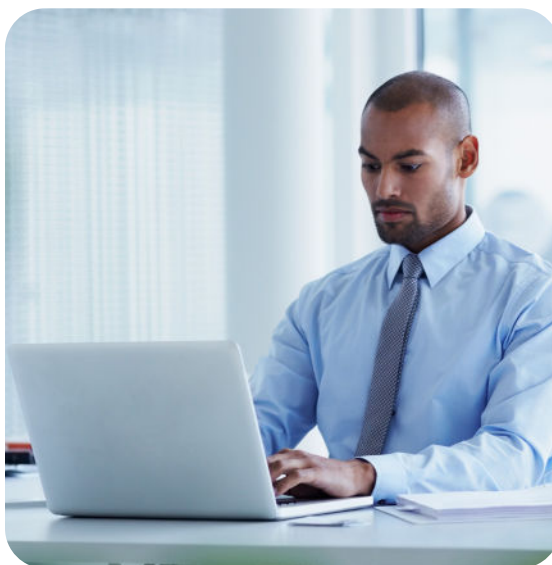
Even though organizations are cautious to adopt AI, employees have accepted the technology and feel confident using it. Our survey found that only 12% of finance leaders said they feel “hesitant” or “very uncomfortable” working with AI. The majority said they are “very comfortable” working with AI.

How comfortable do you feel working with AI?



35% of business owners are anxious about the technical abilities needed to use AI efficiently

Source: “How Businesses are Using Artificial Intelligence in 2023,” **Forbes Advisor**



“Any time you bring an innovation into the finance industry, there will be some risk because of the heavy compliance regulations. Businesses, especially those providing financial services, should focus on improving AI skills and understanding topics around bias and data privacy to ensure an equitable return on the investment.”

David Tareen, Senior Director of Product Marketing, AvidXchange, AvidXchange “Net 30” Podcast



92% of organizations are helping employees learn new AI and tech skills with education and engagement programs



Organizations Support Learning

The finance leaders we surveyed in our “2024 Trends Survey” reported that a lack of understanding was the biggest hurdle preventing their organization from adopting AI.

To address this, we found that 49% of organizations are supporting finance employees with upskilling and reskilling opportunities. **Upskilling** refers to workplace training opportunities that give employees a chance to expand their skills and abilities to take on new tasks and responsibilities.

Organizations are also encouraging tech-related education amongst teammates with mentorship programs and open forums for feedback.

How is your organization supporting finance employees through the AI revolution and digital transformation?



- 49%** Upskilling and reskilling opportunities
- 28%** Mentorship programs
- 15%** Open forums for feedback
- 4%** Not sure
- 4%** My organization is not doing anything

Source: 2024 Trends Survey, AvidXchange, September 2023



AI Revolutionizes Accounts Payable

Accounts payable (AP) is one of the finance functions that benefits most from AI. Not only can AI help speed AP processes, it can improve accuracy and reduce internal costs.



AI in AP

Invoice entry and verification

Computer vision can automate invoice entry and improve accuracy.

PO matching

AI can validate invoices against purchase orders and sales receipts without human intervention.

Workflow automation

AI-driven workflow automation tools can route invoices for approval based on both machine learning and predefined rules.

Anomaly detection

AI can help detect fraudulent invoices or irregular payment patterns by analyzing historical data. This can help protect the organization from financial losses due to fraud or error.

Reporting and analytics

AI can generate insightful reports and dashboards, providing a clear view of AP performance and helping organizations make data-driven decisions.

Buyer savings

An algorithm can analyze contract terms and offer suggestions and notifications for payment timing to capture supplier discounts.



Selecting the right AI tools for your finance department is a critical decision that can significantly impact the efficiency, accuracy and effectiveness of financial operations. Consider these best practices when choosing AI tools for your finance department.

Features to Consider When Evaluating AI Tools



Data privacy

Financial data is sensitive, and compliance is a top priority for finance teams. Ensure the tools you adopt comply with industry regulations, data privacy laws and internal policies. Select tools that won't share your internal data with a public audience.



Monitoring and analytics

Pick AI tools that can review their performance and adjust parameters as needed to ensure they continue to meet your goals. The best AI tools offer reporting features that allow teams to identify areas for improvement and opportunity.



Natural language input

This feature democratizes AI tools for the organization. It allows users to engage with the system using natural language rather than computer language and code. For example, an individual can simply ask, "How many invoices did we pay for more than \$5,000 in October?" rather than writing a complex formula to identify this information.



Organizational fit

Select AI tools that integrate with your existing accounting system to ease rollout and cooperation between these systems. The tools you choose should also allow for flexibility as your business changes and grows.



A thoughtful approach to introducing AI tools within an organization fosters a smoother integration, long-term sustainability and the realization of its full potential within the business. Aligning tools with your organizational goals, processes and culture fosters acceptance among employees and stakeholders.



AI Implementation Best Practices

Position AI as a partnership

AI's capabilities are impressive, but it won't solve all your organization's problems alone. AI should be positioned as a tool, not as a replacement for human workers. The most successful programs encourage partnership between teammates and AI systems.

Upskill and reskill

The [World Economic Forum](#) says technology will radically transform 1 billion jobs over the next decade. To keep pace, it's important for employers to support teammates by offering opportunities to learn new digital skills.

Embrace multimodal AI

Multimodal AI leverages various data types like image, text and numerical data within multiple AI processing algorithms to achieve more impactful outcomes. Combining AI tools will be essential to solve certain business problems.

Provide bias training

The programming and data sources AI systems use may result in certain biases. To avoid this, organizations should develop clear policies and guidelines for AI use, emphasizing fairness and equity so staff can recognize and address potential bias-related issues and inaccuracies.



AI delivers smarter, faster and more accurate operations within finance departments. It helps businesses stay competitive, reduce costs and unlock new insights to make data-driven decisions.

Conclusion

The business world is buzzing about the significance of AI. We think it is more than a trend – the impacts are too significant to ignore. And our survey found that finance leaders are on board, with a majority already using the technology to improve efficiencies at work.

Organizations may hesitate to adopt AI due to a lack of understanding, concerns about data privacy and regulatory compliance, and cost barriers. Resistance to change and the need for specialized training are also common deterrents.

But within finance in particular, the benefits are immense. AI can help finance departments by automating repetitive tasks, enhancing data analysis for better decision-making, improving fraud detection, reducing errors and enabling more efficient compliance and reporting processes.

To take advantage of these benefits, organizations should embrace AI by thoughtfully implementing tools within existing systems and processes. Training and upskilling programs are critical to empower employees to use the technology effectively. The future of finance is AI.



About AvidXchange®

AvidXchange is a leading provider of accounts payable (“AP”) automation software and payment solutions for middle market businesses and their suppliers. AvidXchange’s Software-as-a-Service (“SaaS”) based, end-to-end software and payment platform digitizes and automates the AP workflows for 8,800 businesses and we have made payments to 965,000 supplier customers of our buyers over the past five years.

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