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Demystifying AI's Capabilities for Use in Payments

Working Capital Tracker® Series

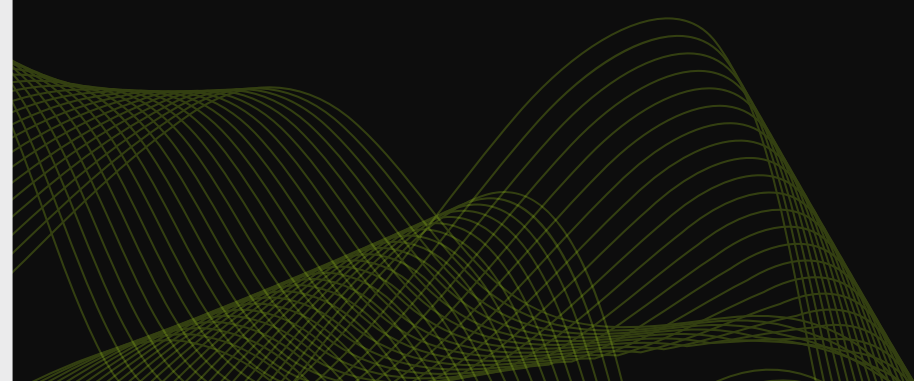
Artificial Intelligence (AI) is increasingly touching all industries, and its list of capabilities — both real and imagined — continues to grow. Businesses are rushing to get in on the trend for fear of missing out, but beyond the wish list and the fear factor, what is the bottom line of AI for the payments industry?

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Introduction

Artificial Intelligence (AI) is increasingly touching all industries, and its list of capabilities — both real and imagined — continues to grow. While hopes and concerns regarding the technology are high, an understanding of AI's role in the payments industry is still nascent. Businesses are rushing to get in on the trend for fear of missing out, but beyond the wish list and the fear factor, what is the bottom line of AI for the payments industry?

Businesses are facing uncertain times, with high borrowing costs and late payments igniting an urgent need to reduce operating expenses and improve cash flow. One key means of doing so is by upgrading and streamlining the costly legacy and manual methods that still comprise the bulk of business-to-business (B2B) payment processes today. Against this backdrop, AI technology has emerged as a virtual silver bullet, with potential **payments applications** ranging from enhancing transaction efficiency to improving fraud detection to personalizing the customer experience — and that's only the beginning.

While it is tempting to view AI as a one-size-fits-all solution to business payment problems, numerous caveats come with the technology's instructions for use. Firms embarking on its implementation for payments need to be conversant with its exact indications — as well as its warning labels.



AI's Benefits for Payments

AI Can Speed Payments and Fight Fraud

Challenging market conditions due to rising prices and economic anxiety along with overburdened AR/AP staff are pushing companies to consider adopting AI to streamline their payments and combat fraud. These solutions, while promising, have their constraints.

37%

Projected compound annual growth rate (CAGR) of the AI market through 2029

The payments industry is embracing AI.

Although the B2B payments industry traditionally has been slow to innovate, the impacts of the pandemic, advancements in technology, consumer demand, regulatory support and economic urgency have combined to set the stage for a new era in digital payments based on intelligent machines. Indeed, the benefits of AI for payments are hard to ignore.

AI systems improve payment speed.

First, AI-powered payment systems can far surpass traditional tools in transaction processing speed. While conventional technology routes payments according to static rules, AI systems can select — and learn — smarter transaction pathways based on speed and reliability, resulting in far more efficient processing. Intelligent systems thus can maximize cash flow by processing high volumes of payments in less time than traditional methods while maintaining a smooth customer experience.

AI's Benefits for Payments

AI is a superior tool for fraud detection.

Second, AI goes beyond simple pattern recognition to model adaptively based on deep learning, making intelligent tools ideal for fraud detection, as they can adjust to stay ahead of ever-evolving fraud tactics. Pay-by-face algorithms, for example, are an intelligent payment method that boasts an error rate of only 0.08% in recognizing legitimate users, compared to an average error rate of **4.1%**.

According to a recent survey, cybersecurity was business leaders' top risk management priority, which includes **fraud detection**. Credit card fraud worldwide reached \$32 billion in 2021 alone, and industry experts say this figure will climb to \$397 billion worldwide in the next 10 years. Half the respondents reported using AI in their organizations to detect fraud, and an average of 93% planned to implement the technology for this purpose in the next two to five years.

AI can take customer-centricity to new heights.

Third, AI can boost customer-centricity through its unequaled ability to **personalize the customer experience**. Capabilities such as natural language processing (NLP) can respond to customers with self-improving, customized interactions, including dispute resolution, supporting even the most complex payment tasks.

AI offers more accurate predictions than standard technologies.

Cognitive machines not only can use a wide variety of sources to inform their insights but also can detect nonlinear relationships between data as diverse as transaction records, customer profiles and market trends. These nuanced understandings can fuel better business decisions by predicting everything from sales trends to the **weather**.

Challenges to AI Implementation

AI Implementation Brings Challenges on Many Fronts

The reality of implementing AI in business operations involves building the data and technical infrastructure to accommodate the technology. These steps are neither easy nor cheap.

50%

Share of payment providers citing a shortage of data science resources and modeling capacity as current impediments to adopting AI technologies to fight fraud

AI's application must take data concerns into account.

Despite all the benefits AI brings to the table, **challenges abound** that constrain wider implementation. AI systems require high-caliber training data from which their algorithms can learn, and preparing this data is a time-consuming obstacle for businesses. AI's use also elevates the importance of maintaining data privacy, as data sharing, user consent and unlawful surveillance are key issues in regulatory compliance and security. Similarly, data transparency and the avoidance of bias are critical matters in financial decision-making, running counter to AI systems' "black box" inner workings and opaque, often unknowable processes.

Challenges to AI Implementation

Technical infrastructure is needed to accommodate AI implementation.

Data integration is another expensive hurdle. With most companies today still relying on legacy systems that are technologically outdated, establishing the infrastructure needed to accommodate AI systems can be a tall task for many businesses to consider.

Because of these hurdles, most companies will not, for example, build their own large language models (LLMs), in the case of generative AI. Most B2B software-as-a-service (SaaS) companies will use ready-made foundational models, but the data that is fed to these models must align with the above data concerns.

AI implementation for business applications requires staff with expertise in AI.

Businesses face a staffing challenge when deciding to adopt AI. **Companies need a team of experts** embodying the hybrid skills of data scientists, ML engineers and software developers. In addition, being able to **surveil AI systems** is a must for companies to optimize model performance.

Existential Fears: Could AI Replace Humans?

Support or Substitute? AI's Role in the Workplace

There are widespread worries that AI is here to replace the labor force in some industries. What is the likely impact on departments like AR, AP, procurement and treasury of embedding AI into payment processes?

2x

The use of AI by businesses has doubled since 2017, with the average AI application performing 3.8 tasks compared to 1.9 in 2018.

Current payment processes are leading to burnout.

Determining the potential impact of a new technology on any industry requires taking stock of the current situation. Accounts receivable (AR) and accounts payable (AP) processes remain bogged down by legacy systems that are mainly subject to **manual procedures**, and a recent survey found that most AP staff are shouldering more work hours due to an **increase in invoices**.

More than 75% of AP teams reported processing more invoices in the last quarter compared to 66% in the previous two quarters, forcing half of employees to work longer hours to handle the additional work. Roughly half of respondents said this burden is leading to rapid burnout, up four percentage points from last year. Much of this owes to a change in workplace culture during the pandemic, with increased productivity expectations placed on fewer workers. As a result, nearly one in four AP professionals are considering resignation. Many of them said they view automation, ironically, as the solution to retaining staff and improving morale.

Existential Fears: Could AI Replace Humans?

AI's application to payment processing unquestionably improves productivity.

Most companies, regardless of vertical, have trouble processing payments the **manual way**. Incorporating AI into payments can streamline operations and boost fraud-fighting efforts. AI, combined with ML, can sort through large data sets in real time, providing firms with the information they need to execute payments safely or stop them as needed. AI can also circumvent human error by reading both paper-based and scanned invoices, allowing companies to handle more invoices than financial professionals would be able to process.

Like any technological advancement, AI is disruptive and could have a significant impact on the labor force, but its operation still requires human management, creating a demand for labor with new skill sets.

Business leaders are optimistic about generative AI's impacts on the workforce.

With specific regard to **generative AI** — the type of AI that generally raises the greatest concerns about human replacement — two recent surveys find business leaders hopeful about its overall impact on their workforces. The surveys reported a significant decrease in anxiety between March and June 2023 about generative AI possibly replacing their current employees. In fact, 84% in the newer survey believed that generative AI will have a positive impact on their workforce, and 97% agreed to some extent that generative AI will allow their employees to be more thoughtful and creative by freeing them from manual processes.

Decision Guide

Why Companies Can't Afford to Ignore the AI Payments Revolution

PYMNTS Intelligence offers the following decision guide for businesses that are concerned about implementing AI systems into their business processes for payments.

AI can improve payments' efficiency.

- About 79% of CEOs in a recent survey say that **generative AI** technology will help their companies increase efficiency.
- Today, companies have to deal with millions of dollars in outstanding receivables for weeks and months, but AI can deliver improved **cash flow predictions** when it's inserted into AR.
- Despite initial hesitancy, merchants are now eager to introduce intelligent machines to **alleviate the work burden** for both themselves and their employees.

AI is likely to improve the customer payment experience.

- Companies point to improving **customer experiences and retention**, driving revenue growth and optimizing costs as reasons, among others, for implementing AI.
- AI provides companies with information on user behavior that can deliver **clear and actionable insights**. For example, user data can predict late payments, allowing companies to be proactive and address any issues directly with customers.
- Customers are likely to experience **fewer erroneous declines**, with AI able to determine when a customer should be asked to try again in the case of a soft payment decline triggered by payment timing, card inactivity or an expired card.

Decision Guide

Companies that pass on the AI opportunity are ceding a powerful competitive advantage to others.

- While fear of missing out is driving much of AI's explosive growth at present, companies that forgo exploration of AI for their payment systems will not be doomed to immediate extinction.
- That said, however, AI represents a new tool at companies' disposal that could be 10 to 1,000 times more efficient than their current systems. Companies that do not take the time to understand, implement and iterate with the technology stand to surrender a competitive advantage to those that do.
- As a result, doing nothing about AI is the worst thing a company can do. Few companies will achieve the highest level of embedding AI deeply into their products. While iterating aggressively on the technology may be the best course of action, even taking it in stages, beginning with implementing an AI chatbot, for example, can offer gains that companies will not want to miss.

“The value of data and analytics for finance teams cannot be overstated, and using both traditional and generative AI can push this concept even further. A big part in providing better insights for AR teams is not only analytics but also machine learning and ultimately generative AI. By combining all these technologies, we can give customers a full view of every business process in AR.”

AHSAN SHAH
Senior vice president,
Data Intelligence



About

PYMNTS INTELLIGENCE

PYMNTS Intelligence is a leading global data and analytics platform that uses proprietary data and methods to provide actionable insights on what's now and what's next in payments, commerce and the digital economy. Its team of data scientists include leading economists, econometricians, survey experts, financial analysts and marketing scientists with deep experience in the application of data to the issues that define the future of the digital transformation of the global economy. This multilingual team has conducted original data collection and analysis in more than three dozen global markets for some of the world's leading publicly traded and privately held firms.

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