

pluto^oshift

Breaking Ground on Implementing AI

Instituting Strategic AI Programs:
Moving from Promise to Productivity

Introduction

Navigating the Process of Implementing AI Initiatives

Artificial Intelligence (AI), or the ability for a computer to think and learn, presents a wide range of opportunities across multiple industries to drastically change – and even disrupt – how they do business, as well as improve efficiency, increase productivity and uncover new sources of revenue. The challenges AI can help solve make its potential seem boundless.

Companies are forging ahead with the adoption of AI at an enterprise level, brimming with optimism. According to Gartner¹, AI adoption has tripled in the last year alone, with an estimated 37 percent of firms now implementing AI in some form.

In the face of this enthusiasm and despite the progress that some companies are making with their AI projects, what's often underreported is the reality that AI initiatives are loosely defined, lack proper technology and data infrastructure, and are failing to meet expectations. In the wake of industry exuberance over the technology, are companies taking a measured or grounded approach to implementing AI?

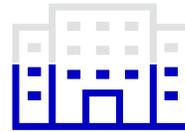
To gauge the progress and process of how manufacturing companies are implementing AI and whether or not they are satisfied with their AI initiatives, Plutoshift surveyed 250 manufacturing professionals with visibility into their company's AI programs. The survey explored how manufacturing companies are implementing AI to understand the maturity and progress of projects and to uncover if they are utilizing an automated monitoring approach.

Manufacturing needs a more focused and industry-specific approach to implement AI, to enhance existing data systems, unlock its value, and surface intelligence for the front lines of operations where strategies are executed.

This report identifies how manufacturing companies are tackling AI implementation, the hurdles they encounter along the way, how far along they are on obtaining full data intelligence, and gauges if companies would rethink their current AI implementation strategies

The report uncovered that while companies are making progress with their AI initiatives, many planning and implementation struggles remain, from defining realistic outcomes to data collection and maturity to managing budget scope and more. Key data points from the report include:

61%



Said their company has good intentions but needs to reevaluate the way it implements AI projects

17%



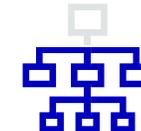
Said their company was in full implementation stage of their AI project

84%



Are not yet able to automatically and continuously act on their data intelligence, while some are gathering data

72%



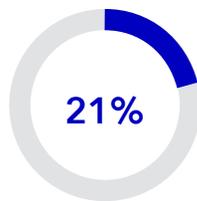
Said it took more time than anticipated for their company to implement the technical/data collection infrastructure needed to take advantage of AI

Position on Data Intelligence Journey

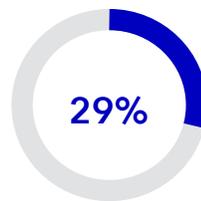
84% of respondents say their company cannot automatically and continuously act on their data intelligence.

Data is an essential component of implementing AI. It's important for companies to have an effective data collection system to fully take advantage of AI technology, or even begin testing AI capabilities. When it comes to the data intelligence journey, companies can fall anywhere from not having installed data collection sensors, to being able to extract data that directly leads to actionable insights. Only a small portion of companies say they have data intelligence and can act on it automatically and continuously.

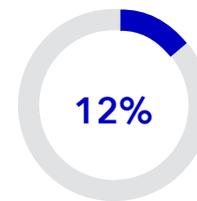
For those that cannot automatically act on their data intelligence, the survey found that companies are in different stages of maturity in planning, collecting and analyzing their data.



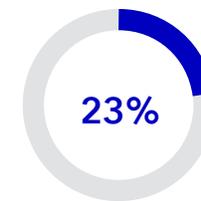
Said their company was in the planning and investment phase for automated data collection and use



Said their company was building and implementing data collection systems and practices



Said their company was collecting data, but not all digitized or unified



Said data is being analyzed at their company, but data intelligence is not acted on automatically

The March Toward AI Implementation

Only **17%** of respondents said their company was in full implementation stage of their AI projects.

Deploying and seeing results from AI projects requires companies to work strategically and efficiently with their resources. Companies must work internally to build a business case for AI, get familiar with the technology, assess the resources needed to implement AI, and work toward identifying specific business outcomes.

Currently, only a fraction of manufacturing companies who have implemented AI would consider themselves in the full implementation stage – they are utilizing AI on a continuous basis and achieving specific business outcomes. The majority is still taking steps toward seeing the full value AI can bring, assessing the financial and technological resources they'll need to implement AI or working toward building a business case for investing in AI. While all of these steps may not need to be completed in order to initiate AI projects, they are critical to delivering successful outcomes.

25%



Said their company was in pre-implementation phase (using AI but only on a small scale to assess its value)

20%



Said their company was assessing the internal resources needed to implement AI

24%



Said their company was getting familiar with AI and assessing the potential business and financial value AI could bring

13%

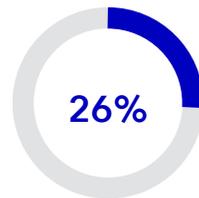


Said their company was building a business case to make an investment in AI

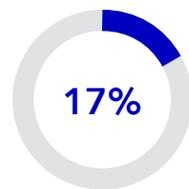
AI's Role in Achieving Specific Company Outcomes

Only **57%** said their company implemented AI projects with a clear goal, while almost 20% implemented AI initiatives due to industry or peer pressure to utilize the technology.

A vital step in implementing successful AI projects is identifying specific business outcomes and goals. When companies are on the same page about how they define success with AI, they are better positioned to achieve their objectives. While over half of the companies said this was the case, it's clear that many companies are still identifying the right reasons and goals to implement AI.



Said their company implemented AI projects even though other contingencies (e.g. IT infrastructure, market readiness, etc.) were outstanding



Said their company implemented AI projects because their company felt pressure to utilize this technology from the industry

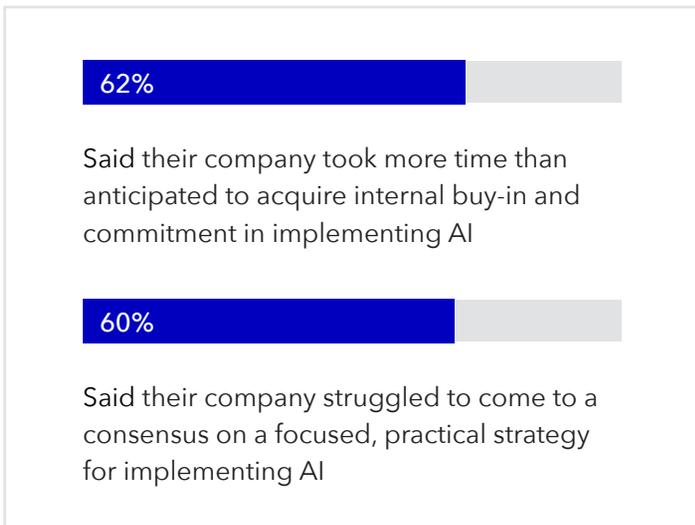
The top business problems companies are trying to solve with AI are:



Roadblocks and Barriers to AI Implementation

72% said it took more time than anticipated for their company to implement the technical/data collection infrastructure needed to take advantage of AI.

The majority of companies reported encountering some barriers to implementing AI, while only one-in-three said they didn't encounter any roadblocks. The biggest obstacle companies reported encountering was needing more time to put in place the technical/data collection infrastructure to implement AI.



Despite the reported barriers, some companies are still reporting they are able to stay in scope and keep their focus on clear objectives while other companies are struggling to stay in scope due to budget issues, lack of expert guidance, issues collecting data or lacking confidence in the technology.

47%



Said their company has kept its AI project(s) in scope and focused on clear deliverables

26%



Said their company has struggled to keep its AI project(s) in scope because of cost overruns

34%



Said their company has struggled to keep its AI project(s) in scope because there was a lack of expert guidance at the planning phase of the project

33%



Said their company has struggled to keep its AI project(s) in scope because we had issues collecting and using data for the AI project

34%



Said that experience a lack of engagement to AI projects due to a lack of confidence the technology

Reevaluating How We're Implementing AI

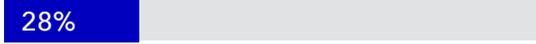
61% said their company has good intentions but needs to reevaluate the way it implements AI projects.

When it comes to managing, implementing and executing AI projects internally, companies took varied approaches on different aspects of the process, such as aligning on budget, gaining internal buy-in, and deciding who would use data within the company. However, the majority of companies agreed that despite good intentions, they need to reevaluate the way they implement AI projects.

Obtaining Internal Buy In

ONLY

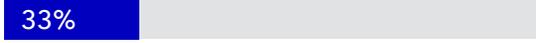
28%



Said buy-in was a clear priority for their company and was successfully addressed at the onset of the process of implementing AI

Keeping Budget in Scope

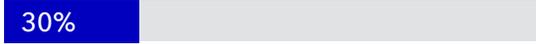
33%



Said their company struggles with their budget scope with either being over budget or finding the resources to implement AI

Data Use Within The Company

30%



Said data is being used within specific users/ departments that can act on this information

Conclusion

Open Roads Ahead for Implementing Tailor-Made AI Programs

While manufacturing companies see the value in implementing AI, whether it is to improve cost savings or provide better customer service, most manufacturing companies still say they would rethink their AI implementation strategies. Their current AI implementation processes lead to obstacles such as a lack of internal expertise with the technology, cost overruns, or simply doubts about the technology.

A major reason companies would rethink their AI implementation plans is that most companies lack the data infrastructure needed to fully utilize AI. Only a fraction of companies are able to continuously and automatically translate their data into actionable insights. While it is not imperative to have a completely mature data infrastructure to fully utilize AI, extracting and analyzing data from their processes is a crucial step.

The good news is that companies who are still working to fully implement AI have opportunities to take into consideration their companies' needs, assets and potential business outcomes AI could help solve. This is a chance to truly implement projects and technologies tailor-made for their specific wants and needs. AI doesn't have to be a "one-size-fits-all solution."

To truly utilize data, manufacturing companies need a data infrastructure and platform that is designed around performance monitoring for the physical world. That means gaining the ability to take data from any point in the workflow, analyze that data, and provide reliable predictions at any point. Right now, few companies report these full capabilities and would rethink their direction.

Manufacturing companies also need to incorporate an AI strategy that takes into account that circumstances surrounding their data analysis and AI needs may change over time. They need a platform that is reliable, and at the same time, flexible, so that they have the tools to make decisions in real-time.

It's also important that an AI system empowers each operator to take action. This means that goals or outcomes are clearly defined within a company so that no matter who the stakeholder is, they have the chance to see their own opportunities for ROI – whether it is financial or organizational.

Manufacturing companies have the opportunity to utilize AI that empowers operators and teams with automated performance monitoring for any industrial workflow. In manufacturing specifically, AI can help businesses drive ROI by reducing resource consumption, as well as operating costs.

Methodology: Plutoshift surveyed 250 manufacturing professionals in October 2019. The blind survey was completed online and responses were random, voluntary, and anonymous.



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