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DIGITAL TRANSFORMS PHYSICAL

The Approach to Digital Technology: What Leaders Do Differently

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WHITE PAPER

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Executive Summary

In 2004, media giant Blockbuster had over 9,000 stores across the globe and was in prime position to acquire Hollywood Video – its largest rival at the time. The company had been steadily building momentum over the previous 19 years, growing through building or acquiring new locations as well as developing new services and partnerships for customers. In 2004, Blockbuster was – in every way – a leader. They stood atop their industry with no shortage of customers and a service that pretty much everyone still enjoyed and deemed essential to their entertainment.

Nowadays, very few people under the age of 25 have heard of Blockbuster. Exactly one location remains. Blockbuster spent 19 years acquiring 9,000 stores, and another 18 losing 8,999 of them.

This media rental chain's story is a cautionary tale and a universal truth: Being a leader today does not mean you will be a leader tomorrow. Collapses do not typically happen overnight, nor are they usually the product of one disastrous mistake. Many little errors, even inaction (such as Blockbuster turning down a $50 million dollar offer to buy little-known startup Netflix in 2000) can bring seemingly indestructible juggernauts to irrelevance. Economic recessions and disruptions do not help much either.

Blockbuster made many mistakes in its path to financial ruin and cultural indifference, but a key area of failure must be how they failed to be proactive. Netflix, not Hollywood Video, was the true threat. It was looking to build a model that would not just be competitive but dominant in the future – one that was adaptive and flexible – and built with digital infrastructure in mind. Today, even Netflix is challenged by new competition, and its position as leader is threatened. Only time will tell if Netflix can evolve enough to remain in control of its position in the media streaming space.

This story, while rooted in one industry, is applicable to all. No company is disruption proof, and no organization can expect static behavior to be a long-term solution to becoming and remaining a market leader, especially as the pace of both technology and disruption increases.

To reinforce this claim, PTC conducted an extensive survey into how organizations and workflows are evolving. The data shows that companies proactively investing in the newest technology platforms and trends have a definite edge. To be more specific, our analysis revealed five areas where leaders are distinctly doing digital differently:

1. Leaders feel a greater sense of control and ownership in their organization.

2. Leaders prioritize work from anywhere.

3. Leaders measure software utilization and have better organizational visibility.

4. Leaders free their IT staff from the pressures of constant digital maintenance.

5. Leaders prioritize continued investment in cybersecurity.

We'll explore each in greater detail in this whitepaper.

Methodology

For this survey, PTC contacted 76 individuals and asked them a series of 28 questions on various topics surrounding the evolution of work, with a focus on software-as-a-service (SaaS) and cloud operations. All respondents were full-time decision makers (director level and above) working in a variety of industries throughout the U.S., including but not limited to aerospace and defense manufacturing, automotive manufacturing, and electronics and high-tech manufacturing. This whitepaper will focus on a set of five key insights discovered by analyzing the behavioral differences of self-identified technological leaders and laggards.

Respondents were asked to identify whether they believed they were part of a leading organization or a lagging one when it came to technology adoption and implementation. No criteria were given to identify the two categories as we wished to provoke an immediate, intuitive response to the question. Out of 76 respondents, 40 (53%) stated they were part of a leading organization while another 36 (47%) said they were lagging. While this split is not completely even, each category of respondents is large enough for us to extrapolate insights into the mindset and behaviors of self-identified leaders and laggards.

Key Terminology

As much of this survey centered around developing concepts concerning the cloud and SaaS, respondents were asked to choose a term to describe "delivering software solutions over the Internet and as a service, instead of installing and maintaining [them] yourself." Respondents had to choose SaaS, cloud, or cloud-native. That said, PTC acknowledges that these three terms are not interchangeable. To this end, we are providing the current working definitions:

Cloud: Short for cloud computing, cloud refers to the online on-demand availability and delivery of various software services – notably computing power and storage options. These services can be accessed by any authorized user but are typically maintained and overseen by a third-party provider.

Cloud-native: A cloud-native application is designed and developed with cloud computing functionality as the principal component. These software applications run on various types of cloud, including public, private, and hybrid models. Since they are developed exclusively for the cloud, there is rarely an on-premises equivalent capable of delivering a completely identical experience.

SaaS: Software as a service is a subscription model wherein the user purchases and renews at various intervals (typically monthly or annually). In exchange, the user is supplied with a continuously updated and maintained software product, one that frequently and consistently improves itself to maintain various security and usability standards.

On-premises: Typically refers to software applications that are installed, maintained, and updated at the same physical location where they are being used. With on-premises, the end user bears most of the responsibility for the solution's upkeeping and effectiveness.

Leaders Feel a Sense of Ownership in Their Organization

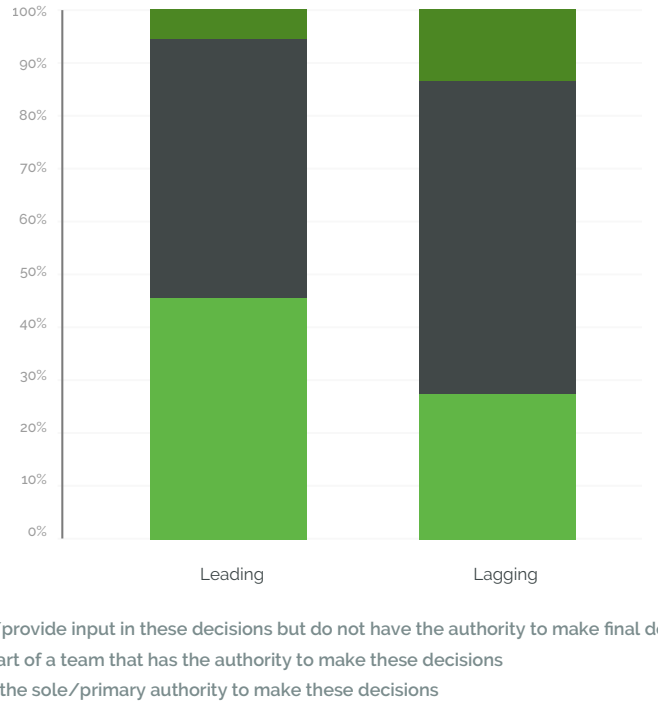
Before we dive into the behavioral differences of leaders vs. laggards, it is important to note three of the fundamental profile differences the two have in their perspectives.

First is the idea of control. Leaders tend to feel more in control of their organization's direction. When determining who possessed sole authority to make important decisions regarding an organization's digital transformation (DX) journey, 45% of leaders said they had the power, as opposed to only 28% of laggards. Laggards, by contrast, were far more likely (14% vs 5%) to state that, while they were involved in the conversation, the final authority involving major DX initiatives lay outside their power.

Second, having control typically translates to having ownership, and owners often feel more of a sense of pride than those who are merely part of the team (or along for the ride, to put it in blunter terms). This pride may have compelled a higher level of happiness and confidence in their organization's direction and fueled more positive responses throughout the survey.

Figure 1

INVOLVEMENT AS A DECISION MAKER

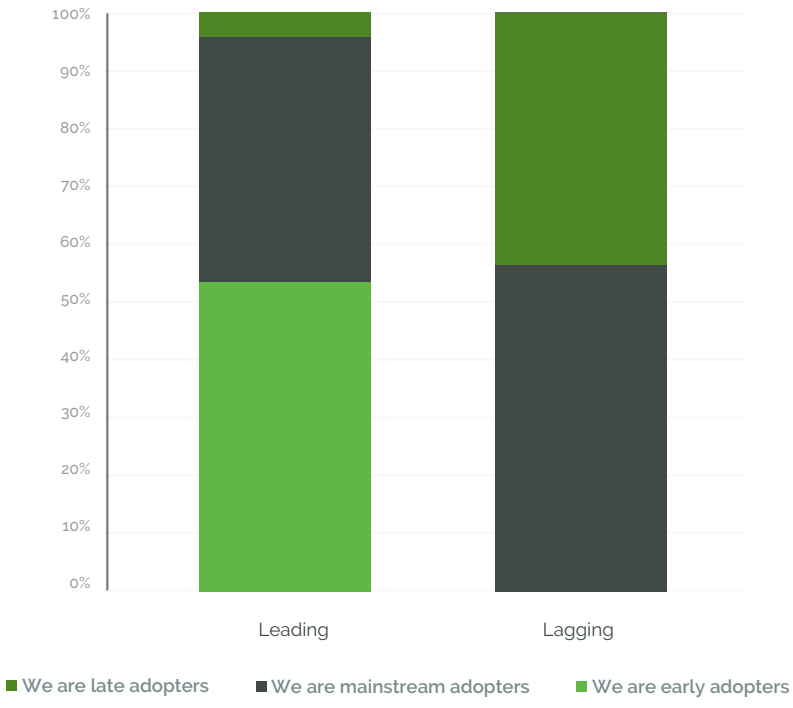


Q: Which of the following best describes your level of involvement in decisions concerning strategy, evaluation, selection and/or purchases related to your organization's digital transformation efforts? N= 40 Leading, 36 Lagging

Third, this control likely translates directly to technology adoption patterns. Laggards simply are not early technology adopters. No lagging respondent identified as an early technology adopter – someone whose organization liked to embrace new technology as it came out, even if it meant dealing with bugs or technical hiccups. Contrast that against the majority (53%) of leading respondents who stated they were early adopters. The differences were just as stark on the opposite end of the spectrum, where only 3% of leaders identified as late adopters while 56% of lagging respondents felt that technology needed to be firmly established before they would embrace it. This more fully flushes out the distinction in technology adoption habits and shows the priorities of each type of organization.

Figure 2

HOW LEADERS APPROACH TECHNOLOGY ADOPTION



Q: How would you describe your organization relationship with the latest technology and technology trends? N= 40 Leading, 36 Lagging

With the pace of change accelerating, this stark contrast highlights the dangers organizations face by waiting for a technology to mature before embracing it.

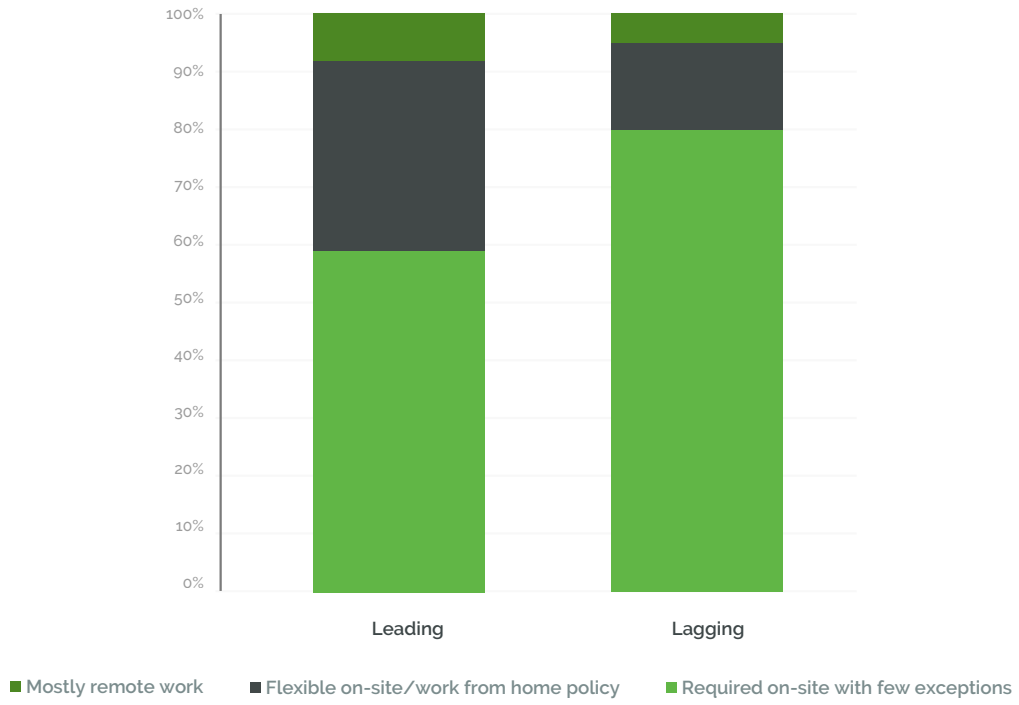
Leaders Prioritize Work from Anywhere

No one needs data at this point to know that the COVID-19 pandemic sparked a massive shift toward remote and flexible hybrid work habits for knowledge workers. Numerous studies have been conducted and they all (including ours) confirm this fact. It is also common knowledge to say that the movement toward remote and flexible work for knowledge workers was already in progress – and here is where it gets more interesting.

The pandemic was not the starting gun for the shift out of the office. Prior to its impact, certain organizations were already experimenting with flexible and fully remote arrangements to better enable workers to operate the way that best suited their professional lifestyles. While the majority of leaders (60%) did require onsite work, the other 40% allowed some degree of freedom. Contrast this with only 19% of laggards who were allowed the same flexibility.

Figure 3

WORK STYLES BEFORE THE PANDEMIC



Q: Before the COVID-19 pandemic? How would you describe your company remote policy? N= 40 Leading, 36 Lagging

This difference, more than any other, might explain the separation between leaders and laggards. Leaders embrace technology more quickly – technology such as SaaS and cloud

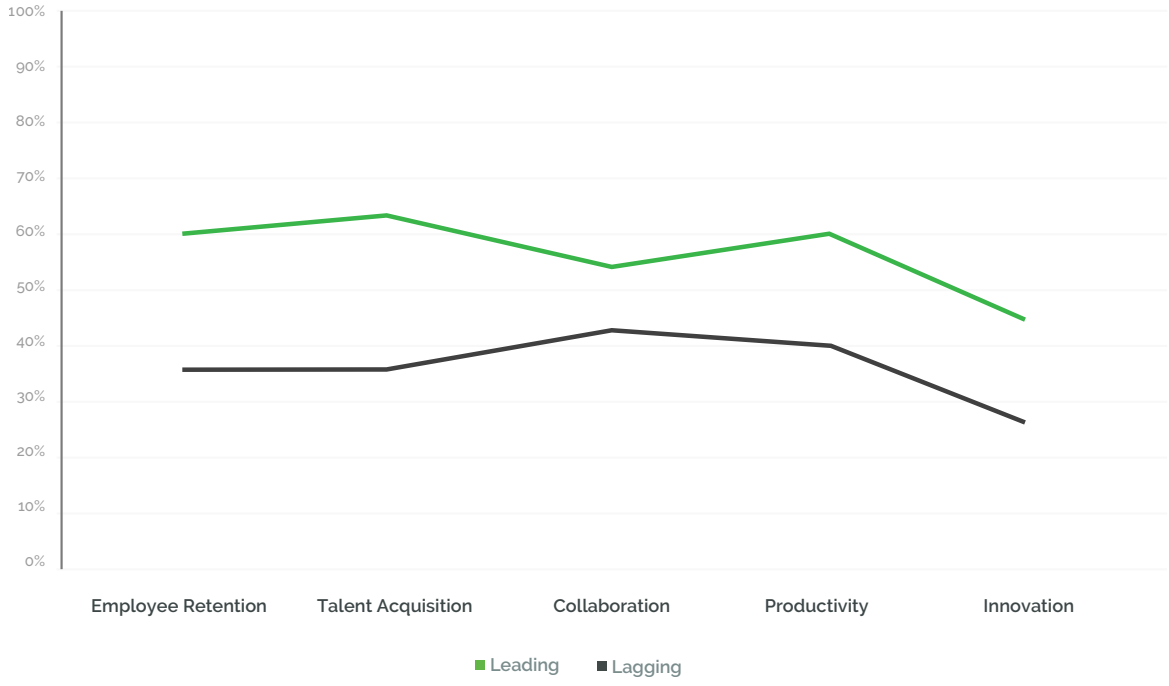
infrastructures that better enable flexible and remote working. As a result, they start to experiment. This experimentation lays a framework, one that is much better suited to handle unforeseen catastrophes, like the COVID-19 pandemic.

So, while the rest of the professional space scrambles to adapt to the new reality, these leaders are able to weather the storm and lose less productivity. Their proactiveness creates an economic advantage – but the benefits leaders see from a longer relationship with flexible and remote working do not stop there.

Survey respondents evaluated a range of workforce topics – such as employee retention, talent acquisition, collaboration, productivity, and innovation – and then estimated if and how their organizational policies regarding flexible and remote work had generated positive impact. The contrasts were stark. Leaders, across the board, were more likely to report positive impacts than laggards. In fact, the majority of laggards felt that all of these areas had been negatively impacted by their policies (or lack thereof) concerning work from anywhere. Given the growing skills gap in the manufacturing space, benefits such as talent acquisition and employee retention will become even more crucial to continued competitive success. Organizations that are slow to adapt SaaS solutions will be at a severe disadvantage, as its flexibility is clearly valued.

Figure 4

THE BENEFITS OF EMBRACING FLEXIBLE WORK



Q: In your experience how have the following operational attributes been (positively) affected by your company position on remote/flexible work?
N= 40 Leading, 36 Lagging

Across many industries, the day-to-day minutia of work is in flux. While some executives may not like it, knowledge workers are, by and large, embracing the path toward hybrid and remote work and numerous studies, such as a two-year analysis from Boston College, have been done that support positive benefits for both worker and supervisor in this new hybrid environment.

As such, existing and prospective employees are looking for organizations that support this change, and truly support it beyond the knee-jerk reaction of the pandemic. At PTC, we know that technology – no matter how impressive – is always second to the invaluable skill and dedication a good employee can bring to the table. People separate leaders from laggards, and right now leaders know (and have known) the value of enabling employees to work from anywhere.

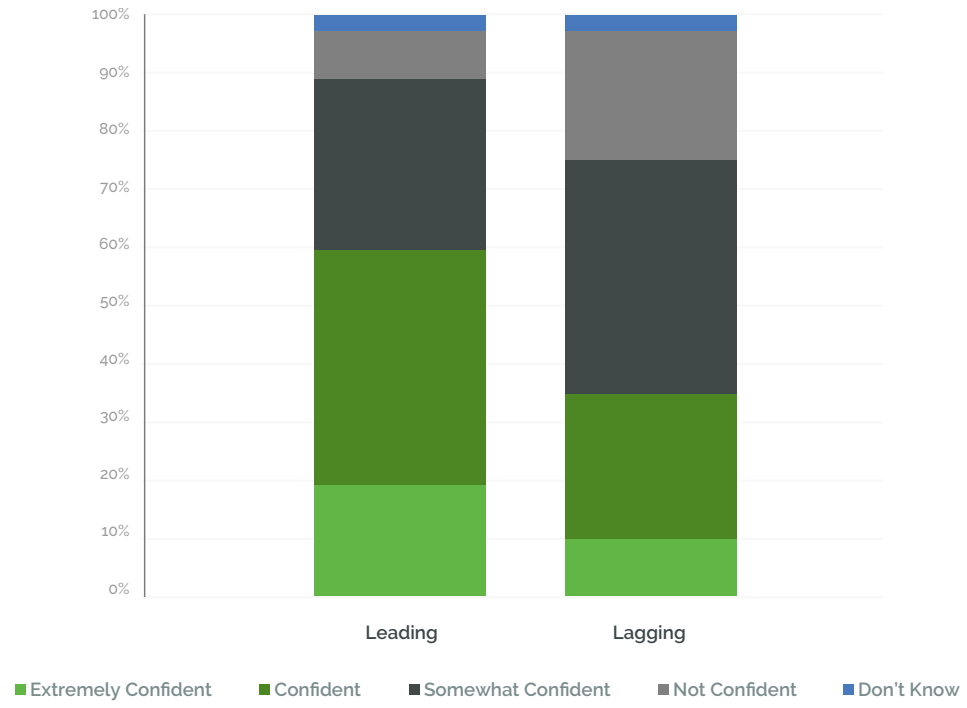
Leaders Measure Software Utilization

Following the trend of working from anywhere, executives know that this reality is not always as simple as it sounds. A boss cannot just order their employees home for the day and expect work to continue same as usual. Tools like the internet and other communication channels help a great deal and can keep some wheels turning for a day or two, but more robust infrastructure is needed to ensure that productivity does not suffer from decentralized work.

Of course, it is not a matter of simply buying an expansive new software platform (or several) and expecting success. Software is a tool, and the impact of tools can and should be measured to guarantee maximum effectiveness. This is another major area where self-identified leaders and laggards differ. While 63% of leaders were at least confident they could efficiently track the utilization or underutilization of components like software capabilities, user licenses, and hardware – only 33% of laggards said the same.

Figure 5

CAN ORGANIZATIONS MEASURE SOFTWARE USAGE?



Q: How confident are you in your organization ability efficiently track the utilization or underutilization of software capabilities, user licenses and hardware ? N= 40 Leading, 36 Lagging

Without tracking, it is very difficult to know just how well a product or platform is performing internally. Organizations that do not have a clear picture of their inner workings cannot make decisions as rapidly as those that do, not without taking a risk by using incomplete data.

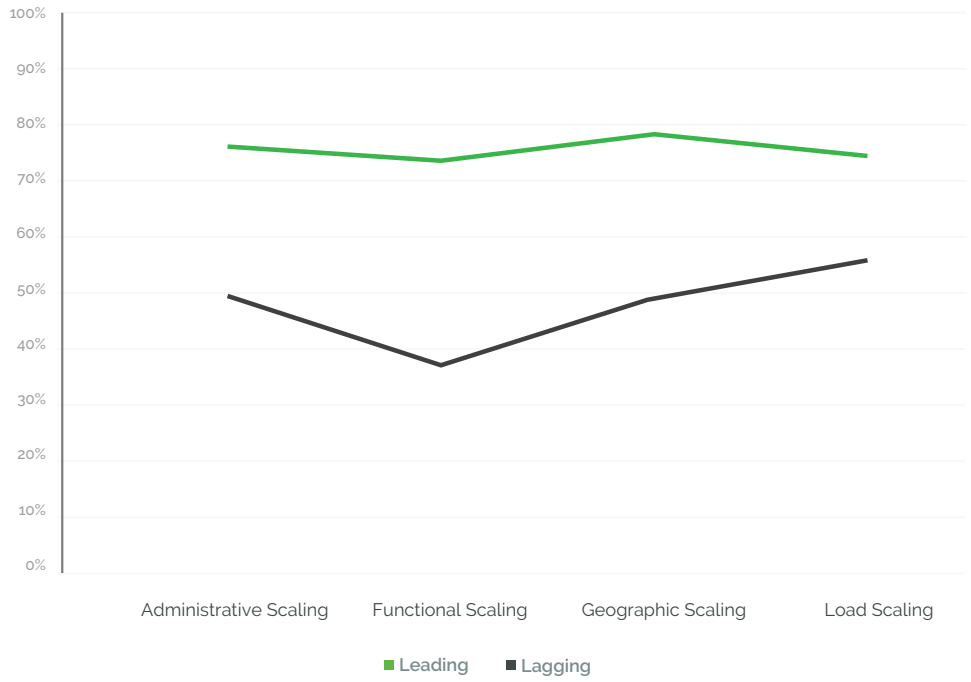
Tracking and scaling are two business operations that are linked: Without knowing how well a solution is performing, how can next steps be taken to either expand the process or reduce its investment? To this end, we asked respondents about their confidence in the ability to scale the following business operations:

- **Administrative scaling:** Increasing or decreasing access to software tools for users or organizations
- **Functional scaling:** Adoption or divestiture of software functionality
- **Geographic scaling:** Expansion of operations from a local area to a larger region or the downsizing or withdraw of operations from specific regions
- **Load scaling:** Expand or contract compute power to accommodate heavier or lighter workloads

Across the board, the answer was the same: Leaders feel more confident in their ability to scale. This was especially true when it came to functional scaling of software, but this is not surprising. If an organization cannot track its software utilization or underutilization, how can it be expected to effectively scale the solution out of piloting and toward a company-wide platform?

Figure 6

LEADERS SCALE MORE EFFECTIVELY



Q: How confident are you in your organization ability to scale the following items up or down efficiently and quickly in response to business need? N= 40 Leading, 36 Lagging

Leaders Free the IT Department

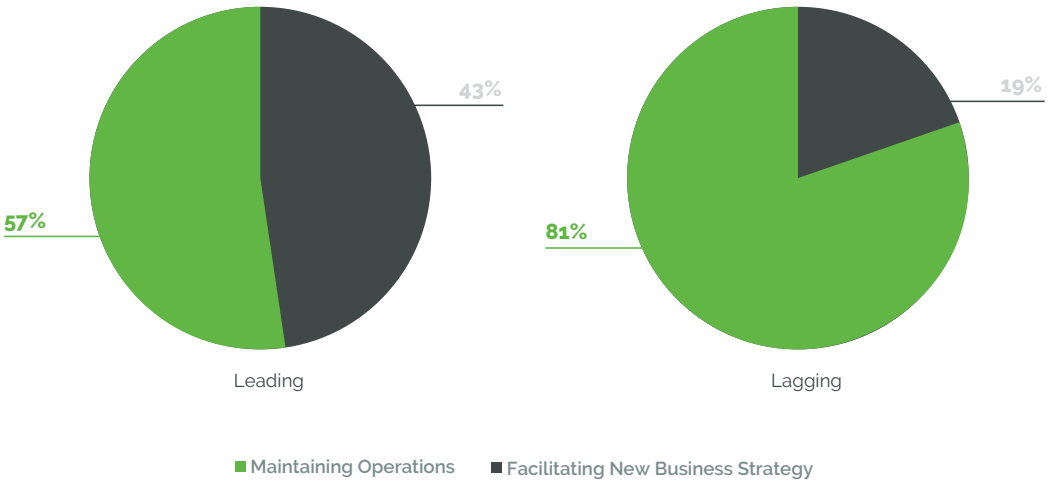
Given that the nature of business operations today is so tied to software and online infrastructure, it is no wonder that many organizations are making strides toward freeing their IT teams away from maintaining operations toward facilitating new business strategy. Respondents were asked to intuitively describe where they believed their IT group primarily operated. No specifics regarding manpower or budget were investigated, we just wanted the instinctual response.

Leaders were more than twice as likely than laggards (43% vs. 19%) to state that IT was actively involved in new business strategy. While this fits with the previous findings, it may not be immediately clear to see why.

The answer lies in the organization's infrastructure. SaaS solutions – and cloud platforms in general – feature a common key benefit: removing the burden of maintenance from the end user.

Figure 7

THE DUTIES OF IT



Q: Does your IT organization spend more resources maintaining operations or facilitating new business strategy? N= 40 Leading, 36 Lagging

When organizations shift their operations away from on-premises infrastructure toward SaaS and cloud solutions, they may not immediately see any direct financial benefits but, as the saying goes, time is money. By freeing IT professionals to help proactively grow the business, rather than just keep everything running, leaders are positioning themselves to better meet the full potential of their workforce.

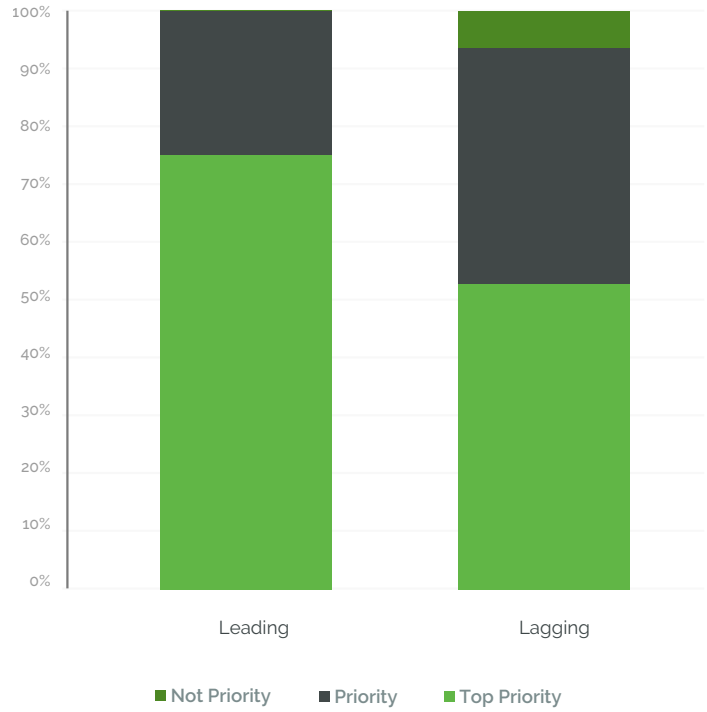
Leaders Know the Importance of Cybersecurity

With countless news reports of rising cybercrime and a growing prevalence of data breaches, not to mention the fact that the acceleration out of the office has only exacerbated the need for strong cybersecurity policy, it is no wonder that most respondents – both leaders and laggards – stated that cybersecurity is a priority. That said, there is a big difference between being a top priority and simply being on the list of things to do.

Imagine putting a stack of confidential documents and massive envelopes full of money in a safe, then saying that locking the safe was only a priority – not your top priority for the remainder of the day. It is notable how many leaders (75%) understand that, if business is going to be digital, then digital data security must be a top priority. Only 53% of laggards felt the same, with 6% saying it was not a priority at all.

Figure 8

LEADERS VALUE CYBERSECURITY

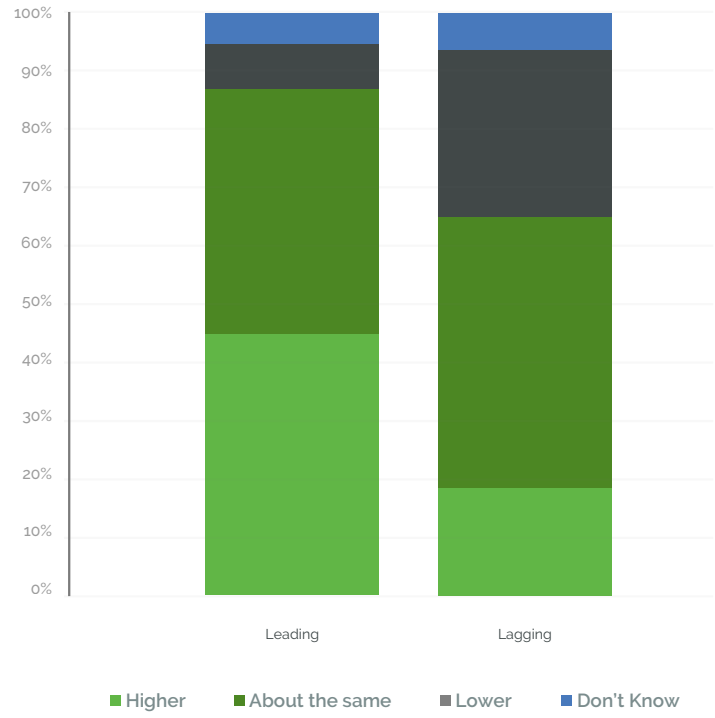


Q: How important of a business priority is cybersecurity within your company? N= 40 Leading, 36 Lagging

Case in point, when asked to estimate the investment their organization was making toward cybersecurity – versus other priorities at the same level – leaders were far more likely (45% vs. 19%) to say that they were making a higher investment. The frequency and sophistication of cybercrime is increasing, so it makes sense that measures toward cybersecurity increase alongside them. Remember, this investment is not just financial. It can be about hiring the right people or equipping employees with the right tools and training against malicious third parties.

Figure 9

THE RISING COSTS OF CYBERSECURITY



Q: By your estimate, is your company investment in cybersecurity lower or higher than other business priorities of the same importance level? N= 40 Leading, 36 Lagging

Leaders Know the Value of Cloud and SaaS

All of these data points paint a picture and, strangely enough, it is a familiar one. It has long been said that a key difference between a good manager and a poor one is not in the rhetoric but the follow-through. A bad leader dictates while a good leader moves forward by example. There were many areas where leaders and laggards agreed – such as the importance of flexible and remote work. That said, the data painted a different story, one where the leader was proactive while the laggard just rode the bandwagon.

These variations in behavior point to an important truth: The old way of doing business, where all data and all relevant information is stored onsite with few to no exceptions, is ending, even as the pace of work increases. Leaders are not just saying SaaS and cloud are the future, they are using these tools to create situations and possibilities not feasible with older technology or older mindsets, and it is paying off.

The shift toward cloud and SaaS will have enormous benefits. Revenue is maximized in different ways and not all of them are about creating a brand-new product that will move millions of units. By embracing flexible and remote working, leaders are unlocking new talent possibilities and spending less on employee retention. They are tracking the software and end user licenses they purchase to ensure they are being used properly and effectively. They are in a position to scale their efforts, as they have a clearer picture of how their organization is operating.

Leaders want to free their IT operations from simply maintaining the status quo so they can help with new business opportunities, most likely including an increasing focus on cybersecurity efforts. Leaders, in short, are proactive, and all of this goes back to the beginning: They are early adopters who understand that the technology landscape changes fast and frequently. Updating in-house software solutions over and over again is no longer a realistic approach to remaining ahead in such a landscape.

At PTC, our shift toward including and emphasizing SaaS offerings echoes this understanding. The world changes fast and all trends point to an increasingly digital landscape. Organizations wishing to be competitive, productive, and secure cannot depend solely on themselves anymore – nor on on-premises solutions that are bound by limitations that can take significant time and money to overcome. PTC has identified the leaders as trend-setters, people who see the change and embrace it. SaaS and cloud are the future, and their proper utilization will give a serious competitive edge.

Learn More About PTC

For additional information on digital transformation opportunities and insights read more here or contact us here.

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PTC, Inc.

December 2022

www.ptc.com