The Business Value of Cloud Computing

A Survey of Senior Finance Executives
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About this report

In May 2012, CFO Research conducted a survey among senior finance executives at large U.S. companies to examine their views on the business value of cloud computing, as well as their plans and priorities for adopting cloud-based systems in the years ahead.

We gathered a total of 310 complete survey responses. Respondents work for companies in a broad range of company segments, as follows:

**Annual revenue**
- Less than $100 million: 9%
- $100 million-$500 million: 21%
- $500 million-$1 billion: 16%
- $1 billion-$2 billion: 12%
- $2 billion-$5 billion: 13%
- $5 billion-$10 billion: 10%
- More than $10 billion: 20%

**Number of employees**
- 500–3,000 employees: 40%
- 3,000–5,000 employees: 11%
- 5,000–10,000 employees: 15%
- More than 10,000 employees: 34%

**Industry**
- Financial services/Real estate/Insurance: 16%
- Auto/Industrial/Manufacturing: 15%
- Public sector/Nonprofit: 9%
- Health care: 9%
- Business/professional services: 8%
- Wholesale/retail trade: 6%
- Hardware/Software/Networking: 6%
- Food/Beverages/Consumer packaged goods: 5%
- Telecommunications: 5%
- Chemicals/Energy/Utilities: 4%
- Media/Entertainment/Travel/Leisure: 4%
- Transportation/Warehousing: 4%
- Pharmaceuticals/Biotechnology/Life sciences: 4%
- Construction: 3%
- Aerospace/Defense: 2%

**Titles**
- Controller: 25%
- Chief financial officer: 24%
- Director of finance: 22%
- VP of finance: 18%
- EVP or SVP of finance: 5%
- Treasurer: 4%
- Other: 2%

**Note:** Percentages may not total 100%, due to rounding.
Research objectives

Like the World Wide Web—and the desktop PC before it—the cloud has moved in fast, changing the basis of employee productivity and leaving no company untouched. In a hyper-connected and rapidly changing business world, it is becoming clear that companies that shun cloud computing are missing opportunities to unlock new sources of productivity, IT flexibility, and performance improvement. As companies increasingly organize themselves around collaborative and flexible business networks, those who fail to adopt new technologies in time—not just the cloud, but also, for instance, the shift to mobility and connectivity—are likely to suffer as a result.

Keeping the company’s technological infrastructure up-to-date has traditionally been the duty of the IT department, which typically implements and maintains the organization’s technological tools. Consulting with other C-suite executives, the CIO must also align any spending with overall company strategy, in an effort to ensure that the added features and functionality will add value, whether for customers or employees.

The financial benefits of cloud computing are conceptually easy to comprehend. Rather than spending the money to install hardware and software infrastructure—and hire the IT staff to maintain its functionality—cloud computing enables businesses to purchase access to hardware and software that is externally hosted and maintained. Not only is this option likely to be more cost-efficient than on-premises IT, but using the cloud can also enable employees to collaborate more effectively and work more easily while at home or traveling. By outsourcing its technological infrastructure to the cloud, a company can free its IT staff to spend more time on strategic initiatives and innovation, and the company can gain more resources to devote to value-creating activities by shifting the burden of lower-value activities.

In this research, we examine the emergence of cloud computing from the finance function’s viewpoint, rather than from the IT department’s perspective. Along with other decision-makers, CFOs are always hunting for the most efficient and cost-effective ways to help their organizations become more competitive. Cloud computing serves as an alternative to an on-premises IT infrastructure that can enable companies to function more efficiently, in addition to offering other business benefits.

While the CIO typically investigates and implements new technologies, cloud computing traverses just about every corporate function, making the CFO a key player as well. As they scour the horizon for savings and new business benefits, are CFOs impressed by the business advantages of cloud computing? How do their experiences with the benefits of the cloud compare with their expectations? What do CFOs consider to be the greatest barriers to the implementation of cloud-based systems, and what advice can they offer their peers who seek to overcome these barriers and make good use of cloud technology?

This research aims to answer these questions.
Executive summary

Based on 310 responses from senior finance executives at a broad range of large U.S. companies, we offer the following main points from the research:

The majority of finance executives see the cloud in their future. More than three-quarters of respondents (76%) say they believe that cloud computing will be important for their company’s success in the next 12 to 18 months. These results suggest that even companies that do not anticipate adopting the cloud in the near future expect it to have an impact on them through their partners, suppliers, and others in their ecosystem.

A significant proportion of finance executives say their companies view the cloud as a serious option. Fifty-two percent of survey respondents say that their companies are in the process of considering or implementing cloud-based systems: 40% of respondents say that their companies consistently include cloud-based options alongside on-premises options when evaluating new systems, and 12% already prefer cloud-based systems over traditional on-site servers.

Finance executives whose companies have adopted cloud computing confirm that moving to the cloud yields cost savings. In our survey, a majority of respondents who have adopted cloud-based systems say that their actual savings met or exceeded their expectations in a variety of cost categories. How cost-effective is cloud technology? Sixty-four percent of finance executives say that a complete implementation of cloud technology would reduce their companies’ operational costs by up to 20%. An additional 15% anticipate cost savings in excess of 20%. Relieved of having to make capital expenditures to buy their own IT resources, finance executives say that their companies can focus on using—rather than managing—technology.

Finance executives appreciate the company-wide agility and productivity that the cloud provides. Beyond its flexible cost structure, cloud computing enables employees to access data and applications from anywhere, using Internet-enabled devices (such as smartphones). Among respondents whose companies have adopted cloud computing, 30% say that their expectations for greater employee mobility through the use of cloud-based systems were not just met, but exceeded. The largest proportion of respondents say that their company’s move to the cloud was motivated by a need for greater flexibility (36%) or improved productivity (35%).

Cloud computing also offers significant benefits to employee performance—both within and outside IT. Eighty-one percent of respondents say that a complete implementation of cloud-based systems would improve employee productivity. Finance executives also say that moving to the cloud would yield a higher-performance IT function—one with greater capacity to innovate (67% of respondents) and to contribute to high-value activities such as corporate-strategy setting (68%).

Finance executives view managing data-security risk as the main challenge of implementing cloud-based systems. Finance executives most frequently cite concerns with data security (68%) as among the obstacles to implementing cloud technology. In open-response questions, survey respondents observe that these security concerns can be addressed through due diligence and proper relationship governance.
Cloud computing comes under the finance lens

In recent years, CFO Research has documented senior finance executives’ rising interest in—and influence over—enterprise IT. Today, CFOs are looking closely at cloud computing, a new and potentially game-changing model for IT delivery that has been touted as the true successor to the buy/host/maintain paradigm for corporate IT. Cloud-based systems may be software, an IT platform, or data-storage capability for which the underlying infrastructure is maintained off-premises (often as a service by a third-party provider). As the CFO of a large telecommunications firm tells us, cloud computing is “clearly the future for IT,” and recent years have indeed seen rising momentum toward cloud computing at many companies. Senior finance executives believe the cloud will have significant implications for their companies in the coming years. In our survey, three-quarters of finance executives (76%) agree that a solid cloud-computing strategy will be important for their company’s success within the next 12 to 18 months.

The substantial number of finance executives who believe that a solid cloud-computing strategy will be important for their company’s overall ability to succeed suggests that cloud-computing options will increasingly take their place alongside traditional IT offerings in the months ahead. Most survey respondents (52%) say that their companies are currently including cloud-based systems in their IT decision-making processes: 40% of respondents say that their companies consistently include cloud-based options alongside on-premises options when evaluating new systems, and 12% already prefer cloud-based systems over traditional on-site servers. (Forty-six percent say their companies currently prefer on-site systems in most cases.)

What do companies stand to gain by moving to the cloud? Proponents of cloud computing point to cost savings, improved IT flexibility, improved collaboration, and greater employee productivity as key advantages of cloud computing. How well are cloud-computing projects fulfilling their promise in practice? For companies that have made the move to the cloud, how do the resulting business benefits stack up against finance executives’ expectations? Looking to the future, how do finance executives view the potential for cloud computing to improve their businesses over the coming years? We sought to answer these questions and others in the course of this research program.
surprises when it came to the cost-savings benefits of their largest-scale implementation of cloud computing. A majority of finance executives say that their company’s largest cloud-computing project resulted in cost reductions that aligned with their expectations in a variety of categories, including hardware-related costs (71% of respondents say savings met or exceeded expectations), costs related to system backup and data recovery (66%), software-related costs (66%), and IT labor costs (59%). (See Figure 1.) Among the remaining respondents in each category, most say it is simply too early to tell; very few say that the cost savings fell short of their expectations.

For companies working to streamline their organizations and reduce costs, moving to cloud-based systems is often a natural fit. “We are doing all we can to keep headcount down in areas not directly connected with lines of business,” notes the media/travel SVP of finance. “HR, IT, and finance are increasingly outsourced, and we use cloud-computing applications whenever we can to give us the functionality for running the company. We had too much [IT infrastructure] and too many systems, and cloud applications for sales-force automation and general office systems like email are more than good enough.”

Our research suggests that finance executives have high hopes for the potential of cloud computing to reduce costs in the future, beyond their current implementations of cloud-based systems. Thinking prospectively, finance executives say that cloud computing has the potential to reduce a variety of costs at their companies. Sixty-four percent of finance executives say that the cloud could reduce operational costs by up to 20%, and an additional 15% would anticipate operational-cost reductions in excess of 20%.

Figure 1. How have the cost-savings benefits of your company’s biggest cloud project compared with your expectations?
Finance executives have similar views on the potential of cloud-based systems to reduce IT maintenance costs, with 62% of respondents saying that a total transition to the cloud could reduce such costs by up to 20%, and an additional 21% expecting even greater cost savings. Most finance executives (60%) also expect that IT spending could be reduced by up to 20% by a full-scale cloud project; 17% would anticipate even greater reductions in IT spending. Although finance executives are somewhat more cautious in their estimates of cloud’s potential to reduce M&A integration costs, a solid majority (77%) agree, in response to a separate question, that cloud computing would reduce the amount of time required to integrate a typical acquisition or business combination.

Greater IT agility through cloud

Although finance executives certainly confirm the value of cloud computing as a source of cost savings, our research shows that CFOs recognize and value a wide range of other business benefits associated with a shift to the cloud. Indeed, survey results suggest that finance executives are more likely to focus on the IT flexibility– and productivity-related benefits of cloud-based systems when evaluating cloud-computing projects. At the companies that have adopted cloud computing, survey respondents most often say that their largest-scale cloud-computing effort was primarily motivated by either a need for greater flexibility (36% of respondents) or improved productivity (35%). Those who responded to our survey certainly attest to cloud’s ability to help strip out costs throughout their organizations. They are also, however, interested in redirecting the time, effort, and resources freed up by cloud-based systems to activities that add greater value to the business.

Rather than viewing cloud computing solely as an avenue to a leaner, lower-profile IT function, many finance executives in fact see cloud computing as a path toward a higher-performance IT function that is in a better position to contribute to value creation. Two-thirds of finance executives agree that widespread adoption of cloud-based systems would meaningfully improve their IT function’s ability to innovate (67% of respondents) and to focus on high-value activities (68%), such as contributing to corporate strategy. (See Figure 3.) At one large media/entertainment company, says an SVP of finance, “The entire company spends less time ‘dealing with IT’ [as a result of implementing cloud-based systems]. We have to ensure we have
an Internet connection and do some internal systems housekeeping, but the endless attending to what is wrong in IT, the systems upgrades, and standardizing phones, laptops, desktops, and travelers’ machines is less of a nuisance.”

Finance executives also see cloud computing as a source of greater IT flexibility. In one respect, greater flexibility means easier access to the most powerful hardware and software products on the market. For 72% of respondents at companies that have implemented cloud-based systems, the cloud’s ability to grant improved access to first-class computer processing power and data-storage capacity either met or exceeded their expectations. (See Figure 4.) A similar proportion (69%) were either satisfied or more than satisfied with the cloud’s ability to grant improved access to the most current, cutting-edge software applications.

**Figure 3.** Would widespread adoption of cloud-based systems at your company...

![Figure 3](https://iStockphoto.com/scottdunlap)

**Figure 4.** How have the flexibility-related benefits of your company’s biggest cloud project compared with your expectations?

![Figure 4](https://iStockphoto.com/scottdunlap)
In addition to offering better access to the best and newest forms of technology, greater IT flexibility also includes the ability to scale IT capacity and capabilities up or down without having to purchase or abandon infrastructure and licenses, forecast utilization far into the future, or carry out potentially lengthy upgrade projects. Sixty-nine percent of finance executives report that their expectations were met or exceeded by the improved scalability afforded by their company’s largest-scale implementation of cloud computing, and 71% say the same of cloud’s enhancement of their IT function’s ability to add, remove, and modify capabilities on demand. “As we expand globally, cloud-based solutions will be a better fit for managing our growth both from our resource and cost points of view,” says a director of finance at a large manufacturing company. Providing greater flexibility is one of the things that cloud computing does best, and survey results confirm that this benefit resonates with finance executives as a source of business value.

Cloud computing’s reach across the company

 Asked about the effects of cloud-based systems on areas of the company beyond the IT function, finance executives agree that cloud technology has the potential to increase productivity in general—for all employees—as well as increase the pace of business. Most respondents say that a complete implementation of cloud-based systems would improve overall employee productivity (81% of respondents) and reduce the amount of time required to bring new products and services to market (71%) at their company. (See Figure 5.)

Among those who say their companies have already implemented cloud-based systems, a solid majority of finance executives report that the various productivity-related benefits of their company’s largest-scale implementation of cloud computing—including improved information discovery, better version handling, greater employee mobility, and more-effective collaboration among employees—met or exceeded their expectations. (See Figure 6.) Survey respondents are particularly likely to say that cloud’s ability to improve employee mobility exceeded their expectations. They are similarly satisfied with the improved version handling offered by cloud-based systems.

In open-response questions, some respondents share experiences that illustrate how one type of productivity-related benefit—added employee mobility—can not only contribute to overall company performance, but also help to reduce the negative impact of business disruptions. A director of finance at a large consumer-goods company argues that “business continuity is one of the strongest arguments for cloud computing.” At this finance executive’s company, “Use of cloud-based email has

Figure 5. To what extent could cloud computing improve each of the following over a typical 12-month period at your company?

<table>
<thead>
<tr>
<th>Overall improvement in employee productivity</th>
<th>More than 20% improvement</th>
<th>Up to 20% improvement</th>
<th>No change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall improvement in employee productivity</td>
<td>18%</td>
<td>63%</td>
<td>20%</td>
</tr>
<tr>
<td>Overall reduction in time required to integrate a typical acquisition/business combination</td>
<td>16%</td>
<td>61%</td>
<td>24%</td>
</tr>
<tr>
<td>Overall reduction in time required to bring new products or services to market</td>
<td>14%</td>
<td>57%</td>
<td>30%</td>
</tr>
</tbody>
</table>

Percentage of respondents excluding “Don’t know/Does not apply” responses. Note: Percentages may not total 100%, due to rounding.
allowed us to maintain a large degree of enterprise productivity when our headquarters was temporarily closed due to nearby protests. Employees worked from home, including [those] without VPN [virtual private network] access.” This anecdote suggests a wide field of situations in which cloud-based systems could contribute to maintaining business continuity, from inclement weather that keeps employees out of the office temporarily to major disasters with long-term implications.

Ultimately, the true value of cloud computing may best be described as its ability to deliver benefits on two very different levels: both on a targeted basis (for example, through cost savings and improvements to IT) and on a broad, companywide scale.

An SVP at a large media/travel firm, after noting that the company achieved cost savings as a result of transitioning to cloud-based systems, goes on to say, “The return that we really get is not even measured because it is so broad. Everything is searchable. Email in every cell phone. Working [while] commuting and while away from the desk is possible. And everyone knows that this connectivity is expected. The return [on cloud computing] is financial, but there are many other impacts.”

Figure 6. How have the productivity-related benefits of your company’s biggest cloud project compared with your expectations?
In recent years, one category of cloud offerings—including cloud-based email, calendar, and office applications such as word processing and spreadsheets—has gained visibility among companies seeking a new model for office productivity-application delivery. These cloud-based productivity tools hold the promise of cost-effective and flexible deployment of office applications, which in turn provides greater remote accessibility, more-reliable version control, and a better platform for collaboration than traditional office applications. Do these tools live up to their promise in practice? Survey results indicate that, for many companies, they do.

Our survey confirms that cost savings are often the primary motivator for companies’ adoption of cloud-based productivity tools. Cost savings are most frequently cited by senior finance executives as among the most valuable benefits of cloud-based productivity tools; 40% of finance executives select cost savings as one of the most valuable benefits of cloud-based productivity tools. (See Figure A.)

But cost savings aren’t the only benefit of cloud-based productivity tools that finance executives often identify: nearly as many respondents (38%) regard remote/mobile access to information as one of the most valuable benefits of cloud-based productivity tools. In addition, finance executives in open-response questions cite improved business continuity and the ability to reallocate IT personnel to more value-added activities as among the benefits of adopting these tools.

Among the potential obstacles to the implementation of cloud-based productivity tools, survey results suggest that possible issues with reliability and organizational resistance are of particular concern. Finance executives most frequently cite risk of service disruption as the most serious drawback of cloud-based productivity tools (47% of respondents); employee resistance to adoption follows somewhat distantly (28%). (See Figure B on page 14.)

By comparison, few respondents express concern over drawbacks inherent to the tools themselves (e.g., fragmentation of workflows, lack of sufficiently robust sets of features). These findings suggest that many
companies striving to adopt cloud-based productivity tools face a short-term hill of obstacles: they need to evaluate service providers carefully and manage the transition to the tools initially, but, after adoption, they can expect a relatively gentle slope of longer-term challenges, often related to encouraging users to take full advantage of new systems. Respondents to our survey corroborate this view in open-response questions. A finance executive working in the nonprofit/public sector says bluntly, “Change management is key to success in moving to a cloud-based environment,” and an SVP of finance at a large media/travel company adds that “most important is finding ways to get people to use the tools well, rather than complain about them.”

Taking a long-term view of the benefits of cloud-based productivity tools—and encouraging employees to adopt the same viewpoint—is therefore an important component of managing the transition successfully. “Be patient and inform the workforce about the value of [cloud-based productivity tools],” advises a director of finance at a large business-/professional-services company. As a controller at a large telecommunications company notes, “The implementation of cloud-based computing can save substantial time and resources for future implementation projects.”

Of course, another important step in guiding the transition to cloud-based productivity tools is making sure that the obstacles to adoption do, in fact, take the shape of a hill—meaning that they are addressed and overcome, rather than left to resurface later. This involves everything from evaluating vendor offerings carefully to, as a VP of finance at a large media/travel company puts it, “understanding your needs up front to make sure you choose a platform that can meet them.” To this end, finance executives offer advice to their peers who are seeking to make good use of cloud-computing tools:

- One director of finance at a business-/professional-services company advises finance executives, “Find the right partner who will be proactive in aiding your implementation. Make sure that when you demo, you test the important feature sets in order to avoid issues down the road.”

- To hedge against the possibility that a vendor’s offerings will ultimately fail to align with expectations, a controller at a large telecommunications company says it is important to “have needed legal protections for data protection, storage, and movement included in the contract, as well as assurances of your right to data ownership and return should you change vendors.”

- Similarly, the CFO of a hardware/software/networking firm emphasizes the importance of taking time to understand what it takes to switch out of a vendor.

As companies reach for the benefits that cloud-based productivity tools can afford, finance executives responding to our survey emphasize, they must be careful not to forfeit their ability to adjust their approach to cloud technology—whether those adjustments include modifying their cloud strategy overall or simply switching cloud providers.
Becoming comfortable with cloud

The finance executives who participated in this study identify a wide range of cloud-computing benefits that stretch well beyond cost savings to include greater IT flexibility and improved productivity. Bearing in mind the substantial upsides of cloud computing, we wanted to explore the potential barriers that might stand in the way of transitioning to the cloud. Our research confirms that data security ranks high on the list of barriers: finance executives express concern with the data-security implications of cloud computing more often than with any other potential obstacle. (See Figure 7.) This comes as little surprise, since many cloud-computing initiatives usually involve relinquishing control over data and placing its security in the hands of third-party providers.

In open-response questions, finance executives express varying levels of caution with the data-security implications of moving information to the cloud. That variation is, of course, tied closely to factors such as the nature of their business and the types of cloud projects under consideration: those that are core to the business demand greater scrutiny, while those that are more peripheral may require less. Regulatory requirements also come into play. A chief audit executive at a large professional services company is “not convinced that the risk/reward equation has been solved. Data breaches are too big of a risk for our organization.” The CFO of a process-manufacturing company expresses a similar sentiment, arguing that the data-security barrier to adopting cloud computing, along with the potential for reduced degrees of IT control and autonomy, cannot be removed—but it can be weighed against the potential benefits of cloud technology.

Figure 7. Which of the following pose the greatest barriers to adopting cloud computing at your company?
Many respondents, however, do not believe that moving to the cloud inevitably increases data-security risk. For these respondents and others, increased data-security risk is not an immutable characteristic of cloud computing; rather, it is a concern that can be addressed and minimized, as long as proper care is taken when selecting providers of cloud-based services and negotiating agreements with them. It should be noted, too, that on-premises systems are also vulnerable to security breaches. Proponents of the cloud point out that cloud-based systems can actually be more secure than on-premises systems. Another respondent—an SVP of finance working in the public/nonprofit sector—says, “Do your homework and get buy-in from top management. Be sure your data will be secure.” The CFO of a technology firm echoes that sentiment, adding “Take time to figure out what is proprietary and how it will be protected.”

Adoption of cloud-based systems should, of course, be preceded by careful planning and due diligence, as with any IT or outsourcing project. But perhaps one of the inherent advantages of cloud computing is that companies can, as one SVP at a large financial-services company advises, simply “try it”—to a greater extent than for other IT changeovers, at least. Companies have the option to start small, using pilot projects and other discrete implementations of cloud-based systems to gauge the value of cloud offerings, evaluate specific providers, and calibrate the capabilities of the cloud against their unique needs. Every company will have a different experience with transitioning to and making use of cloud-based systems. Our research indicates, however, that, if properly implemented, cloud computing has a solid base of benefits to offer to most companies.

As cloud technology continues to roll in, finance executives are becoming increasingly interested in the option of transferring control and responsibility for the company servers to a remote location. As our research shows, the business case for using cloud services rather than in-house systems isn’t just built around the cost savings that result when IT plugs into sky-high servers. For its users, cloud computing offers a broad range of business benefits—from making collaboration easier to providing remote access to data—that have a positive impact on the entire organization. This is reflected in the fact that three-quarters of survey respondents (76%) say they believe that cloud computing will be important for their company’s success in the next 12 to 18 months. Clearly they don’t see the cloud as just another passing IT fad.

For finance executives who have performed a thorough cost-benefit analysis, and conducted due diligence to find the best-fitting cloud-computing vendor, any technical and operational challenges are likely outweighed by the many benefits the cloud offers in terms of scalability and cost efficiency. As usage grows, so too will finance executives’ understanding of cloud-based services.