Forrester Consulting Thought Leadership Paper Commissioned By Cisco

May 2021

Operational Maturity Is Critical To Business Success

Operations must be adaptable, resilient, and agile to both adjust to a rapidly changing market and to support internal digital transformation initiatives. The degree to which an organization successfully realizes modern technology operations depends on multiple organizational and practice dimensions. To better understand this spectrum, we assessed the operational maturity of survey respondents based on an evaluation of four basic areas of competency:

- > **Strategy.** The most mature organizations are those that can evolve their digital products over time through a series of controlled, measured experiments, while continuously striving to visualize and manage any work in progress. All operations staff at mature organizations are qualified to manage infrastructure-as-a-code and to pursue a strategy of left-shifting and automating tier-one support with proactive remediation, self-service options, and chatbots.
- > **Technology.** Maturity in this area requires that all elements of the digital stack be approached as code under version control. Additionally, releases are managed as models moving across a well-defined, fully integrated, and automated pipeline from development to production. Mature organizations extend their ticketing system from IT-centric use cases to broader enterprise use cases with the goal of moving from IT service management to enterprise service management. They also focus their metrics and incentives on business and customer outcomes beyond technology platform availability and performance statistics.
- Process. Operational maturity in this category requires the annual, quarterly, and intermittent collection of qualitative feedback on technology experiences via the use of: pulse surveys; collaborative online workspaces for cross-functional teams to coordinate activities and troubleshoot issues; and blameless retrospectives that are intended to evangelize and communicate process best practices after major incidents, as opposed to finger pointing. Mature organizations also provide an online portal to support the delivery of enterprises services (not limited to IT) and their associated processes and workflows.
- Governance. Competency in this area means moving security and governance earlier in the IT delivery lifecycle in order to support compliance by default. By increasing the automation and logging of all activities in the digital pipeline, organizations are able to decrease audit length and effort. Additionally, they are able to use Al/ML-enabled tooling for better IT operations insights, and apply chaos engineering principles to mitigate the risk of increasingly complex production systems that can't be fully replicated and tested in lower environments.¹



METHODOLOGY

Cisco commissioned Forrester Consulting to evaluate the operations maturity of organizations of 500 or more employees in North America, Europe, and Asia Pacific.

To achieve these objectives, Forrester conducted an online survey with 1,212 IT and operations decision-makers with responsibility for automation strategy.

This is the second installment of a four-part series.



Respondents were prompted to score themselves on a 5-point scale for each maturity measure across these four categories. The overall maturity score was based on an aggregate score across all maturity measures. Respondents were then placed within one of three maturity groups depending on where their score fell along the distribution curve. In this four-part series, we will focus on the difference between high-maturity organizations, which are referred to as leaders, and low-maturity organizations, which are referred to as beginners.

What Sets Leaders Apart?

In addition to the elements of strategy, technology, process, and governance, leaders as a group have some additional distinguishing characteristics. We found that leaders:

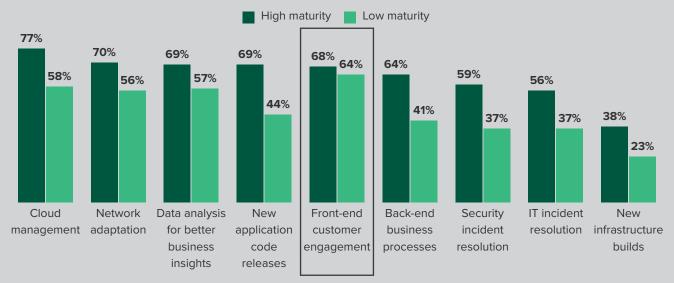
Are leaps and bounds ahead of beginners when it comes to automation. Simply put, beginners are way behind. Far more leaders have been able to automate processes such as cloud management, network adaptation, and back-end business processes (see Figure 1). The only exception are front-end customer engagement processes, of which both leaders and beginners have automated in roughly equal measure. This isn't surprising considering that most organizations began their digital transformation journeys with customer-facing applications years ago. However, leaders have been able to expand that work and automate throughout their businesses.



Operations leaders are both ahead of the pack and unafraid of moving forward.

Figure 1

"How automated are the following processes?" (Entirely automated/more automated than manual shown)

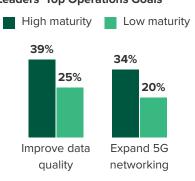


Base: 201 high-maturity global decision-makers of automation strategy and purchasing decisions and 255 low-maturity global decision-makers of automation strategy and purchasing decisions

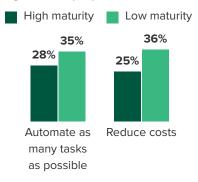
Source: A commissioned study conducted by Forrester Consulting on behalf of Cisco, December 2020

- Have more advanced automation technology. Well-defined automations, like robotic process automation (RPA), low-code app development, and infrastructure orchestration, can be deployed by organizations of any maturity level because they don't require a particularly sophisticated stance or specialized skillset. Leaders use these technologies of course, but they also make greater use of tools which require more advanced skillsets such as cloud management, digital process automation (DPA), and workload automation. This is not surprising as 62% of leaders consider themselves early adopters of new technologies. as compared to just 26% of beginners.
- > Ensure high quality data. The goal of data integrity has previously come up in the first installment of this series, "Modernize Operations To Digitally Transform And Weather Any Storm." Recall that both data quality and resilience were top goals for most of our surveyed operations professionals; but this goal is even more pronounced for high-maturity organizations (see Figure 2). Leaders understand that the better their data is, the better their insights are, and ultimately, the better their automations are. The adage "garbage in, garbage out" holds very true here; without high quality data, leaders will not be able to produce high quality automations.
- Capitalize on emerging tech. Leaders' other top goal expanding 5G networking is indicative of their ability to be more forward-looking. The ability to leverage emerging technology like private 5G networks is a luxury that beginners simply don't have. On the other hand, leaders can capitalize on new opportunities like this because they have already built the right data and technology foundation. This interest in 5G networking also speaks to another trend: the convergence of IT and operational technology (OT). Since it's not a monolithic technology, 5G will require the combination of multiple technology components including data center management, network infrastructure edge computing, modems, smartphones, and edge devices.² To successfully integrate 5G and address the complexity of all the moving parts, IT and OT can no longer remain in their separate spheres.
- innovators strategically spend their way through a recession. Not only do leaders make more consistent use of automation technologies, but they also plan more investments in these same important solutions in the coming years, despite being amid an economic downturn. This aligns with the guidance that Forrester has provided since the early days of the pandemic. Even as businesses suffer stress, there are new opportunities to capitalize on previous tech investments with targeted spending. Forrester calls this the growth mode. Beginners, on the other hand, are more likely to be in what Forrester terms survival mode, as they focus on broad cost cutting measures, in the hopes that things will eventually get better.³

Figure 2
Leaders' Top Operations Goals



Beginners' Top Operations Goals



Base: 201 high-maturity global decision-makers of automation strategy and purchasing decisions and 255 low-maturity global decision-makers of automation strategy and purchasing decisions

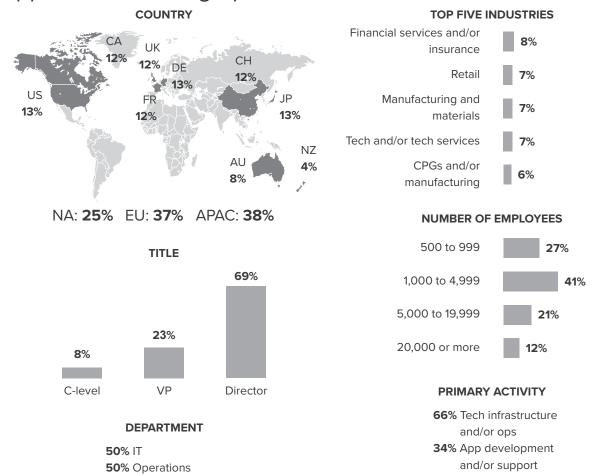
Source: A commissioned study conducted by Forrester Consulting on behalf of Cisco, December 2020



Leaders can capitalize on emerging opportunities because they have the right data and technology foundation already in place. This puts them at a distinct advantage when it comes to the hard work of digital transformation. Beginners, on the other hand, scramble to keep up. In contrast to leaders, these low-maturity counterparts are looking to reduce costs and automate as many tasks as possible (see Figure 2). Beginners, then, are hoping to catch up to their more mature competitors without expending too much capital.

Leaders, with their more advanced automations and operational maturity, have better prepared themselves to handle any challenges that come their way. And of course, the challenges are ever-present. In the next installment of this series, we'll see how beginners' challenges are far-reaching and involve issues of people, process, and technology, while leaders' challenges are more about refinement and ensuring scalability.

Appendix A: Demographics



Base: 1,212 global decision-makers of automation strategy and purchasing decisions Source: A commissioned study conducted by Forrester Consulting on behalf of Cisco, December 2020

Appendix A: Endnotes

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¹ ML: machine learning.

² Source: "The CIO's Guide To 5G Connectivity And Strategy," Forrester Research, Inc. April 12, 2019.

³ Source: "Align Your Tech Spending With Your Pandemic Priorities," Forrester Research, Inc. April 22, 2020.