

How to Survive and Thrive in the Application Economy

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Executive Summary

We live in an application economy. Retail, news, entertainment, banking, education, government, communications—everything is driven by a connected, mobile, application-based world where your customers are far more likely to experience your brand and interact with your enterprise through a software application than a live person. To thrive in this new reality, developing and delivering superior user experiences that engage your customers and staff is now the ultimate priority. And all of it is enabled by software.

CA Technologies commissioned the research company Vanson Bourne to conduct a global survey of 1,425 senior business executives. This first report of a five-part series focuses on how global enterprises are responding to the challenges of the application economy, the business results they are achieving and how you can remain competitive in this new reality.

There is no doubt that the impact of the application economy is already being felt. Half of all companies surveyed say that their industry is being very or highly disrupted by the application economy, and 44% are already experiencing this impact in their own organization. It's little wonder then that JPMorgan Chase now has more software developers than Google and more technologists than Microsoft.¹



While the challenges are great—budget constraints and security concerns topping the list—enterprises are not sitting back. They are acting quickly to respond to the rapid advances brought on by the accelerating application economy by:

- Increasing investments by an average of 25%
- Bringing more software development back in-house (from 33% to 44%)
- Acquiring software companies to obtain critical skills—52% have made a software acquisition or plan to in the next year

For organizations that can execute these strategies effectively, the payoffs are significant. Our survey uncovers “leaders” in the application economy who are significantly outperforming “laggards” with:

- More than double the revenue growth
- 68% higher profit growth
- 50% more business coming from new products and services

This report will help you understand the strategies you need to put in place and the actions you need to take to succeed in the application economy. Subsequent reports will explore the issues surrounding enterprise adoption of the core technologies and practices needed: DevOps for rapid application development, enterprise mobility, security and new approaches to service management and delivery.

Why Every Business is Now a Software Business

One of the first questions we asked respondents was to assess the extent to which their company and industry is being disrupted by the application economy. Half of all respondents reported that their industry is being very or highly disrupted, and 44% are already experiencing this impact in their own organization (see Figure 1).

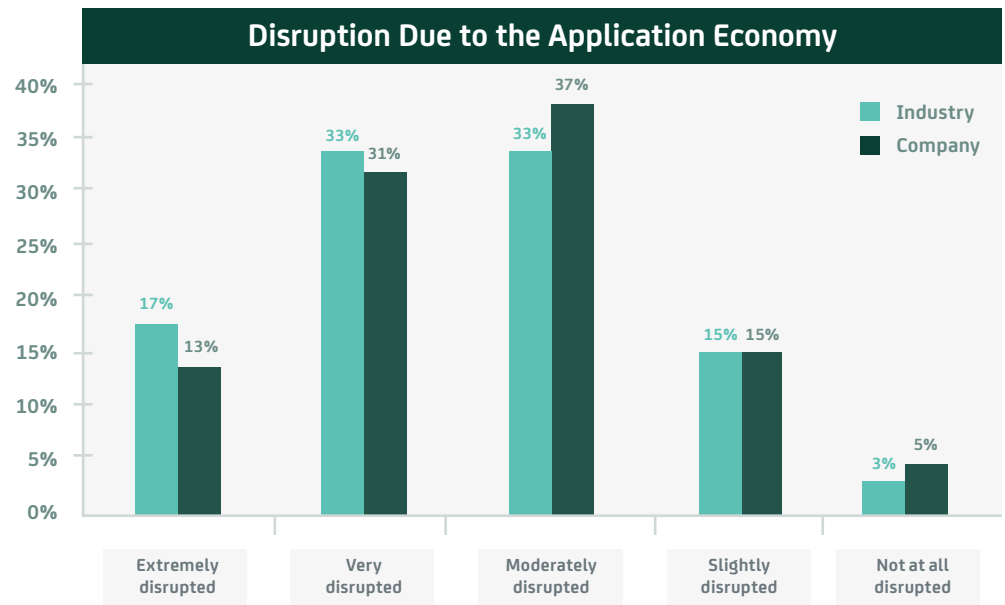


Figure 1. To what extent is your company/industry being disrupted due to this new application economy?
Total: 1,425

The impact of the application economy is clearly being felt more intensely by top management, with far more “C-Suite” (e.g., CEO, CIO, CMO, CFO, etc.) respondents reporting that both their industry and company are being very or extremely impacted than other respondents (see Figure 2).

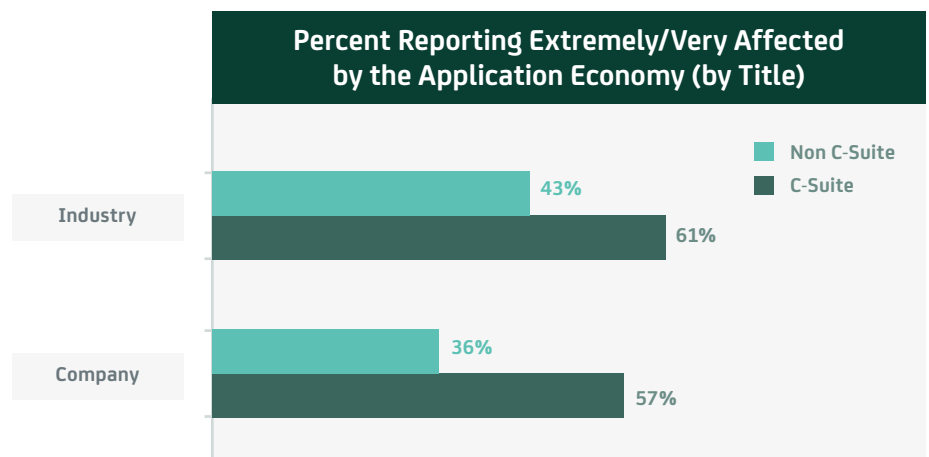


Figure 2. To what extent is your company/industry being disrupted due to this new application economy?
Total: C-Suite 525; Non C-Suite 900

This is not a complete surprise, since the disruptions brought on by the application economy are likely to affect organizations in very fundamental ways, and top management is ultimately responsible for the strategic direction of their company and guiding it down the new path.

Line of Business (LOB) executives in particular are feeling the pressure. We asked LOBs whether they are seeing increased pressures to launch new applications or services faster than before. An overwhelming 94% said yes—either due to customer demand (60%), competitive actions (60%) or revenue shortfalls (19%) (see Figure 3).

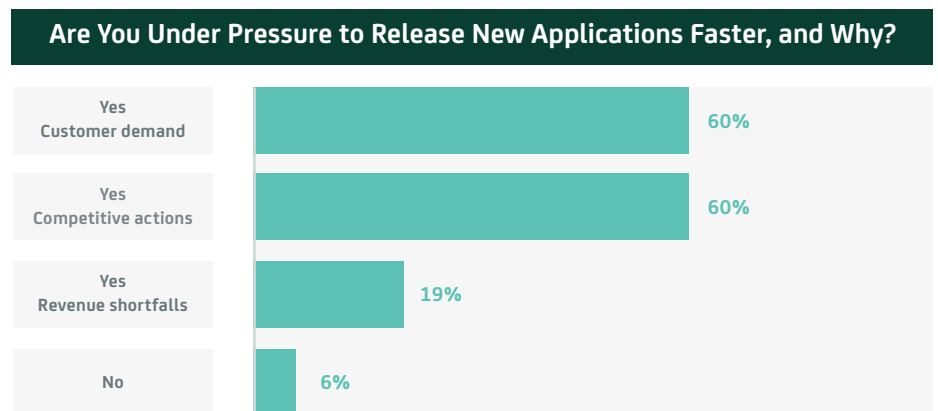


Figure 3.

Are you seeing increased pressures to launch new applications or services faster than before?
Total: 711 (Line of Business respondents only)

Increasingly, your customers and constituents prefer to access your products, services and support via applications rather than through people on the phone or at brick-and-mortar locations. Your customers are demanding it, and your competitors are responding. As a result, 51% of the respondents in our survey have released four or more external customer applications in the past year and 56% have released four or more internal applications as well.

To a large extent, enterprises today are in the software business. Automotive companies are more likely to tout applications and connections than styling and horsepower, with some now updating key car features through overnight downloads. Software job growth has exploded over the last five years in sectors such as Retail (98%), Financial Services (72%) and Healthcare (40%).²

This has profound implications for your business. You need to invest appropriately and learn how to acquire, motivate and retain tech talent—not an easy task. The next section takes a look at how well enterprises think they are doing in responding to the application economy, and some of the obstacles they are struggling to overcome.

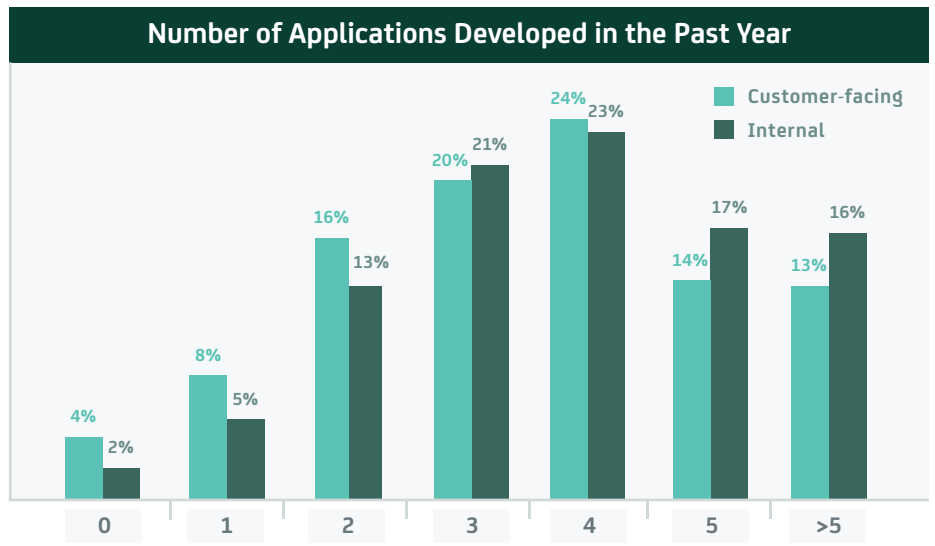


Figure 4. How many applications has your organization developed in the past year? Total: 1,425

The Challenges Are Daunting

Enterprises are split in their assessment of their ability to respond to the challenges of the application economy. 50% report their organizations are very/extremely effective and the other 50% report they are only moderately, slightly, or not at all effective (see Figure 5).

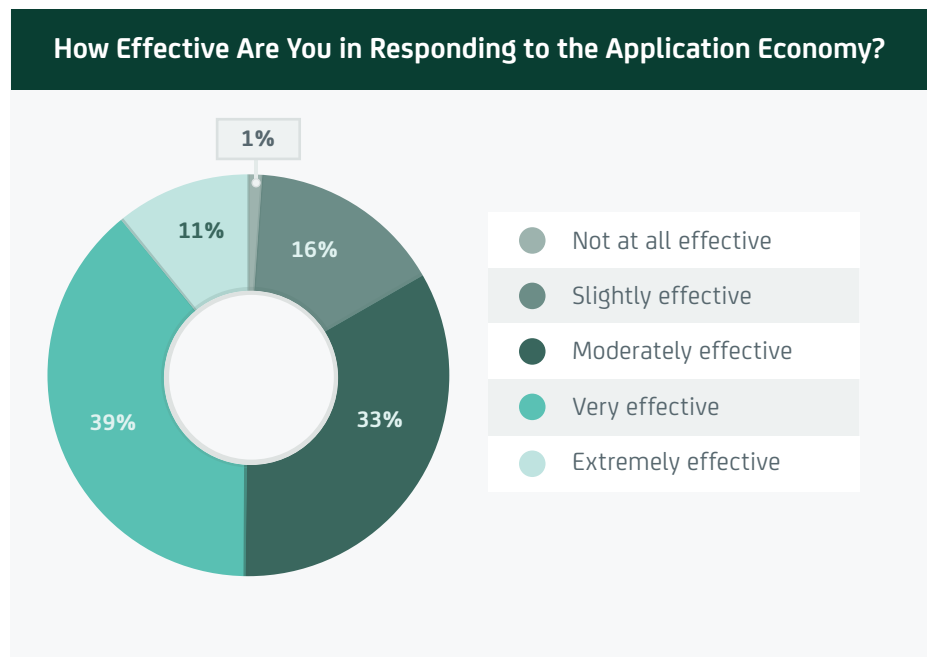


Figure 5. How effective is your organization at responding to the industry disruptions brought on by the application economy? Total: 1,425

With half of all organizations admitting they are not that effective at responding to the application economy, it is worth looking at the major obstacles or challenges they are facing (see Figure 6).

Obstacles to Success in the Application Economy

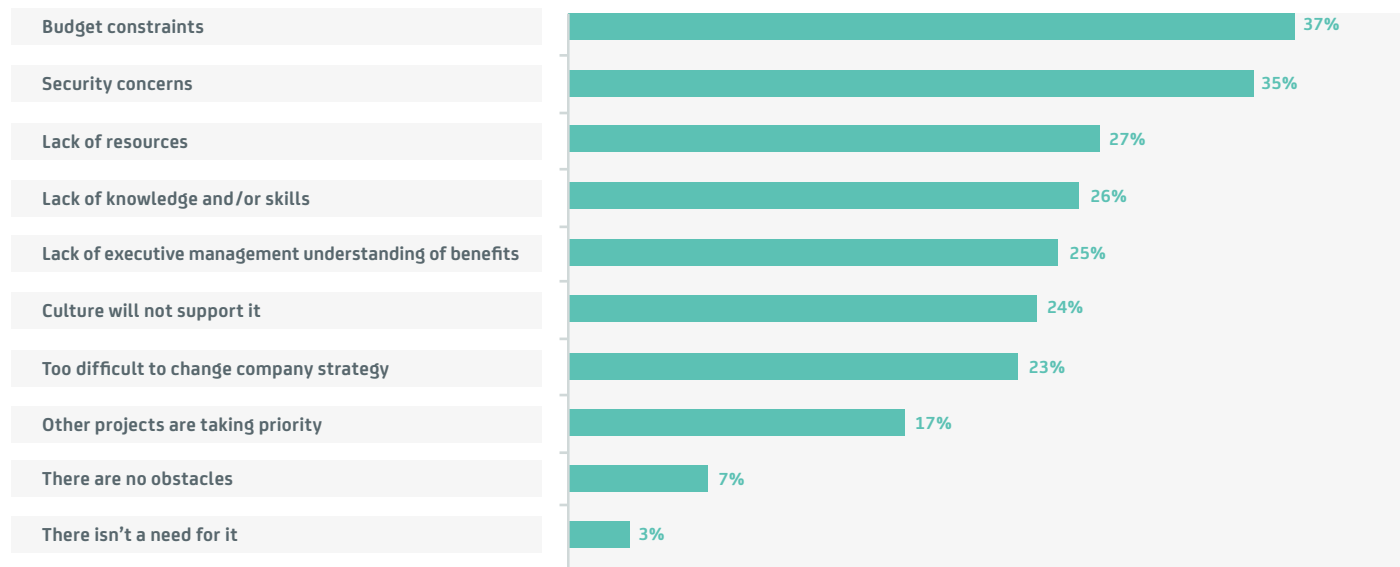


Figure 6. What are the biggest obstacles to your organization responding more effectively to the application economy and becoming more adept at software/application development? Total: 1,425

It is apparent that the obstacles are many and varied, with seven different issues garnering at least one in five votes. Budget constraints top the list, with lack of resources not far behind—both indicators of the age-old challenge of investing for innovation while you are still “keeping the lights on.” Related to this is the #4 obstacle—lack of knowledge and/or skills—which recognizes how difficult it is for non-technology companies to re-tool their skills to become a more software-enabled business. And there are organizational issues as well, concerning culture, changing corporate strategy, and lack of executive management support.

The #2 obstacle – security concerns – bears some closer examination. Why should security be this large an issue? First, providing a secure environment which protects identities and critical data with multiple, expanding mobile touch points is not simple. In fact, survey respondents list “improving the mobile customer

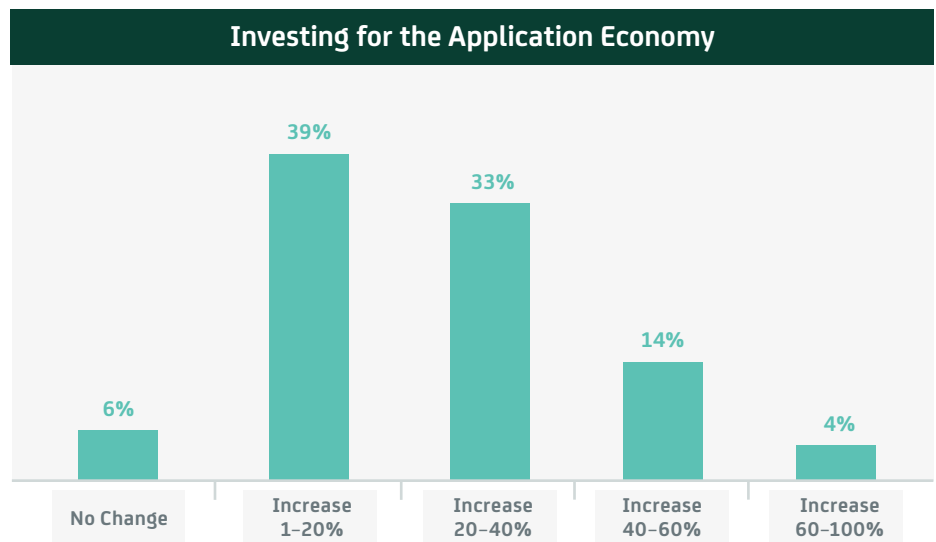
experience” as their #2 security priority, second only to protecting against data breaches. Another challenge is securing the APIs that you make available to your customers and partners, as you expand access to your applications. This is increasingly important—according to the survey, 79% of respondents provide access to their APIs to customers, suppliers or partners. In the application economy, security must be an enabler of your business not a restrictor of it.

In this next section, we will examine what enterprises are doing about these obstacles to succeed in the application economy.

Enterprises Take Some Surprising Actions

We asked those organizations who reported that they were not effective at responding to the challenges of the application economy whether they were increasing investment, and if so, by how much (see Figure 7).

Figure 7. How do you anticipate your organization's investment to change over the next five years for your organization to be more effective in the application economy? Total: 682



Overall, the average increase in investment is 25%, with one in three planning to invest 30% or more. While budget constraints continue to be a challenge, enterprises are recognizing that they are going to have to invest in new talent and tools to succeed.

The survey data also indicates that enterprises are reversing a long-standing trend toward outsourcing key areas of IT and bringing more software development back in-house. IT decision makers were asked to estimate the percent of their organization's application development done in-house today, in the past and in the future. Over a four-year period, the percent of software development done in-house will have increased 11 percentage points, from 33% to 44% (see Figure 8).

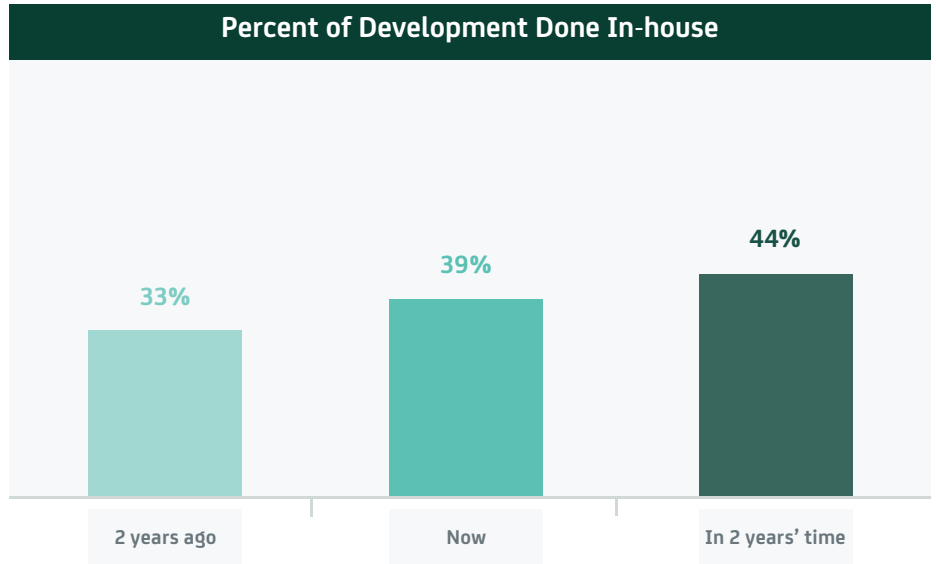


Figure 8. How much of your organization's application development is done in-house in your organization today/in the past/in the future? Total: 714 (IT respondents only)

Bringing more software development back in-house is a recognition that these skills need to be a core part of enterprises' DNA, but sometimes the pressure to expand the application footprint means that skills can't organically grow fast enough. When this becomes an issue, enterprises are turning to software acquisitions as a way to get the talent and technology they need.

We asked respondents if their company has made (or intends to make) any acquisitions to add application development capabilities.

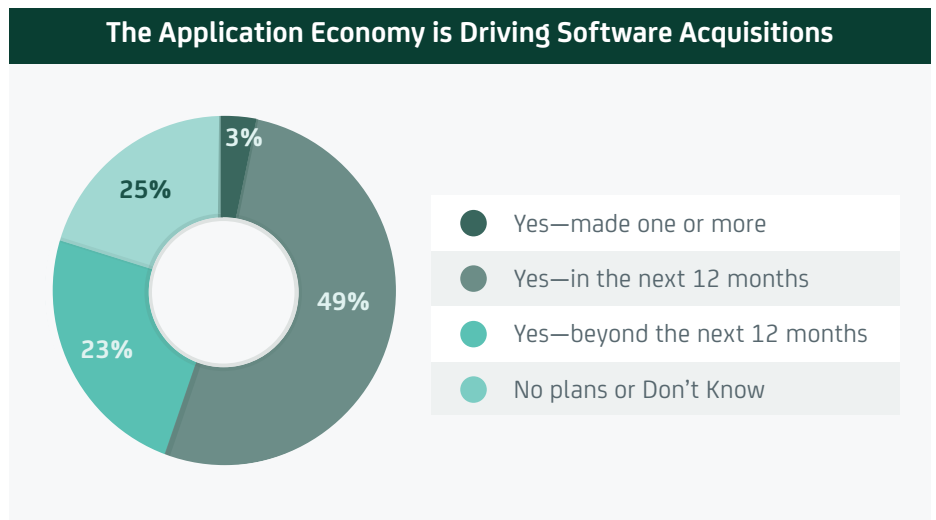


Figure 9. Has your company made (or do you intend to make) any acquisitions to add application development capabilities to your company? Total: 1,425

A surprising 52% reported that they have either made a software acquisition or plan to in the next 12 months (see Figure 9). Only 19% say they have no plans to do so. This is a very startling result—probably no better data point exists in support of the proposition that every business is a software business than this one.

Some of the actions that leading enterprises are taking to ensure success in the application economy can provide insight into what others may need to do. In the final section, we will look at what the “Leaders” and “Laggards” are doing differently.

A Blueprint for Success in the Application Economy

Based on respondents’ answers to several key questions (see more information in the Methodology section), we have been able to define a set of “Leaders” and “Laggards” in the application economy, and examined their self-reported business performance.

Overall, Leaders are outperforming Laggards by a significant percentage across all business metrics examined (see Figure 10).

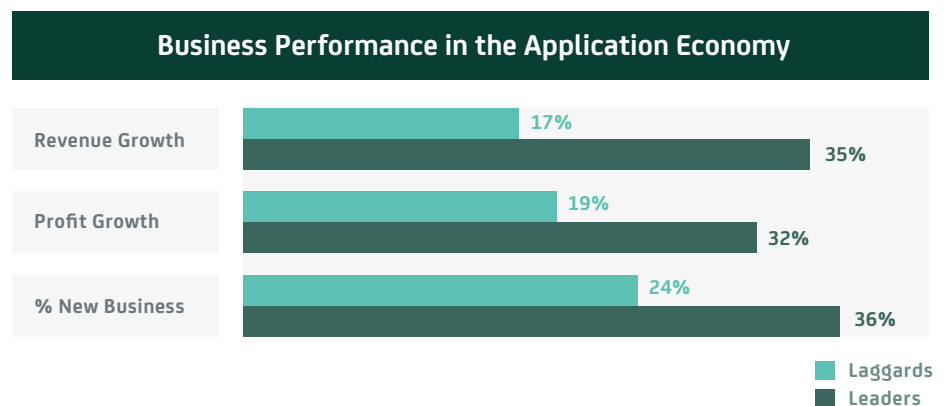


Figure 10. Comparison of self-reported business performance of the Leaders and Laggards in the application economy. Total: Leaders 342; Laggards 228

Leaders (as compared to Laggards) are achieving more than double the revenue growth, 68% higher profit growth and have 50% more business coming from new products and services—a key indicator of innovation and future success.

Clearly the Leaders must be doing something right. Since this survey looks broadly at many of the technologies and processes needed to succeed as a software-driven business, we can look at the Leaders’ responses to key questions and develop a set of recommendations and best practices for success in the application economy.

LESSON #1

DevOps needs to become a best practice in your organization if you are to succeed in this new application-driven economy.

Leaders embrace DevOps to accelerate delivery of proven, high-quality applications. Almost half (49%) of the Leaders have adopted DevOps versus only 6% of the Laggards. Moreover, they are far more likely to use external metrics (such as revenue and customer experience) to measure DevOps success—58% of the Leaders versus only 26% of the Laggards.

LESSON #2

Security needs to enable your business to pursue new opportunities in the application economy, not just protect it.

Leaders use security as a business enabler rather than just a way to control access. A full 47% of Leaders (versus only 18% of Laggards) report that they have seen increased revenue from new services enabled by security, and 54% have seen an increase in the number of customers using their apps/services due to their security initiatives (versus 20% of Laggards). To enable a full application ecosystem, 93% of Leaders also open access to their APIs versus just 49% of the Laggards. While security is often a concern in doing this, leading enterprises understand that they can use modern tools to secure access to their APIs.

LESSON #3

Enterprises need to take a strategic approach to IT and manage it according to aligned business metrics to ensure success in the application economy.

Leaders manage IT as a business and report better overall IT performance. Leaders are far more likely to frequently use software tools to manage IT as a business —43% use them to share KPIs with the business (versus 6% of Laggards), 50% to evaluate shifts in IT investments (versus 12% of Laggards) and 53% to evaluate whether IT is achieving their KPIs (versus 20% of Laggards). As a result, 42% of LOB executives in Leader organizations report being “completely satisfied” with IT’s ability to understand business needs (versus 6% of Laggards).

LESSON #4

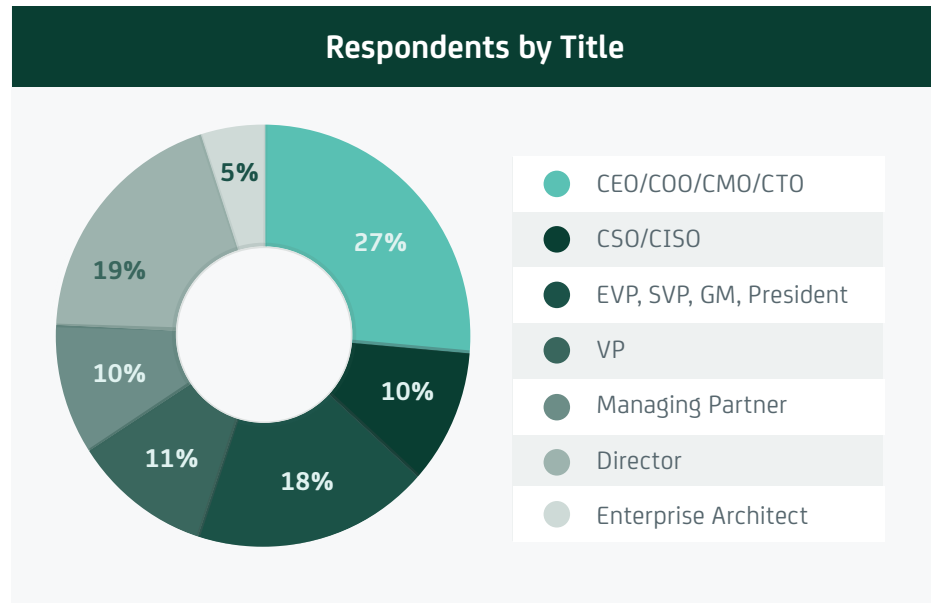
To respond to the challenges of the application economy, enterprises need to approach mobility not as a series of piecemeal projects, but with an eye to a long-term enterprise-wide strategy.

Leaders adopt an enterprise-wide approach to mobility and report higher levels of consumer satisfaction and faster time-to-market from their mobility applications and services. Rather than approach mobility as a set of siloed projects, 67% of Leaders have adopted enterprise mobility (versus 14% of Laggards). 52% of Leaders report increased customer satisfaction from their mobility initiatives (versus 21% of Laggards) and 53% report faster time-to-market (versus 16% of Laggards).

Following these best practices and learning from the Leaders will provide you with a blueprint for your next steps, and an action plan to ensure your organization is not left behind in the application economy. Future reports in this series will explore in more depth the key areas noted above and provide further guidance as you evolve your organization’s business and IT strategy.

Methodology

This global study was conducted online by Vanson Bourne in July–August 2014 with 1,425 senior IT and line-of-business executives at enterprise organizations with revenues of at least \$500M. Job profile of respondents:



The survey was conducted across five industry verticals of financial services, healthcare, retail, telecommunications and media/entertainment in the following 13 countries: United States, Canada, Brazil, U.K., France, Germany, Italy, Switzerland, Spain, Australia, China, India and Japan.

The “Leaders” and “Laggards” discussed in the survey were developed as follows:

- **Leaders (24% of the total):**
 - Are highly/very effective at responding to the challenges of the Application Economy
 - Have delivered four or more customer-facing applications in the last year
 - Have already made at least one software acquisition or will in the next 12 months
- **Laggards (16% of the total):**
 - Are not at all/slightly/moderately effective at responding to the challenges of the Application Economy
 - Have developed three or fewer customer-facing applications in the last year
 - Have not made a software acquisition and have no plans in the next year

For More Information

For further information on this research report as well as the latest news and research on the application economy, visit ca.com/rewrite.

About CA Technologies

CA Technologies (NASDAQ: CA) creates software that fuels transformation for companies and enables them to seize the opportunities of the application economy. Software is at the heart of every business in every industry. From planning to development to management and security, CA is working with companies worldwide to change the way we live, transact and communicate—across mobile, private and public cloud, distributed and mainframe environments. Learn more at ca.com.

¹Anish Bhimani at http://www.ini.cmu.edu/news/2013/05/speaker_bhimani.html

²Burning Glass Technology at <http://www.burning-glass.com/research/software-is-everywhere/>