HIGH-TECH MANUFACTURING IN AN ERA OF RAPID CHANGE

INTRODUCTION

Making and moving products has never been easy, with various external issues—like economic uncertainty and supply chain instability—affecting manufacturers' business decisions. But with the right strategies and technologies, businesses will be well-equipped to thrive.

Canam Research partnered with Vision33 to better understand high-tech manufacturers' challenges and priorities during a time of rapid change and learn which technologies these organizations use and how effective they are.

We contacted manufacturing professionals at companies specializing in aerospace, automotive parts, electronics, and more. Respondents included CFOs, CAOs, HR, COOs, presidents, and CIOs.

KEY OBSERVATIONS

Trends we found in the data include:

Implementing new business models is among manufacturers' top obstacles. Manufacturers are focusing on direct-to-consumer and subscription-based models. While almost half are implementing these new models, they're stumped by cost and competing priorities across their organizations.

Regarding technologies, organizations are continuing their focus on enterprise resource planning (ERP) and accounting initiatives. Over half of respondents are running their ERP/accounting solutions in the cloud and feel confident in their system's ability to manage billing specifically.

If manufacturers are seeing effectiveness in their ERP/accounting systems, what is standing in the way of success? We learned a big challenge for manufacturers is integrating their systems with ERP. And because eCommerce is among the top priorities for manufacturing organizations in the next 12-18 months, improving integration will be critical.

While we didn't dive into the specifics of service management and production planning, manufacturers noted they have low confidence in their systems' ability to manage both. They indicated it's an area they're looking for opportunities to improve.

KEY STATS

35% of manufacturers are challenged by implementing new business models.

22% of respondents feel their systems are extremely effective in managing billing and accounting.
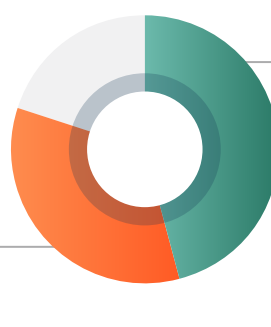
ERP

1/3 of manufacturing organizations are focusing on upgrading their ERP/accounting.
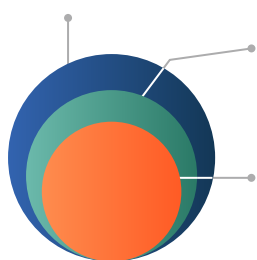
1/3 of manufacturing organizations are focusing on improving eCommerce efforts in the next 12-18 months.

46% say that their systems are not at all effective in managing service management.

34% state that their systems are slightly effective or ineffective at managing production planning.

46% of manufacturers are implementing new business models.

38% of manufacturers being direct-to-consumer .

31% of manufacturers subscription-based.

56% When it comes to eCommerce, 56% state they are challenged with system integrations such as ERP and CRM.

54%

of respondents say that cost impedes their ability to implement or pursue these new business models.

54%

of respondents cite conflicting priorities.

56%

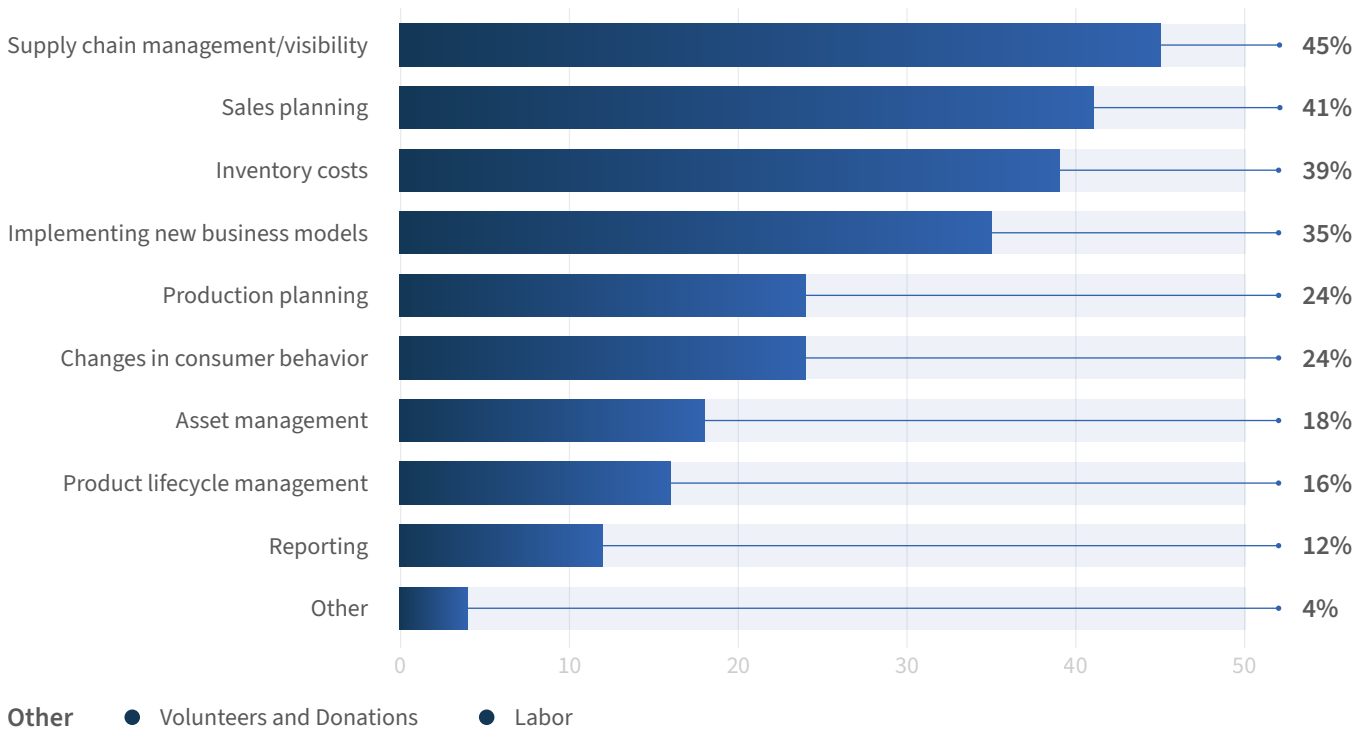of manufacturers run their CRM in the cloud.

51%

of manufacturers run their ERP/accounting systems in the cloud.
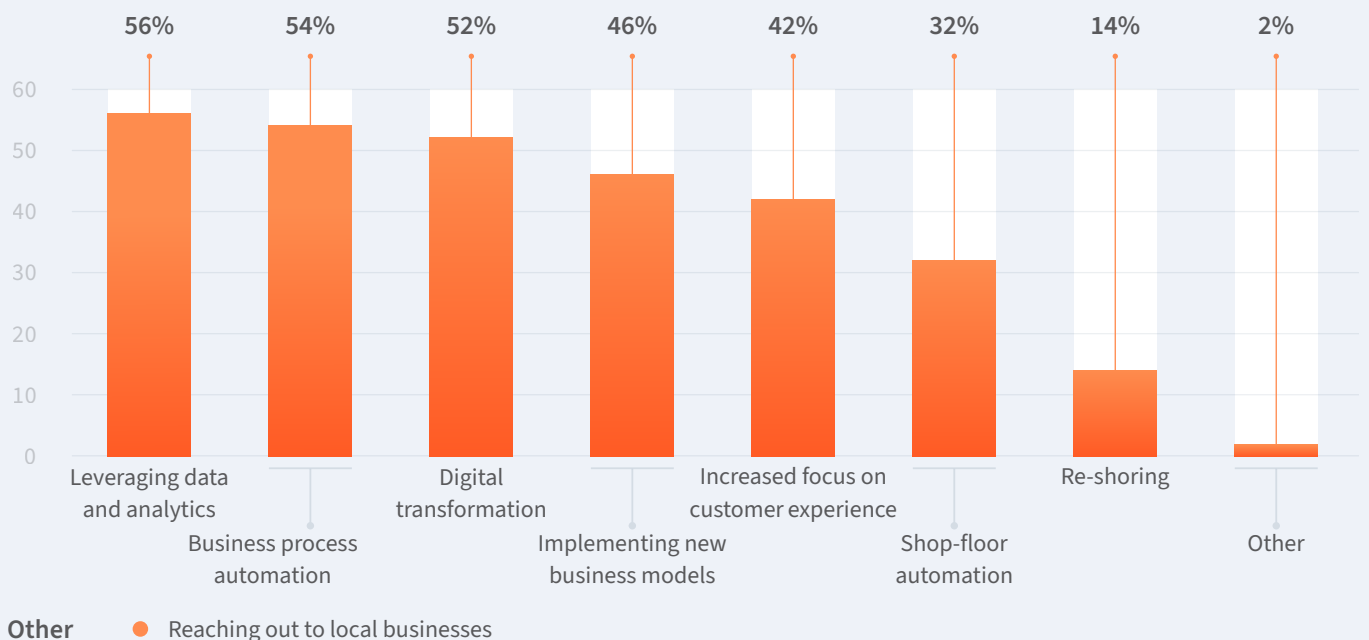
SURVEY TRENDS

■ 45% of organizations state that supply chain management and visibility are their primary challenges.

What are the primary obstacles or challenges that your company is currently facing in maintaining its competitiveness and profitability?

Supply chain management/visibility	**45%**
Sales planning	**41%**
Inventory costs	**39%**
Implementing new business models	**35%**
Production planning	**24%**
Changes in consumer behavior	**24%**
Asset management	**18%**
Product lifecycle management	**16%**
Reporting	**12%**
Other	**4%**

Other ● Volunteers and Donations ● Labor

■ To remain competitive and profitable, high-tech manufacturers are most leveraging data and analytics, business process automation (BPA), and digital transformation.

What is your company doing to adapt to change in order to remain competitive and profitable?

56%	54%	52%	46%	42%	32%	14%	2%

- Leveraging data and analytics
- Business process automation
- Digital transformation
- Implementing new business models
- Increased focus on customer experience
- Shop-floor automation
- Re-shoring
- Other

Other ● Reaching out to local businesses

38% of respondents say that they are pursuing direct-to-consumer as a new business model, followed by subscription-based models (31%).

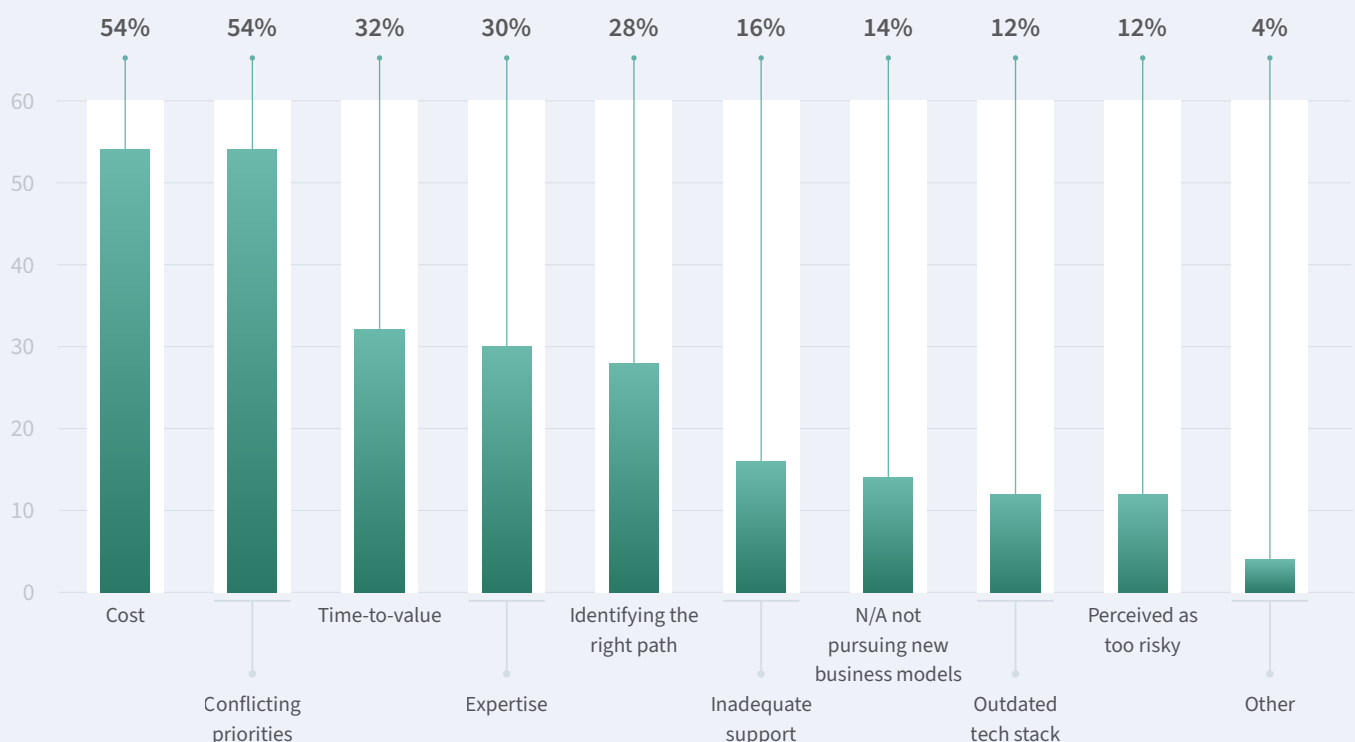If you are pursuing new business model(s), what new business models are being pursued at your company?

Business model	Percentage
Direct-to-consumer	38%
Subscription-based models	31%
Collaborative R&D and open innovation	23%
N/A not pursuing alternative business models	19%
Digital twins and IoT	17%
Servitization/selling outcomes	15%
Platform ecosystem(s)	15%
3D printing and customization	6%
Other	0%
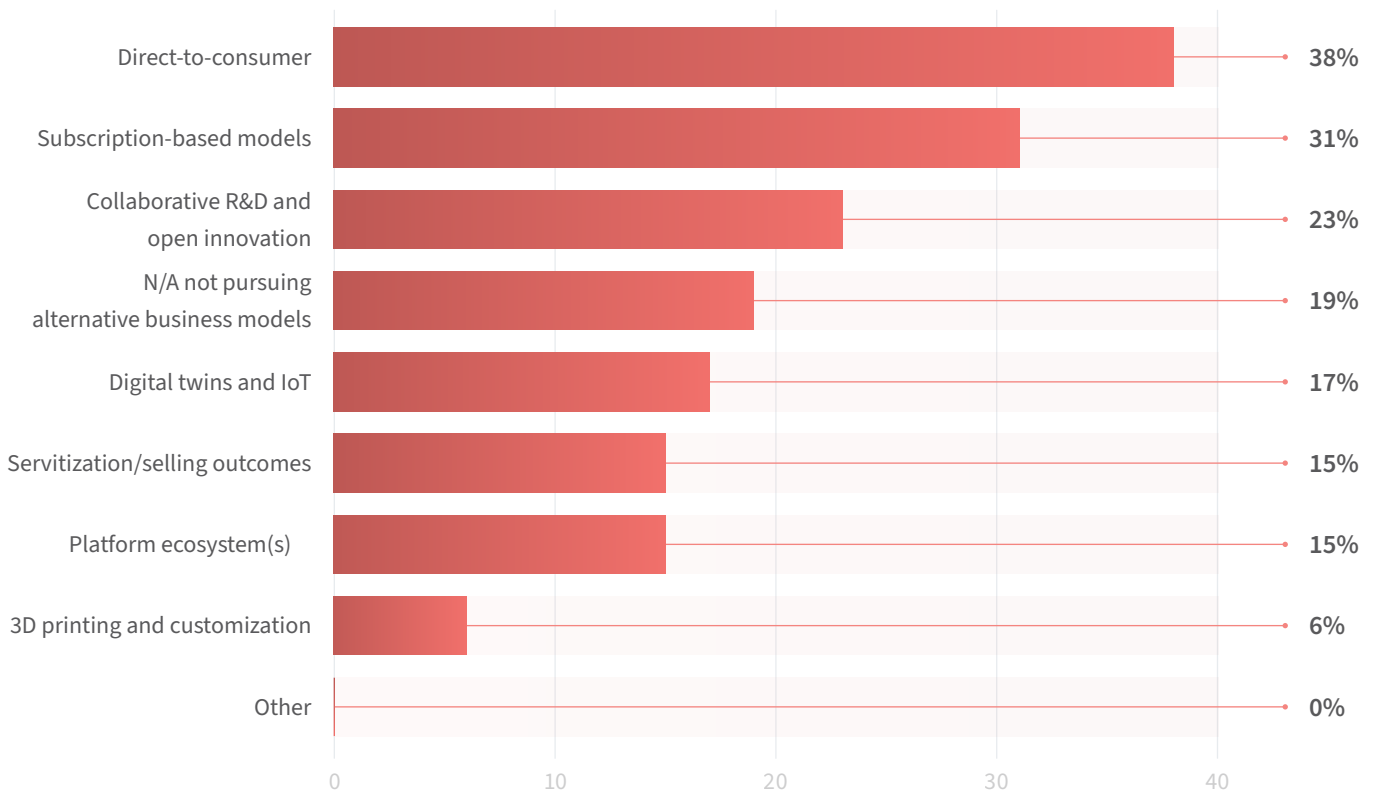
The greatest challenges of implementing these new business models include cost and conflicting priorities.

What challenges are affecting your company's ability or willingness to implement or pursue new business models?

Challenge	Percentage
Cost	54%
Conflicting priorities	54%
Time-to-value	32%
Expertise	30%
Identifying the right path	28%
Inadequate support	16%
N/A not pursuing new business models	14%
Outdated tech stack	12%
Perceived as too risky	12%
Other	4%

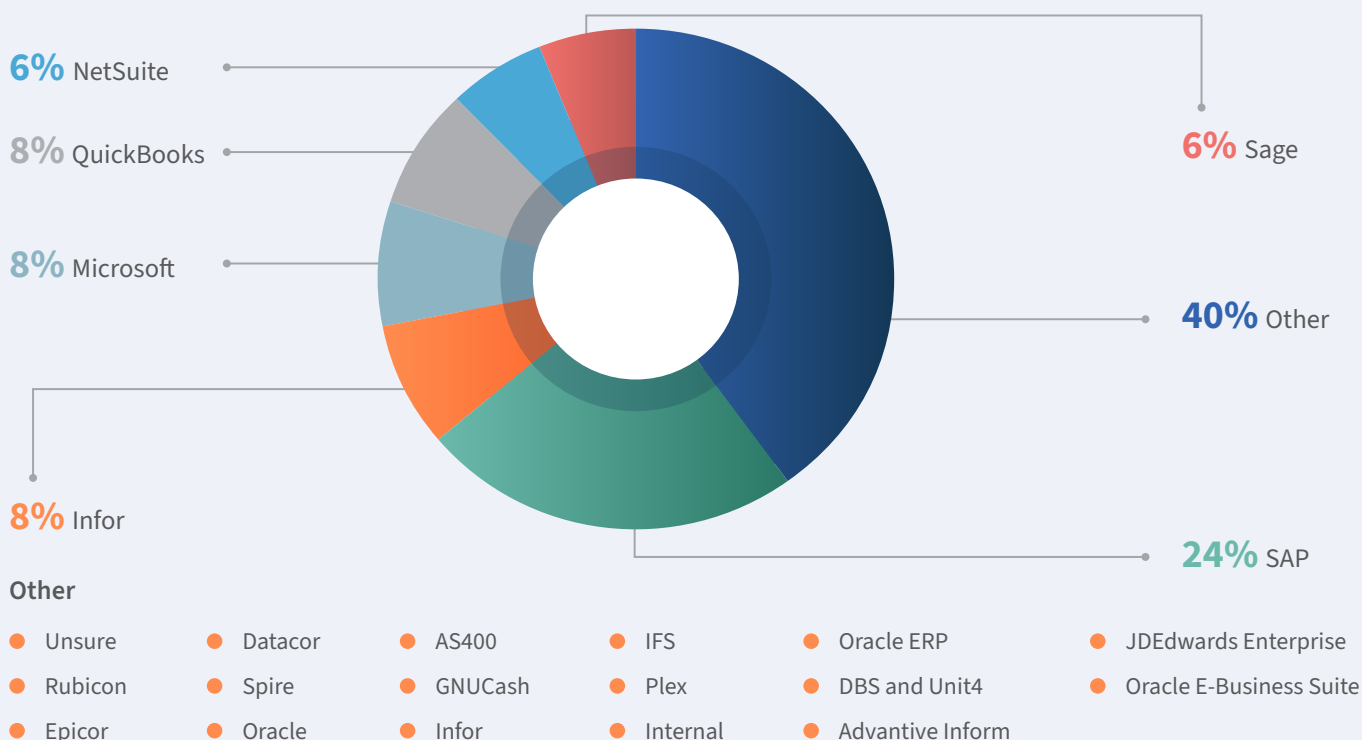**When it comes to eCommerce specifically, 56% of organizations are challenged with integrating with other systems such as ERP and CRM, and 46% see a lack of automation, resulting in excessive manual processes.**

What are some of the challenges your company is experiencing with eCommerce?

17%
N/A don't use eCommerce

13%
Managing custom price books

4%
Other

25% Managing product catalog

46% Lack of automation (excessive manual processes)

23%
EDI integration

35%
Implementation (not getting full functionality)

56%
Integration with other systems (ERP, CRM, etc.)

Other
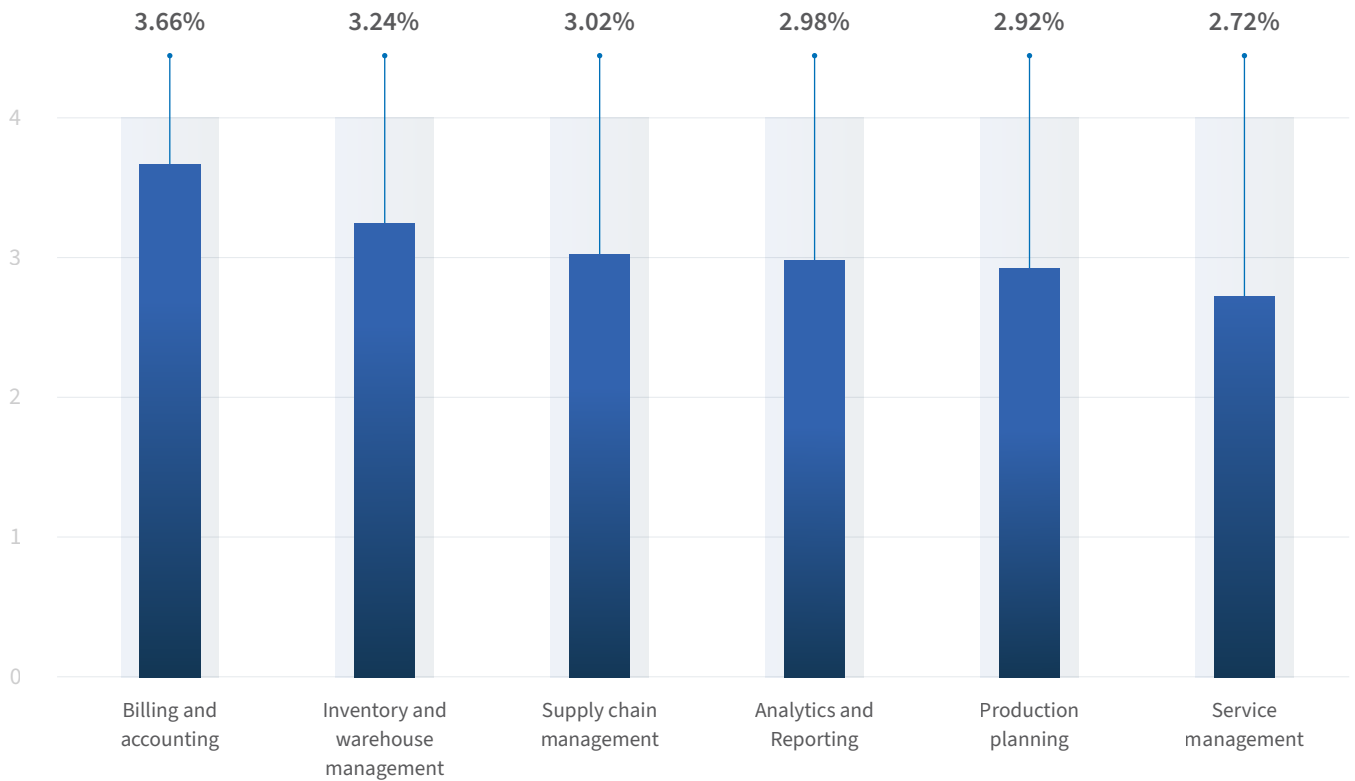- Regulatory compliance
- Manual sales for demonstration purposes
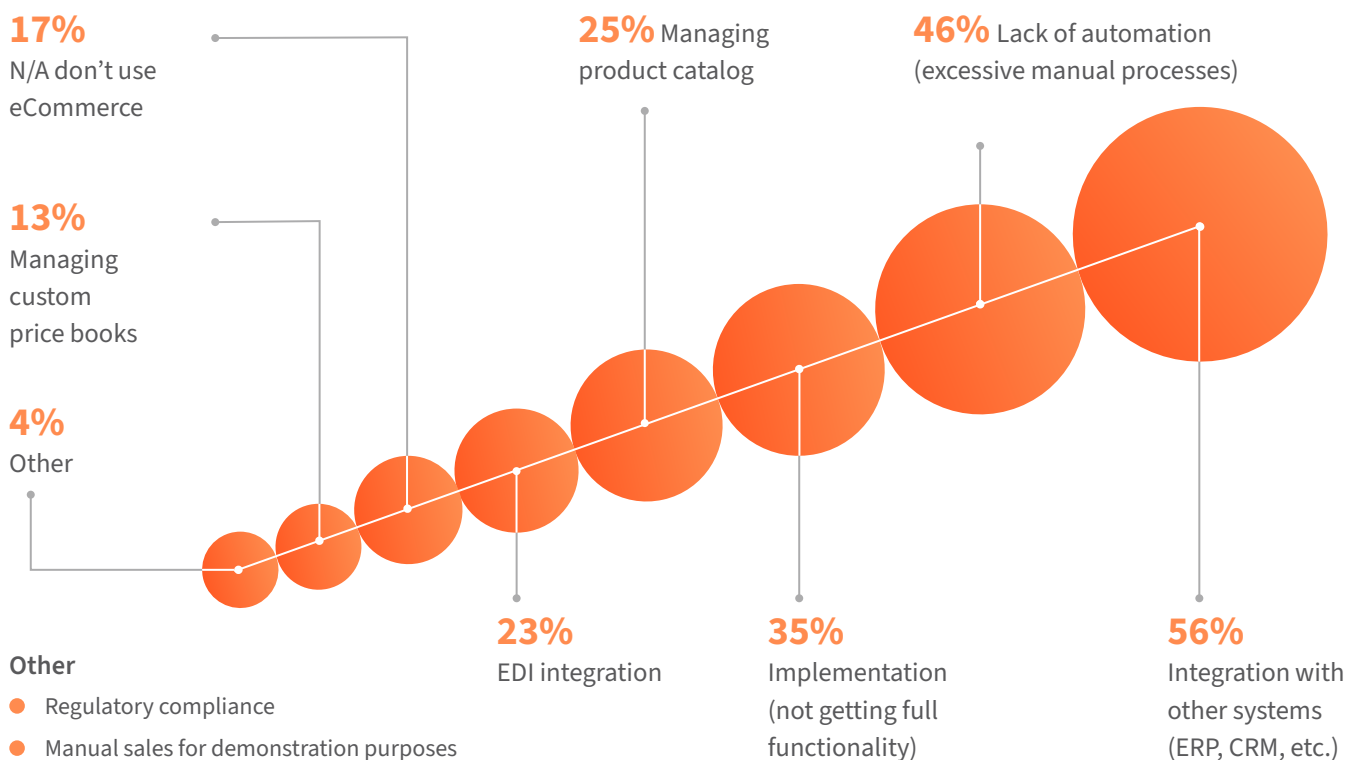
We asked which vendors ran manufacturers' ERP or accounting system. Interestingly, 40% of respondents are partnering with a variety of vendors with no one vendor that received over 1/4 of current usage.

What ERP or accounting system does your company have?

6% NetSuite

8% QuickBooks

8% Microsoft

8% Infor

6% Sage

40% Other

24% SAP

Other

|					
Unsure	Datacor	AS400	IFS	Oracle ERP	JDEdwards Enterprise
Rubicon	Spire	GNUCash	Plex	DBS and Unit4	Oracle E-Business Suite
Epicor	Oracle	Infor	Internal	Advantive Inform	

■ **Respondents are more confident in their ERP or accounting system's ability to manage billing, accounting, and inventory and warehouse management. They feel their systems are least effective in service management and production planning.**

On a scale of 1 to 5, rate your ERPs or accounting system effectiveness for the following:

| 3.66% | 3.24% | 3.02% | 2.98% | 2.92% | 2.72% |

Billing and accounting | Inventory and warehouse management | Supply chain management | Analytics and Reporting | Production planning | Service management
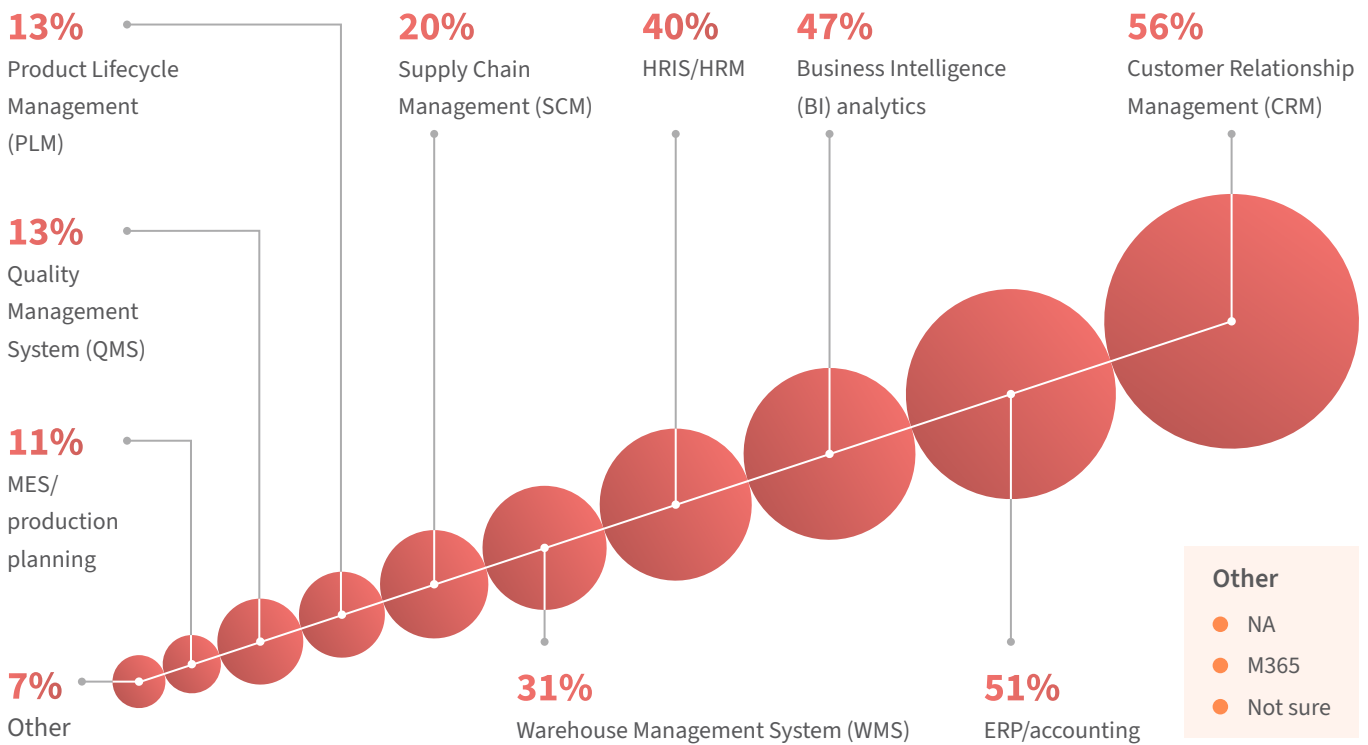
■ **Almost 70% of high-tech manufacturers consider the cloud important or very important to becoming more agile and competitive.**

Which best describes your company's view of the cloud to becoming more agile and competitive?

26% Moderately important

44% Important

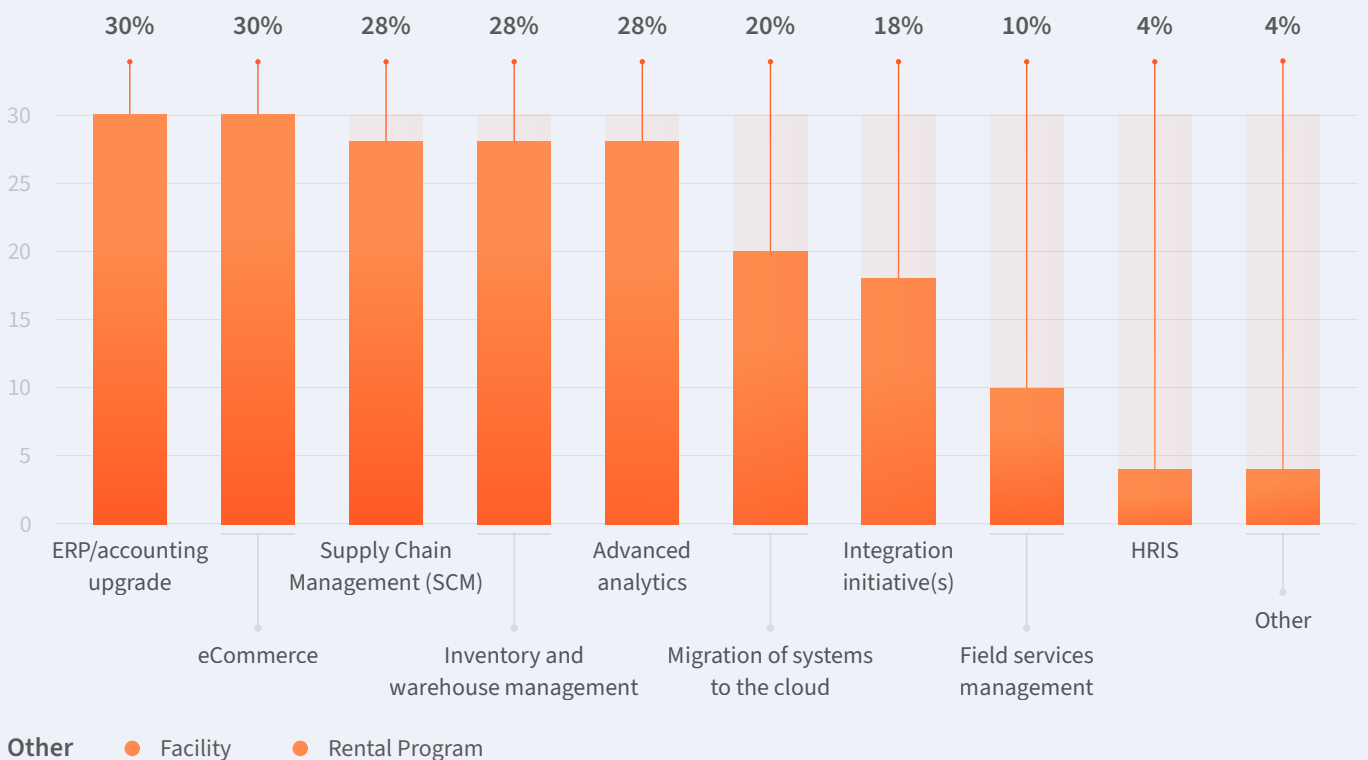**24%** Very important

6% Not important
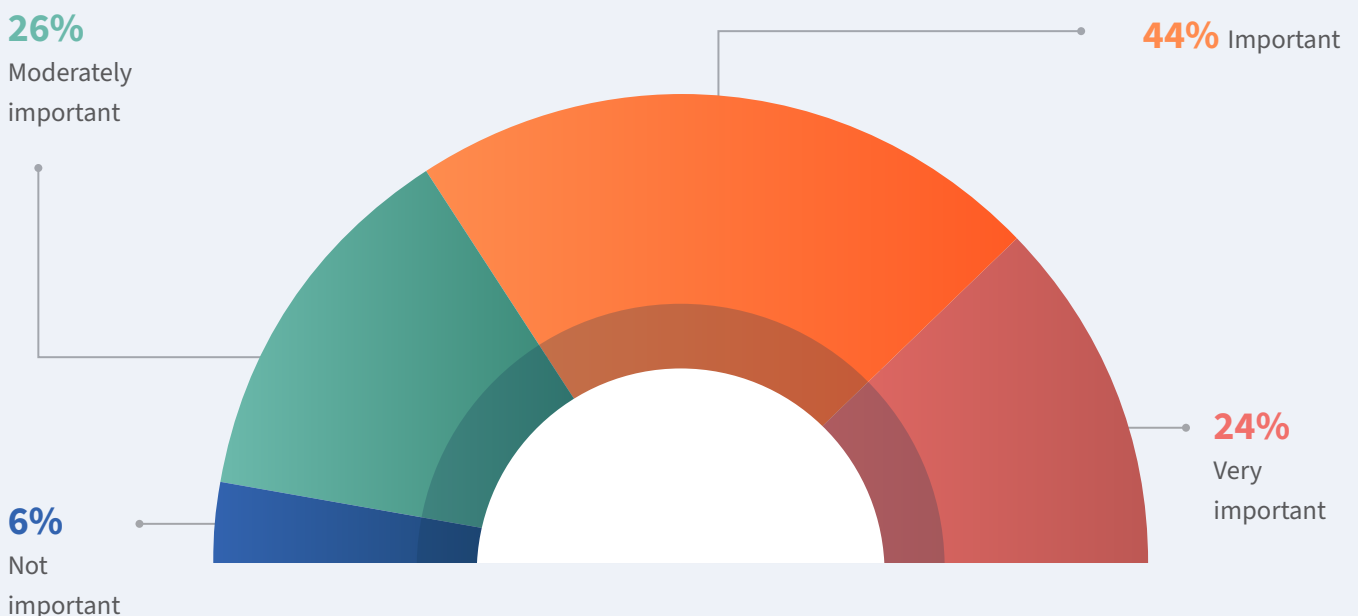
■ Top cloud-based systems include CRM, ERP/accounting, and business intelligence analytics.

What systems are currently cloud-based at your company?

13%
Product Lifecycle Management (PLM)

13%
Quality Management System (QMS)

11%
MES/production planning

7%
Other

20%
Supply Chain Management (SCM)

40%
HRIS/HRM

47%
Business Intelligence (BI) analytics

56%
Customer Relationship Management (CRM)

31%
Warehouse Management System (WMS)

51%
ERP/accounting

Other
- NA
- M365
- Not sure

■ A third of organizations are focusing on upgrading their ERP/accounting in the next 12-18 months to become more competitive and profitable, while a third are focusing on eCommerce.

In the next 12 to 18 months, what will you focus on to position your company to become more competitive and profitable?

ERP/accounting upgrade	eCommerce	Supply Chain Management (SCM)	Inventory and warehouse management	Advanced analytics	Migration of systems to the cloud	Integration initiative(s)	Field services management	HRIS	Other
30%	30%	28%	28%	28%	20%	18%	10%	4%	4%

Other ● Facility ● Rental Program

About Vision33

Vision33 transforms business processes and results for customers by delivering value through the promise of technology and its benefits for growing businesses. For over 30 years, Vision33 has helped companies integrate and automate their processes and applications to better serve their customers, employees, and stakeholders. The technologies may have changed drastically in 30 years, but Vision33's mission has never wavered.

With over 1,000 customers worldwide, Vision33 helps businesses make successful technology investments to outperform their competition and lead their industries. Vision33's nearly 500 employees offer product expertise, business experience, and innovative technology leadership. Whether it's a global company with 100 subsidiaries or a small business, Vision33 works alongside every customer to meet their goals.

Vision33 also has formal partnerships to resell, implement, and support leading ERP applications, is a leader in cloud deployment, and has developed exclusive products, including The Saltbox Platform (saltbox.io) and iDocuments (idocuments.io).

When you're ready to take the next step, speak with a qualified Vision33 consultant in your area.

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