

A report from The Economist Intelligence Unit



MANAGING APPLICATION DEVELOPMENT:

The financial services perspective

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About this report

Managing application development: The financial services perspective is an Economist Intelligence Unit report, sponsored by Google Cloud. The findings do not necessarily reflect the views of the sponsor.

The report draws on two main sources for its research and findings:

- A survey that includes responses from more than 242 senior executives and application developers in the financial services sector globally. This study is part of a larger survey that received more than 1,000 responses globally.
- Interviews with Jeff Martin, chief technology officer, TD Bank; and Udo Neumann, chief information officer, Daimler Financial Services.

We would like to thank the interviewees and survey respondents for their time and insights. This report was written by Peter Krass and edited by Becca Lipman.

Executive summary and key findings

The financial services industry is playing catch-up in a digital age. Amid a period of intense change where regulations are intensifying and competitors with advanced technologies are entering the market, traditional players are intent on remaining relevant. Many are using the cloud and advanced application-development techniques to secure that edge.

To better understand how firms are adapting their strategies and leadership for a digital future, The Economist Intelligence Unit surveyed business executives, IT leaders and application developers across six industries: financial services, retail, government, gaming and media, healthcare, and manufacturing. We found that the financial services sector repeatedly differentiates itself from the other industries. Key insights include:

- Cloud catch-up: financial services are comparatively slow at adopting cloud technology, but the sector plans to catch up. Nearly two-thirds of financial services respondents (62%) have adopted some degree of cloud infrastructure or applications, and a third (36%) plan to use some degree of cloud infrastructure or applications in the near future. If completed, that would bring the industry's cloud-adoption rate to a nearly ubiquitous 98%. No differentiation was made between public or private cloud.
- Apps matter: among financial services respondents, virtually all (97%) say application development is vital to their growth strategy. This sentiment was shared equally by both IT and non-IT executive respondents.
- Growth strategy: as with most other industries surveyed, financial services emphasises two main goals for its new applications: acquiring new customers (62%) and increasing revenue from current customers with new products and services (57%).
- App-dev insiders: more than half of financial services respondents (58%) do the majority of this work internally. This is considerably higher than both the all-industry average and the rate for any other industry.
- Advanced methodologies: financial services organisations are serious adopters of advanced models and methods that include Agile (61%) and DevOps (45%). Both adoption rates exceed the all-industry averages.
- Security barriers: financial services respondents name security as their top barrier to both app development (50%) and some degree of cloud adoption (49%). No other barrier comes close.

Managing application development: The financial services perspective

CHAPTER 1:

Gathering clouds

The financial services industry is immersed in a period of intense and widespread change that shows no sign of slowing. No firm has been untouched by strict regulations, from industry groups to governments, or by new techsavvy start-ups with agile business models.

To stay competitive and compliant, the survey finds that financial organisations—including banks, capital markets providers and insurers—are increasingly turning to digital solutions.

But when it comes to adopting cloud computing, financial services organisations have been relative laggards. To date, only two-thirds (62%) of financial services respondents worldwide have adopted some degree of cloud infrastructure or application. There are regional disparities to cloud adoption. The survey shows the rate is higher in the Americas and Europe, the Middle East and Africa (EMEA) (66% for both), and lower in Asia-Pacific (52%). But even so, the industry's cloud-adoption rate is lower than the cross-industry average (67%) or that of any other industry, including retail (76%), manufacturing (70%) and gaming/media (69%).

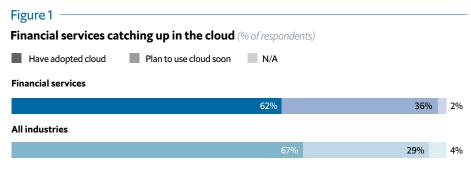
Finance's hesitancy to adopt cloud thus far can be largely attributed to security, a vital ingredient of any financial services application. Customers want assurance that their personal financial information is being kept private and secure, and compliance regulations demand this to be true.

The survey confirmed this, as nearly half (49%) of respondents said that security is the industry's top barrier to cloud adoption. This finding is equally reported by both IT and non-IT respondents. Regionally, security is the biggest concern in the Americas (55%), followed by EMEA (46%) and Asia-Pacific (43%). No other barrier comes close.

But the future of cloud adoption looks bright: a third of respondents (36%) say they plan to adopt some degree of cloud technology soon, the highest response rate of any industry. Assuming the plans are implemented, that would mean some form of cloud technology would be in place at nearly every firm (98%) in the industry.

Already, half (49%) of those who cite security concerns as a top barrier have nevertheless already adopted some degree of cloud applications and infrastructure.

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Source: Economist Intelligence Unit "Managing Application Development" survey, 2017

CHAPTER 2:

New apps, good apps

"We're really building the bank of the future," says Jeff Martin, chief technology officer (CTO) at TD Bank. "When you think about the transformation that companies like ours are going through, we have a legacy, and we want to build the new face of the bank. We'll do that through application development."

The gusto that financial firm TD has for apps is nearly universal across the industry.

Nearly all financial services respondents (97%) say app development is "very" or "somewhat" important to implementing their organisation's growth strategy—a response slightly higher than the all-industry average (94%), which includes the public sector (89%), manufacturing (92%), healthcare (93%) and retail (98%).

Notably, of the 67% of financial respondents who say app development is "very" important, most (74%) have already adopted a degree of cloud.

With regard to which growth strategies app development may be most important, the survey found that the industry's growth strategy is predominantly two-pronged: to gain new customers and to increase revenue from current customers. In both cases, these goals are important to more respondents in financial services than in most other industries.

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Growth goals set the industry apart

Gaining new customers was cited by nearly two-thirds of financial services respondents (62%) as the main focus of their growth strategy, higher than the all-industry average (55%) and higher than all other industries except retail (70%).

Increasing revenue from current customers also ranked as a top focus for growth, drawing a response from over half (57%) of financial services respondents, considerably higher than the all-industry average (47%) and more than any other industry surveyed.

With such emphasis on app development for business growth, it is worth noting the barriers to development. According to the survey, security is, perhaps unsurprisingly, the industry's top barrier to better application quality, cited by half (50%) of respondents. The survey found that this barrier is greatest in the Americas (57%), followed by Asia-Pacific (52%) and EMEA (41%).

Speak with IT executives in the industry, however, and many will tell you that, from their perspective, security is not a bug, but a feature. "Security is paramount to everything we do," says Mr Martin of TD Bank. "It's embedded in everything we do, and everyone on staff has been trained on how to build securely."

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Toronto-based TD Bank has started using what Mr Martin calls a "security spell-checker". It's a third-party programme that the bank's developers run while they're writing code. Similar to the way a word-processing programme's spell-checker highlights in real time words that may be misspelled, the software highlights in real time lines of code that may violate security best practices. "With the traditional way of catching them at the end, it can be overwhelming," Mr Martin explains. "But this way, you catch the issues in real time, when solving them is easy."

Interestingly, when it comes to a lack of funding, the second most popular barrier to developing better apps (30%) in financial services, the responses depended on seniority. Only about two in ten respondents at the C-level, or above the director level, cited funding as a top barrier, compared four in ten of respondents at the manager level and below.

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CHAPTER 3:

The advanced approach

Given the importance of app development to the financial services sector's growth strategies, it should come as no surprise that the industry is widely turning to advanced development approaches to speed up their delivery, improve feedback loops and drive innovation.

Specifically, the survey found that nearly two-thirds of financial services respondents (62%) say their organisations have adopted the Agile and DevOps development methodologies. To understand the weight of these findings, consider that across all industries 39% and 45% of respondents say their organisation's app developers are using DevOps and Agile, respectively. Among financial services, that jumps to 45% and 61%, respectively. In both cases, finance has an adoption rate higher than any other industry.

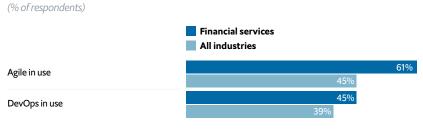
The survey also found that advanced techniques may be linked with cloud adoption. Within financial services 55% of DevOps users are already in the cloud, and 30% plan to adopt some form of cloud technology in the near future. Similarly, Agile is used by 64% of current cloud-adopting companies, and by 57% of companies that are planning to adopt cloud in the near future.

Udo Neumann, chief information officer (CIO) of Daimler Financial Services, is a big fan of DevOps. "If you've done your DevOps homework, it's like gold—and you don't have to dig deep to get it," he says. "By pressing a button, you can deploy software in a cloud environment in no time. This also delivers a capability model in which we can release software for a customer not four times a month, or five times a year, but daily and even multiple times per day."

Open application programming interfaces (APIs) are also increasingly important for financial institutions. These protocols essentially unseal a bank's systems to partners and other third parties, allowing banks to offer customers a broad range of features and services developed by others. Some API adoption is being driven by competitive pressure, and some is being driven by regulatory changes, such as the EU's Revised Payment Services Directive (also known as PSD2), which, among other things, requires banks to let their customers, both consumer and commercial, use API-enabled third-party services to manage their finances.¹

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Figure 2 Financial services lead on advanced approaches



Note: Multiple responses were permitted

Source: Economist Intelligence Unit "Managing Application Development" survey, 2017

Footnotes:

 FCA. "FCA finalises revised Payment Services Directive (PSD2) requirements", September 2017: https://www.fca.org.uk/news/press-releases/ fca-finalises-revised-psd2-requirements

CHAPTER 4:

The inside story

In pursuit of competitive advantage in a cut-throat industry, financial services firms are notoriously protective of their data and applications. This may explain why these industry respondents indicate a noticeably strong preference for the internal development of applications.

To set the distinction, the survey finds that, across all industries, roughly half of respondents (47%) develop a majority of their apps internally. However, in financial services, internal development is more significant: 58%.

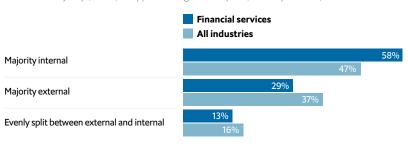
And when it comes to how their internal app-development teams are organised, financial services respondents are more likely than those in other industries to do so by products and services. A third of financial services respondents (36%) organise their app development that way. Other common ways of organising app development in financial services are by department (37%), business unit (36%), function (32%) and application (29%). (Multiple replies were permitted.)

"Application development definitely isn't one-size-fits-all. It depends on the situation," says Mr Martin. "Our business leads the application development at the highest level. So they decide what gets done. And then your technology organisations decide how things get done."

Figure 3

Financial services keep it inside

Where the majority (>50%) of applications get developed (% of respondents)



Source: Economist Intelligence Unit "Managing Application Development" survey, 2017

Within financial services, leadership of application development is, in almost all stages, an IT affair. When asked who proposes strategies for app development, financial services respondents pointed to the head of IT (40%) and the IT manager (39%). A business-unit head was cited by just a third (33%). Similarly, the final authority for which app will be developed predominantly rests with the head of IT (43%) and CIO/CTO (38%), trailed by the CEO (29%).

Furthermore, the management of app development is most commonly led by an IT manager (48%), and only led by a product manager according to just under one in four respondents (24%). Allocating resources for app development is another all-IT effort, led by the head of IT (38%), the CIO/CTO (31%) or an IT manager (29%).

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Managing application development: The financial services perspective

Given the importance applications have on business growth strategy, measuring the success of an application once it's in the field is important, too. Given that financial services respondents say attracting new customers and getting new revenue from older customers are most important, it's no surprise that this is also one of their top metrics.

More than half the financial services respondents (53%) said their top metric for application success is customer and/or stakeholder satisfaction. The same percentage pointed to quality. (Multiple replies were permitted.) Other top metrics among financial services respondents include on-time, on-budget delivery (47%); achieving the expected return on investment (42%); contributing to strategic goals (42%); and customer and/or stakeholder use (40%).

TD Bank is among those shifting how it measures application success from internal IT performance to customers' business benefits. "Our measure of success is, 'Does the customer like it?', 'Do they use it?' and 'Is there evidence?'," explains CTO Mr Martin. "If an application is helping our customers, that's the ultimate measure of success."

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The way ahead

Change is rampant in the financial services sector. While not every financial services organisation will transform itself by adopting the cloud and advanced development approaches, evolving with these tools may help traditional banks, insurers and other financial services providers remain relevant and competitive in their fast-changing market.

Here are some high-priority areas where financial services providers will focus their application development efforts next:

More cloud: as stated above, financial services organisations have been comparatively slow to adopt cloud technology. However, nearly all those who do not yet use the cloud say they plan to adopt the technology in the near future. Assuming those plans get fulfilled, cloud usage among financial services organisations should soon become nearly universal.

More Agile: financial services organisations are already among the leading adopters of the Agile software-development methodology. Next, watch for Agile approaches to be applied to business management, too. That could include forming Agile teams to quickly develop new products and services, and experimenting with minimally viable product rollouts—all requiring significant cultural change.

More partnering: adopting the old adage, "If you can't beat them, join them", many financial services organisations have given up on competing with fintech start-ups, and are instead joining them in partnership. The use of open APIs is critical, as they enable disparate applications to share data both easily and securely.

While every effort has been taken to verify the accuracy of this information, The Economist Intelligence Unit Ltd. cannot accept any responsibility or liability for reliance by any person on this report or any of the information, opinions or conclusions set out in this report. The findings and views expressed in the report do not necessarily reflect the views of the sponsor.

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