

THE IMPACT OF LOW-CODE ON IT SATISFACTION

As emerging technologies increase the pressure on IT, developers cite “faster/easier development tools” as #1 way to help the IT organization and reduce job frustrations

SURVEY CONDUCTED BY:  IDG

Appian

Automate More. Code Less.

Executive Summary

Businesses depend on their IT teams more than ever. The effective use of technology now defines competitive advantage. Business line owners look to their IT colleagues to help drive innovation and unlock new revenue streams by providing applications and infrastructure to transform the customer experience and optimize operational performance.

In light of this, it is important to ask how satisfied IT leaders and IT developers are with their jobs and the specifics of how they spend their time. How successfully do they feel they are meeting business objectives? Conversely, what pressures do they feel are mounting, and how can those pressures be reduced?

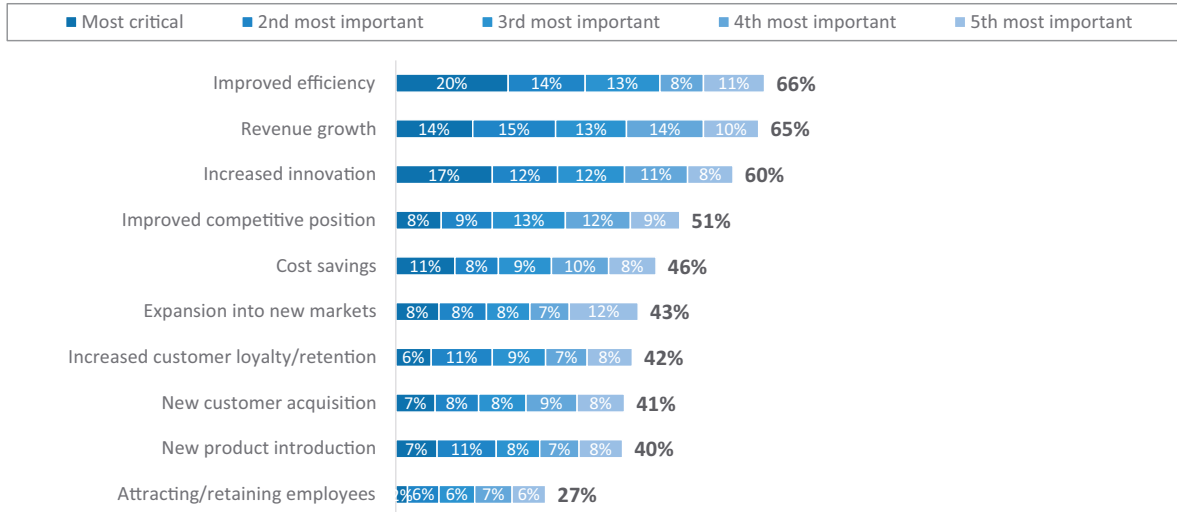
Appian commissioned IDG to explore such questions through a survey of IT leaders and developers at large enterprises. The data shows that both groups of respondents have a clear vision of the top business objectives they must drive towards over the next 12 months. Both groups are feeling increased pressure from changing business expectations brought by emerging technologies such as artificial intelligence (AI) and robotic process automation (RPA). The data further shows that both IT leadership and IT developers report low satisfaction with key aspects of their jobs, and the opportunities presented to them. Both groups also recognize the business results and personal satisfaction value of changing how applications are developed – but for slightly different reasons. IT developers believe low-code technologies can help improve job satisfaction by eliminating mundane aspects of coding and increasing developer opportunities to innovate. IT leaders see low-code's accelerated delivery as an enabler of new revenue that positions IT for greater recognition as a business-growth driver.

The results serve as a wake-up call for organizations looking to get the most from their IT talent in transforming the business and adapting emerging technologies as part of a larger digital transformation strategy.

Alignment on Objectives, but Variation in How to Reach Them

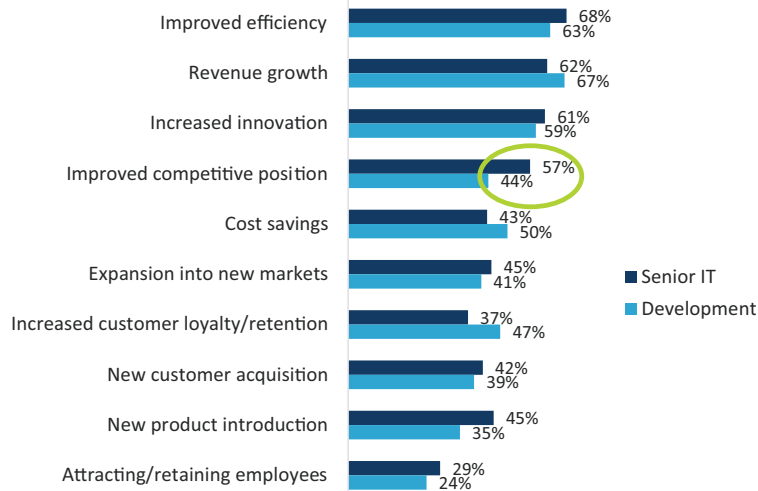
Senior IT and developers have clear alignment on the most important business objectives for their organizations over the next 12 months. All respondents work at organizations where digital transformation initiatives are well under-weigh, and the common focus of those programs appears to be top-line growth, bottom-line savings, and competitive advantage through innovation.

Most Important Business Outcomes – Next 12 Months



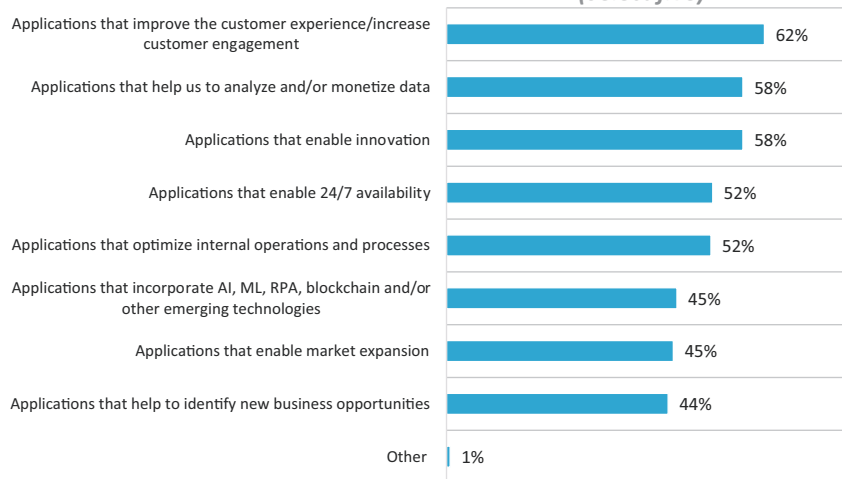
Improved Efficiency, Revenue Growth, and Increased Innovation are the top three results for both groups. In fact, alignment is fairly even across the board, except that IT leadership indexes higher on the need to improve competitive position (a 13-point differential), while developers index higher on the need to increase customer loyalty (a 10-point differential). The former may be due to IT leaders tracking performance against board-level concerns, while the latter may arise due to developers hearing more directly from the business in terms of the need for customer-oriented apps and services.

Most Important Business Outcomes – Next 12 Months (% Ranking in the Top Five)



IT supports these business outcomes through the delivery of new software applications and services that enable better processes and experiences. When asked what types of revenue-generating and performance-improving applications are most in demand at their organizations, composite responses show the top three types to be customer experience/loyalty apps, data analysis and monetization apps, and apps that enable innovation in business processes and product and service offerings.

Revenue-generating and Performance-improving Applications in Demand (Select five)



Interestingly, there are differences in how IT leaders and developers perceive the business need when it comes to new applications. Compared to developers, IT leaders over-index on:

- Apps that enable market expansion (17-point differential)
- Apps that help identify new business opportunities (9-point differential)

On the other hand, IT developers as compared to IT leadership over-index on:

- Apps that optimize internal operations and processes (17-point differential)
- Apps that improve customer experience (9-point differential)

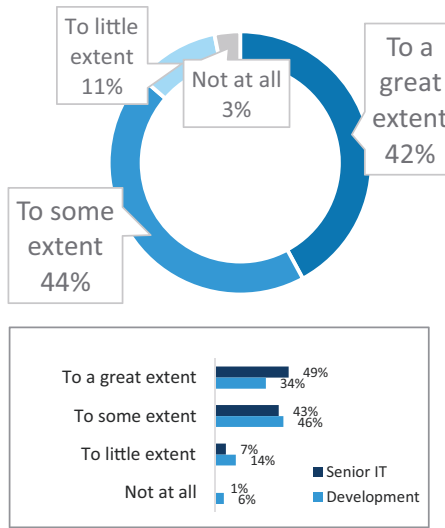
IT leadership is clearly responding to the business need for growth – expanding market share and gaining new customers. Developers, who are “down in the trenches” taking requirements directly from their business counter-parts, are experiencing a greater demand for apps that make experiences better for existing customers – and a much greater demand for apps that improve inefficient and broken internal processes.

In addition, senior IT is more generous in their evaluation of development team performance than the developers themselves. Developers were nearly twice as likely as IT leaders to respond that their development cycle times and time to market fall short of business expectations. Likewise, developers were twice as likely to say the same of their organization’s ability to act quickly on new ideas.

Emerging Tech is Increasing Pressure on IT

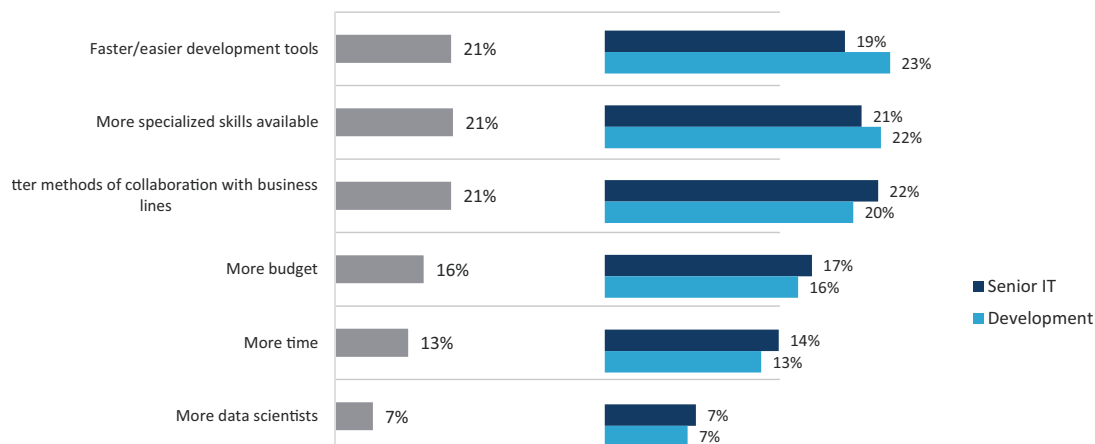
Both groups agree that the race to digitally transform the business is putting enormous pressure on IT organizations to stay on top of emerging technology. More than four out of five respondents (86%) in the survey said that emerging technologies add pressure on the IT organization to some or a great extent. Specifically, it's the increase in the number of requests for emerging technology apps and requests to integrate emerging technology apps with legacy systems and data that are causing the most anxiety.

Extent to Which Emerging Technologies Put Added Pressure on the IT Organization (All Respondents)



In terms of combatting that rising pressure, both groups agree that faster development tools are the number 1 solution. This is followed by more availability of specialized skills for coding across multiple technologies and platforms, and better collaboration with business lines. These three potential improvements outrank increased budget, having more time, and getting more data scientists for artificial intelligence and machine learning purposes. In fairness, it is likely that respondents under-indexed these responses because they assume (probably rightly) that they are unlikely to get them.

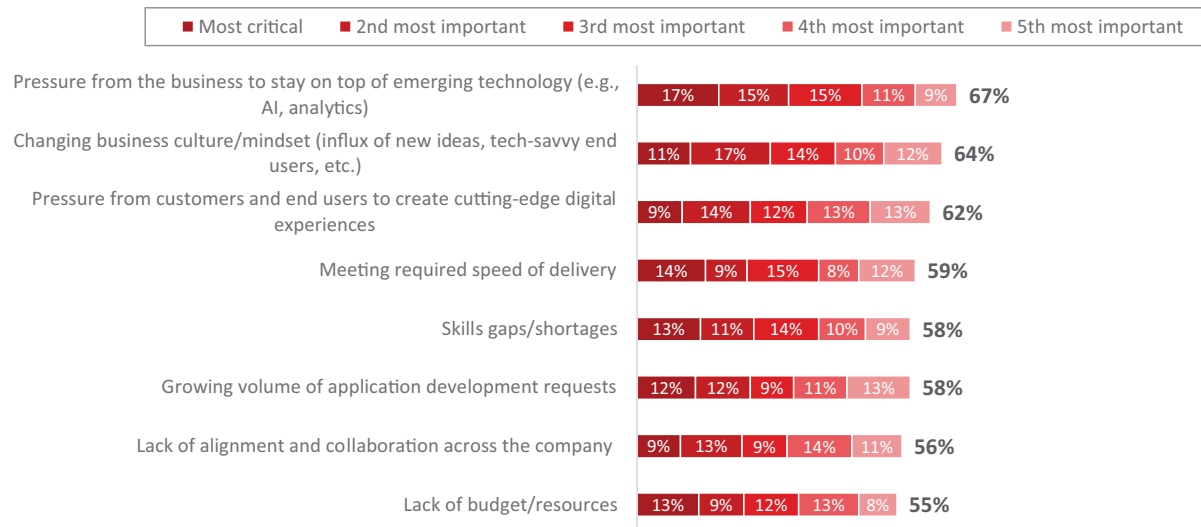
Would Help Organization the MOST in Developing Applications that Use Emerging Technologies (Select ONE)



Obstacles to Organizational Success

What are the biggest challenges for IT in enabling these important business outcomes outlined above? Across the board, respondents agree that the number 1 challenge is staying on top of advances in emerging technologies. This is followed by adjusting to changing business cultures, and the need to create cutting-edge digital experiences.

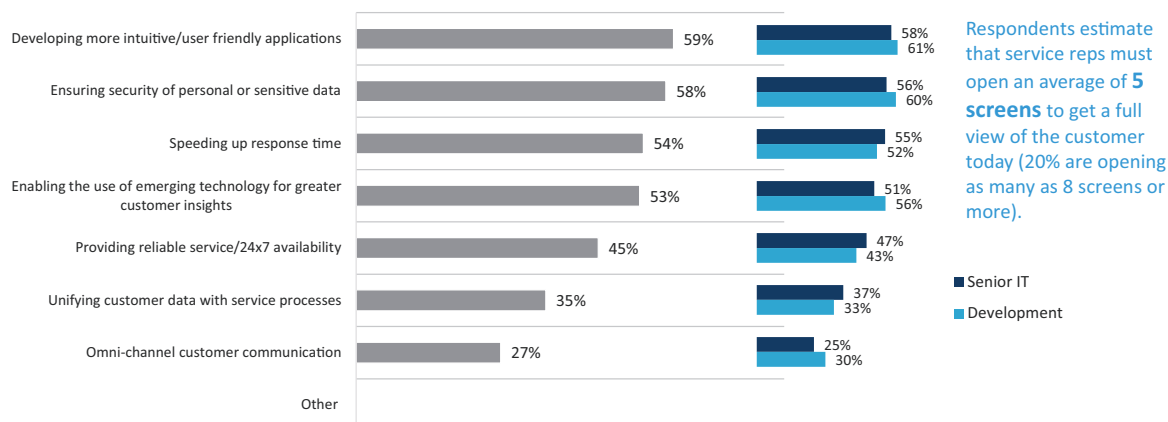
Biggest Challenges for IT in Enabling Business Outcomes



If you dig a little deeper into the survey results, it's not the need for new technologies, or the requests from users, customers or senior leadership themselves that are causing anxiety. It's IT developers' perception that they are not able to meet those demands. This was alluded to above in terms of IT's dissatisfaction with development cycle times. But it's not just being too slow.

Despite customer experience apps being the most requested, fewer than 50% of all respondents say their organization is highly-effective at integrating AI and RPA into customer service workflows. Only 20 percent of respondents overall (including only 17 percent of developers) gave their organization a rank of highly-effective in this regard. A little more than a third rated their IT organization's ability to handle customer service hand-offs across multiple business units as "excellent." However, when you separate the responses between senior IT and developers, it's obvious that the rank and file are much more pessimistic than leadership. Only 18 percent of developers give their IT organization an excellent rating. Due to a fractured IT landscape, respondents estimate that service reps must open an average of 5 screens to get a full view of the customer today – and 20% need as many as eight screens open.

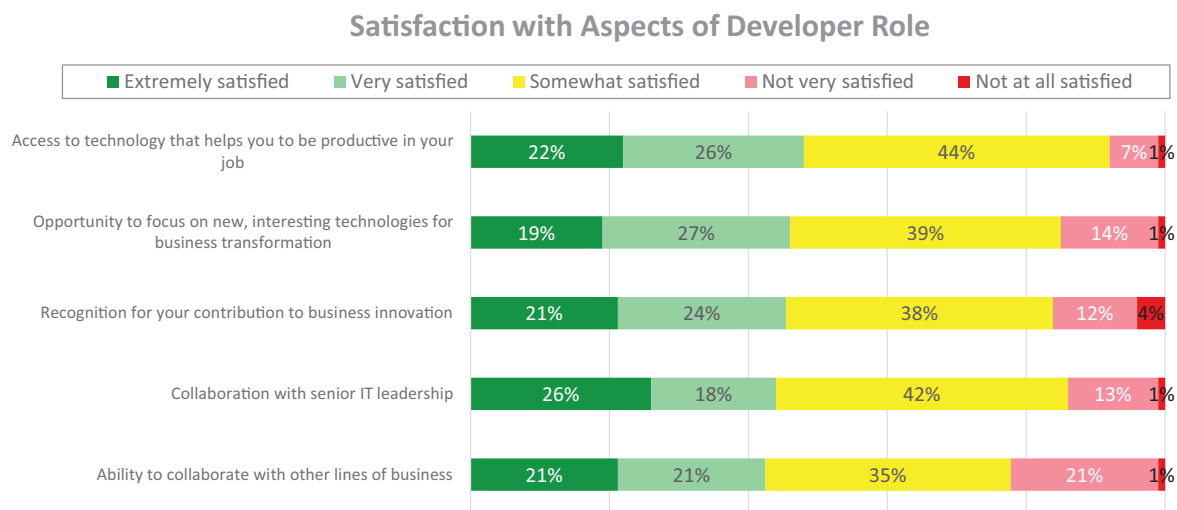
IT's Challenges in Delivering a Better External Customer Experience



Lack of Tools and Success Leading to Poor Job Satisfaction Among IT Professionals

A pressing need to execute on a digital transformation vision. Pressure from users, customers and senior leadership to create new apps and integrate emerging technology into existing workflows. The perception that the IT organization is not meeting these demands due to a lack of effective tools. It can be draining, and, frankly, that's understandable. Not being able to perform due to powers beyond your control leads to uncertainty and hesitation and impacts morale.

According to the survey results, more than 50 percent of IT developers report low satisfaction with key aspects of their jobs. They are particularly unsatisfied with their ability to collaborate with other lines of business, and with their opportunities to focus on new, interesting technologies for business transformation.

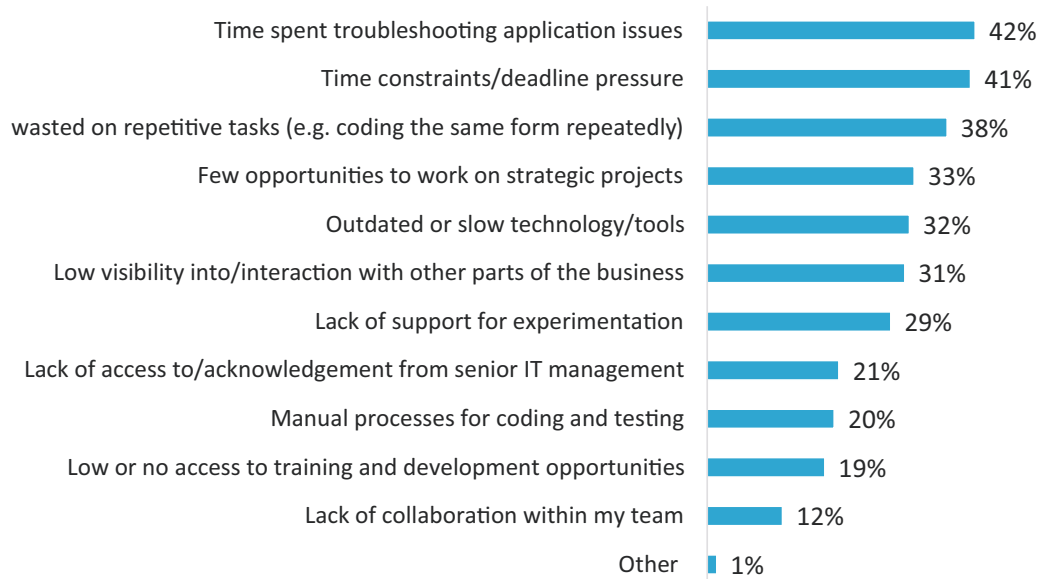


Moving legacy systems to the cloud and merging new apps into existing workflows is not simple. The problem is that legacy apps were written years or decades ago to fit old architectures that are now obsolete. They need to be tweaked, reconfigured or completely rewritten to fit new architectures, and they come with a lot of tech debt—defined as the implied cost of additional rework caused by choosing an easy solution now over the right solution.

The result is that IT professionals, specifically developers, architects and engineers are spending too much of their time and effort on maintaining existing applications rather than on creating new applications based on emerging technology that enable digital transformation. According to the data, developers consider time spent troubleshooting issues, deadline pressures, repetitive tasks, and an inability to work on strategic projects to be the worst parts of their jobs.

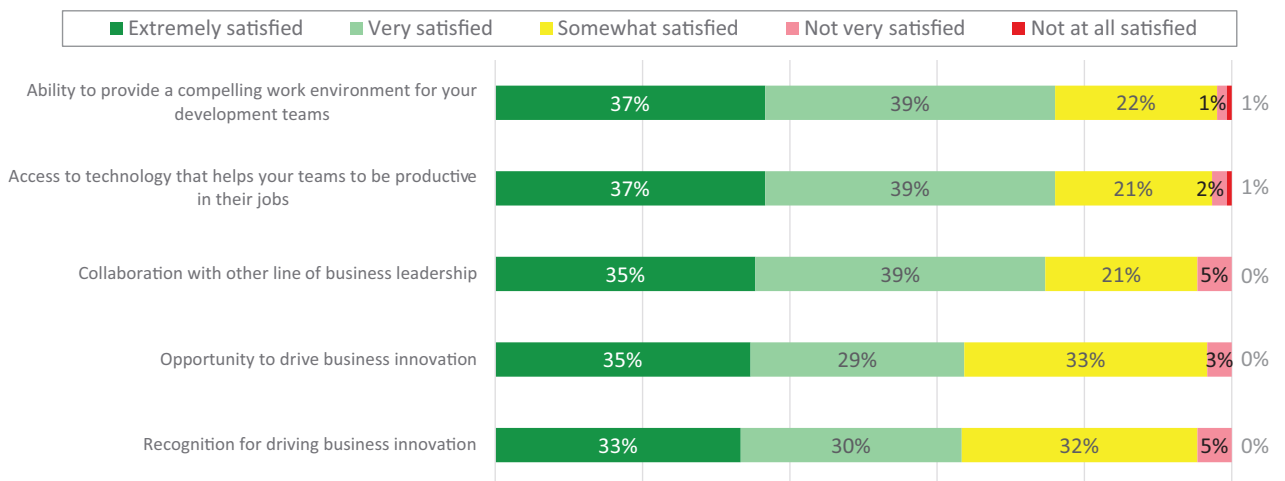
Worst Part of the Developer Role

(Select five)



Senior leaders in IT are least satisfied with their opportunities to drive business innovation, as well as the lack of recognition they receive when opportunities do arise.

Satisfaction with Aspects of Senior IT Role



When Senior IT prioritizes their top job-related concerns, finding ways to increase IT efficiency and increase productivity top the list.

Senior IT's Top Job-related Concerns *(Select five)*



Conclusion: Improving Outcomes and Satisfaction with Low-code

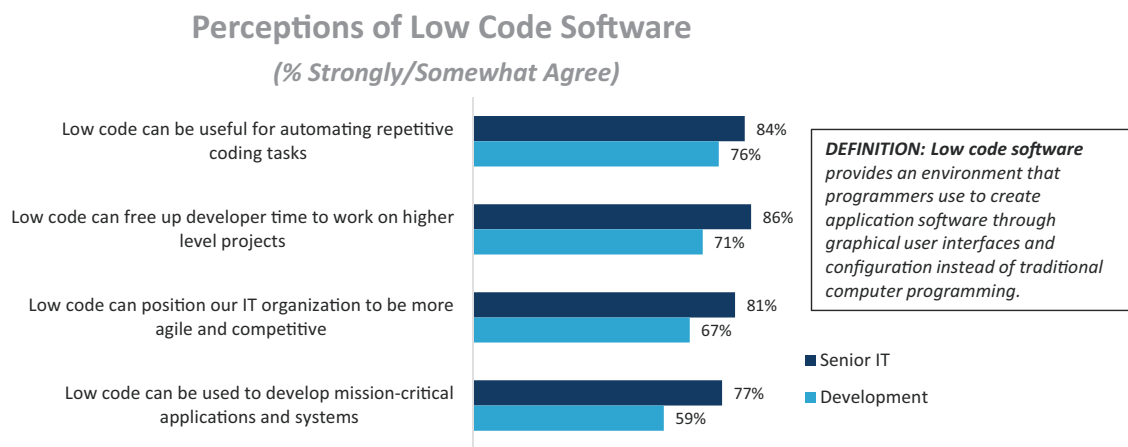
Digital transformation is reaching even deeper across the enterprise, as organizations around the world embrace AI, RPA, and other emerging technologies to automate traditionally manual processes and workflows. Often, the drive for digital transformation starts at the top with senior-level management, or at the user level. IT is simply tasked with “making it work.” However, implementing these emerging technologies and integrating them with existing workflows is anything but simple. Developers often have to fall back on manual, repetitive tasks that introduce a lot of tedium into their day-to-day. In many ways, the added complexity effectively wipes out the efficiency benefits the emerging technology was expected to generate—and in some cases, it’s making things worse because of high customer and business-line expectations.

This is taking a personal toll on satisfaction at the developer, engineer and architect layers in the IT organization. Low job satisfaction can lead to high turnover, increased training and Human Resources costs, and a loss of valuable intellectual property—further hampering digital transformation efforts.

Low-code application development platforms present a solution to many of the “trouble areas” in IT satisfaction. Replacing code with visual design and automating much of the development process results in faster delivery of enterprise applications that are easier to create, integrate, update, and maintain. The day-to-day tedium that bogged down developer productivity is removed, freeing up developer time to work on higher-level projects that deliver greater business and personal reward.

When respondents were asked about low-code development’s ability to impact areas of low IT satisfaction:

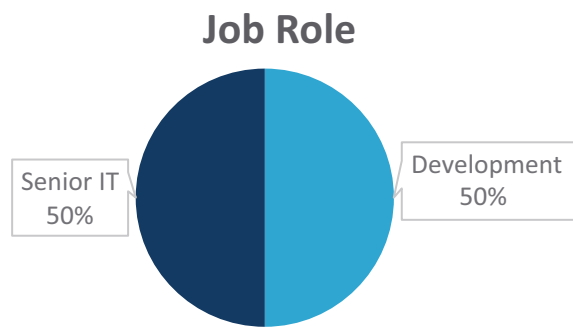
- 80% agree that low-code is useful for automation of repetitive development tasks, such as coding forms and business rules.
- 79% agree low-code development is a time-saver.
- More than two-thirds (68%) agree that low-code is viable for the development of mission-critical applications.
- Nearly 80% believe that using low-code can free up developer time to work on higher-level projects.



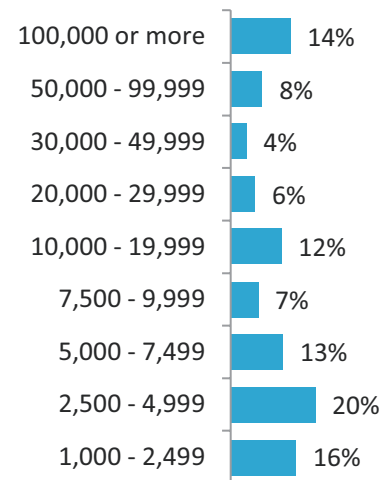
The fact is that leading low-code development platforms support developers throughout the entire software development lifecycle and ensure governance and enterprise-grade security. Low-code and no-code integrations make it simple for developers to utilize the latest and most powerful technologies within their solutions, and visual composition allows business line owners to collaborate more effectively with IT in defining how those solutions should work. Automating DevOps functions and maintenance/upgrades eliminates low-level developer tasks. IT leadership sees low-code as a path to faster delivery of business innovation, and the recognition that comes with it. In short, the survey data shows that IT teams, from executives to developers, believe low-code development directly addresses the primary obstacles and pain-points that stand between them and success.

Methodology

The survey, conducted by IDG, gathered responses between March 27, 2019 through April 8, 2019. Respondents comprised of 300 IT professionals. Half were senior IT professionals (C-level to Director). The other half identified as developers, engineers or architects. All respondents work at companies with more than 1,000 employees.



Company Size (Average: 27,465 employees)



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*Source: comScore Media Metrix, Desktop Unique Visitors, Worldwide, January 2017



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