CURRENT STATE:
BIG DATA & ADVANCED ANALYTICS IN SUPPLY CHAIN

APQC and Supply Chain Management Review collected information in April 2019 from supply chain professionals about the use of Big Data & Advanced Analytics in supply chains around the world.

Big Data is structured and unstructured data sets that are too large or complex to be dealt with by traditional data-processing application software.
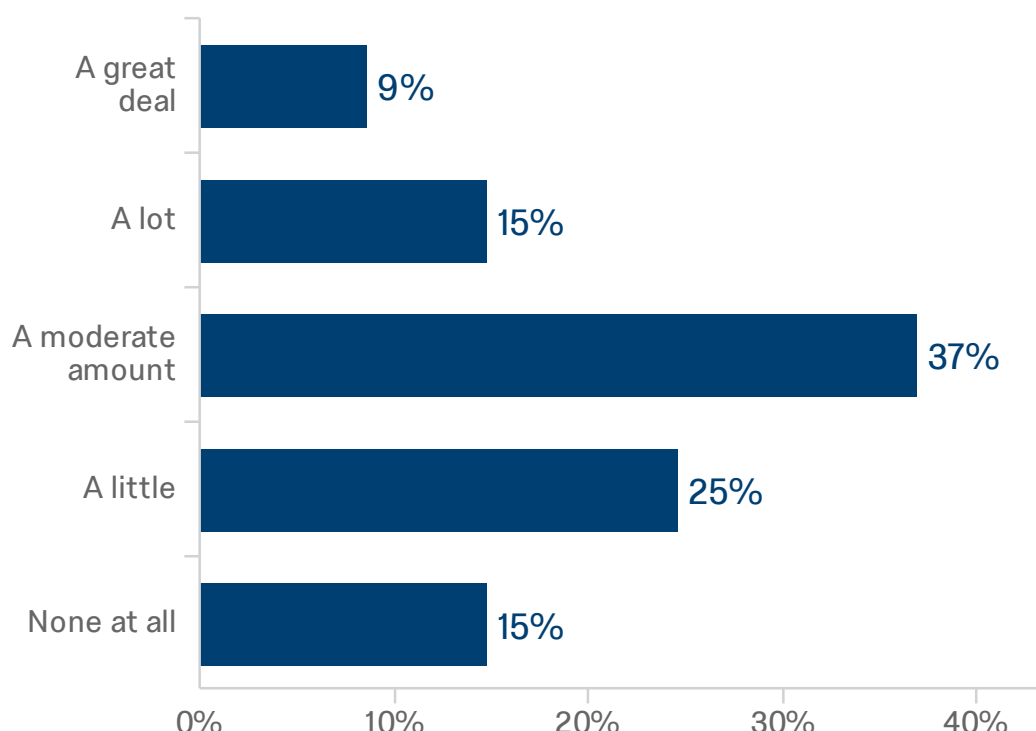
Advanced Analytics is a technology enabled, complex process of examining large and varied data sets to uncover information including hidden patterns, unknown correlations, market trends and customer preferences that can help organizations make informed business decisions.

## WORK SMARTER, NOT HARDER

9%

There is still ample room for advancement in automating the collection of big data and processing advanced analytics. Only 9 percent of participants report a great deal of automation for these processes in their organization.

Automating big data and advanced analytics gets intelligence to decision makers significantly faster, allowing for more agile and informed decisions. The goal is to ensure that leadership has the insights and tools to make evidence-based decisions.

Category	Value
A great deal	9%
A lot	15%
A moderate amount	37%
A little	25%
None at all	15%

(Scale: 0% – 40%)

69%

The good news is that investment is on the rise. Over the last three years, 69 percent of respondents have seen their organization's investment in advanced analytics increase.

28%	41%	28%		
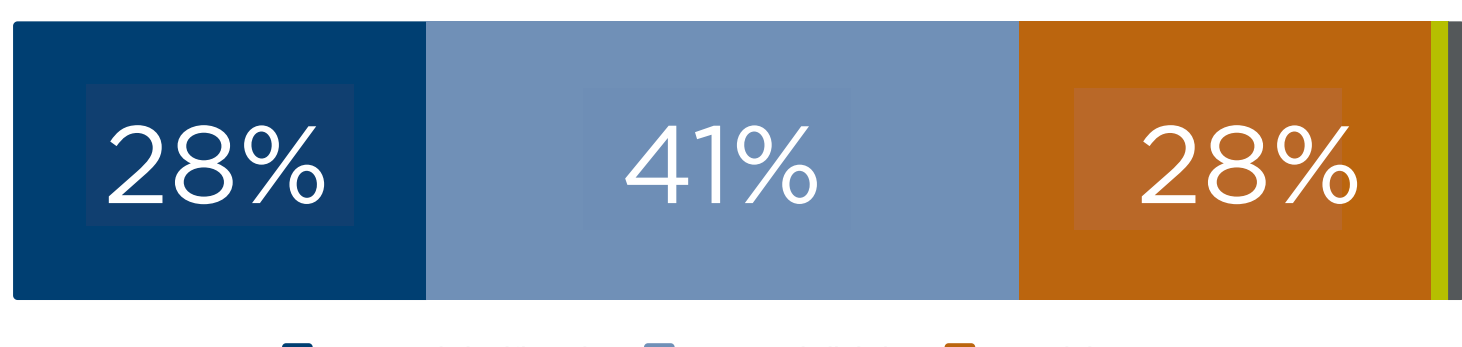
- Increased significantly
- Increased slightly
- Stayed the same
- Decreased slightly
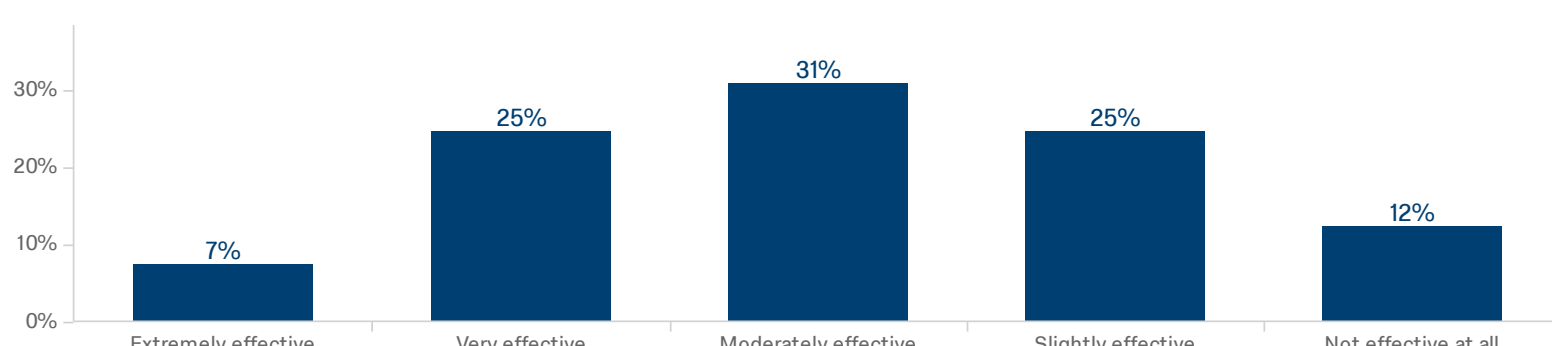- Decreased significantly

46%

of respondents have invested in an internal, centralized team to make this happen. And only 2 percent have turned this over completely to an external firm.

EFFECTIVENESS OF ADVANCED ANALYTICS

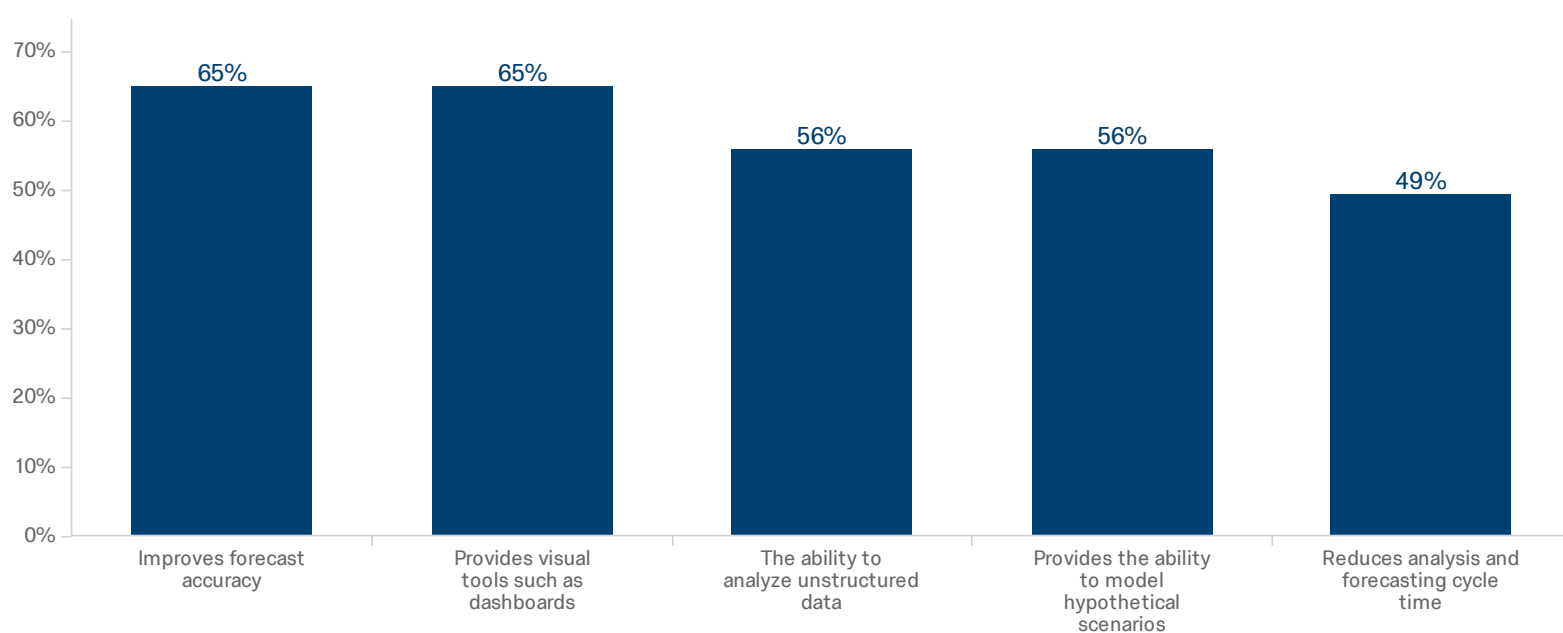As an emerging practice, advanced analytics is very or extremely effective in only about 1/3 of respondents. **For this percentage to increase, the output needs to be fast, accurate, and easy for leaders to understand.**

Category	Value
Extremely effective	7%
Very effective	25%
Moderately effective	31%
Slightly effective	25%
Not effective at all	12%

BENEFITS OF BIG DATA & ADVANCED ANALYTICS

Does your organization want better forecast accuracy and visual tools? **Invest in advanced analytics: 2/3 of respondents report these as realized benefits.**

Category	Value
Improves forecast accuracy	65%
Provides visual tools such as dashboards	65%
The ability to analyze unstructured data	56%
Provides the ability to model hypothetical scenarios	56%
Reduces analysis and forecasting cycle time	49%

HURDLES TO WIDESPREAD USE OF BIG DATA & ADVANCED ANALYTICS

The biggest barrier to advanced analytics is a lack of people with the needed skills. While the main requirement is analytical skills, these pivotal employees also need a good understanding of the business to provide solid advice.

Category	Value
Lack of people with the necessary skills to use the technology	65%
Resistance to change	55%
Lack of access to data across disparate systems	44%
Financial constraints	33%
Lack of compelling business case	23%

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Date Collected: April 2019. Number of respondents = 81