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AI in Business

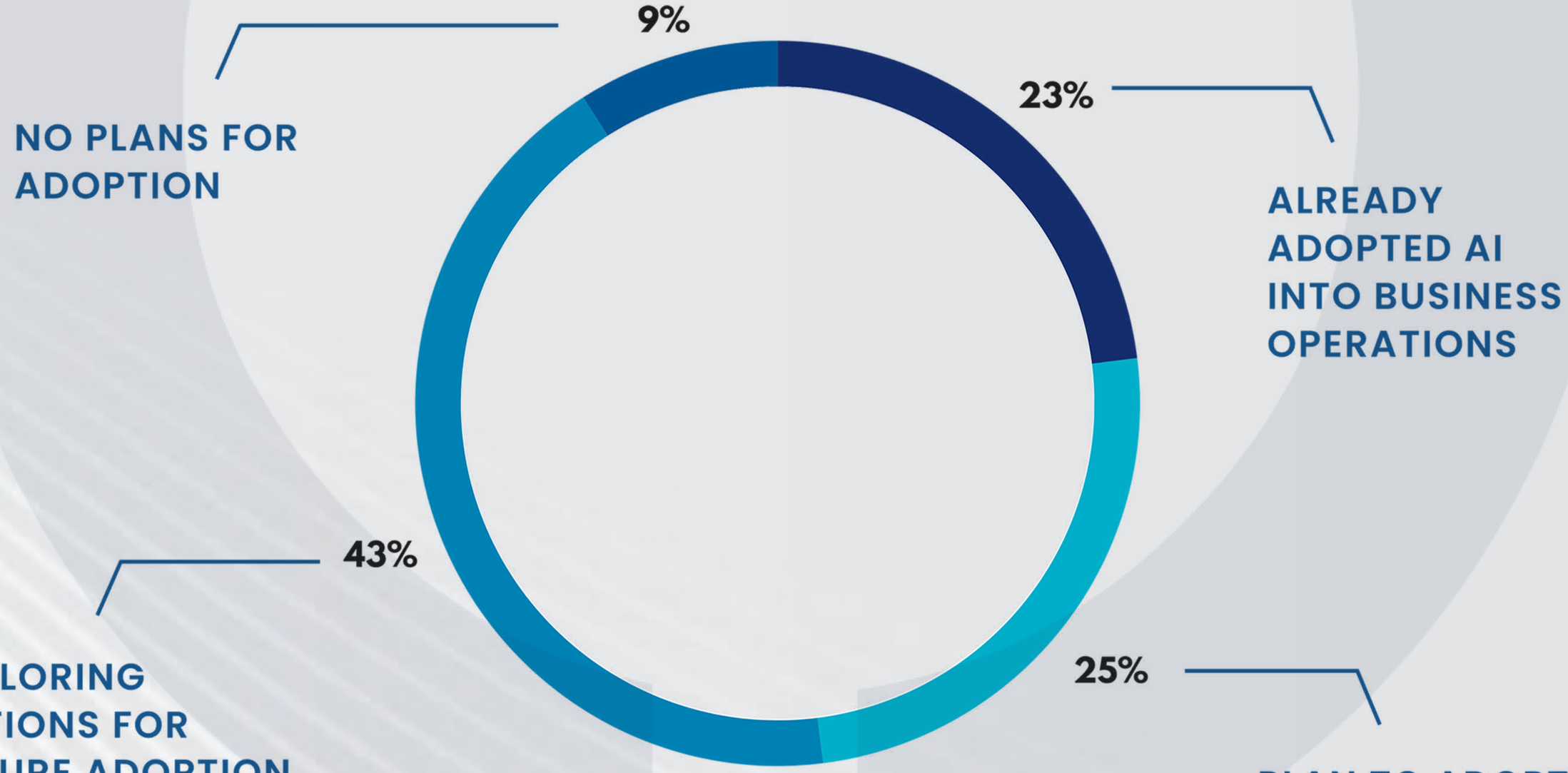
The growing need for artificial intelligence

Introduction

Since the onset of 2024 AI has become a major talking point in enterprises around the world. With the new wave of AI technologies emerging every day companies often find themselves waiting to latch onto the right opportunity to integrate and implement AI across a diverse range of functions and operations.

From using existing AI technologies such as ChatGPT to building custom models to serve specific needs, there has been an uptick in the number of businesses that are strategizing, building and deploying AI infrastructure.

68 percent of the Global CEOs are planning to deploy AI in their enterprises



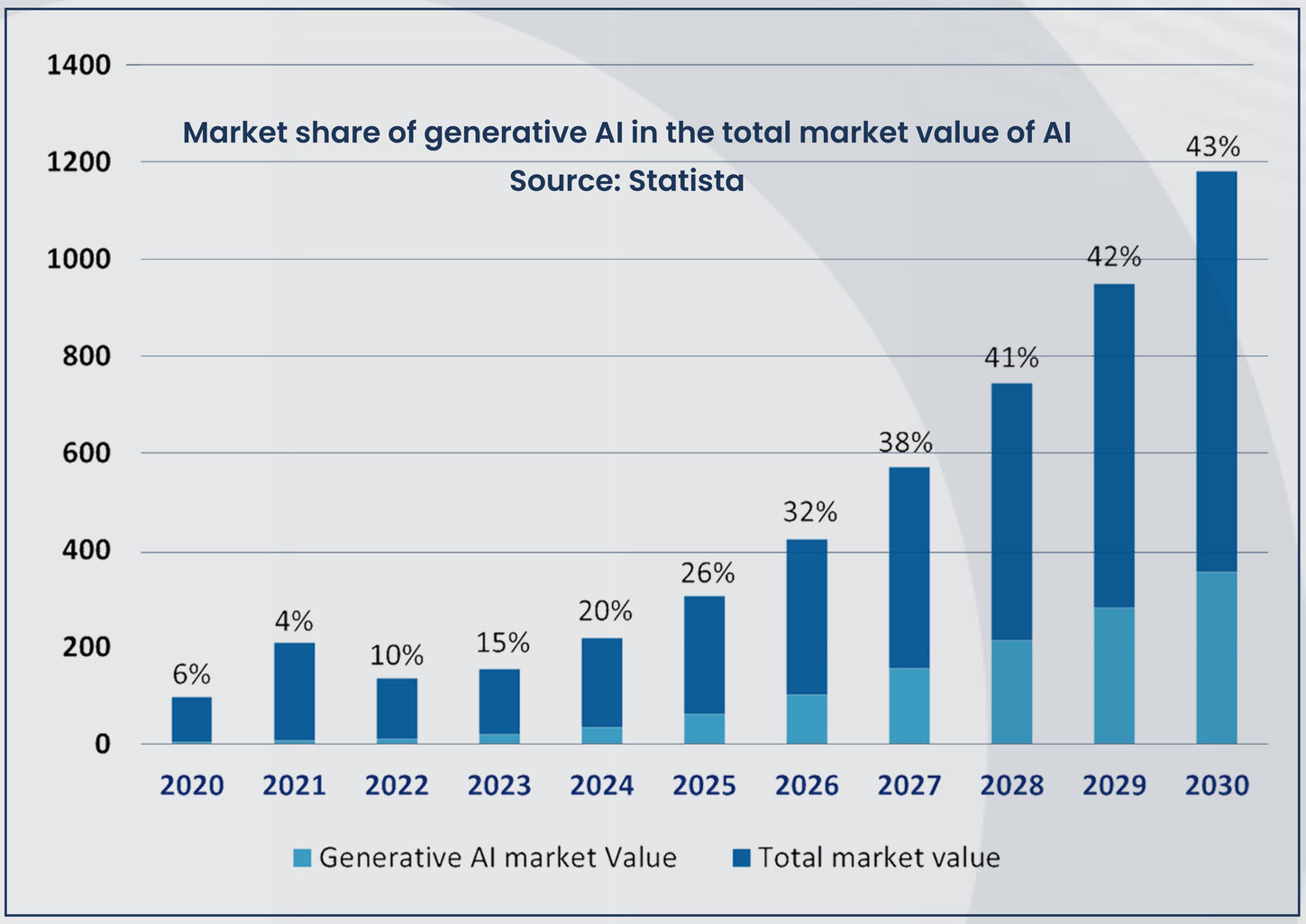
Source: The Conference Board; MarketingCharts

A growing number of companies have already implemented AI systems in various functions and have recorded significant improvements in terms of productivity and efficiency. Cost optimization and enhanced decision making have been another major consequence of AI deployment.

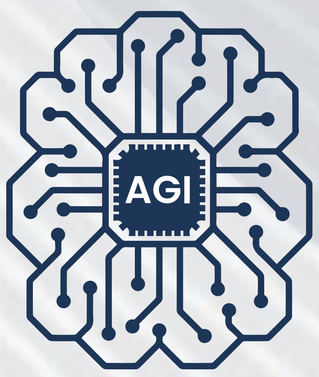
Future trends of AI

AI, a disruptive and revolutions technology, has become one of the most essential technologies of the 21st century. With the introduction of ChatGPT, AI has captured the spotlight and has accelerated investments in new AI systems and technology. The market grew beyond 184.04 billion dollars in 2024 and is expected to hit 826.63 billion dollars by 2030. This reflects the ongoing and forecasts that AI has become and will be the most transformative technologies.

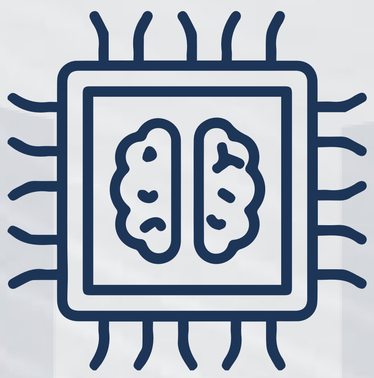
2024 has been the year of Generative AI. Companies are investing further in this technology in hopes of harnessing its power. This year recorded a 36.06-billion -dollar investment, and it is expected to grow further.



Despite its large share of investments, Generative AI is not the only AI technology that is receiving funding. Future technologies such as Artificial General intelligence (AGI), Neuromorphic computing and Explainable AI are receiving generous funding to advance research. These investments in future technologies show us that we will not just be using AI but live with it.



AGI : Artificial General Intelligence (AGI) refers to a type of artificial intelligence that possesses the ability to understand, learn, and apply knowledge across a wide range of tasks at a level comparable to human intelligence.

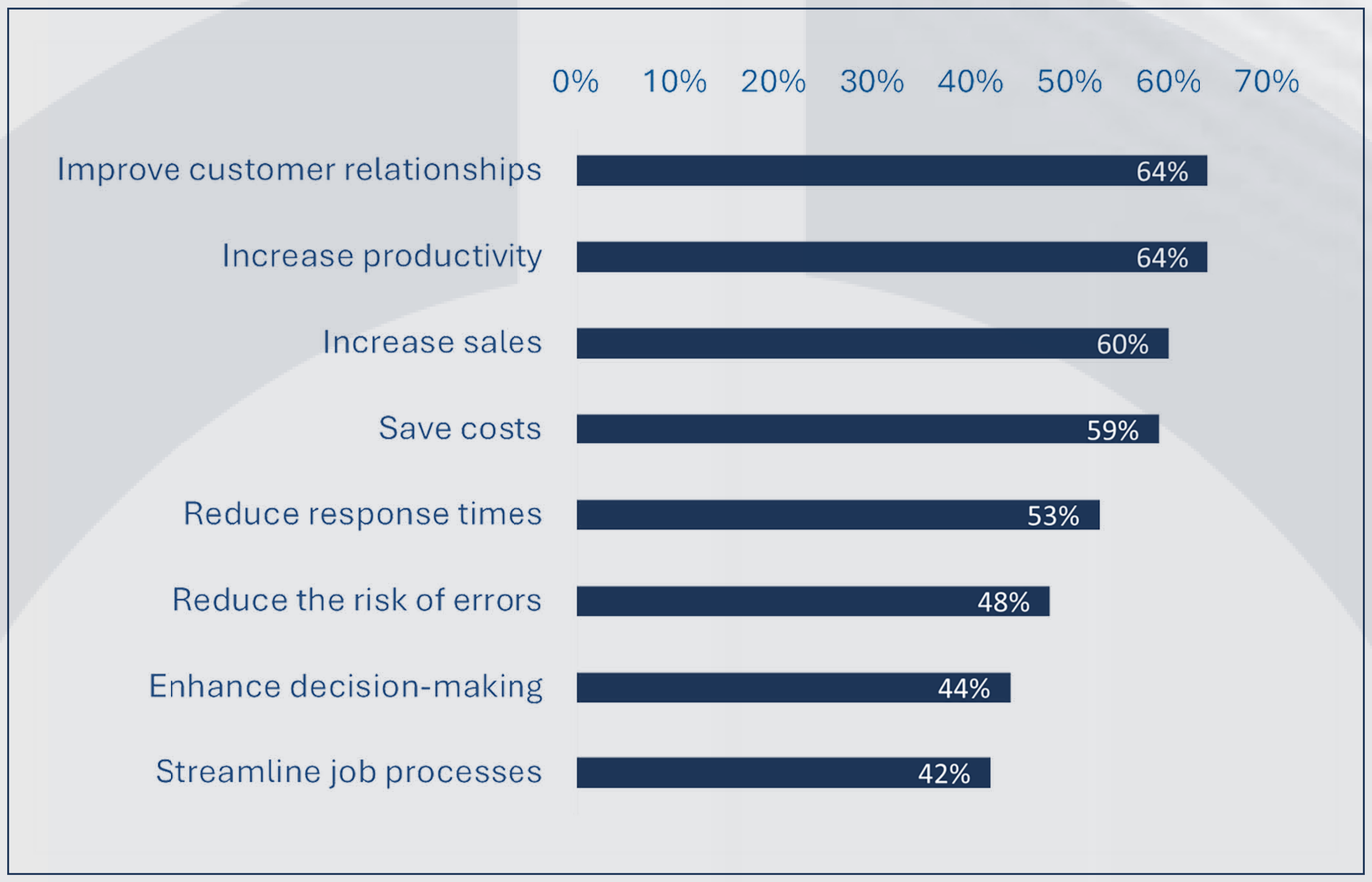


Neuromorphic computing : Neuromorphic computing is an approach to designing computer systems that are modelled after the structure and function of the human-brain, aiming to achieve efficient processing and learning capabilities by emulating neural networks.

Explainable AI (XAI): refers to artificial intelligence systems designed to provide clear, understandable explanations for their decisions & actions, enhancing transparency and trustworthiness.

As businesses navigate this technological revolution it is necessary to understand the importance of AI & integrate it into organizations & further build future proof AI infrastructure.

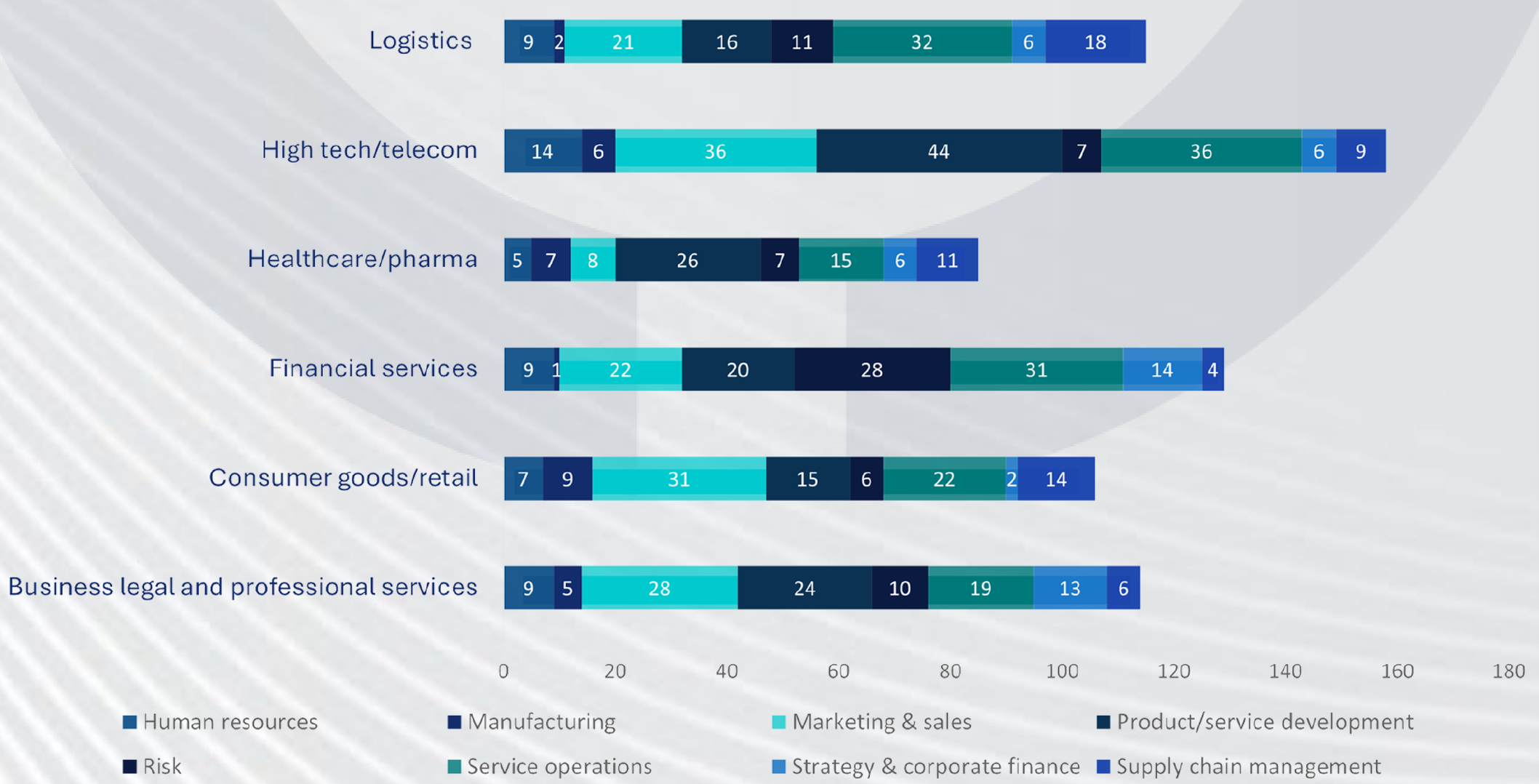
AI's transformational power for enterprises



Source: Forbes

Based on a survey of 600 businesses in the United States, AI has proven to be positively impactful in various operational aspects of their enterprise.

Not just operational aspects but also across industries and business functions, AI has proven to be widely adopted. Industries such as Telecom, Logistics, Financial Services, Business legal and professional services have shown a wide adoption of AI across various functions, mainly marketing & sales, product development and human resources.



Source: Mckinsey & Company and others

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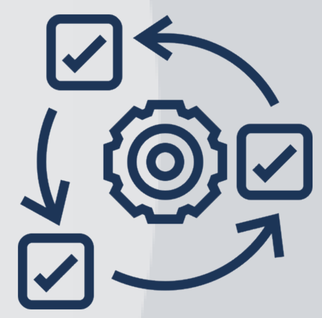
How would AI transform businesses in future?

1. **Organizational transformation:** introduction of AI into an organization will have significant impact on workflows and workloads. It increases the capacities of an employee and reduces the new workforce needs.

2. **Improved risk mitigation:** real time risk mitigation with AI for complex infrastructures and systems will be achieved with the AI's ability to identify, inform and advise on problems in real time.

3. **Increased pace of research and development:** with the power of Generative AI, the need for sifting through vast repositories could be eliminated through custom large language models. This would have a significant impact on the delivery and execution of projects.

4. **Automated & efficient processes with the ability of real time optimizations:** processes will be efficient, automated and monitored in real time using AI. Based on the context of the situation the processes would be optimized and corrected to avoid disruptions and bottlenecks.



5. **Highly tailored consumer experiences:** Through AI's ability to understand, detect and predict consumers' emotions and behaviors, a unique experience would be built in real time that is both responsive and engaging.

6. **Accurate and enhanced analytics:** Deep Learning Neural Networks would enable enterprises to conduct analytics on large sets of data and provide unique insights and forecasts.

AI with Cognine

At Cognine, we understand that navigating the vast array of AI applications can be overwhelming and costly for businesses. With our deep AI expertise, we bridge the gap by delivering tailored solutions that address your specific needs. From strategic advisory to building optimal AI models, we help you unlock the full potential of AI while maximizing your ROI

Transforming Logistics Operations with AI: A Case Study

Introduction

A leading logistics company in US faced significant challenges in their pricing and bidding processes. They struggled with outdated and inconsistent pricing tools, an inefficient manual bid response system, & manual data entry into their Transportation Management-System (TMS). This case study explores how Cognine Technologies implemented an AI-driven solution to address these challenges, significantly improving the company's operational efficiency and success rates.

Problem Statement

Inconsistent Pricing Tools: The logistics company currently uses various tools for calculating pricing for customer rate requests. However, they are experiencing significant latency and outage issues with these tools leading to inaccuracies in price validation.

An incident was shared where one of their main pricing tools was down, forcing them to rely solely on another tool that did not provide a comparative rate, leading to a "guessing game" for pricing.

Inefficient Bid Response: The manual process of responding to bid requests was time-consuming and error-prone. Despite having a dedicated bidding department, the existing system hindered their ability to respond quickly and accurately to bid requests.

Manual Spot Market Rate Submissions: The company receives around a thousand spot market calls, requiring manual rate submissions into their customers' TMS. This process involves manually entering rates into the TMS, which is time-consuming and prone to errors.

Solution Implementation

Automated Rate Updating System:

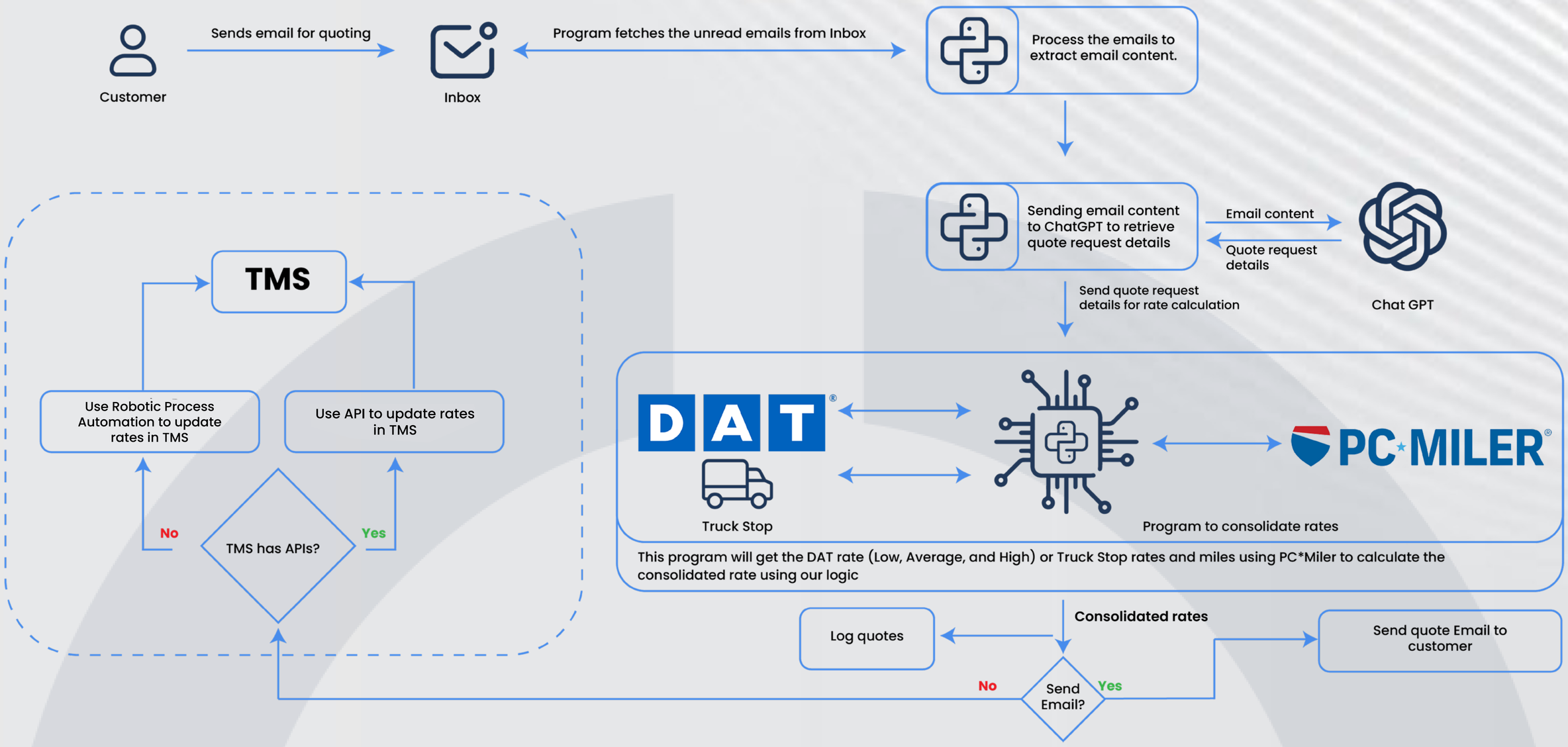
- Cognine introduced PC*Miler, a logistics service provider tool that offers accurate truck mileage estimation based on route and traffic conditions, including tolls.
- An algorithm was developed to calculate consolidated rates by combining data from PC*Miler, DAT, and Truck Stop.

Automating the Quotes:

- Cognine leveraged GenAI technology to automate the extraction of source and destination information from the approximately 400 to 500 request emails the company received daily.
- Using the developed algorithm, consolidated rates were generated for the identified source and destination pairs.
- The response process was automated to send quotes for review.

Predictive Rate Analysis and Management:

- Cognine implemented an AI-driven predictive analysis tool that aggregates data from multiple sources, including market trends, historical data, and external factors.
- This tool provides future rate predictions, helping the company adjust their rates proactively to stay competitive and improve profitability.



Results and Impact

The AI-driven solution had a profound impact on the company's operations:

Bidding Success Rate:
Increased from 25% to 40%.

Response Time:
Reduced significantly due to automated processes.

Operational Efficiency:
Improved as manual data entry and bid response processes were automated.

Profitability and Competitiveness:
The predictive rate analysis tool enabled the company to adjust rates proactively, improving profitability and maintaining competitiveness.

About Cognine Technologies

Cognine Technologies is an innovative IT service company specializing in AI-driven digital transformation solutions. The company is committed to addressing complex enterprise challenges through advanced technology.

Cognine excels in developing and implementing AI applications that optimize operations, enhance decision-making, and improve customer experiences. By leveraging advanced algorithms and data engineering, Cognine creates tailored, scalable solutions for various industries.

CEO's Note

Pradeep Pavuluri

We at Cognine see the growing need for AI applications in enterprises across industries and functions. This sudden rise in AI adoption is not just due to the trend surrounding the launch of ChatGPT but because a growing number of executives are realizing the potential of AI in transforming operations, processes, and costs across their enterprises.

The executives are right: AI has vast use cases. However, despite its potential, the lack of know-how hinders enterprises in their journey towards AI-led transformation. Many enterprises are unaware of the areas of implementation and the tools to use. It is especially challenging for enterprises that do not have in-house IT capabilities.

We are here to address the gap between the ambitions of enterprises and the know-how of AI tools, helping organizations achieve their AI adoption goals.

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Contact us

If you are looking to leverage the power of AI for your enterprise

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