PAYFACTORY

Leveraging AI in the Payments Industry

The last 10 years have brought a surge in in mobile, P2P and real-time payments, digital wallets and BNPL, and payment facilitation.

AI has the potential to provide the next wave of payments transformation, including generative AI for intelligent, human-like output, and machine learning (ML) models to perform complex tasks that will manage fraud, automate payments operations, enhance customer service, and reduce operational costs.

The Meteoric Rise of AI

Statista estimated the global market for AI at $200 billion in 2023, growing to over $1.8 trillion by 2030. In 2024, the largest market size is expected to be in the U.S., at $106.5 billion.

AI

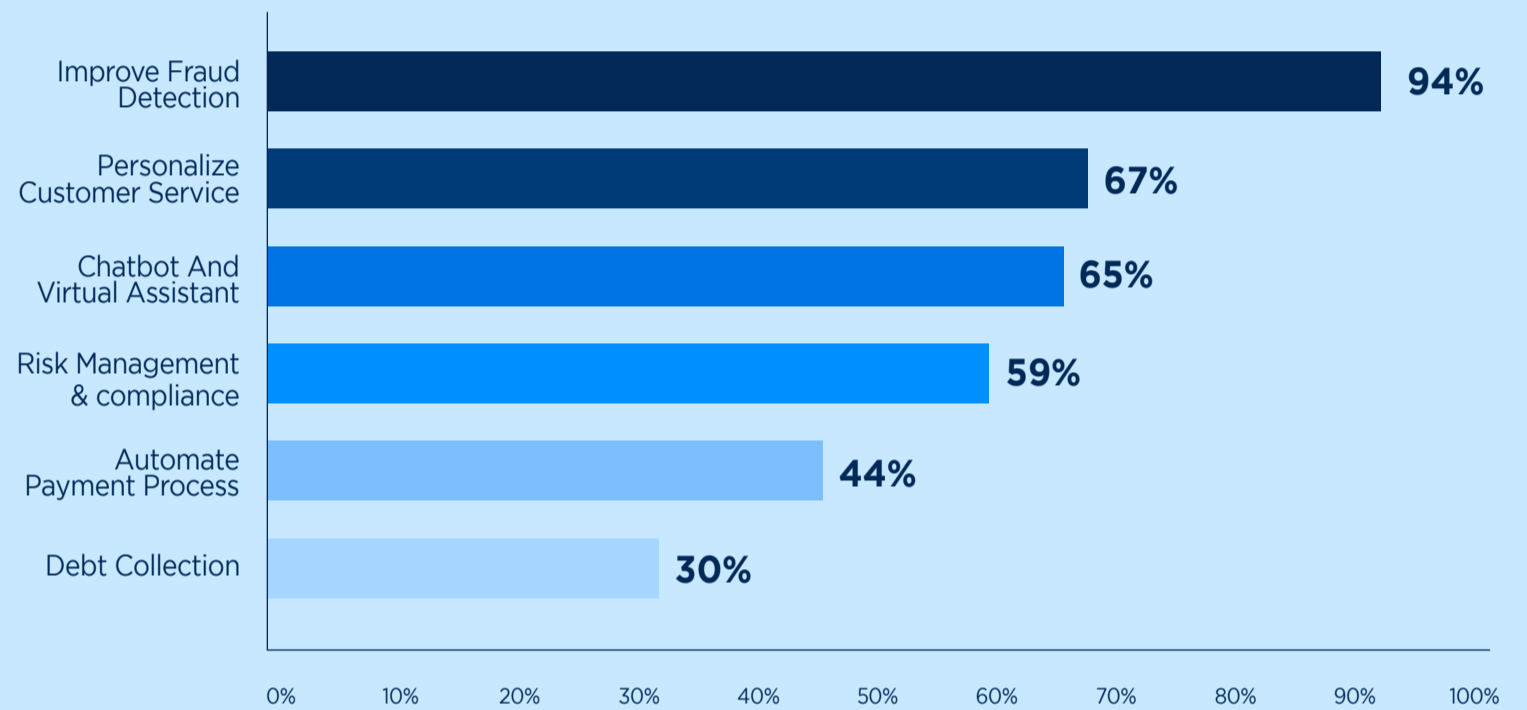**$1.8T**
2030 AI Market

$200B
2023 AI Market
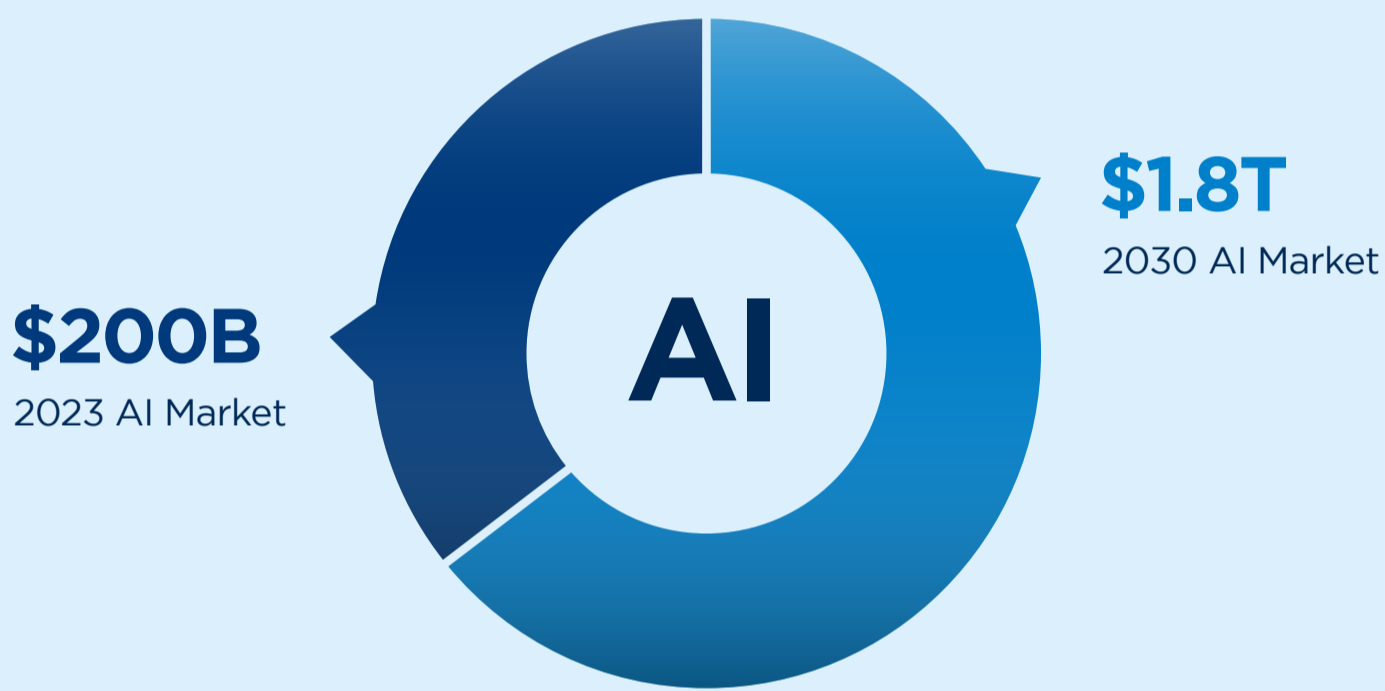
Artificial Intelligence – Worldwide, Statista Market Report, 2023.

AI and ML in Payments

In a 2023 survey, Edgar, Dunn & Company gathered the perspectives of 100+ senior payments professionals globally regarding the potential uses for AI and ML in payments.

In your opinion, what are the growing use cases of AI and machine learning in payments? Select all that apply.

Use Case	Percentage
Improve Fraud Detection	94%
Personalize Customer Service	67%
Chatbot And Virtual Assistant	65%
Risk Management & compliance	59%
Automate Payment Process	44%
Debt Collection	30%

The impact of artificial intelligence and machine learning on the payments industry, Edgar, Dunn & Company, 2023.

AI Payments Use Cases Defined

AI applications like chatbots are already established in the payments industry, but generative AI and ML promise to redefine all aspects of payment processing.

Fraud Detection and Prevention
AI uses a group of algorithms with anomaly detection to analyze transaction history, location data, and user behavior to detect and prevent fraud threats, while also reducing chargebacks and order declines.

Customer Service and Support
AI chatbots can instantly streamline the customer service experience but in payments, customers will soon get more insights from their payments data by querying a natural language chatbot.

Underwriting & Credit Decision-Making
AI can perform underwriting checks against a sanctions list or negative file at massive speeds, generating an accurate risk score and any red flags during the analysis of merchants.

Streamlined Processing & Settlement
Tasks such as filling out wire transfer forms and suggesting routing for payment messaging can be expedited using AI, while AI will readily detect payment errors, making them easier and faster to solve.

Personalized Offers and Upsell
Based on the individual behavior of merchants and business, AI can provide contextual offers for additional products and services, including those in embedded finance such as lending, insurance and more.

Data-driven Insights & Innovation
AI can analyze transaction histories to recognize current patterns and model future scenarios for increased insights and revenue, while also speeding product development with generative AI helping to write code.

AI Adoption Considerations in Payments

Like any new technology in the payments industry, there is always adoption considerations.

- Financial data can be spread across multiple systems, making integration, consolidation, and coping with conflicting data formats challenging.

- Companies must ensure the quality of input data into AI systems for effective decision-making.

- Companies will then have a responsibility to vet the accuracy of data output by AI and ML.

- Companies must ensure transparency and fairness in their AI algorithms to avoid bias in decision-making.

- Companies will need to meet compliance requirements like GDPR and PCI when integrating AI into environments that handle sensitive payment and customer data.

- AI will not replace high-value interactions, such as onboarding large accounts, that still require a human touch.