AI-powered manufacturing

For electronics companies, it keeps getting better

In our 2017 study of AI's impact on manufacturing, we found that companies were pursuing IoT to improve core manufacturing metrics.

72%
Higher throughput with low cost per unit of production

71%
Lower machine downtime

66%
Minimum defects with higher rate of accuracy

64%
Lead time in changing assembly sequence for multiple product configurations

62%
Flexibility to incorporate multiple product variants with minimal effort
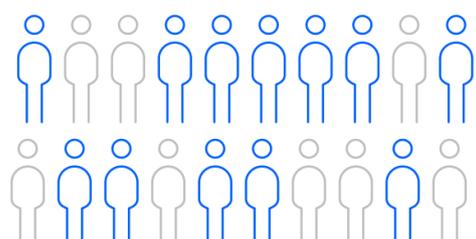
2017 AI study

Participants who pursued AI earlier were twice as likely to have significant or substantial ROI on their IoT and predictive analytics technology efforts and 1.5 times more like to find success in IoT and big data.

2017

2018

2018 AI study

AI users show more success with greater flexibility, faster inventory turns. They show higher return on assets (ROA), more revenue growth and more supply chain agility versus those who delay taking on AI-powered manufacturing.

We profiled study respondents on their use of AI across areas:

AI users

Apply AI to transform the organization; across most areas at least piloting, in some areas rolling out or fully implementing
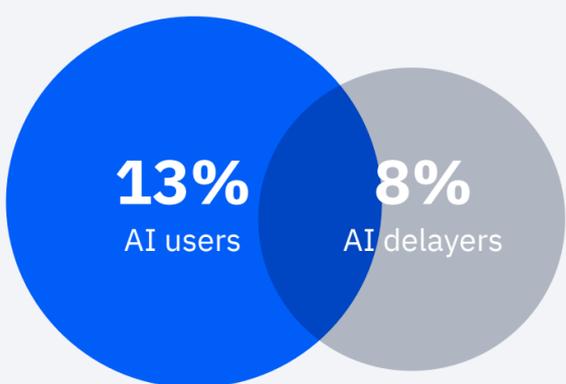
AI delayers

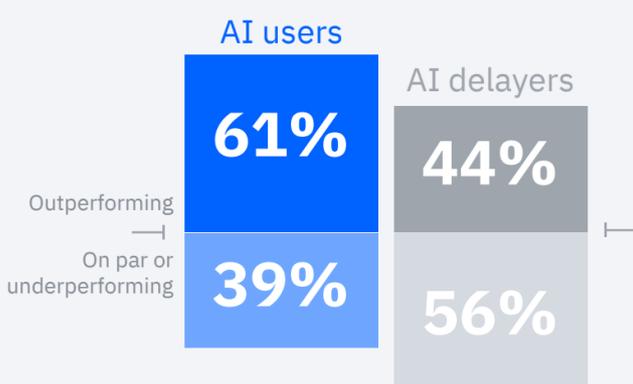Postpone adoption of AI; across most areas not considering, in some areas experimenting

AI users see a straight line to increase the bottom line

The ability of AI users to respond rapidly to changing business conditions allows better scalability.
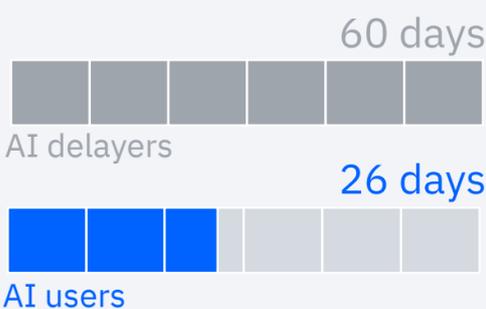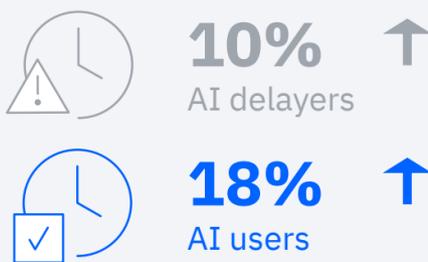
Return on fixed assets

13%
AI users

8%
AI delayers

Revenue growth comparison

AI users

AI delayers

Outperforming

61%

44%

On par or underperforming

39%

56%

Upside flexibility

Days to achieve an unplanned sustainable 20% increase in quantities delivered

60 days
AI delayers

26 days
AI users

Upside adaptability

Estimate for maximum sustainable percentage increase in quantity delivered that an organization could achieve in 30 days

10% ↑
AI delayers

18% ⬆
AI users

Putting AI-powered manufacturing to work

Production optimization

Intelligent defect detection and classification

Asset maximization

Blockchain provenance management

AI and AR enabled repair

Collaborative platform with alerts

Driving outcomes

- Increase productivity and throughput
- Streamline maintenance operations
- Identify defects faster and more successfully
- Reduce unplanned downtime and unnecessary maintenance
- Reduce cost associated with maintenance and quality
- Optimize business performance
- Improve maintenance KPIs
- Achieve greater transparency, enhance security and improve traceability

Are you ready to put AI-powered manufacturing to work?

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