

2022

**STATE OF
REVENUE**

A SURVEY OF TOP INDUSTRY EXECUTIVES

Model **N**

4th annual State of Revenue Report

Proprietary research conducted through a partnership with **Dimensional Research**

TABLE OF CONTENTS

Introduction	3
Key finding 1: Evolving challenges impact revenue management	4
Key finding 2: Staffing issues abound	10
Key finding 3: Data technology is needed	15
Supply chains and channels: <i>A special report on high-tech companies</i>	22
Managing compliance in 2022: <i>A special report on life sciences companies</i>	24
Adapting to new business models: <i>A special report on medtech companies</i>	26
Closing thoughts	28
Survey methodology and participant demographics	29
About Model N	30
About Dimensional Research	30

Introduction

Activities that impact revenue span sales, marketing, finance, IT, and operations. Finding ways to optimize revenue – regardless of where their function lies – is the responsibility of every C-suite executive. However, the scope of business complexity and volumes of data companies must manage make it difficult to effectively execute rebates, enforce contracts, ensure compliance, and perform other revenue-impacting activities.

To grow revenue and market share successfully, many executives have embraced modern technology and innovative business models. But for the life sciences and high-tech industries, revenue management remains fraught with challenges.

Life sciences companies, including pharmaceutical and medical technology organizations, must find ways to adhere to state and federal regulations, while overcoming a shortage of staff and expertise.

Semiconductor, electronic component manufacturers (ECMs), and high-tech manufacturing companies face challenges with their supply chains, logistics, and material availability, as they strive to manage and incentivize a complex and evolving channel.

To better understand the reality of modern revenue management within these industries, the 2022 State of Revenue Report endeavors to answer three key questions:

- How are executives evolving their revenue management practices?

- What challenges are executives most concerned about?
- What role does technology innovation play in improving revenue management?

This report, sponsored by Model N with research conducted by Dimensional Research, is based on the results of an online survey of more than 300 C-suite executives who are directly responsible for revenue management at large pharmaceutical, medical technology, high-tech manufacturing, and semiconductor and ECM companies. Certain questions were repeated from similar studies in 2020 and 2021 to enable trend analysis.

revenue management

rev-e-nue | \ re-və-nū \ • *man-age-ment* | \ ma-nij-mənt \

Refers to the optimization of revenue activities to maximize growth. Activities include, but are not limited to, rebates, compliance, contracts, and price modeling, and cross multiple functional areas such as sales, marketing, finance, IT, and operations.

KEY FINDING 1

Evolving challenges impact revenue management

Supply chain and AI

The top themes impacting revenue management in 2022 include supply chain disruptions (44%) and artificial intelligence (40%).

99%

Nearly all executives (99%) report they have challenges with revenue management within their own companies.

35%

Executives are slightly more positive about revenue management in 2022 with 35% saying their industry is doing well, up from 29% in 2021.

COVID-19

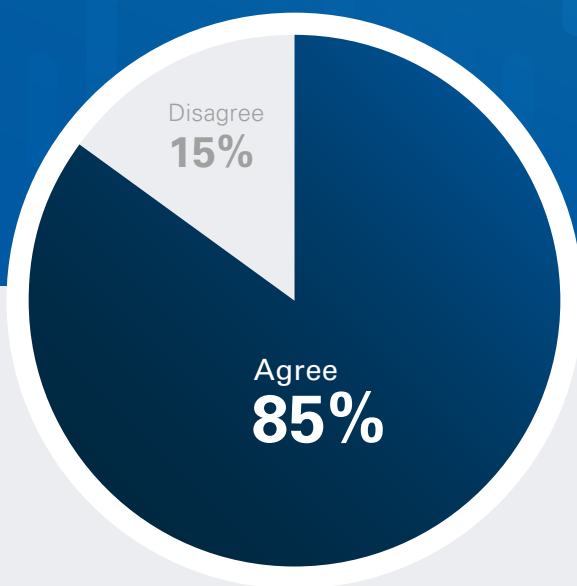
Executives are less concerned about COVID-19, with 37% of them listing it as a top impact on revenue management – down significantly from 58% in 2021.

DETAILED FINDINGS

Evolving challenges impact revenue management

Executives agree on the criticality of revenue management

This study defined "revenue management" as optimizing revenue activities, such as rebates, compliance, contracts, and pricing models, to maximize growth. C-suite executives are clear that revenue management matters, with 85% agreeing that revenue management is "business critical" to their organization.



"Revenue management is business critical."

Changes threaten to upend revenue management today

Optimizing revenue is a multifaceted process – one that must evolve to address changes in business practices, markets, and regulatory environments. Because revenue activities span numerous functional areas within a business, revenue management teams must be prepared to address a wide range of challenges that can impact their ability to grow revenue, mitigate risk, and improve market share.

This research indicates that 2022 promises to bring its fair share of changes. Some – like advancements in technology – will be advantageous. Others – like supply chain disruptions and staffing shortages – will cause issues that may be harder to overcome.

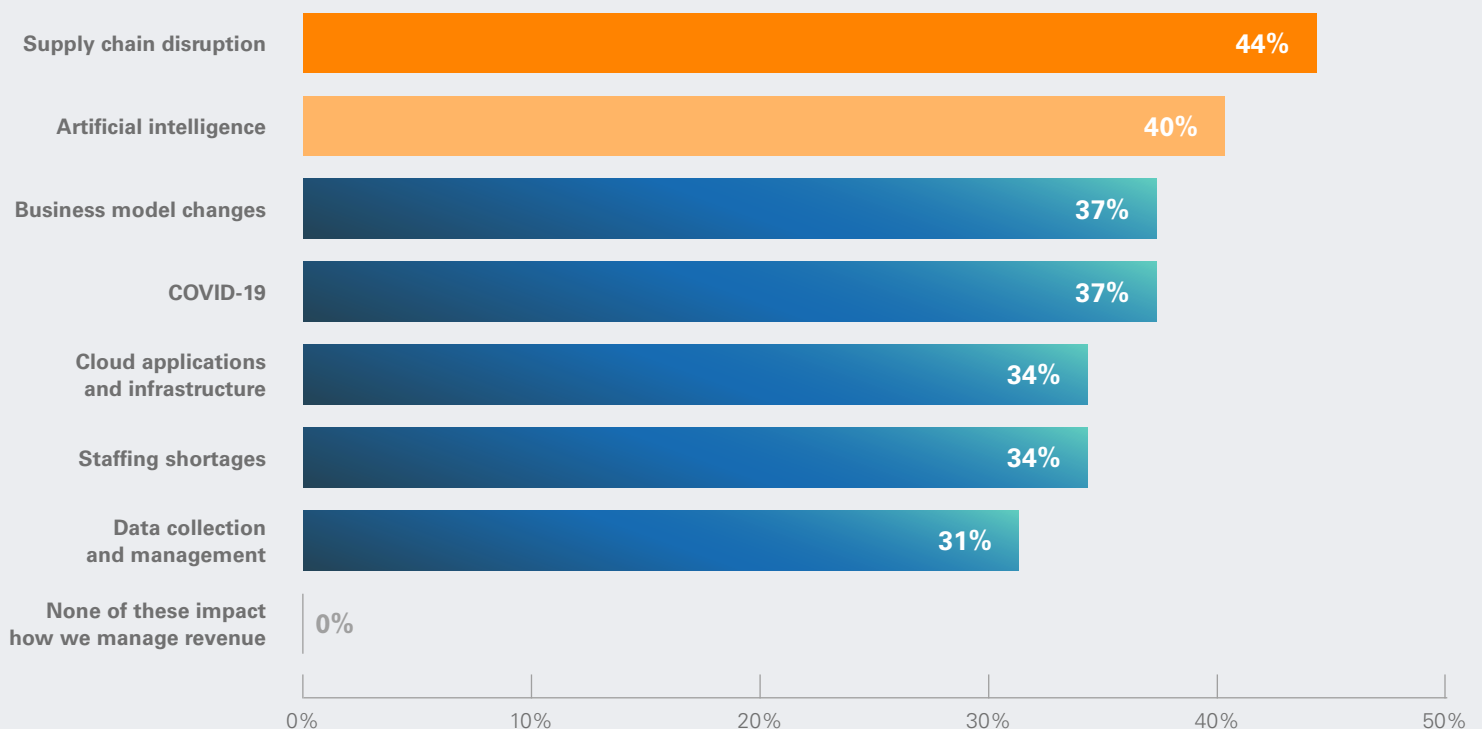
To determine what is impacting revenue management in highly complex operating environments, survey participants were asked to select just three factors. Interestingly, 100% of participants indicated their revenue management efforts would change because of at least one of the factors identified.

Executives were most likely to report supply chain disruption as having the biggest impact on how their company manages revenue (44%), followed by artificial intelligence (40%). More than a third of executives cited business model changes, including value-based contracts and the move to recurring revenue and subscription-based pricing. At 34%, the adoption of cloud applications and infrastructure continues to remain a significant factor impacting revenue – 32% of respondents cited it in both 2021 and 2020. Survey results also demonstrated that life sciences and high tech are not immune to the staffing issues that are taxing other industries, with a third of executives listing this as a key concern.

40%

Anticipated impacts from artificial intelligence has increased to 40% since 2021 (up by 17%).

Which of the following are having the biggest impact on how your company manages revenue? Choose up to three of the following.



Of note is the level of change in the impact of COVID-19 on revenue management. While COVID-19 remains a key factor (37%), it has dropped significantly in the overall picture in the past year. In 2021, we asked a similar question about business impacts. At the time, COVID-19 topped the list at 58%; it was clearly the most crucial factor affecting revenue management teams, as it was selected almost twice as frequently as the next closest response. However, as seen by the prevalence of supply chain disruptions and staffing issues, the side effects of the pandemic have become just as pressing, if not more so, than the pandemic itself.

21%

Decrease in concerns about the impact of COVID-19 since 2021.

Executives see continued room for improvement in revenue management

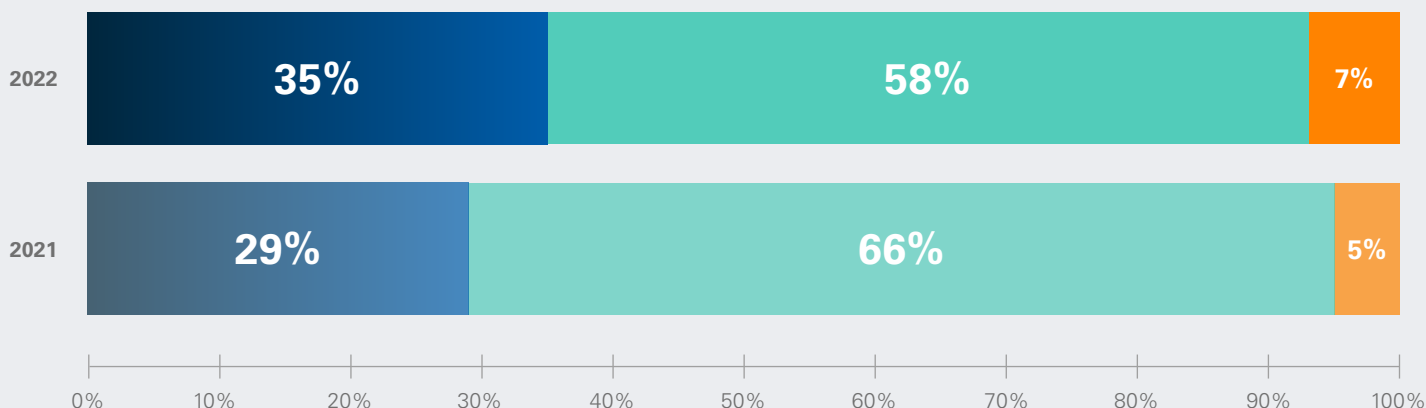
A key goal of this ongoing research is to understand trends in executive perceptions and attitudes toward revenue management within their industries, as well as their own organizations. We emphasized this focus to participants by asking them to think of companies across their industries, not just their own company, when responding to two questions.

While data from these questions demonstrate a slight positive shift in how executives think about revenue management within their industries, the overwhelming message continues to be that there is room for improvement in how the life sciences and high-tech industries manage and optimize revenue.

When asked how their industry is doing with revenue management, 35% gave top marks, up from 29% one year ago, which still leaves nearly two-thirds of executives who believe their industry could do a better job.

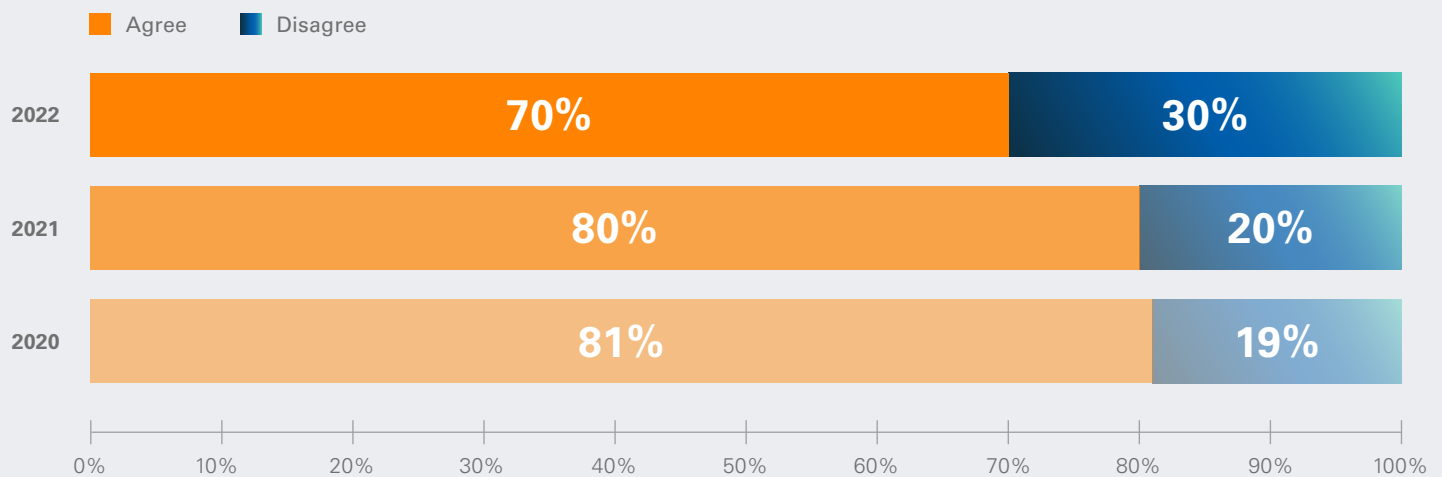
In your opinion, how do you think your industry is doing with revenue management?

■ Perfect – couldn't be better
 ■ OK – but could be a bit better
 ■ Not good – could be a lot better



This year, 10% fewer executives agreed that their industry is losing billions of dollars because of poor revenue management practices. While this is a step in the right direction, the overwhelming majority (70%) remained in agreement, indicating that revenue issues still take a significant toll on top-line revenues.

"Our overall industry loses billions of dollars because of revenue issues, such as inaccurate or ineffective pricing and quoting."



It's important to note that both questions indicate that only a minority of executives have positive feelings about revenue management – on the industry level. When asked what challenges their organizations face with revenue management, executives paint a picture that's far less rosy, as 99% can identify at least one area of concern.

Revenue management challenges abound

Revenue management teams deal with complex and changing environments, particularly when operating in a global environment. Every pharmaceutical executive surveyed (100%) indicated they face revenue management challenges. It's not much better for medtech and high tech, where 98% of executives in both industries cited that they have issues with revenue management.

While life sciences and high-tech executives grapple with many of the same challenges, the specific difficulties change. On top of common challenges like data management, pricing, and compliance, they also must deal with industry-specific issues.

99%

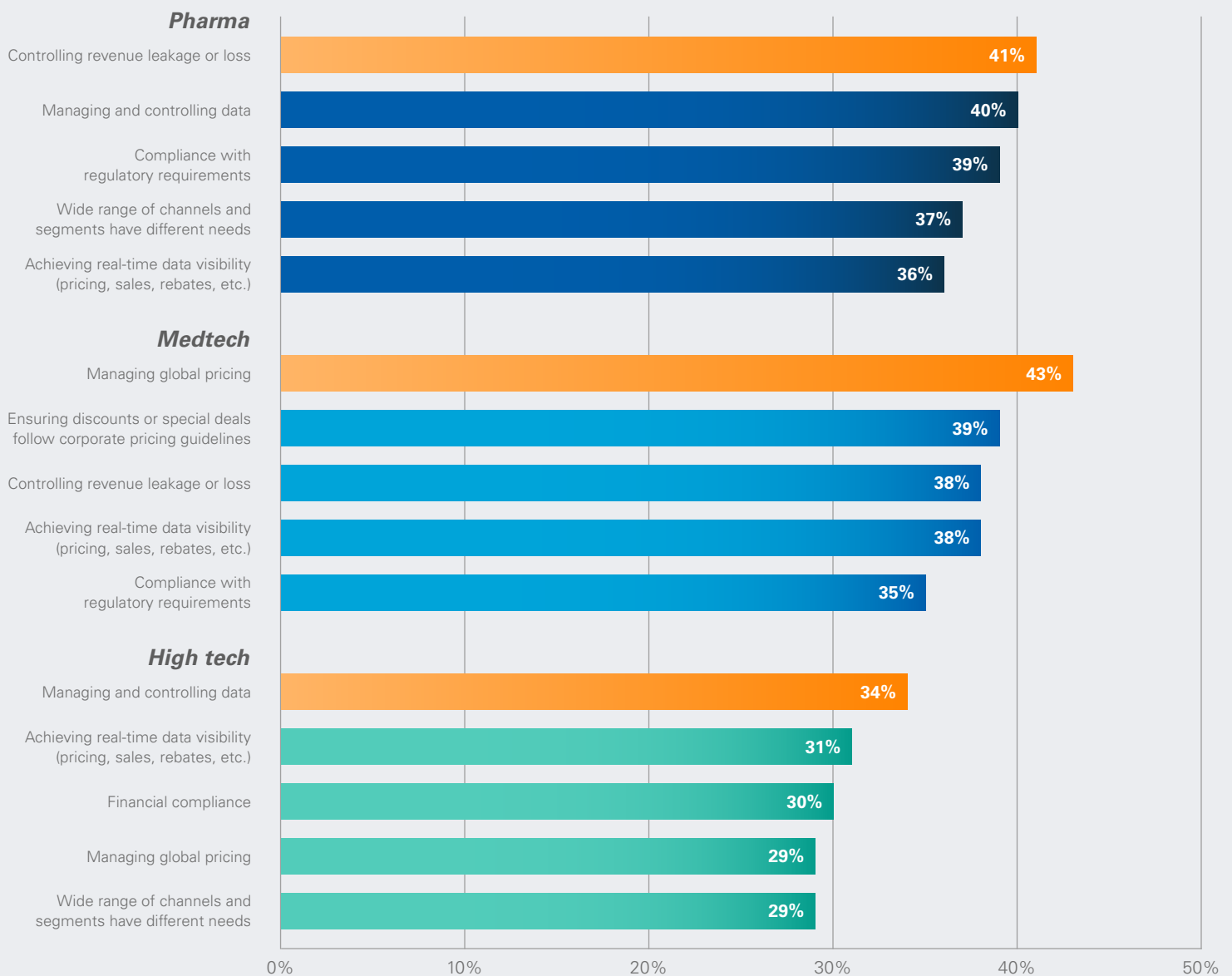
Nearly all executives, regardless of industry, say they face revenue management challenges.

Four out of 10 pharmaceutical executives struggle with controlling revenue leakage or loss, and as can be expected in this highly regulated industry, compliance is almost as challenging. In addition, survey results clearly indicate that data issues are key areas of concern. Managing and controlling data, as well as achieving real-time data visibility, landed in the top five for these executives.

In the medtech space, executives identified pricing issues as their most worrisome challenge. Both global pricing management as well as meeting pricing guidelines for discounts and special deals topped the list at 43% and 39%, respectively.

Data concerns also plague the high-tech industry. Approximately one-third of executives listed both data management and real-time data visibility as top challenges. Financial compliance follows closely, indicating a need for solutions and processes that can help them eliminate overpayments and ensure accurate accruals.

Top five revenue management challenges



KEY FINDING 2

Staffing issues abound

98%

The majority of executives face **staffing issues** in their revenue management program.

51%

Over half expect issues with **staffing and expertise** to have a “significant” impact on revenue management in 2022.

DETAILED FINDINGS

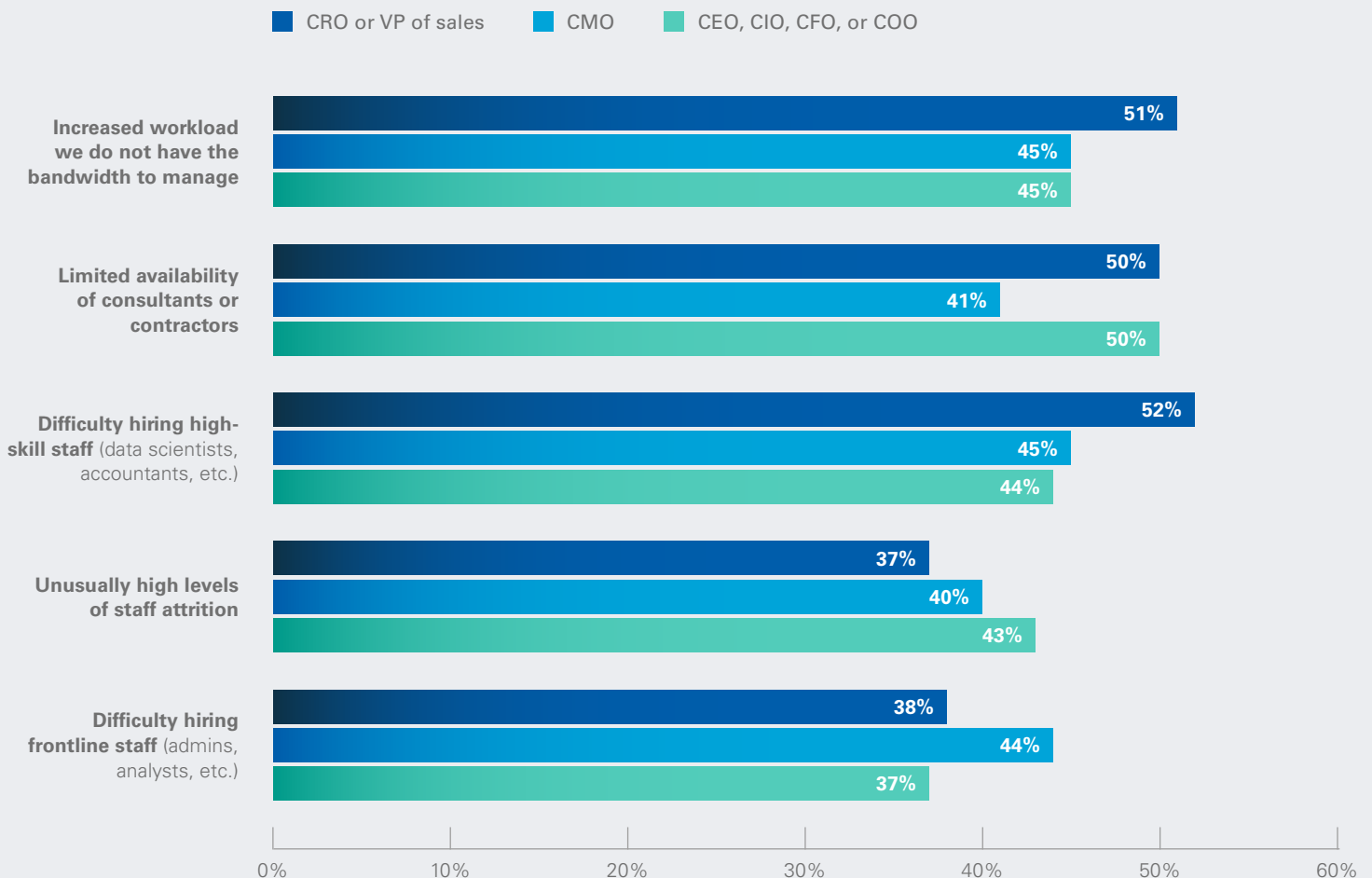
Staffing issues abound

In 2022, staffing issues will compound the already inherent challenges in revenue management. Almost all (98%) executives report that they are currently dealing with staffing or expertise issues.

57%

of companies with annual revenue of more than \$5B do not have the bandwidth to manage the increased workload.

What types of staffing or expertise issues is your revenue management program dealing with? (By role)



Staffing challenges are impacting sales, marketing, finance, and IT across every company size, regardless of their industry. Executives report that it is hard to find all types of additional resources, including highly skilled staff like accountants and data scientists. It’s also difficult to hire analysts, admins, and other frontline staff. These hiring issues cannot be simply backfilled with consultants or contractors, as there is also limited availability of external resources.

To make matters worse, existing team members are also struggling – some to the point of burnout. Likely because of the increased workload that teams are being asked to handle, many companies are seeing unusually elevated levels of staff attrition.

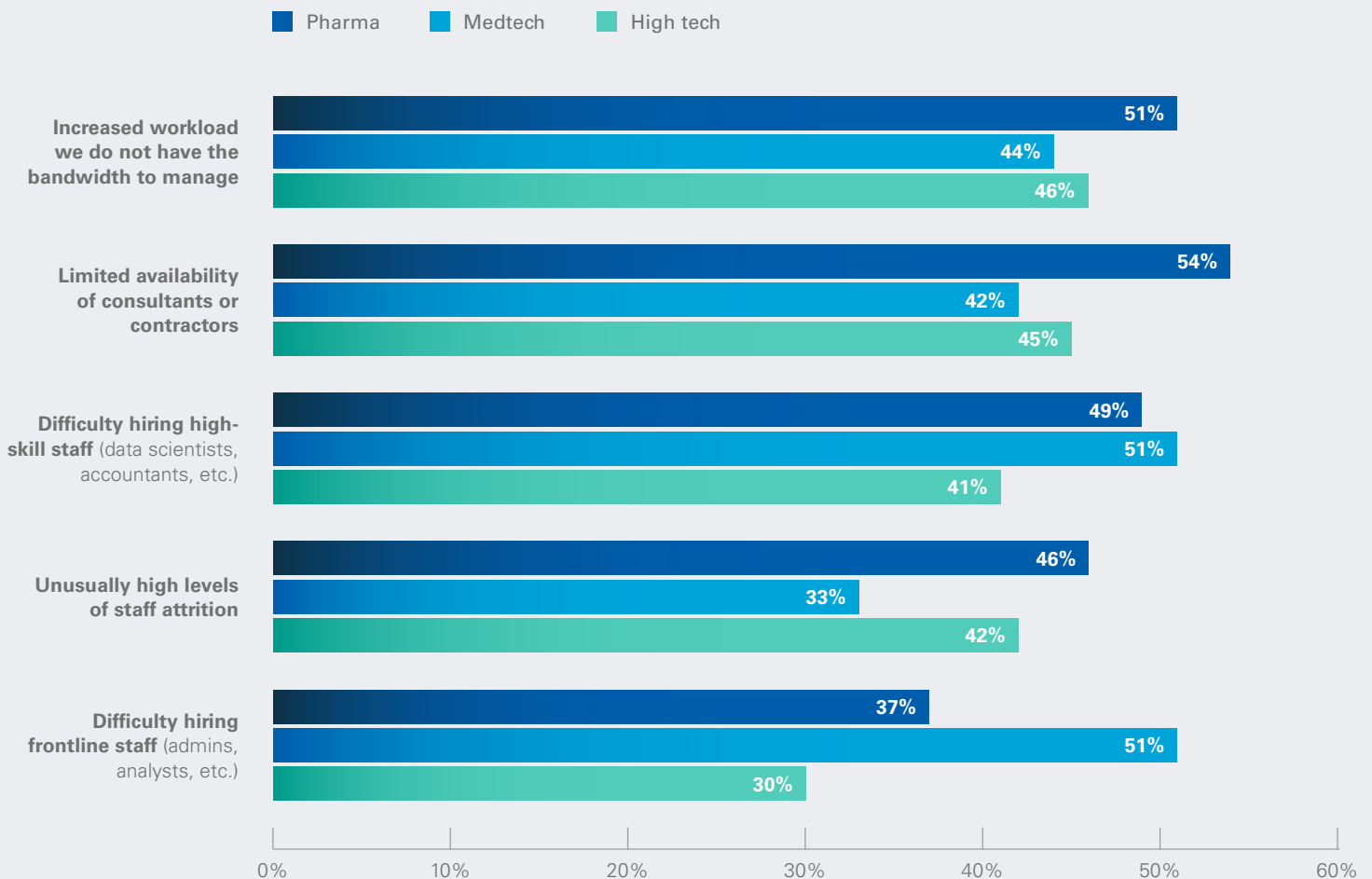
53%

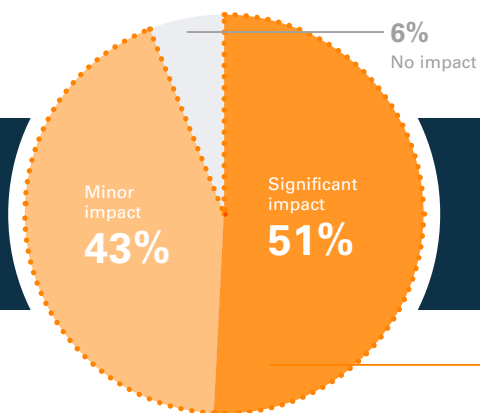
of companies with fewer than 5,000 employees struggle to find consultants or contractors to fill gaps.

48%

of companies with revenues between \$1B and \$5B are dealing with unusually high attrition.

What types of staffing or expertise issues is your revenue management program dealing with? (By industry)





Do you expect staffing and expertise issues to impact revenue management in 2022?

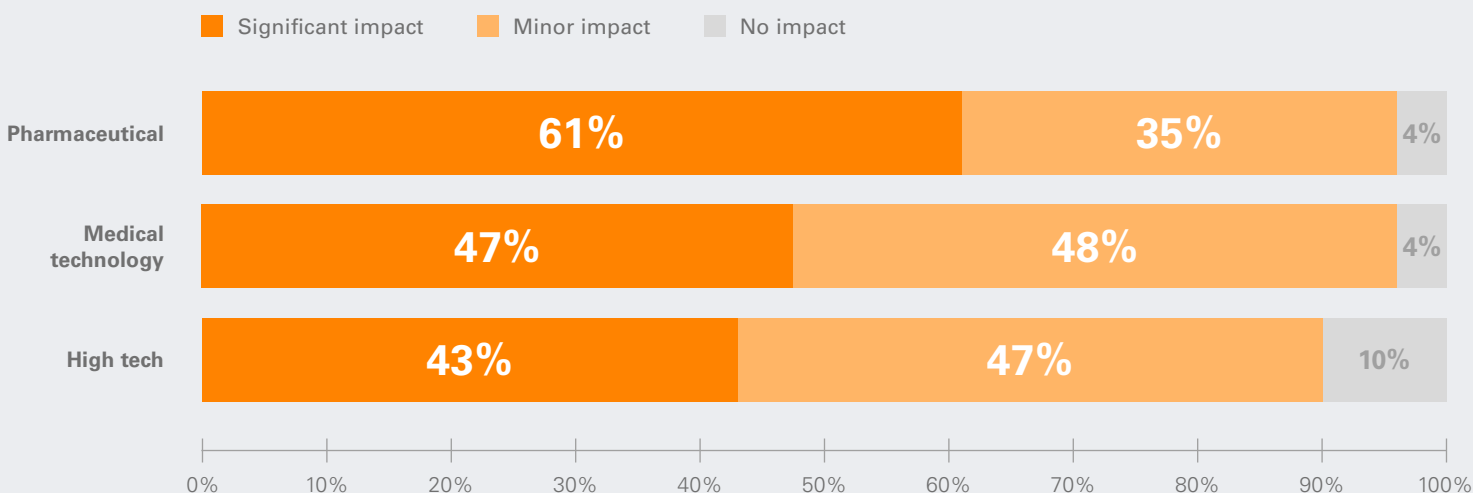
Struggling to build a great team is not a new issue for executives, but the data indicates that 2022 will be especially challenging for revenue management teams. Most executives (94%) expect resource issues to directly impact revenue management in 2022, with more than half (51%) of respondents characterizing the expected issues as “significant.”

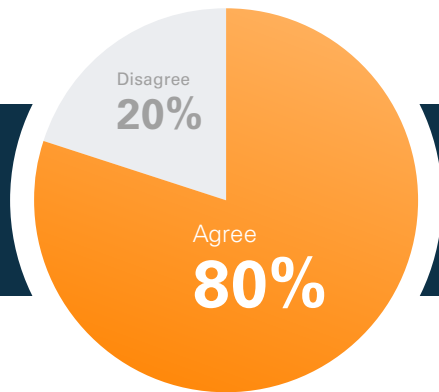
94%

of executives expect staffing and expertise issues to impact revenue management.

As noted, all industries in this study expect staffing and expertise issues to impact revenue management. But this challenge is even more pronounced for pharmaceutical companies. Nearly two-thirds (61%) of pharma executives expect resource issues to have a “significant” impact.

Do you expect staffing and expertise issues to impact revenue management in 2022?
(By industry)





"I can usually get data insights I need, but it's never easy and is never exactly right."

Data accessibility and accuracy further exacerbate knowledge gaps

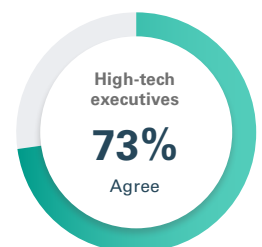
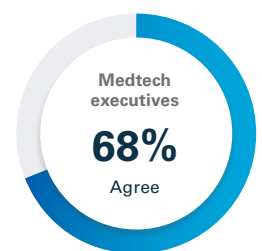
Throughout this study, executives flagged issues with the data they use for revenue management. As we saw earlier, managing and controlling data was one of the top challenges reported by revenue management executives. This compounds the challenges companies are facing with staffing – making it harder to make decisions, break down silos, or even train new staff.

Four in five (80%) agree that while they can usually get the insights they need, it's generally difficult. This is even worse for high tech; 91% of high-tech executives indicate they have difficulties surfacing insights from their data.

Executives across all industries also expressed that the data is rarely "exactly right," because there are accuracy issues, they cannot get the exact data they are looking for, or they don't have confidence in the data they are looking at.

Given the investment in data solutions and the importance of accurate data, it is alarming that 74% of all executives are LESS certain about the accuracy of their revenue intelligence and reports than they were five years ago. This is a trend that is clearly headed in the wrong direction – and one that could prove to be quite significant in the highly regulated pharmaceutical industry.

"I am LESS certain about the accuracy of our revenue intelligence and reports now than I was five years ago."



KEY FINDING 3

Data technology is needed

80%

Most executives **struggle to get easy and accurate access** to revenue management data.

68%

Over two-thirds agree it is **difficult to access insights** because data and systems are inflexible.

51%

More than half say they expect **additional technology capabilities** for revenue management would increase their company revenues.

73%

Nearly three-quarters prefer that their software vendors provide **software and expert services**.

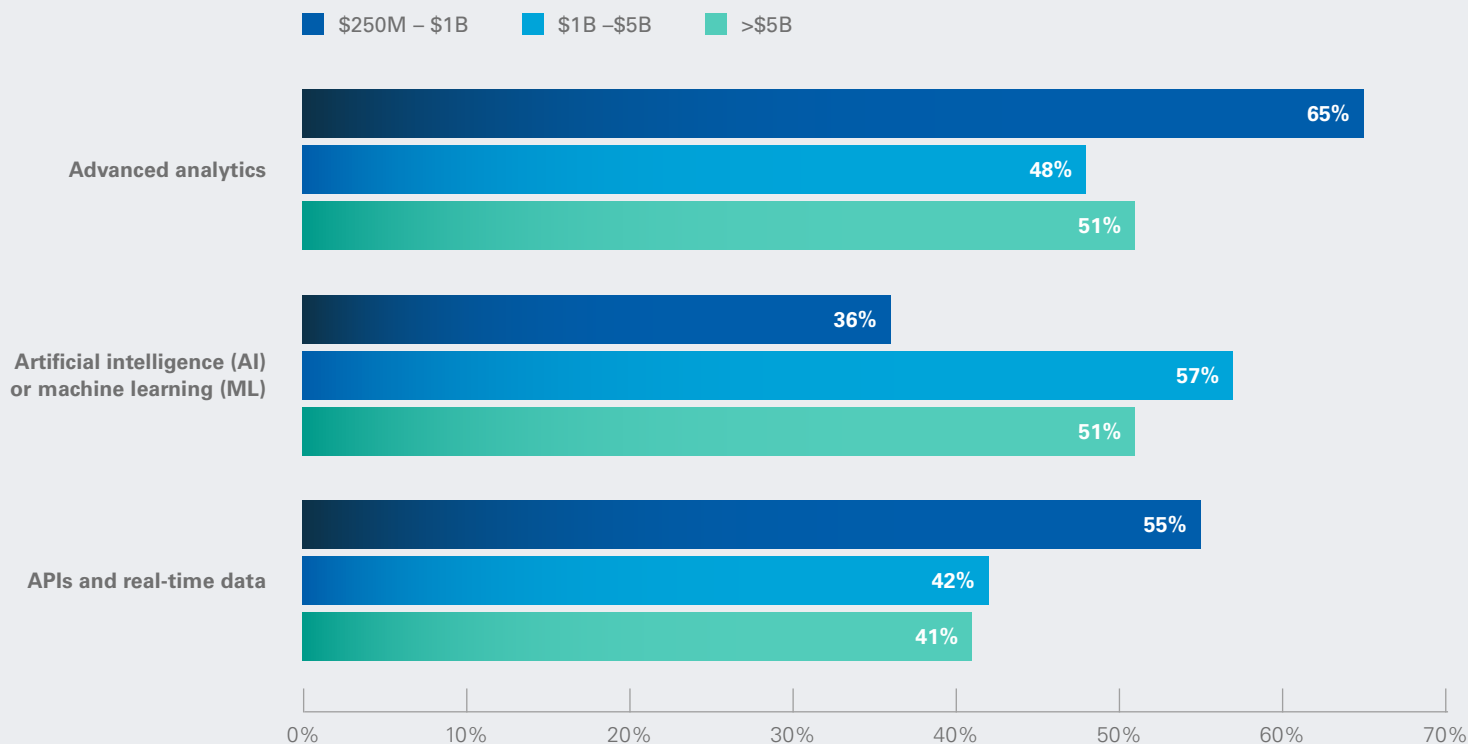
DETAILED FINDINGS

Data technology is needed

A range of data technology is enabling revenue management

Revenue management teams rely on a range of innovative data technology – including advanced analytics (53%), artificial intelligence and machine learning (50%), and APIs and real-time data (45%) – to improve operations and outcomes. Artificial intelligence (AI) is more commonly used at the larger companies. Conversely, the smaller companies in our study were more likely to report using advanced analytics and APIs for real-time data.

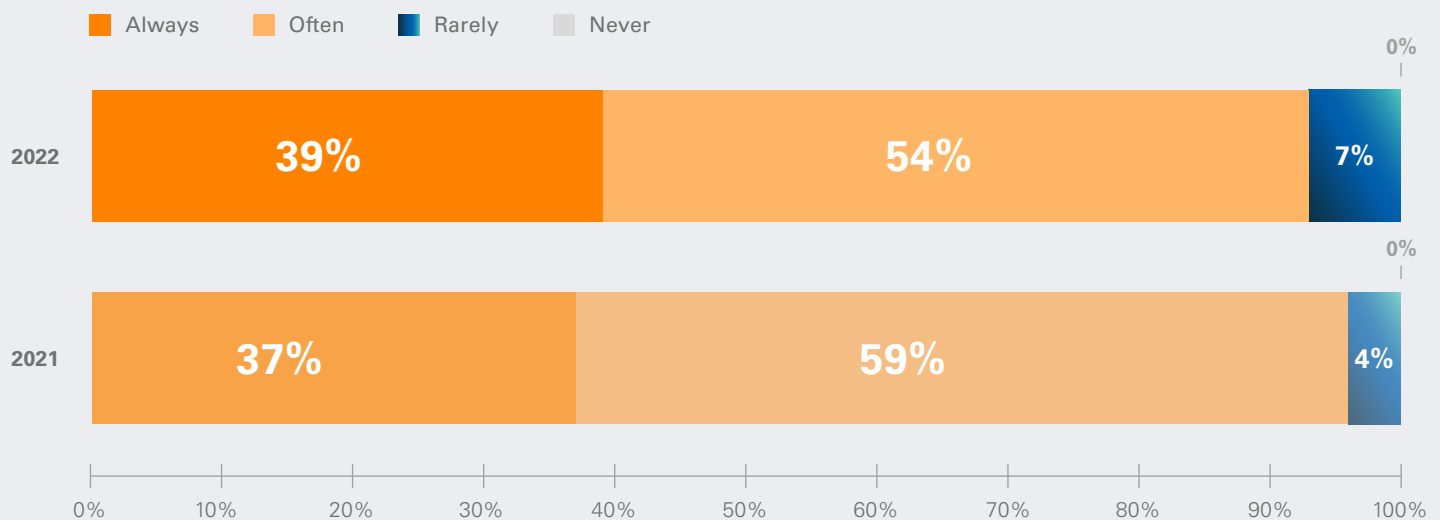
Does your company currently use, or have plans to use, any of the following technologies to enable revenue management? (By company size)



While companies are investing in innovative tools and technology solutions for revenue management, they continue to use a manual and error-prone tool: spreadsheets. Every executive reported using spreadsheets for revenue management tasks – and 93% characterize their use of spreadsheets as “always” or “often.” Extensive use of spreadsheets has decreased slightly (3%) from 2021, but continued overreliance on this manual method is worrisome. Spreadsheets’ inherent flaws – lack of scalability, version control, and inability to integrate into shared systems – can create inconsistent, inaccurate, and unreliable data, which in turn can impact a revenue management team’s ability to find and leverage insights for decision-making, reporting, and compliance.

How extensively does your team use spreadsheets for revenue management tasks?

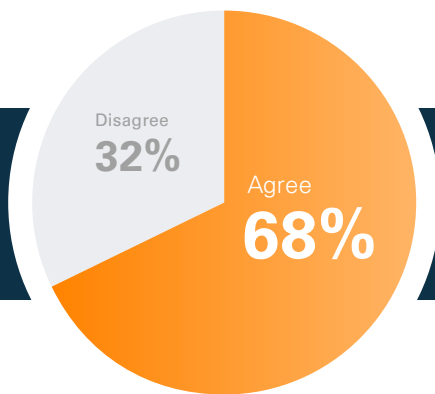
(Choose the one answer that most closely applies.)



Point to ponder

Could heavy spreadsheet use be the reason for less certainty in the accuracy of revenue intelligence and reports? 46% of executives at companies with more than \$5B in annual revenue say their teams “always” use spreadsheets, compared with just 33% for teams at companies with \$250 million to \$1 billion in revenue. Three-quarters of executives (75%) at the largest companies report they are **LESS** certain in the accuracy of their reports, whereas 64% of executives at the smallest companies feel that way.

The systems companies currently use for revenue management are a key source of their data problems. More than two-thirds (68%) agree that the inflexibility of data and systems makes accessing the insights they need to make better decisions much more difficult. This further reinforces why pharma, medtech, and high-tech executives indicated that gaining real-time data visibility is one of their top five revenue challenges (*see chart on page 9*). Without real-time access to consistent and accurate data across all aspects of revenue management, executives will continue to struggle with inconsistent pricing, overpayments, inaccurate or ineffective rebates, and other sources of significant revenue loss.



"It is difficult to access the insights I need to make decisions because my data and systems are inflexible."

Numerous benefits expected from better technical capabilities

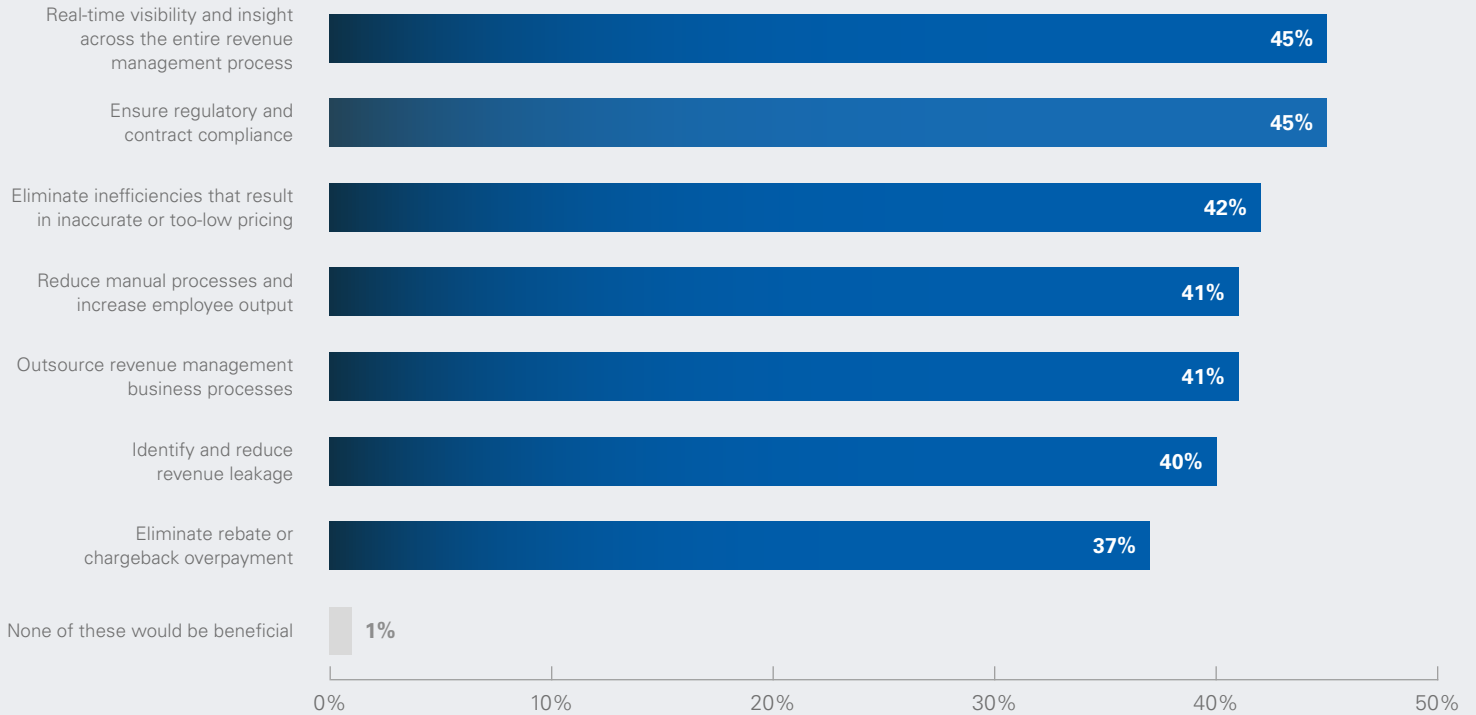
As can be expected, revenue management teams view technology as a key to unlocking greater benefits, but expectations vary by industry.

Pharmaceutical and medtech executives believe that technology would deliver valuable real-time visibility and insight across the entire revenue management process as well as the ability to ensure regulatory and contract compliance (*see chart on page 19*). These executives also believe better technical capabilities can help them optimize their processes by eliminating inefficiencies that result in inaccurate pricing, identifying and reducing revenue leakage, and eliminating rebate or chargeback overpayments. Given the staffing challenges previously discussed, it is unsurprising that life sciences executives also look to technology to help them increase employee output and outsource revenue management business processes.

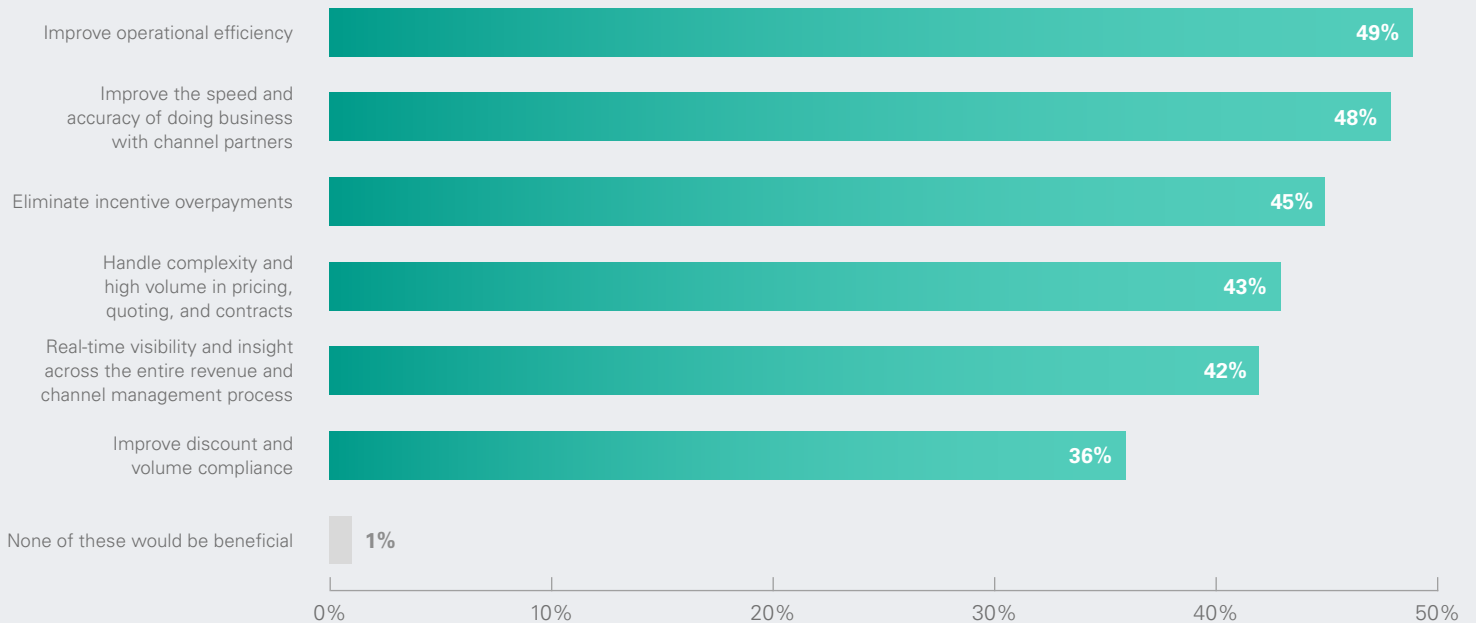
Executives at high-tech companies also see opportunities in technical innovation for revenue management, with the biggest value coming from improved operational efficiency and faster, more accurate work with channel partners (*see chart on page 19*). These executives believe that technical capabilities could help them optimize revenue activities by eliminating incentive overpayments; helping them better handle pricing, quoting, and contracting; providing real-time visibility and insight; and improving discount and volume compliance.

Which of the following technical capabilities for revenue management would be beneficial to your organization?

Life sciences



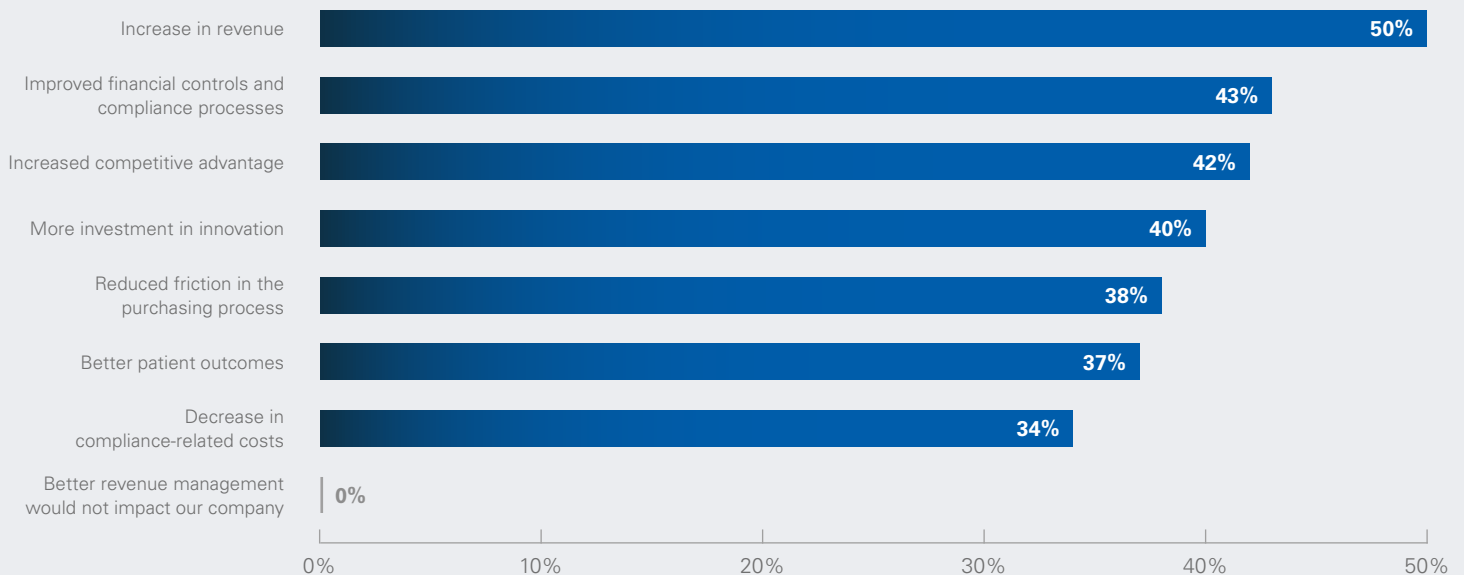
High tech



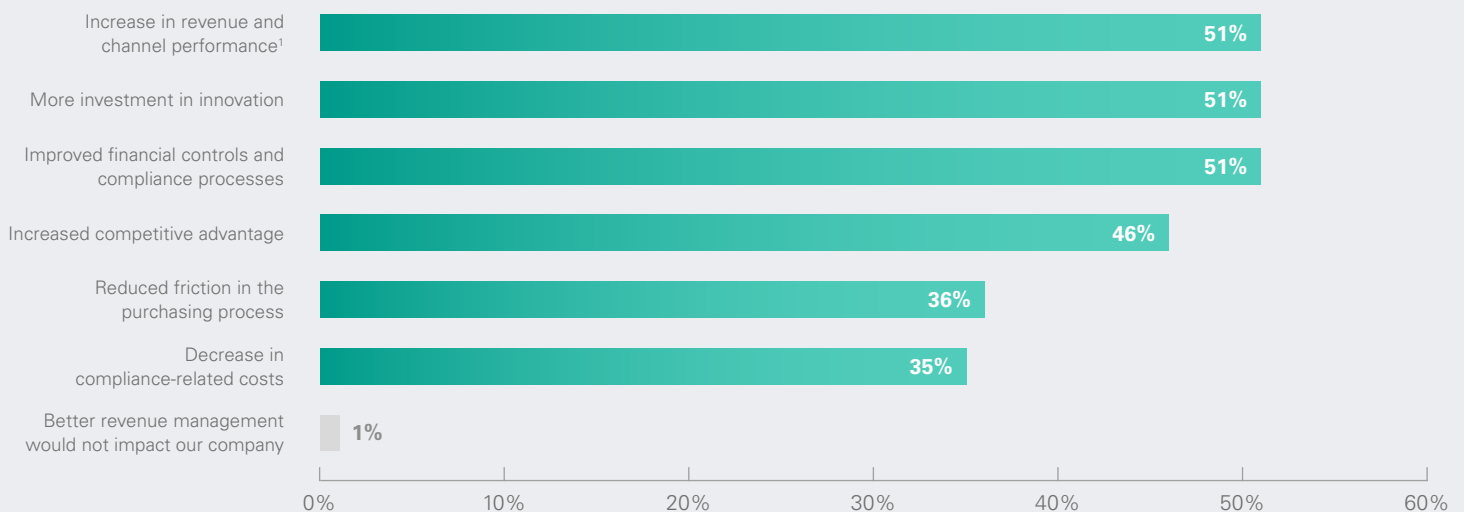
Whether in life sciences or high tech, revenue management executives overwhelmingly (99.7%) reported that additional technology capabilities would have specific benefits to their organizations. The top benefit expected from key revenue management capabilities is one any life sciences or high-tech executive would want for their organization: an increase in revenue. A wide range of other business benefits could be gained from technology innovation, though as can be expected, these benefits differ by industry. However, executives in both life sciences and high tech agree that better revenue management capabilities would enable them to be more competitive, innovative, and efficient.

What benefits would your company expect to gain through improved revenue management capabilities like these?

Life sciences



High tech



¹This number refers to the percentage of responses within high-tech manufacturing companies, not the percentage of responses of high-tech participants.

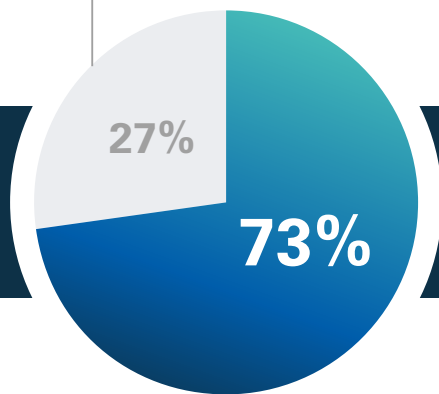
Executives have a strong preference for software vendors that provide expert services

Nobody with technology experience believes that software alone is a magic bullet to solving problems. It must be implemented in a way that enhances and improves a company’s specific business needs, while applying industry best practices. Nearly three-quarters of executives typically look to their revenue management vendors to provide expertise in addition to software. This is particularly true among pharmaceutical executives, where 85% prefer a partner that can provide both software and expert services – perhaps another sign of the staffing challenges and knowledge gaps this industry is facing.

85%

of pharmaceutical executives prefer a partner that provides both software and expert services.

"We prefer a partner that focuses on the software while we focus on best practices."

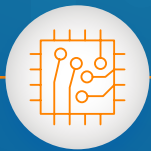


Which of the following statements best represents your opinion of the ideal vendor for revenue management?

"We prefer a partner that can provide both software and expert services."

Supply chains and channels

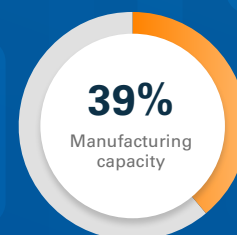
A SPECIAL REPORT ON **HIGH-TECH** COMPANIES



Much has been written about the issues in the global supply chain. This research shows revenue management executives at semiconductor, ECMs, and high-tech companies are concerned about ongoing impacts of this crunch in 2022. Well over half (57%) expect obstacles related to supply chain, material availability, and logistics will have a key impact on revenue management in the coming year, while two in five (39%) expect to have to deal with manufacturing capacity issues.

Along with the supply chain, high-tech executives are particularly concerned with managing incentives. There is almost complete consensus among executives (99%) that incentive management causes problems for their teams, with the top challenges being the impact on recurring revenue and validation of earn-outs and payouts. Other challenges relate to the design, promotion, and evaluation of incentive programs. As a sign of changing business models in the high-tech industry, nearly one in five executives reports that they struggle with incentives for non-transacting channels – those partners that don't directly sell the product but are critical influencers on the original sale or providers of post-sale services.

Factors impacting revenue management in 2022



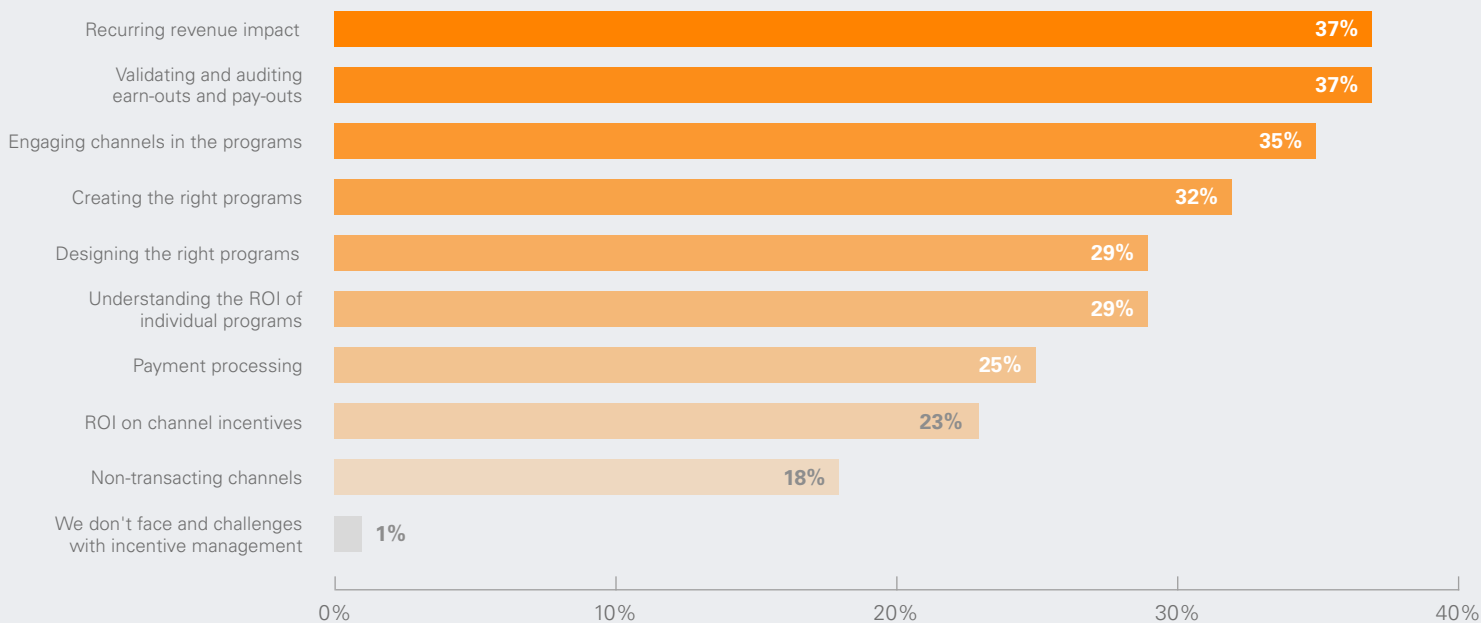
A SPECIAL REPORT ON HIGH TECH COMPANIES: SUPPLY CHAINS AND CHANNELS

In our 2021 research report, high-tech executives overwhelmingly (82%) reported that financial control and compliance in the channel were more challenging than other types of financial controls. Unfortunately, there has not been any measurable improvement in the past year, with most high-tech executives (81%) continuing to report that controls in the channel are more difficult. The number-one reason is that getting accurate data from channel partners is a struggle, and that, in turn, impacts a company’s ability to accrue correctly for liabilities, address problems with audits, and make accurate payments.

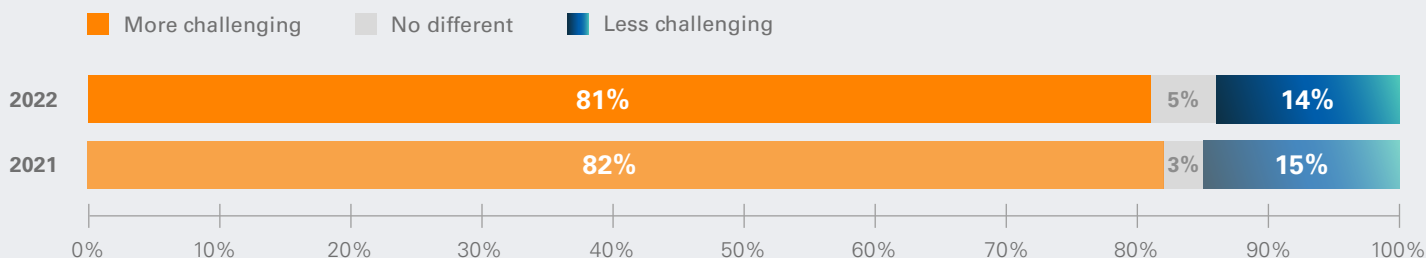
56%

of revenue management teams struggle with getting accurate data from channel partners.

What challenges does your company face with incentive management?



How difficult is financial control and compliance in your channel business compared to other financial controls?



Managing compliance in 2022

A SPECIAL REPORT ON **LIFE SCIENCES** COMPANIES



Given their products' impact on peoples' lives and well-being, pharmaceutical and medtech organizations are subject to particularly extensive governmental regulations, and as a result, regulatory changes are top of mind for these companies. Revenue management teams at life sciences companies are universally (99.5%) taking steps to prepare for potential governmental changes in 2022. Executives report their organizations are preparing for changes across regulatory compliance, financial controls, contract compliance, price transparency requirements, healthcare policies, 340B, and government funding.

Regulatory compliance at state and federal levels is a concern for 81% of life sciences executives. While compliance is expected to become even more important at pharmaceutical (73%) and medtech (62%) companies, pharma executives are more concerned about its impact. Nearly two-thirds, or 60%, of pharmaceutical executives expect managing compliance will become even more difficult in 2022. For example, the number of U.S. states that have enacted or proposed state price drug transparency laws continues to grow. This ever-changing landscape, combined with the lack of consistent regulations across the states, is just one of the regulatory hurdles pharmaceutical companies face.

81%

of life sciences executives are worried about complying with state and federal regulations.

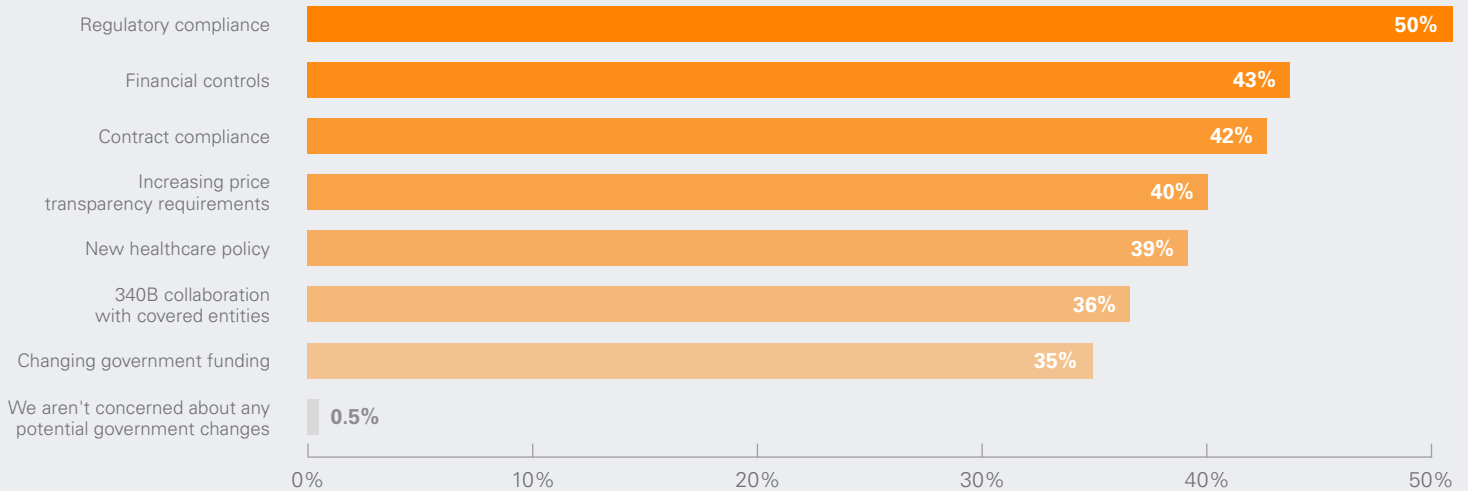
A SPECIAL REPORT ON LIFE SCIENCES COMPANIES: MANAGING COMPLIANCE IN 2022

For life sciences companies, regulatory compliance is not simply a question of operational overhead and risk management; it almost always (99.5%) impacts revenue directly. This revenue loss occurs in a variety of ways. For more than half of life sciences companies (52%), manual efforts to support government pricing calculations require additional headcount or consulting fees, and a third of all executives (36%) report they avoid potentially lucrative contracting arrangements due to regulatory concerns.

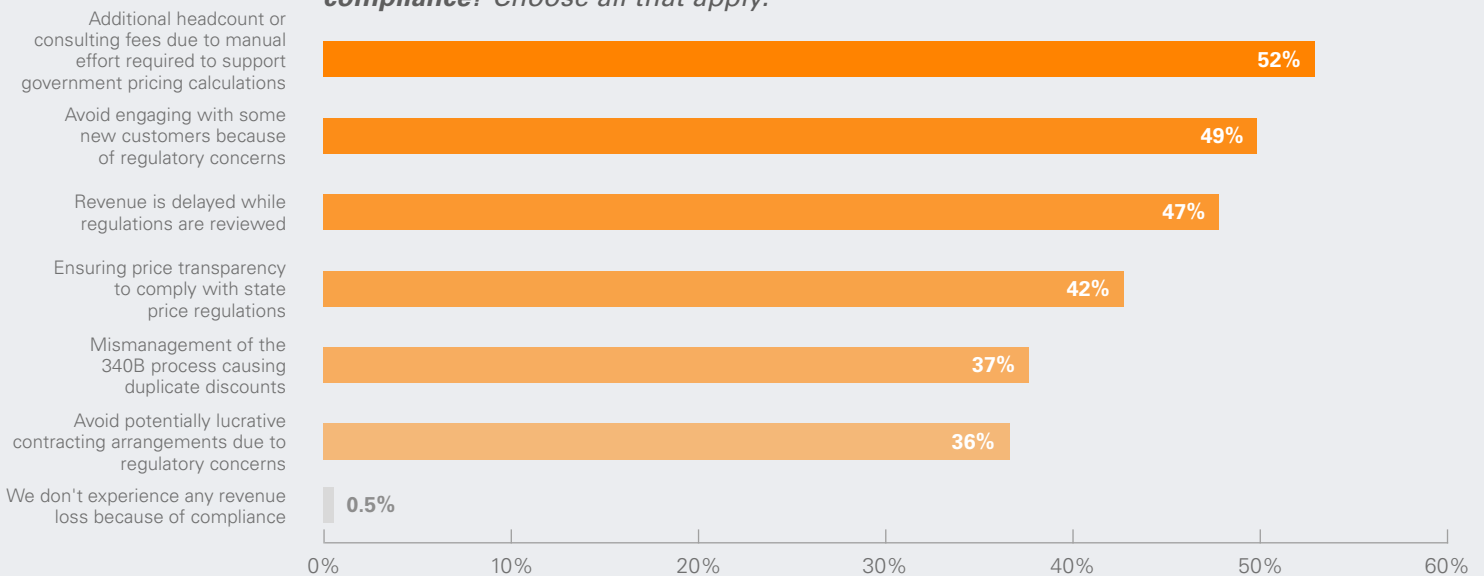
81%

of life sciences executives agree they're concerned about how to ensure regulatory compliance on state and federal levels.

What governmental changes in 2022 is your company currently concerned about and preparing for as part of your revenue management program? Choose all that apply.



In what ways does your company experience revenue loss as a result of regulatory compliance? Choose all that apply.



Adapting to new business models

A SPECIAL REPORT ON **MEDTECH** COMPANIES



Regardless of whether they provide consumer medical devices for home use or build professional-grade solutions for hospitals or other healthcare providers, medtech companies are experiencing a significant shakeup in their traditional business model. Every medtech company (100%) included in this study indicated that within the past two years they adopted or expanded their business models. More than half (56%) are experimenting with price transparency and flexibility. Some companies are offering data-driven solutions, value-based contracting, or eliminating rebates. And it is common (40%) for medtech executives to report that their companies recently turned to recurring revenue models, such as subscription services.

While recurring revenue models are new for 40% of medtech executives, 100% report that their organizations offer a form of financing or subscription model for capital equipment, software, or both. It seems that many of these companies are still figuring out how to offer these recurring revenue models effectively.

2 of 5

medtech companies have adopted recurring revenue models.

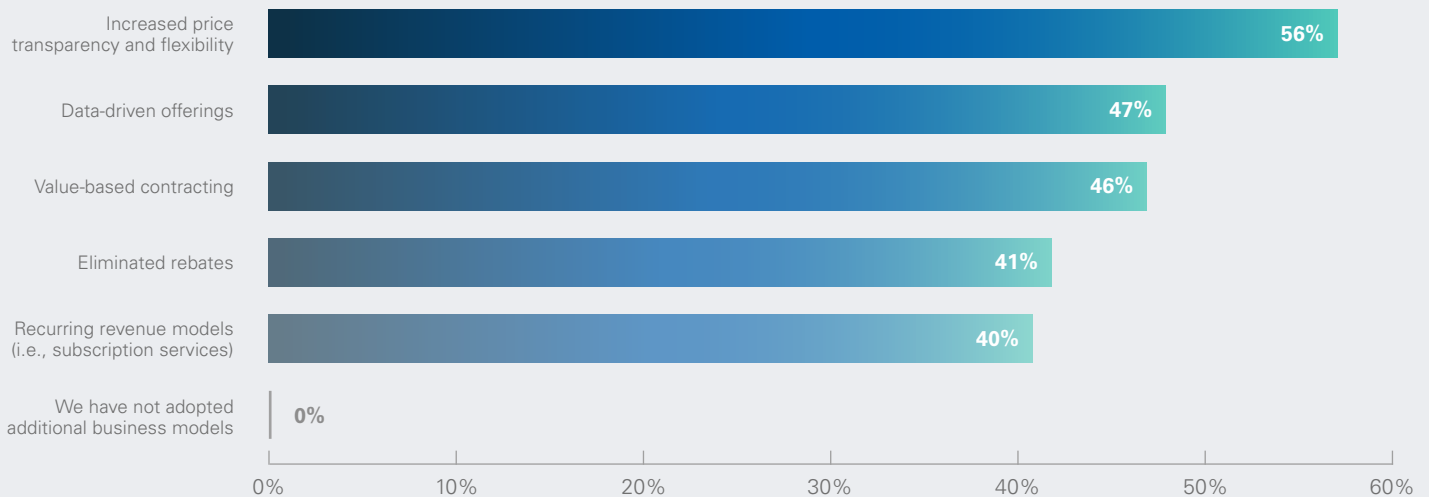
A SPECIAL REPORT ON MEDTECH COMPANIES: ADAPTING TO NEW BUSINESS MODELS

The switch from upfront revenue to recurring revenue can be a difficult transition, as it touches a wide range of revenue management activities. Of the 90% of medtech executives who report that their teams are struggling to manage financing or subscription models, 27% characterize this process as very difficult. It's clear from this data that medtech companies need software solutions that can help them manage this process from end to end.

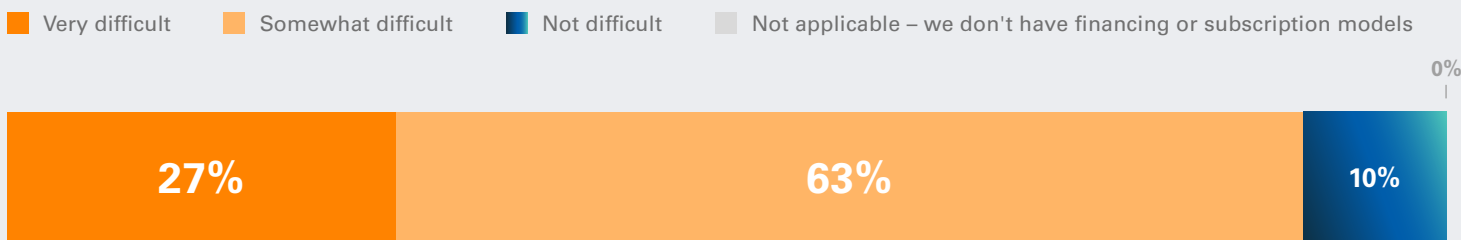
100%

of medtech executives said they offer a form of financing or subscription model for capital equipment, software, or both.

Has your company adopted or expanded any additional business models in the past two years? Choose all that apply.



How difficult does your organization find it to manage financing or subscription models for capital equipment or software?



Closing thoughts

While this year's survey indicated some bright spots, revenue management continues to be a challenge for 99% of life sciences and high-tech executives. This business-critical function remains highly susceptible to changes in the business and market landscape, with new pressures being created this year by staffing and supply chain issues.

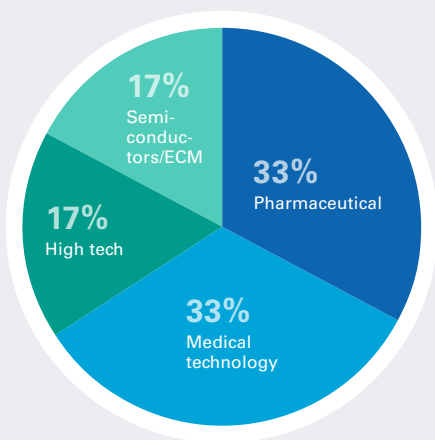
Furthermore, 8 in 10 executives struggle to get easy and accurate access to data. Given the role data plays in decision-making across all aspects of revenue management – from pricing and rebating to compliance and channel relationships – companies are turning to innovative technology solutions to improve operations and outcomes.

Overwhelmingly, life sciences and high-tech executives believe that additional technology capabilities would benefit their organizations, with an increase in revenue being the top benefit expected. But executives realize that technology alone cannot solve all their challenges; they need partners that have deep industry expertise and can help them apply best practices to optimize revenue, mitigate risk of non-compliance, and grow profitably.

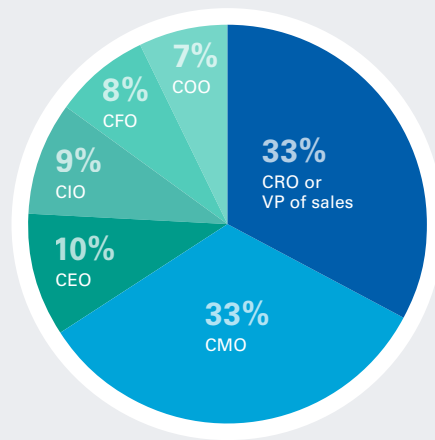
Survey methodology and participant demographics

Dimensional Research conducted an online survey with independent sources of top executives working in select industry verticals. A total of 306 qualified executives completed the survey. All participants had direct responsibility for revenue management in a C-suite or similar top executive role at a company with more than \$250 million in annual revenue. A variety of questions were asked on a range of topics including current approach to revenue management, opportunities to improve it, and the role of technology. To enable trend analysis certain questions were repeated from studies conducted with a similar audience in 2020 and 2021.

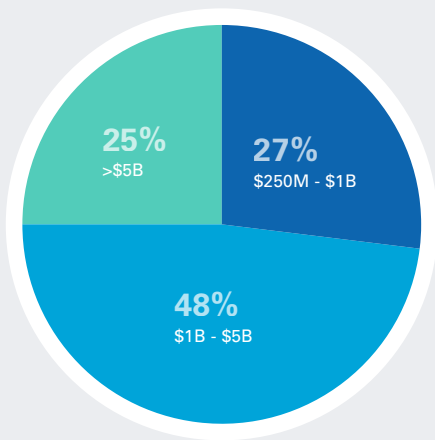
Industry



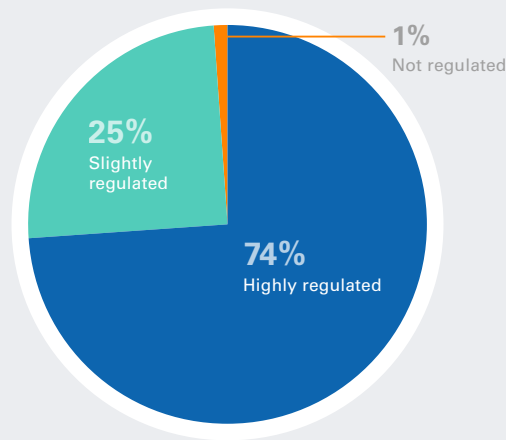
Role



Annual revenue



Level of regulatory compliance



About Model N

Model N enables life sciences and high-tech companies to drive growth and market share, minimizing revenue leakage throughout the revenue lifecycle. With deep industry expertise and solutions and business services purpose-built for these industries, Model N delivers comprehensive visibility, insight, and control over the complexities of commercial operations and compliance. Our integrated cloud solution is proven to automate pricing, incentive, and contract decisions to scale business profitably and grow revenue. Model N is trusted across more than 120 countries by the world's leading pharmaceutical, medical technology, semiconductor, and high-tech companies, including Johnson & Johnson, AstraZeneca, Stryker, Seagate Technology, Broadcom, and Microchip Technology.

For more information, visit www.modeln.com.

About Dimensional Research

Dimensional Research® provides practical market research for innovative companies. We partner with our clients to deliver actionable information that reduces risks, increases customer satisfaction, and grows the business. Our researchers are experts in the business models, processes, and systems used by modern businesses and their customers.

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