



WINNING THE WAR FOR FINANCE TALENT

GAME PLAN FOR THE DIGITAL AGE

Meeting modern business challenges centers on grooming finance teams with cooperative problem-solving skills that leverage technology. Think deep-seated connections, relationships, nuances and trends beyond the grasp of customary financial acumen.

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It doesn’t mean the same thing.”**

THE DIGITAL AGE IS CHANGING FINANCE AT EVERY LEVEL

Quantum leaps in the volume, speed and quality of digital information that redefine business now converge in finance departments. Once tasked with keeping score, chief financial officers (CFOs) and finance teams are now leveraging data insights to change the game for their companies in The Digital Age. They take ownership of business models that identify, monitor and govern financial risks and rewards.

Moving from back offices into the vanguard of digital business imposes new perspective on skill sets in finance. “We can’t look at data the way we used to. It doesn’t mean the same thing,” warns Chuck Hundt, the chief accounting officer of Angie’s List. Born as a website to assist paid members across the U.S. in finding and evaluating vendors from doctors to handymen, Angie’s List has capitalized on the profusion of data and means to reach consumers via laptop, tablet and smartphone.

“We’ve changed our thinking on a lot of levels,” says Hundt, citing the move to sales of online products and services. To cope with mushrooming information from three million members and thousands of vendors, the finance team has become much savvier about collecting and analyzing data with an eye to building strategy. To process gigabytes of data that land every day in the finance department, Angie’s List recently hired its first chief analytics officer.

Increasingly, companies seek more than traditional skills in finance. Millennials who move up the ranks are expected to learn how data analysis advances objectives in sales, marketing, strategic partnerships, price negotiations and investor relations.

But to develop talent you must first attract it. Finance departments engage and nurture the right kind of talent by demonstrating commitment to growth and

change rooted in digital transformation. Young professionals want to work for companies where their expertise can make a material difference inside and outside finance departments. If they feel isolated from data-driven trends sweeping through more agile companies, they may quit—or worse, quit and stay, but not do the job. Flexibility, collaboration and continuous learning win young hearts and minds more than ascent up traditional ladders.

Arming companies with finance talent ready for digital challenges requires planning and adjustment. Success hinges on multiple factors, both local and global. To get a picture of change on the ground, WSJ. Custom Studios, in collaboration with Oracle, asked CFOs at top global companies about building finance teams with the right stuff. Their answers depict the new rules for the digital age.

THE NEW RULES OF ENGAGEMENT: CREATE EXPERTISE IN TALENT, DATA ANALYSIS AND MODERN TECHNOLOGIES

Predecessors would hardly recognize modern finance professionals whose expertise spans talent, data and technology. In today’s digital age, finance professionals require new leadership and soft skills that motivate, mobilize and guide bottom-line-driven collaboration across a whole enterprise. Talent builds consensus with persuasion, and drives decision making based on facts, not intuition. A command of data confers the ability to spot opportunities in vast quantities of digital information. Skills in technology are needed to evaluate and implement systems that advance strategic goals.

Tapping the Right Talent

Technology has enjoyed the limelight in recent decades thanks to major advances almost without letup. “Rather underplayed is the importance of asking the right questions and change-management skills,” says management consultant Martin

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Reeves, a big data expert who leads the Boston Consulting Group’s Strategy Institute. Ultimately, computers operate as directed. Humans ask questions and promote changes that unlock potential and put problems to rest.

To leverage data and technology, competitive companies are reinvigorating investment in soft skills with an eye to questions that accelerate change. Researchers have identified a long list of qualities, such as:

- Enhanced leadership, social and communication skills
- Self-directed and lifelong learning abilities
- Clearer orientation towards finding meaning, rather than collecting information
- Critical-thinking skills
- Greater intellectual curiosity and an inquisitive approach.

“Players on the field represent a continuum,” says Paul Rowady, director of data and analytics research at the TABB Group, a financial markets’ research and strategic advisory firm that tracks the use of technology by financial firms. Leaders on the continuum, says Rowady, have a head start in cutting-edge, 21st-century approaches to extracting meaning from troves of market data. “But the vast majority of players are following rather than leading,” he says. Followers will have to evolve to catch up, starting with a reassessment of best practices in problem solving—always a moving target.

The thorniest problems yield to a powerful alliance of technology and soft skills. Today, analytic models have almost no limits, says John Kogan, a former Silicon Valley CFO and now the CEO/CFO at Proformative, a global education website dedicated to serving CFOs. “If you can think it,” Kogan says, “you can build it.”

Leading MBA finance programs have begun to adapt their curricula to prepare aspiring finance professionals for skills geared more specifically to the digital age. The first semester that finance professor Hui Xiong taught a course on data mining analytics at Rutgers Business School at Rutgers University in 2005, only 12 students greeted him. Today, a lecture hall with 60 seats is packed to capacity every semester—and there’s a long waiting list. Students are packing similar classrooms worldwide and, increasingly, in online classrooms.

The upshot? A new breed of finance professional attacks problem solving from more than one angle.



Rule No. 1: Recruit—and pay for—different kinds of talent

Despite relatively high unemployment, companies cannot fill tens of thousands of jobs that call for professionals who grasp the intersection between technology, analytics and finance. Current projects indicate that U.S. companies alone need 190,000 data scientists to satisfy current and foreseeable demand. High demand boosts price tags that vary from sector to sector and region to region.

“The hunt for talent is taking place in what has become the world’s hottest market for advanced skills,” *McKinsey Quarterly* reported in November 2013. “Retaining these valued employees and then getting them to connect with business leaders to make a real difference is a true top-management task—one that often demands creative solutions.”

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New York State generates tons of data these days, and much of it ends up in the office of state comptroller Thomas DiNapoli, an elected official who wears many hats. His broad mandate starts with responsibility for all accounting reports for the state and running the state’s payroll system, one of the largest public payrolls in the U.S. He also acts as a trustee of the state pension fund that manages assets on behalf of police, firefighters and other public employees.

Payroll and audit functions generate mountains of structured and unstructured data, the latter comprising many text sources that do not fall neatly into the database. Older tools would not recognize, for instance, that names spelled differently or slight variations in an address nevertheless referred to one individual.

“Comptroller DiNapoli recognizes we’ve got to get government into the 21st century, using data analytics to help drive our core mission,” says Executive Deputy Comptroller John Traylor. “Our ability to unlock unstructured data in an efficient way did not exist before.”

Trained in public finance, Traylor watched closely as problem-solving expertise grew in the private sector where essential analytic skills complement computing power. “We’re seeing a similar kind of movement in government,” he says, singling out a colleague with a chemical engineering background. As part of an accounting team that conducts expenditure analysis, she scrutinized thousands of daily payments for exceptions and variations that often flag trouble. Her training in statistics combined with scientific rigor and data analysis, plus additional teamwork, exposed deeply concealed instances of fraud and waste that otherwise might have gone undetected.

Unfortunately, state governments can’t often compete with private sector salaries, so they must create their own talent pools. New York, for example, has embarked

on conversations aimed at forging partnerships with the state university system (SUNY), where it can find young people equipped with cutting-edge data analytics skills. Traylor foresees productive relationships with faculty, students and graduates who share an interest in data sciences: “We are putting together a skill-set portfolio across a team of experts that when combined into a center of excellence will improve our analytic capacity.” It won’t happen overnight, Traylor says, but the resources can be found.

At times, circumstances do change overnight. One stormy day, Hurricane Sandy put much of NYU Langone Medical Center out of commission. Immediate need surfaced for data-savvy professionals who could assess damage and direct cash flow to get highly sophisticated medical equipment and staff back online in timely fashion.

New skills have reshaped the finance department, says CFO Mike Burke. “People we are hiring are not necessarily in finance with a B.S. in accounting,” Burke says. Instead, NYU Langone seeks people who know how to uncover patterns buried deep in data, who understand programming that can query large transaction systems. Data queries and regression analyses open doors. Talent leads the way through them.

The payoff is measurable. A porous payment system was letting revenue slip through cracks. Traditional tools, methods and thinking could not keep up with growing quantities of data, much less anticipate where problems might surface. Mining data exposed lapses that prevented NYU Langone from sending bills, the surest way not to get paid. Errors came to light in prices, dates and other pivotal coding. Thanks to skilled data mining, says Burke, in a single year they recovered \$80 million, the margin between robust profitability and break-even performance.

Problem solvers in the upper echelons of finance management grasp the difference between reporting numbers and conveying their meaning.

Where money poses no obstacle—or less of one anyway—banks and large corporations pay top dollar to hire pros who pan for gold in streams of information, increasingly in unusual ways. Data scientist Ruey-Lung Hsiao illustrates one path from applied mathematics to finance. Hsiao, a native of Taiwan who holds patents in the field of bioinformatics, assisted on efforts to map the human genome. A linguist joined his band of unlikely collaborators to advance a cause that required more than computer simulations, because genomic letter sequences form words; words form genomic sentences; sentences form abstract concepts; and concepts, in turn, form complex semantics—much as letters are building blocks for language.

After his work on the human genome, Hsiao cofounded a company that seeks patterns in financial news that can guide investment. The fledgling firm, Alexandria Investment Research and Technology, uses bioinformatics to unearth trends in thousands of news items daily in multiple languages, always with an eye to contextual meaning.



Rule No. 2: Fill the gaps by grooming talent in-house

Instead of tapping a pricey market for skilled problem solvers, companies can cultivate winners within. Talent in finance at Oracle today looks different in many ways than five years ago, says Global Business Finance Senior Vice President Ivgen Guner. The volume and value of information elevates strategic partnerships to prominence. “It is a paradigm shift,” says Guner.

To meet challenges in finance, Oracle encourages insiders to expand their skill portfolios. Guner reports great success with internal development. She singles out one newly minted college graduate who was hired to handle entry-level tasks. The young woman demonstrated a flair for meeting challenges and motivating others. Rigorous tutoring from Guner and other colleagues honed her analytic and people skills. Now an Oracle vice president, the young woman plays a key role today when solutions demand deft analyses and collaborative soft skills.

Problem solvers in the upper echelons of finance management grasp the difference between reporting numbers and conveying their meaning. “A traditional accountant doesn’t fit into that,” Guner says. When hiring or promoting, she looks for candidates who can anticipate and articulate looming issues that steer sound business decisions.

Emotional maturity, sufficient self-confidence to say no at times and, not least, evidence of the capacity to work in partnerships beyond the finance department all signal problem-solving talent. Nodding reflexively is a bad sign. “If everybody nods their head,” says Guner, “it’s not a team you want.” Her participation on a talent review board helps bring untapped potential to her attention.

As part of its current finance transformation program, Oracle Global Business Finance has formalized the finance talent training and development process in a program it calls LEAP that stands for leadership, excellence, automation and business partnering. Leadership creates a culture of continuous improvement; excellence promotes efficiency without compromising quality; automation harnesses the power of Oracle technology; and partnership with the business ensures that finance operates at the heart of the enterprise.

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DATA INSIGHTS FOR ALL

From 2013 to 2020, the digital universe will grow by a factor of 10—from 4.4 trillion gigabytes to 44 trillion. It more than doubles every two years, according to market research firm IDC. This breathtaking profusion of data overwhelms attempts to capture it in conventional ways. “There is too much data for Excel spreadsheets,” warns Bill Sinnett, head of research at the Financial Executives Research Foundation.

As information proliferates, finance departments must extract value for marketing, human resources, sales and other lines of business to set strategy and tactics. Information arrives in two ways. Structured sources comprise all of the data that spreadsheets might recognize, such as numbers crunched by ERP or CRM systems. Unstructured information is harder to corral, comprising news stories, blogs, social media chatter and market sentiment.

Because finance enjoys a reputation for deft command of numbers, eyes turn to CFOs to keep a handle on burgeoning data. Their validation builds confidence in decisions that balance the wary need for detail with the urgent need for action.



Rule No. 3: Ask the right questions

Strategic miscues lurk when problem solvers immersed in data lose sight of forces that propel a business, warns CFO Colm O’Higgins at SITA, the world’s leading specialist in air transport communications and information technology. “You can spend all of your time gathering and analyzing data,” he says. “The challenge today is to distill data into something meaningful.”

A firm grasp of data in every detail—the historical hallmark of accounting professionals—can impede desired results in the big data era, O’Higgins says. Most questions have more than one answer. Consider, for instance, what is the population of the U.S.? An analyst can dig to the nth level of detail by race, religion, gender, education or other characteristics. Somewhere between a ballpark 320 million population estimate and a precise population count down to every individual by multiple demographics, a cost benefit tradeoff kicks in. Skilled problem-solvers add value not just by asking the right questions, but also by framing them so that the answers advance business goals.

When O’Higgins landed his current post at Geneva-based SITA, details clouded the big picture and clogged the reporting process. The company comprised 308 entities across 195 countries. It pays vendors in 120 different currencies. By the time SITA closed the books each month, another month had passed. One of his first initiatives streamlined the reporting process and scrubbed the data model. On the chart of accounts, 8,500 accounts became 800.

SITA has deployed a small team to leverage information that can segment customers and vendors by key variables. Parsing the accounts receivable data shows SITA what motivates some customers to make timely payments and what actions or inducements can accelerate slow payments. Similar tools applied to purchasing help rationalize a payment system that manages a fragmented supplier base. Insight into payment practices took four days out of the collection cycle, putting \$12 million back into the business.

Developing this cadre of computer-savvy problem solvers also endowed with soft skills takes effort and mentorship, says O’Higgins. Finance has hired and trained a group of analysts whose skills span analytics and strategic business objectives. The investment pays for itself in an early warning system that alerts

“Analysis is a tool, not an endpoint.” It’s useless without collaboration.

finance to trouble before it erupts. “We are on a journey,” says O’Higgins. “We’ve achieved a lot already, but we still have ground ahead.”



Rule No. 4: Share data or it has no value

Ever since George William Crowe and Henry James Dawe opened a factory in 1925 to produce lanolin from wool grease in Yorkshire, England, Croda International has sustained leadership in specialty chemicals. Today, across 18 manufacturing sites and in offices in more than 30 countries, Croda competes in personal, health and crop care and various high-end industrial chemical markets.

“In the modern world, you really have to talk,” says Croda CFO Sean Christie. In the past, much of the information came from the finance department in rigid, pre-agreed report formats. A form of democracy has intervened—now finance builds a database of information that people in the business can access via a variety of tools, generating the reports they want.

This is great but everyone can now bring their own information to meetings, which probably needs explaining to people who’ve never seen it before. Christie, who always looks at complex tools with a measure of distrust, says, “Soft skills are imperative; you can’t just blunder onto a gigantic computer system and expect it to tell you everything without some training or other people to immediately understand what is obvious to you.” He adds, “With so much data, we have to talk to each other and it’s a balance now between fairly standard high-level central reporting and more *ad hoc* user driven reports that explain current trends in the business in more detail.”

To that end, collaboration and training must start early. As finance and IT develop ways to model data for the business, representatives from other functions and business weigh in. Shiny new systems are impressive, says Christie, but no matter how clever that system is, it’s impossible to make sound decisions without analysis that reflects more than one point of view, not least views that can see when data leads down the wrong road.

Croda’s finance department adopted a comprehensive approach to sharing data one step at a time, starting with the big picture. It took years to capture all of Croda’s data globally on one system and then make sure everything added up before going any further. It marshalled data first on global sales then sales by country and by product, customer and market sector. Most information can be produced on a constant currency basis if required. Subtle patterns came into view, such as timing differences in sales to distributors and sales to end users. A resulting grid invites Croda managers to fine-tune strategies in order to boost efficiencies in sales, production and distribution.

IT skills used to live only in a rarefied realm, says Christie, but not anymore. Manipulating data and using computers is second nature to the latest recruits to the business. Real talent lies in extracting answers that all stakeholders can grasp readily if not intuitively. “With all the data, we have to talk to each other,” Christie says. Shared understanding lends clarity to the best courses of action, both strategic and shorter term. If numbers invite too many interpretations, says Christie, “you can argue till the cows come home but achieve nothing productive.”

“Analysis is a tool, not an endpoint,” Christie says. It’s useless without collaboration. What’s the point of data, he asks, if not shared in ways that all concerned parties can digest and use profitably?

“If companies want to sell jobs to the best knowledge workers, they need the best technology.”



Rule No. 5: Use technology and data insights to be a better business partner

Belgium-based Telenet competes at the nexus of modern information streams, where talented problem solvers must think global and act local. Competition invites problems as inevitable consequences of constant change. “This is a very fast-moving industry,” says Telenet CFO Birgit Conix. “Every month there is a new tool or analytic that really adds value. You need to react quickly.”

Telenet sells a full array of digital services to subscribers in Belgium: broadband, Internet, landline and mobile phone service as well as basic and premium digital cable television. Belgium’s small population ramps up the need for problem-solving talent that can maintain services at the lowest possible cost.

Problem-solving talent at Telenet is not what it used to be, says Conix. In the past, people doing analytics crunched data analyzed by finance colleagues with backgrounds in accounting, who reported back to line managers.

“The way we handle data is different and business intelligence teams working on the data are different,” Conix says. “We’re hiring more statistical, analytical people.”

Data points have informed solutions for decades, but problem solving today operates on a whole new level. In the past, Telenet solutions relied on surveys or calls to customer service centers, a time-consuming and labor-intensive task that would lose customers before easing their concerns.

Solutions ordinarily rested on hypotheses about what might satisfy unhappy customers. Now, problem solvers armed with analytics replace hypotheses with actual experience.

A fresh outlook finally solved a constant problem in cleaning up accounts receivable. The practice heretofore assigned the highest priority to customers with the biggest balances. A new data model combined the likelihood of payment with overdue balances. These days, Telenet recovers more receivables by focusing collection efforts on customers with smaller balances who are willing to pay.

Finding people with data-mining talent in hot demand poses a challenge, not just in finding analytical talent, but in ensuring that they have the right skill sets to make sense of the data deluge. As data professionals fill more ranks in the Telenet finance department, Conix also installs business-savvy problem-solving talent. “You need a clear structure with end-to-end business insight,” she says. “Without that, good luck with big data.”

DIGITAL TECHNOLOGIES: TABLE STAKES IN THE WAR FOR TALENT

Talented workers favor a workplace environment with the most cutting-edge analytics tools, says workplace psychologist Ben Dattner, an adjunct professor at New York University. The best candidates want jobs—and flourish in them—where tools match their abilities and expectations. Enlightened organizations grasp the difference between selling jobs to employees versus buying their time, a prescription for underperformance. “If companies want to sell jobs to the best knowledge workers,” says Dattner, “they need the best technology.”

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Rule No. 6: Use digital technologies to attract and retain the best and the brightest

Challenges motivate and mobilize problem solvers. That is why forward-looking CFOs understand that equipping their finance teams with the latest digital technologies on their device of choice is increasingly a key differentiator in the war for finance talent. Finance professionals—millennials in particular—also want to work for an organization where they can

make a difference, grow as professionals and influence strategic decision making. That’s where digital technologies can help as well, from embedded analytics that help finance teams provide the finance lens to the business, to social collaboration that helps embedded finance executives collaborate more effectively with line-of-business heads and build consensus around strategy.

Providing finance professionals with access to the latest technology innovations was one reason why Ovation Brands CFO Keith Kravcik turned to an ERP cloud solution to modernize the finance function at the Minneapolis-based restaurant chain. When Kravcik joined Ovation Brands as executive vice president and CFO in 2013, the company was known as Buffets, Inc. and had already gone through two bankruptcies. Kravcik was brought on to help lead a total reinvention of Ovation, and is leveraging cloud-based financial and performance management applications to gain an enterprise-wide view of performance at its 300+ restaurants across the United States.

“I was running an older version of Excel that some recruits hadn’t even heard of, let alone had any experience with,” Kravcik recalls. “To attract the kind of analytical talent I need to execute on our reinvention strategy, I have to offer

candidates access to the latest analytics, delivered on their device of choice. The cloud delivery model provides my finance team with those innovations, in a way that is easily consumable and cost-effective.”

Another CFO who understands the value of technology to attract millennials with high expectations is Alan Nicholl at Canfor, a global leader in wood products for construction. “Young managers and analysts are adept at using up-to-date technology,” says Nicholl. “It’s imperative that we provide them with the right tools to fulfill our mandate and our goals.” Any less, says Nicholl, and top analysts in high demand will look elsewhere.

Millennials who join Canfor arrive with curiosity, initiative and an instinct for noticing something that isn’t right. “If they are bright enough and technically proficient, it’s important to also furnish a toolbox that allows them to work to the best of their ability,” Nicholl says.

Canfor adopted its current ERP system in part to support stronger analytical tools for its business. In the IT realm that Nicholl oversees, staying current is a prerequisite for companies that want to compete in the job market. “We are seeing a significant increase in talented individuals wanting to join Canfor thanks to the ERP platform and business intelligence tools,” Nicholl says.

In reaching out to millennials, social media is a key. “Our messaging for the younger generation tries to pique their interest,” says Nicholl. Under the rubric “World of Wood,” Canfor CEO Don Kayne has joined the blogosphere. Last October, “Jacked about Lumber” unveiled a new online promotion campaign aimed at encouraging youth and job seekers to consider careers in the forest industry. A Canfor presence on the networking site LinkedIn extends its brand image to millions of potential customers, vendors and talented job seekers.

The skill sets of future CFOs must add, at least in some measure, the head of a programmer, the body of a statistician, the arms of an exploratory visual data analyst and the tail of a machine-learning expert.



The Road Ahead

Impressive technology alone won't keep organizations vital in the 21st century. Coping with strategic challenges requires well-rounded individuals whose ability to collaborate, negotiate, communicate, make sound strategic judgments and command technology all converge in modern finance departments.

David Leinweber, author of *Nerds on Wall Street: Math, Machines and Wired Markets* and a former Haas Fellow in Finance at the University of California at Berkeley who helped pioneer technology in the finance space, assigns a top premium to command of finance in combination with leadership skills that mobilize and guide collaboration. There is no overstating the value of those time-tested credentials in finance careers. But at the same time, says Leinweber, a sea change has occurred. The skill sets of future CFOs must add, at least in some measure, the head of a programmer, the body of a statistician, the arms of an exploratory visual data analyst and the tail of a machine-learning expert.

Traditionally, these skill sets seldom meet in one person. People who love people tend to follow careers in one direction; quantitative minds take more analytical paths. Companies nowadays need finance teams that can see problems, propose solutions and win consensus. They may be scarce but companies must find and nurture them—or rivals will.

Preparation must ensure that boards and CEOs are ready to invest in financial talent armed with the most modern tools, technologies and education programs

on the market. With those prerequisites in place, help wanted signs can seek financial analysts who recognize deep-seated connections, relationships and trends that customary financial acumen alone is apt to miss. The search for financial professionals who meet such demanding criteria is a global one. Savvy companies also look within. Companies that neglect their own shop floors and back offices overlook problem solvers who are ready, willing and able, with proper support and direction, to step up in unexpected ways.

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