

Frontiers in Finance
For decision-makers
in financial services
June 2015

**Lessons from the recent
currency fluctuations in
Switzerland and the eurozone**
Page 12

**Staying one step ahead
with social media risk
analytics**
Page 36

Frontiers

in Finance

**Driving competitive
advantage through
a new investment
banking culture**

Page 4



cutting through complexity

Foreword

The financial stories which hit the headlines tend to be those involving global developments or macroeconomic issues: the impact of quantitative easing, low interest rates, rolling waves of regulation and the like. In this issue of *Frontiers in Finance*, for example, we reflect on the recent currency fluctuations in Switzerland and the eurozone. It is easy to forget that most of the challenges which occupy CEOs, CFOs and other leaders in financial services companies are found closer to home: How to sustain and improve competitive advantage? How to develop new products and services which satisfy the changing demands of customers? How to move faster and more effectively than the competition?

These are traditional and familiar challenges. Nevertheless, the context in which they must be tackled is constantly changing, so the response must change too. The data revolution provides one obvious example. The explosion of data available on customers, their needs and their behaviors offers massive potential. But retail and investment banks, insurers and investment management companies are still struggling to exploit it fully. Insurers, particularly, seem to have been somewhat slow to respond. Few have a plan for identifying, adopting and implementing new data-driven approaches and models into their business. They are missing out on potential opportunities to improve performance, reduce risk and drive growth through better use of data and analytics.

In banking, better data management strategies can not only form the basis for more profitable management decisions but also underpin compliance with the continuing evolution of financial regulation. The role of chief data officer is increasingly important here, and has a critical contribution to make, quite distinct from that of the chief information officer (CIO). The new social media exemplified by Twitter and Facebook not only provide new routes for communication with customers and clients; they constitute a further rich source of information about them. In an interview carried out specially for this issue, David Sayer talks to Sandy Pentland from MIT about how his development of 'social physics' opens up a new way of understanding human behavior by using big data to explore how ideas move, evolve and spread. This can open the path towards more resilient and more profitable organizations.

Social media also carries risks, and can damage brand and reputation if it is not properly used and understood. Active monitoring and effective participation are required to enhance brands, understand activist campaign activities and manage complaints. The emerging technology of social media analytics can provide deep insights into the interplay between social and traditional media. Uncovering customer attitudes from a range of online sources can put social media data to work in better marketing and brand management, and in improving the customer experience.

Many of these insights and developments, especially in communication technology and the data revolution, are apparent in this year's 'next big thing': FinTech – the use of software and information technology to deliver better financial services through financial technology. Its impact and potential are one of the principal themes of Jeremy Anderson's keynote article in this issue. FinTech is potentially highly disruptive of banks' 'business-as-usual' models. Young innovators are developing radical ideas to provide creative new solutions to meeting customer and client needs, in online and mobile banking but also in the back office environment. Insurers are now actively competing head-on with banks, private equity firms and global technology companies to secure the latest technologies – whether these are bought in, leased or developed in joint ventures and new forms of partnership.

The struggle for competitive advantage demands attention to many other aspects of the business and operational model. We make no apology for drawing attention again to the need for effective culture change in the banking sector. Managing talent is a further key priority, especially at present in insurance. Effective transformation in wealth management is vital to respond to shifting client expectations, agile new rivals and rising operational costs.

All of these issues are addressed in the articles in this edition. We like to think that *Frontiers in Finance* continues to illuminate some of the most pressing opportunities and challenges in the continuing fight for competitive advantage.



Giles Williams
KPMG in the UK



Jim Suglia
KPMG in the US



Andrew Dickinson
KPMG in Australia



Ton Reijns
KPMG in the Netherlands

CONTENTS

EXECUTIVE ISSUES

02

Chairman's message

Developing strategy doesn't get any easier. Over the next 5 years, financial services institutions are likely to experience an extremely rapid period of profound change in their external environment.

04

Driving competitive advantage through a new investment banking culture

Conduct, culture and technology are vital – in addition to traditional thinking around the strategic role investment banking plays in a diversified financial institution model.

08

Bridging the talent gap to secure competitive advantage

Ensuring competitive advantage starts and ends with the caliber of your workforce and your ability to attract top talent to your organization.

TRENDS AND OPPORTUNITIES

12

Lessons from the recent currency fluctuations in Switzerland and the eurozone

The European Central Bank's (ECB'S) decision to expand its quantitative easing program to include government bond purchases spurred recent fluctuations in the Swiss franc (CHF).

16

Big data: The BIG factor driving competitive advantage

By now, most insurers understand the potential value that big data could deliver to their organizations. But our experience suggests that few insurers today are ready to take full advantage of the many opportunities that could be captured with greater data insights.

36

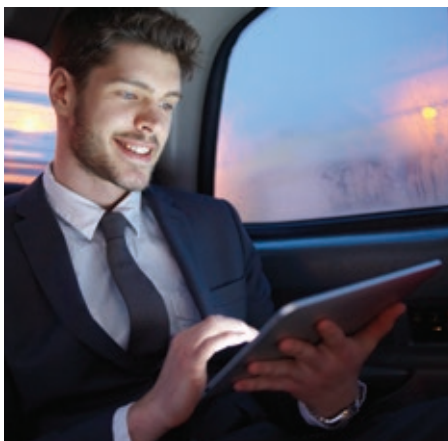
Staying one step ahead with social media risk analytics

Social media are evolving rapidly. The conservative wealth management industry is certainly not immune, and social media are impacting it in significant, often unforeseen and likely irreversible ways.

40

Tapping into insurance FinTech: Own it, lease it or share it?

Facing increasing pressure on performance and a growing desire to get closer to their customers, most insurers are now looking for virtually any technology that may help them get – and keep – a competitive edge.



CHANGE AND INNOVATION

20

Chief data officers: The next generation of leaders transforming banks

The stage is set for chief data officers (CDOs) to bring much-needed direction to banks' data management strategies, helping them remain compliant and unleash the commercial potential of information.

24

Hedge funds and institutional investors: A changing future

As the environment for alternative investments continues to evolve, hedge fund managers are starting to rethink their products, fee structures and investor mix to refocus on institutional investors – particularly pension funds.



28

Social physics: How good ideas spread and lessons for the banking sector

There is a strong and growing conversation around the pace and speed of innovation in today's banking model, and how banks can pivot to take advantage of the latest advance in FinTech innovation and big data.

31

The perfect storm of technology and capital markets: The modern history of FinTech

Is 2015 the 'year of FinTech'? A perfect storm of conditions is brewing that makes FinTech the right solution for the right conditions at the right time. And that time is now.

44

Effective wealth management transformation requires focus and alignment

The world's wealth management firms have recognized the need to respond to shifting client expectations, agile new rivals and rising operating costs, by embarking on transformation programs.



PUBLICATIONS

48

Updates from KPMG member firms, thought leadership and contacts, including our **Evolving Regulation** series.

Signposts to the future:

Sustaining competitive advantage through major change

Jeremy Anderson

Chairman, Global Financial Services

Developing strategy doesn't get any easier. Although the immediate ordeals of the financial crisis may have been overcome, new and even more disruptive challenges are looming. Over the next 5 years, financial services institutions are likely to experience an extremely rapid period of profound change in their external environment. The response to the crisis has been focused on increased regulation, changes to corporate structures and business models and the need to find new ways of generating earnings in the context of prolonged yield depression. These have placed heavy burdens on everyone involved in the industry, but especially on those in senior executive positions. The problem, though, is that developing effective responses may have crowded out the capacity to step back, to reflect deeply on how best to meet the future demands of customers over the coming period of change.

There's no doubt that strategic thinking is increasingly vital. Technology is evolving more quickly than ever. Reliance on social media is becoming ubiquitous, not only for casual conversation but also for corporate communication and business processes. Consumers are increasingly demanding constant, online access to every service. In turn, the explosive growth of information technology and communication is generating vast quantities of data about customers, markets, products and preferences – which will be invaluable to those companies that learn to exploit it.

These trends are accelerating. So it is more than ever critical to ensure that the vital task of absorbing the current regulatory overhang is not the sole focus of attention. The very real challenge of getting fit for the 'new normal' has to run hand-in-hand with preparing both for short-term

disruptors and for the impact of long-term megatrends.¹ In the first category, we have already seen significant inroads made into the traditional financial services industry by companies such as Apple, PayPal and others. In the slightly longer term, the industry will see major impacts from demographic and social change, and from the increasing consumer tendency to value ease of transactional operations over enduring relationships and brand loyalty.

The foresight challenge

It is, of course, easy to argue for greater foresight, strategic thinking and preparedness. But it is far from clear actually how to begin engaging with the 'unknown unknowns'. In recent conversations with senior banking executives, a number have said to me that they find today's environment intellectually very challenging. The 5 years after the crisis were tough, but the objectives remained clear. Now, however, fundamental

decisions need to be taken about global and regional business models: which businesses to remain in, withdraw from or try to enter; whether the present low-interest, low-yield environment will ease soon or persist to drive more fundamental changes of strategy. Yet the foundation on which to base these decisions remains obscure.

A client of KPMG in Switzerland articulated his dilemma acutely: although he could see multiple examples of innovation emerging and disruption challenging his market, he still did not know if he was seeing the full picture or where else to look. So while many leaders agree that financial services will look very different in 5 years' time, there is little certainty about how they will look. And there is no doubt that even the most far-sighted will both underestimate and overestimate the pace and extent of change. Foresight and decisiveness will be critical; so will flexibility and agility.

¹ For an extended review, see *Future State 2030: The global megatrends shaping government*, KPMG, 2014.



Signposting the future? The FinTech contribution

In clarifying the picture, the rapidly-growing FinTech sector could have a major role to play. Rapid innovation in financial technology – the use of software and information technology to deliver better financial services – in the context of start-ups, partnerships and other structures, has the potential to bring together established players in need of strategic insight with leading-edge developments from products and marketing to transaction processing. Engagement with the burgeoning FinTech environment has the potential to give much-needed direction to the formulation of new strategy in an increasingly uncertain world.

Investment in FinTech initiatives is growing rapidly in all major financial and technology locations, from Silicon Valley to New York, London and Sydney.² Depending on definitions, financing activity is estimated to be running at more than \$12 billion annually, having tripled during 2014.³ Much of this reflects the understandable lure of the 'next big thing'. However, it also acknowledges the massive transformation in how financial services are conceived, developed, delivered and experienced, which will be the inevitable outcome of the current convergence of digital technologies and financial expertise.

As with any new and exciting field, a lot of different initiatives are being explored, with many different approaches and a great deal of experimentation. A key area of focus is the potential of combining exploitation of 'big data' with new technology to streamline existing processes and transactions, or to develop much more personalized products and services. But scalability is a crucial issue. The challenge is not only to find ways of creating promising ideas but of identifying those which are capable of being scaled up into the mainstream business models of major financial institutions.

New forms of partnership

We see a number of different approaches being adopted. Traditionally, financial institutions have relied on trusted

technology vendors to offer them solutions to underpin their transaction processing or customer relationship management. Sometimes, these providers have been acquired and taken in-house; at other times, in-house operations have been spun out or outsourced. But the essential customer-contractor relationship has persisted.

In the new FinTech environment, though, it is increasingly recognized that more fundamental forms of partnership are required. So we see multiple stakeholders coming together to kick-start new initiatives, often in new physical contexts such as dedicated facilities and innovation labs. These provide an environment in which to incubate, encourage and nurture new FinTech ventures until they can be scaled up and commercialized. Participants in these initiatives include financial institutions, venture capitalists, technology start-ups, national authorities and the local governments of major cities like London or Sydney – where KPMG has helped establish Australia's first dedicated FinTech facility.

We are also seeing institutions such as Santander and Barclays Bank setting up in-house venture capital funds to invest in new start-ups, both gaining access to new ideas and, in the longer term, acquiring profitable new business lines. In the insurance sector, as we outline elsewhere in this issue, companies are now beginning to look to FinTech opportunities to stimulate innovative product design, platforms and distribution models. Our own KPMG Capital business is investing in creating smarter data and analytics capabilities and has recently taken an equity stake in Bottlenose, a leader in real-time enterprise trend analysis.

The benefits of these various alliances and partnerships flow to all participants. By joining with other stakeholders, established financial institutions can reduce risk, stimulate innovation and develop products and services to increase customer satisfaction and engagement. Start-ups gain injections of funding, but also, more importantly, access to business expertise and an understanding of how financial services

are developed, marketed and delivered in the real world. New talent and skills can be developed in an atmosphere which preserves entrepreneurial attitudes and behavior.

New thinking, new investment, new approaches

If FinTech can offer a way out of the foresight challenge and signpost some clear directions of travel, the question for senior finance executives remains acute: how to embrace the current explosion of new thinking and nascent solutions, products and innovations, and sift through the rapidly changing environment, to identify those opportunities which will make a real contribution to the responses required. My feeling is that, as we have argued before, the guiding principle has to remain the need to focus on delivering what customers want in the way that they want it, even as these change profoundly.

The last 5 years have seen many financial institutions concentrating first on survival and then on rebuilding their balance sheets and strengthening capital structures. In the next 5 years we shall see a re-intensified battle for the customer. Those companies which can create lasting competitive advantage will be those which are most relentlessly focused on satisfying emerging customer needs and demands. The potential value of any new FinTech initiative, technology development or other disruptor has to be assessed against this standard.

The present low-yield situation makes the requirement for new thinking and new investment more acute even while funding it becomes more difficult. For the foreseeable future, the financial services industry needs to adopt the attitudes of lean manufacturers finding ways of doing business cheaper, faster and better in a low-margin environment. This is likely to be the best – or even only – way of surviving the coming wave of change. And if this frame of mind is sustained over a longer period, there will be corresponding longer-term benefits, both for the industry and for the customers we presume to serve. ■

² For a recent overview, see, for example *Unlocking the potential: The FinTech opportunity for Sydney*, KPMG, 2014.

³ Investment in financial technology groups triples to \$12bn in year, *Financial Times*, 26 March 2015.

Driving competitive advantage through a new investment banking culture

Mike Conover, KPMG in the US

David Todd, KPMG in the UK

Financial institutions are currently rethinking the future success of their investment banks post-crisis. They have come to realize that conduct, culture and technology (including cyber security) are now vital elements of their agenda, which already includes traditional thinking around the strategic role investment banking plays in a diversified Financial Institution model, the right mix for the organization, the impact of new regulatory requirements, the cost of capital, and the ROE needs of the institution.

There is much work to be done. While some within the industry continue to hunker down post-crisis, fresh opportunities for competitive advantage are emerging for organizations able to take a leap forward in key areas such as culture and technology.

But first, let's frame the issues.

In the decade prior to the financial crisis, the investment banking industry took

huge leaps forward. Volume, volatility and customized complexity were the name of the game during this period of massive innovation and unprecedented profitability. Some of this was shown later to be recklessness, but there was also genuine and valuable innovation and improvement.

But it couldn't last. The profitability allowed greed to seep in and this drove some irresponsible behaviors. Oversight by management and regulators was different in the last decade and the free economy model which had delivered so much benefit globally in preceding decades got out of hand. The checks and balances in standards, regulations and governance structures couldn't prevent a bubble from building – then bursting.

Capital markets management are still adjusting to the ensuing financial crisis and the severe contraction in the industry.





So on which of the many competing priorities should boards of banks focus? To begin with, it's instructive to examine the lingering effects of the pre-crisis hangover today:

1. Optimism in investment banking has waned.
2. Lower volumes and electronic trading/settlement are the new normal.
3. Cultural shortcomings are still common.
4. There is meager investment in back-office improvements.
5. Many organizations have taken a wait-and-see approach.

While the flow of new regulations has begun to slow, the marketplace has not yet settled.

Banks today still generally view their future outlooks through a 'post-crisis' lens. This mindset, though conservative, is probably appropriate given the severity of the recent crisis. As such, banks seem content to pause to consider next steps before developing a new business model and maybe a new identity to their culture to supplant the formerly profitable trading environment.

But what is next? Clearly, there is no way to 'future-proof' the investment banking business. However, there are ways to better prepare for what's to come.

Culture: the next big arena in the banking industry

As big banks focus on the implementation of new regulations, a new back- and middle-office model and how the new world of technology can transform their business, there seems to be a shift to a clearer client focus (putting the client's needs first) that can potentially break the logjam in industry stagnation.

In particular, with regulatory issues on the mend and new technology being installed, how does management drive their business forward on the path to growth? And let's not forget the last item to be addressed from the crises hangover – culture. This is a good time for banks to turn their attention to fixing their culture issues, which will drive their business forward and differentiate them from their competitors. Taking a new approach to culture and harnessing client-centricity can help uncover new opportunities for growth.

Banks must redefine their culture to help drive strategy, as a great strategy is only great if the culture accepts it.

Based on prior problems within the industry, clearly changes are necessary. In a nutshell, the combination of crises, losses and bailouts has focused a spotlight on how banks do business. Such illumination has exposed all of the deficiencies within the industry, and there is no indication that the focus will shift anytime soon. In fact, late last year, New York Fed President William Dudley reportedly used the word 'culture' more than 40 times in a speech to bank executives.

We believe this is a true watershed moment in the 100+ year history of the sector. The public backlash against misbehavior and excessive pay within the industry is spurring real change and public outcry for change. We've already come a long way since the wild days of *The Wolf of Wall Street*, but we still have far to go as the new generation of investment bankers joins the ranks having grown up with a different 'purpose in life'. In the name of profitability, it's time to clean up the cultures that allowed bad behaviors to live in the industry.

Customers need to 'beware' in many industries. For example, the automotive industry has had recalls that came a little too late. You only need to buy your child a mobile phone to worry about the value of some insurance products being sold; and even weather-related price fluctuations for snow shovels driven by supply and demand make the news. When it comes to banks, politicians are rapidly shifting the standard from 'buyer beware' to 'seller beware'. If you cannot produce analysis to show why a product was good for your customer, you may have to compensate them. Not only does bank conduct and culture need to improve on past performance, it also needs to lead the world in developing new approaches to customer-centricity.

After years of ignoring the importance that culture plays in the industry, we propose eight strategic questions to ask in order to clean the slate and win back the trust of customers:

- 1. Break down silos** – How can we connect systems to find commonalities and drive a one-firm culture?
- 2. Build a culture of trust** – Where can we shift the focus to the good of the client? Remember, public perception matters, so work to rebuild your reputation and try to be humble (yes, we made mistakes, but now let's move on).
- 3. Focus on capital levels** – How can we balance out the culture of taking on whatever risk is needed to drive profits? Capital requirements of today seem to have bigger charges for 'culture risk' than ever before.
- 4. Simplify operations** – Knowing that the system was built for bigger volumes and more complex customization than exist today, how can we drive a culture of simplicity with enabling technology?
- 5. Continue to respond well to regulatory change** – Isn't it better to willingly change the investment banking culture than throw lawyers at the issue?
- 6. Raise IT spending to budget for system improvements** – How can we digitize our work flows and automate the back-office as a collective team versus the culture of individual profit?
- 7. Create efficiencies** – There are less expensive methods of processing, such as big data: Where can we look to reengineer processes and cut the massive cost basis?
- 8. Improve culture** – How can we improve our culture of understanding exposure to risk, cyber security, etc.?

"The need for values is inbred. Their content is not."

Alan Greenspan, 2008, in *The Age of Turbulence: Adventures in a New World*

If culture is the key to investment banks moving forward in the current economy, those who discover how to baseline and measure where their culture is today, then design and implement measurable improvements for the new world of investment banking, will have a significant advantage over their competitors.

Banks must redefine their culture to help drive strategy as a great strategy is only great if the culture accepts it – so make sure culture is aligned so the strategy can be executed.

One final area of opportunity within culture is the culture of high pay. It has been argued that pay did not reflect the risk adjusted capital that was needed to hold such risk, and as a result bigger payouts may have been viewed as reasonable for the profit margin on the needed capital. In the boom years, the argument was made that the advances being made in re-engineering the financial world justified premium pay for bankers. This argument isn't accepted today because the new capital charges on these highly complex trades now make these trades much less profitable. However, pay levels have still not adequately normalized yet. If boards can keep pay levels trending down, heading for the point where their talent is paid equally with the return on capital in the industry now, they can reap a stream of long-term cost savings and throw some good news into the mix for shareholders.

Technology: Revolution or evolution?

Beyond culture, banks must also embrace new technology to advance their business interests. If the culture of an organization

does not embrace new and changing technologies and reverts back to doing things the old way, a great deal of money will be spent with little benefit to the bottom line. In fact, technology can be a foundation for the future of the industry through which investment banks advance the quality of regulatory compliance, increase transparency, reduce costs, and improve overall profitability through technology implementation.

Many financial institutions in the capital markets are saddled with information technology (IT) systems appropriate to another era. In our view, banks should focus as much attention as possible on technology to bring the sector into the 21st century and potentially generate more sustainable revenue in this changing industry.

In the past, investments in IT and data projects largely went into the front-end of the business. IT investment now should focus on middle- and back-office functions and architectures to streamline duplicative, siloed and inefficient operations.

IT investments grew



3.6%

from 2013 to 2014, to about
USD 480 billion

Most bankers will tell you that regulatory firefighting has necessarily dominated IT spend in each of the last 5 years. Gartner supports this claim, estimating that banking and securities institutions' IT investments grew 3.6 percent from 2013 to 2014, to about \$480 billion (Forecast: Enterprise IT Spending for the Banking and Securities Market, Worldwide, April 23, 2014). This includes regulatory compliance and reporting purposes, as well as addressing cost-reduction strategies.

From our interaction with industry executives, regulators and industry observers, it appears there is a long road ahead to transformation. A 2014

KPMG survey on transformation (*From Burden to Competitive Advantage, KPMG, 2014*) revealed that nearly half of capital markets businesses are still in the ‘assessing and planning’ stage of transformation, while another 20 percent admitted to only having just begun.

Either way, it remains essential for capital markets institutions to upgrade technologies – in-house or through joint ventures, strategic alliances or acquisitions of ‘permitted’ technology firms that are closely aligned with banking – to make

valuable operational and financial decisions associated with:

- real-time analysis for risk and pricing purposes
- portfolio-composition decisions
- executing trades that take advantage of fast movements in markets around the world
- maintaining and reporting on compliance with regulations
- constructing optimized cost processes and structures
- enabling and/or monitoring established internal governance discipline
- enhancing cybersecurity capabilities.

// It is essential for institutions operating in the capital markets to accelerate efforts to simplify and standardize their operational and technological infrastructure. The job will be long-term and complex – but the need to pick up the pace is absolutely necessary. //

– Brian Stephens, National Sector Leader, Banking and Capital Markets Practice, KPMG LLP (US)

Few institutions fully understand the huge potential that resides within their data, and fewer still are making the right changes to their business strategy to take advantage of that potential. A major stumbling block is that existing technology systems and business models represent the greatest challenge to integrating data and analytics programs into their business.

Hunker down or charge ahead?

Large investment and wholesale banks generally take a cautious approach to their strategy. But culture and technology are two areas in which a more proactive approach can help improve their outlook. We have found that culture beats strategy every time, so don’t roll out a new strategy unless you roll out a new culture first, and then be sure to enable it with the appropriate technology.

New regulations have taken hold. While next steps are not always clear or tangible, it is clear that a fundamental and permanent shift for the sector is underway. How it will look in the future is still difficult to determine, but some important components like customer-centricity are clear already.

For now, banks must decide whether they want to hunker down or try to move ahead. Merely maintaining the status quo in the current environment is challenging enough without the added pressure of planning now to profit in the future.

By examining the context on current marketplace thinking, banks can equip themselves with the tools and insights required to make more strategic and forward-thinking decisions. However, it’s up to them to actually move ahead with changes. ■

CONTRIBUTORS

Mike Conover Global Head of Capital Markets

KPMG in the US

T: +1 212 872 6402

E: mconover@kpmg.com

Michael Conover is the founding Partner of KPMG’s Financial Risk Management Practice in the United States. He is involved in a wide array of financial advisory and risk management assignments for financial institutions.

David Todd

Partner

KPMG in the UK

T: +44 20 76942868

E: david.todd@kpmg.co.uk

David has worked as a partner in the investment banking sector for over 15 years, in both New York and London. David specializes in investment bank audits – he leads this sector in London, and is responsible for some of KPMG’s biggest investment bank audits.

Bridging the talent gap to secure competitive advantage

Mark Spears, KPMG in the UK

Harold de Bruijn, KPMG in the Netherlands

Mary Trussell, KPMG in Canada

W Jean Kwon, KPMG in the US

Ensuring competitive advantage starts and ends with the caliber of your workforce and your ability to attract top talent to your organization.

In a period where technology and business models are evolving faster than individual skill sets, it is becoming increasingly challenging for organizations to attract, engage and retain the talent needed to deliver desired business benefits to their customers, shareholders, regulators and other key stakeholders.

What we are seeing across all regions and all industries are chief executive officers (CEOs) being faced with skills shortages for the most 'critical talent' – the people within the organization that contribute a more than proportionate share of the organization's business value.

The insurance industry is facing more acute challenges than many other sectors when it comes to recruitment, engagement, talent development and culture. Intensified by regulatory requirements, demands of a multigenerational workforce and evolving customer needs, we believe that rethinking talent strategies and addressing the 5Cs (**capability, cost, compliance, capacity and connection**) will help the industry bridge the talent gap. We will explore these further in this article.

Before we dive in, let's look at how insurers' current capabilities stack-up compared to banks and technology/IT companies in the following aspects of people management.

The skills gap widens. Are insurers able to compete?

Digging deeper, we see that, while many industries are struggling to respond to the challenges of an ageing workforce and shortages of suitably qualified replacement recruits, the insurance industry appears to have a more unbalanced workforce age structure than most. In a recent article for the International Insurance Society, W Jean Kwon quotes a number of disturbing statistics.¹ Analyses drawn from a range of studies indicate, for example, that:

- the percentage of workers at the 55–64 and 65+ age groups in the US insurance sector rose by about 38 and 10 percent, respectively, during the 2000–07 period, more than the national average

- the number of employees aged 55+ increased by 74 percent in the 10 years to 2008 (as compared with a 45 percent increase in the aggregate of all employees).

Other studies suggest that up to 40 percent of insurance sector employees – by definition including most of the senior, experienced and high-skilled staff – are set to retire in the next few years. Research indicates that this will have a disproportionately severe impact in the areas of claims management, underwriting and reinsurance. Skills shortages are already becoming apparent.

Alongside the massive wave of imminent retirements, two other trends are having an increasingly severe impact on the insurance sector's manpower challenge. As the sector

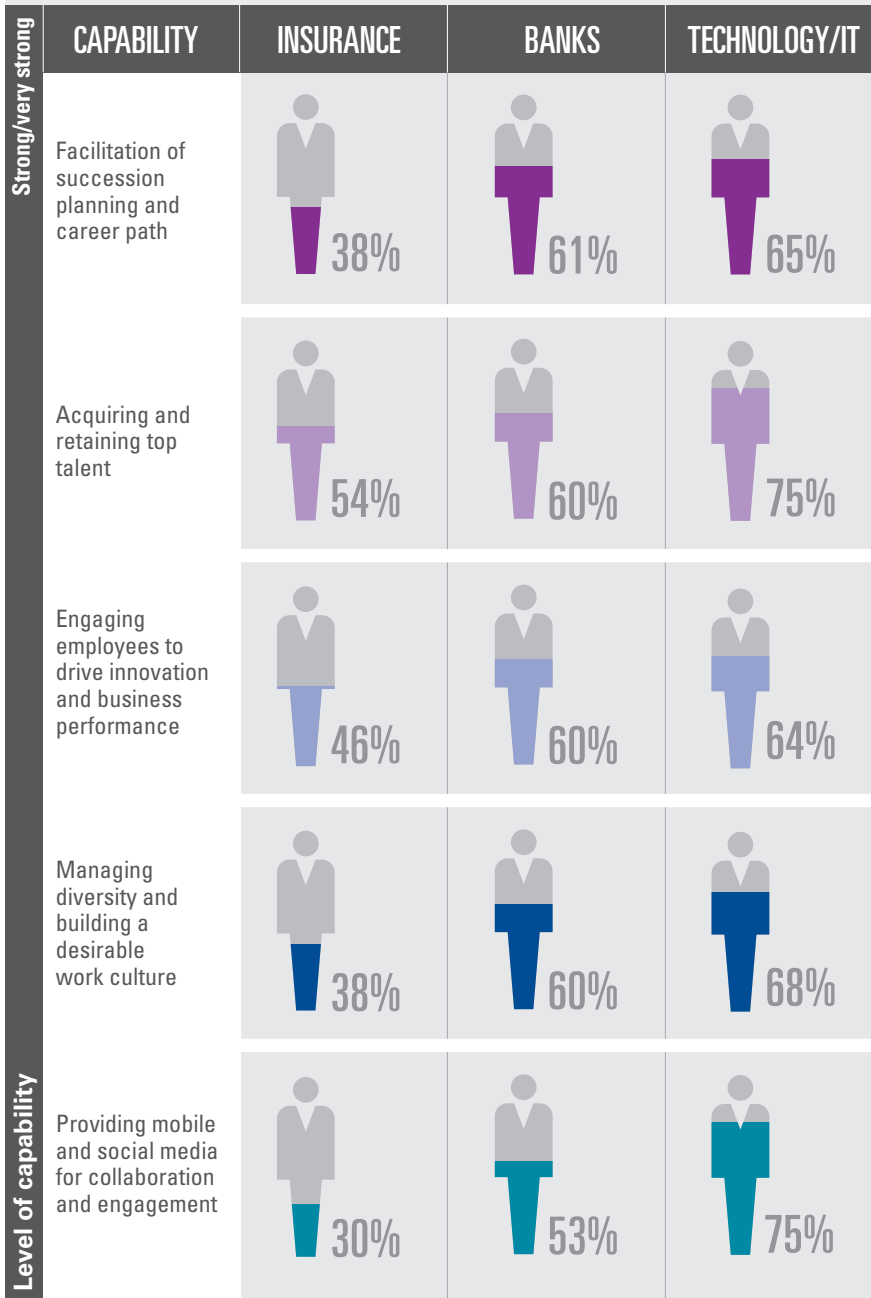
¹ Human Capital Risk and Talent Management Issues in the Insurance Market: Public Policy, Industry and Collegiate Education Perspectives, The Geneva Papers, 2014;39:173–196.

Contacts (from left)

Mark Spears
Harold de Bruijn
Mary Trussell
W. Jean Kwon



In a recent KPMG International survey, we asked executives from various industries how strong they felt their organization's current capabilities are in each of the following aspects of people management. Insurance, banks and technology/IT companies indicated that they were strong to very strong in each of the five capabilities below. It is clear, that the insurance industry has some catching up to do.



Source: Evidence-based HR, KPMG International, 2015.

expands, so does the number of vacancies: the US Bureau of Labor Statistics forecasts that over 200,000 new jobs will be created, and will need to be filled, within the sector by 2022.² At the same time, however, a

number of factors are rendering the sector comparatively less attractive to new recruits:

- although the demand for pricing, product development, underwriting, claims, IT and data management is skyrocketing,

young people are increasingly attracted to working in what they perceive as 'sexier' industries, such as high-tech sectors, the media, online retailing or gaming, which reflect their own interests and experience (suggesting that insurers will need to learn to operate in the comparable digital world as those they hope to recruit do)

- deeply ingrained company cultures may need to change in order to create an environment of innovation and collaboration.

Many sectors are waking up to the challenges of demographic trends and the shifts in young people's job expectation. We are seeing, for example, a range of new training initiatives, outreach programs to colleges and universities, modern apprenticeship schemes and things like gamification used to close knowledge gaps and as a means of employee engagement. Moreover, insurers may benefit by looking beyond the sector and recruit candidates based on skill rather than experience, while reexamining traditional corporate structures that are common to the sector.

Finding the right balance to win

Attracting and developing the right talent needed for success in the digital world is a major challenge for insurance companies. The technical and soft skills required for insurer operations are different from what they used to be. Digital channels will probably require fewer people, but people with a high-quality skill set. At the same time, companies need to preserve and transfer the critical expertise of seasoned actuaries, underwriters and other professionals so that it stays competitive in financial services markets. Getting the balance right can be challenging in part because insurance companies operate in highly regulated environments. To remain competitive, insurers will need to manage the change from the current to the future state, and that will mean getting buy-in at the highest level including the board.

In our 2013 research of insurance companies making up the FT Global 500, we identified five key attributes that we believe enabled them to remain profitable even through sustained periods of economic

² Insurance Industry Set to Experience a Major Talent Gap, Claims Journal, June 30, 2014.

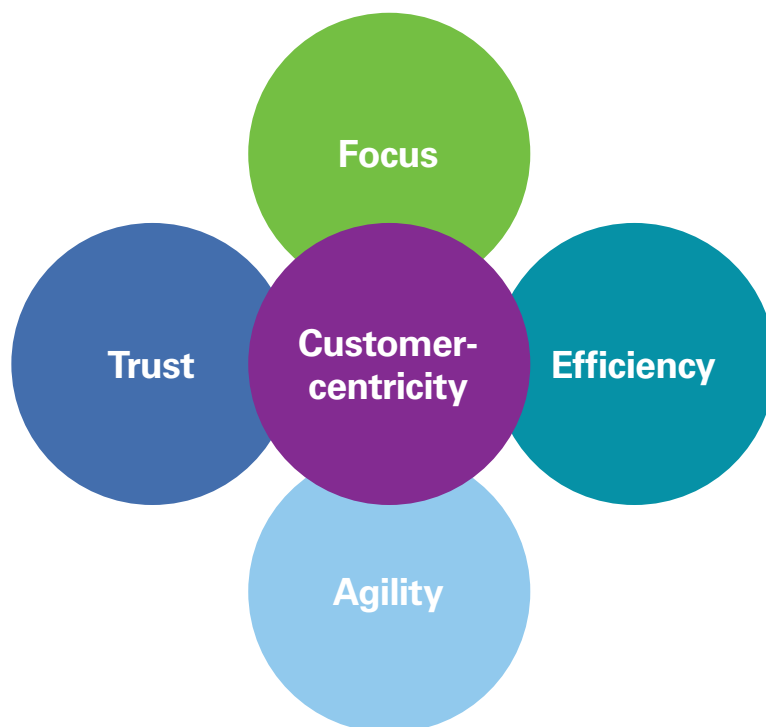
volatility and low yield growth. Creating an organizational culture with these attributes at the core can help insurers find a winning balance.

Attracting new talent is good. Building bench strength is better.

Identifying critical recruitment needs and attracting the right people is only the first step in a holistic talent management strategy. Insurers need to focus much more closely on articulating key skills for their operations, and on reviewing the way they manage and develop them. Too often, companies have little idea of the real value of effective talent management – or of the risk of poor performance in the management of core skills. Only with a consistent and coherent approach to the whole talent issue can the return on human resources expenditure be evaluated.

As we have seen, the right answers will depend on the specific circumstances of each company. In recent years, it has become more generally accepted that an evidence-based approach to human resources issues such as these, coupled with exploitation of new technology and data methodologies, can generate important insights into recruitment, retention and succession planning.³

Five attributes of the valued insurer



Source: The Valued Insurer, KPMG International, 2013.

Meeting the challenge

It is no surprise that insurers with the most innovative approaches tend also to be those with the most advanced talent management strategies. The insurance sector is vulnerable to competition from new entrants using new

technologies and innovative approaches to marketing and distribution. Google, Facebook and other companies with an innovative platform for product distribution or other insurance-related services than underwriting will represent significant competitive threats

A move to future state will require a different mind-set, capability and culture:

Customer-oriented: The move from transactional services to customer-focused will require greater customer service experience, such as graduate fast-track programs focusing on building customer relationships.

Analytical expertise: Attracting, developing and retaining employees with deep analytical skills that go beyond structured data to also include unstructured data will be critical. Greater predictive and prescriptive analytical skills are required to garner the full value of the data and unearth

the tangible business insights that drive action.

Innovative mind-set: Client expectations have increased exponentially in recent years. As insurers and reinsurers strive to remain competitive, they are being squeezed by tech-savvy and more nimble new entrants and capital markets solutions. To remain relevant, innovation will need to become part of insurers' organizational DNA – a transformation that will impact the entire insurance value chain – and require a workforce

encouraged to experiment and supported by leadership.

Legacy knowledge: As is the case with many insurers, core legacy systems and technology are still critically important to day-to-day business. As the architects of these systems begin to retire, knowledge must be passed to the next generation.

Formulating an appropriate response to these challenges requires the development of a holistic talent management strategy. Unfortunately, there is no silver bullet or 'one-size-fits-all' solution.

³ For a more detailed discussion, see: Time for a More Holistic Approach to Talent Risk, KPMG, 2013.

Addressing the five key talent risk categories – the ‘5 Cs’ – is critical.⁴

- **Capability:** Risks associated with building the skills an insurer needs to compete now and in the future – the breadth and depth of skills and capabilities present within a workforce, and how well-aligned these are to the insurer’s needs.
- **Cost:** What is the risk of a workforce becoming unaffordable? What will it cost an insurer to recruit and retain the people it needs? Will it be able to afford the overall cost of its workforce?
- **Compliance:** Risks relating to employee behavior, regulations and laws. This category covers both the need to ensure talent processes comply with local laws and regulations, as well as whether talent management is seen as a business-critical process or an administrative process simply to ‘be complied with’.
- **Capacity:** Risks around the succession into critical roles and retention of critical people and teams. In other words, will an insurer be able to create and maintain the size and shape of the workforce needed to deliver its business plan?
- **Connection:** What is the risk of an insurer’s top talent becoming disengaged? In addition, will an insurer’s talent-related processes remain sufficiently joined-up? Will it be able to share talent between units in the way it needs to? Is it able to connect groups of high-potential people together? Are leaders able to create an emotional connection between high-potentials and the business?

in the insurance market. They are even today attracting and nurturing high-flying young talent.

Talent management is now a business-critical process for every organization. Insurers need to isolate and address a much broader array of talent risks, taking into account the critical need to connect their people to each other

and to leadership; to forecast and manage costs. They must move away from an outdated approach of simply ticking the box on performance reviews. Beyond tackling the ‘5Cs’, insurers must also hardwire talent risk into their wider enterprise risk management framework – thereby placing human capital risk firmly on the radar of the right people at the right level. ■

CONTRIBUTORS

Mark Spears Global Head of People and Change KPMG in the UK

T: +44 20 7311 4753

E: mark.spears@kpmg.co.uk

Mark is the global head of KPMG’s People and Change practice and the global leader of the HR Centre of Excellence. In addition to his leadership responsibilities, Mark has led a number of significant, large-scale HR and change transformation projects. Typically, these engagements are multi-national, addressing complex cross border cultural issues and the need for tailored communication strategies.

Harold de Bruijn Head of People & Change KPMG in the Netherlands

T: +31 206 568 574

E: debruijn.harold@kpmg.nl

Harold leads the People and Change practice of KPMG in the Netherlands, focusing on HR transformation, change management, talent management and innovation. Harold has led several global transformation projects across a variety of sectors (financial services, telecommunications, energy and natural resources, food and beverage).

Mary Trussell Global Insurance Innovation Lead KPMG in Canada

T: +1 416 777 5428

E: mtrussell@kpmg.ca

Mary brings deep expertise covering a entire broad range of insurance markets, from life and health and personal lines to specialty risks and reinsurance, across Asia Pacific, Europe and North America. Having spent most of her career based in London, Mary moved to Hong Kong in 2009 and most recently to Toronto in 2014. As a member of KPMG’s Global Insurance Leadership team, Mary focuses on innovation and high growth markets and leads the development of many of KPMG International’s global thought leadership for the insurance industry.

W Jean Kwon Professor, St. John’s University School of Risk Management, Insurance and Actuarial Science New York, New York

E: kwonw@stjohns.edu

Jean holds the Manton/AIG Endowed Chair Professorship in International Insurance and Risk Management at St. John’s University. He co-founded the Asia-Pacific Risk and Insurance Association, has authored several books including Kulp-Wright award-winning *Risk Management and Insurance Perspectives in a Global Economy*. Jean specializes in insurance market and country analysis, strategic, financial and operational performance analysis, and insurance laws and regulation.

⁴ Compare, for example, *The Business of HR: What You Don’t Know, An Evidence-based Approach to Talent Management*, KPMG/EIU, 2014.

Lessons from the recent currency fluctuations in Switzerland and the eurozone

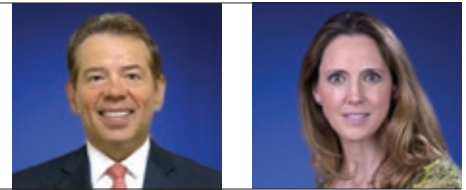
John Budzyna, KPMG in the US
Constance Hunter, KPMG in the US



The European Central Bank's (ECB's) decision to expand its quantitative easing program to include government bond purchases spurred recent fluctuations in the Swiss franc (CHF). The Swiss National Bank's (SNB's) response to the ECB was an about-face from the policy instituted in 2011 to peg the CHF to the euro. The CHF had become a popular currency in which to park funds and borrow money, but all this popularity made the peg even more expensive to sustain.

Many firms and households were impacted by the change and immediate volatility that followed in currency markets. The most severely affected firms tended to cluster in one or more overlapping categories. For our purposes, we'll focus primarily on: trading, hedging and funding. Carry trades are defined as borrowing in a low-rate currency and investing an asset that is likely to provide a higher return.

When any market experiences a large spike in volatility there is fallout. In the case of currencies, abrupt moves can be especially disruptive, as they impact not only financial markets but also all manner of commerce in that currency. The most destructive events are often those that are widely considered to be impossible or highly unlikely.



Modern history of 'crowded trades'

Recent trends show volatility is the latest in a long line of such trades. A trading position becomes 'crowded' when it is held by enough investors that exiting the position could be difficult if the fundamentals of the situation change.

Crowded trades increase the risk of contagion, and when that trade reverses, the number of investors trying to get out of it makes the market very volatile – sometimes leaving major gaps in pricing.

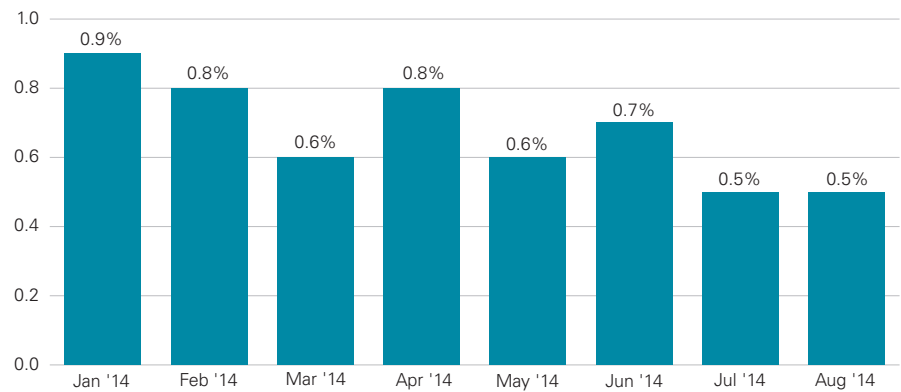
This is a recognized risk in trading markets. In 2004, then-Federal Reserve Bank of New York President Tim Geithner reported that monitoring whether or not trades are crowded is something the Fed has done for more than a decade.

In 2009, economist Lasse Heje Pederson likened crowded trades to shouting 'fire' in a packed theater: "You're just as likely to be killed by a stampeding crowd as you are by the fire itself." There was fateful truth to Pederson's metaphor recently in Europe, as the markets reacted to an unexpected event, and a panicked rush for the exits ensued.

The CHF has since stabilized to the euro, and had market participants waited it out, such losses would not have been incurred.

Monthly inflation rate in 2014

Monthly inflation rate in the European Union from January to September 2014 (Harmonized Index of Consumer Prices compared to same month in the previous year)



Source: Statista, 2015.

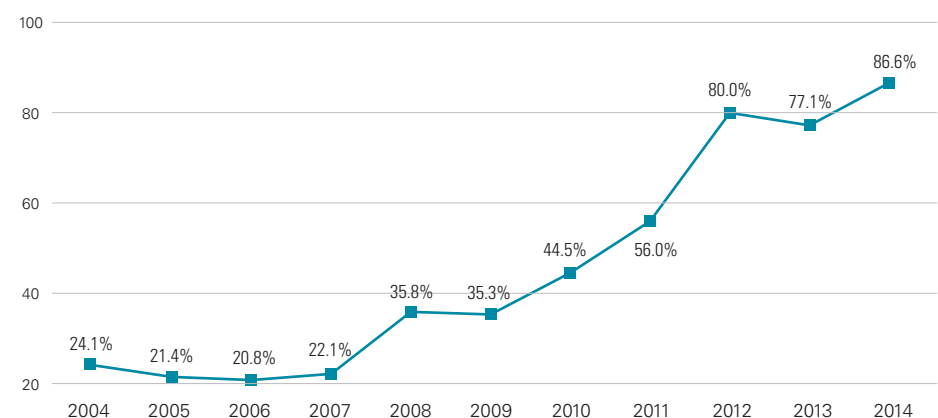
CHF and euro instability

In 2014, 17 countries in the euro zone experienced a bout of deflation. Switzerland had felt the pinch on and off for nearly 2 years, and in response, the SNB worked to keep deflation at bay by having negative yields out to the 7-year tenor. To maintain competitiveness with the euro zone, the SNB also pegged the franc to the euro. The SNB promised they would maintain this policy for the foreseeable future, and this assurance caused market participants to maintain

a variety of positions, assuming the peg would remain in place.

However, two factors caused the SNB to re-evaluate this position. The peg was becoming more unpopular with the Swiss public that became so alarmed at the size of the SNB balance sheet that an attempt was made in November 2014 to pass a referendum limiting its size. When SNB officials learned that the ECB was to begin purchasing government bonds of European countries, they realized that

SNB assets as a percentage of GDP



Source: Haver Analytics 2015.

negative yields in Europe would only put accelerated downward pressure on the euro versus other currencies in the world, especially the US dollar and the British pound. Meanwhile, the market wanted to be long CHF, putting upward pressure on it versus the euro. Thus, maintaining a peg of the Swiss franc to the euro would cost even more to sustain than it had in the past. To prevent the balance sheet of the SNB from growing larger than its already bloated 86.6 percent of GDP, the decision was made to end the peg.

Part of the problem was that with interest rates so low, the Swiss franc was used as a funding currency for carry trades. Some carry trades were versus emerging markets and focused in high-yield corporate debt, but many were versus developed markets, including government debt and high-grade fixed income.

At the same time the ECB decided to purchase government bonds, the US Federal Reserve Bank reiterated its intention to raise short-term interest rates and begin to normalize monetary policy. Historically, when the major central banks of the world engage in opposing monetary policy actions, market volatility

ratchets higher. As a result, the turbulence beyond the Swiss exchange rate has been substantial, particularly with emerging market currencies, such as the Mexican peso, which is now trading over 15.

Meanwhile, the euro had devalued 20 percent from last year's high against the US dollar; the yen was down 50 percent versus the US dollar over 20 months; and even the Chinese yuan was allowed to sink to the very bottom of its trading range versus the US dollar in the last quarter of 2014.

Anatomy of contagion

In the carry trade arena, if your original currency trade goes south, you must post margin. Without cash on hand, the most logical place to raise money is to sell liquid items in your portfolio that are performing well and that have low bid/ask spread. This is how contagion infects other asset classes.

Such was the case with the Swiss franc. Traders started raising cash by selling various assets to pay off margin. The significant move in the franc spurred dramatic selling in other asset classes. This is one potential reason why an expected pop in risk assets, such as equities immediately after the ECB

announced quantitative easing, took a few days to materialize.

Further, many traders lost money – not because they couldn't post margin, but because for about 36 hours, the market had no bid. That is to say in CHF there was no one to take the other side of the trade. In turn this caused the market price, which reflects the mid-market between bid and ask, to gap lower. This highlights the limitations of stop-loss orders and their ineffectiveness in certain circumstances.

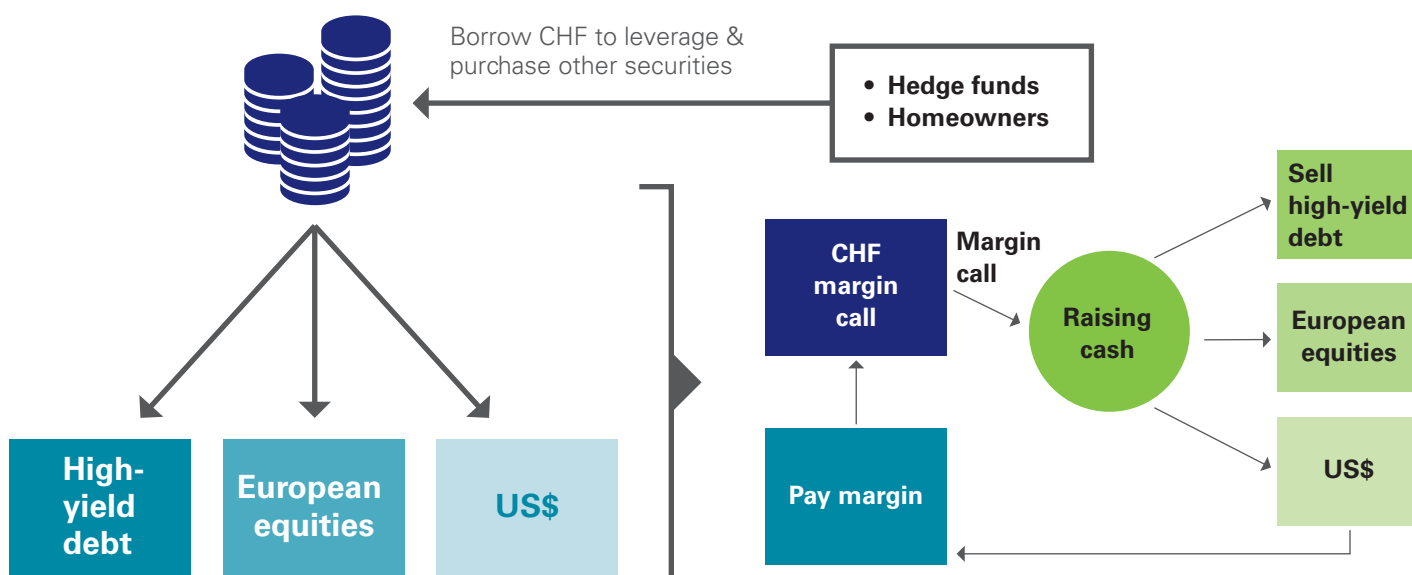
Looking ahead: The risk for financial services and how to be prepared

For financial services leaders, it is important to be proactive to stay ahead of the next crowded trade. A series of simple yet effective questions can be instructive:

1. Do you assess the crowdedness of a trade as part of regular risk considerations?

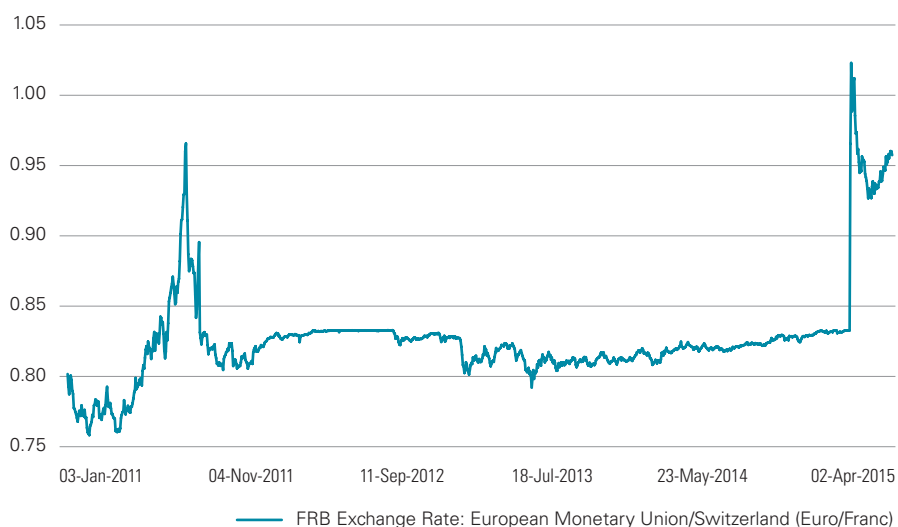
Most leaders will likely say, "Yes." But it is worth delving further to learn how they do this and how often this limits the size of their positions. Institutions should examine their portfolios to ensure that they can withstand pressure to sell, or can

Anatomy of crowded trades and contagion



Source: KPMG, 2015.

Euro and CHF currency valuations 2011 – 15



Source: Haver Analytics 2015.

afford to sell at 'fire sale' prices without putting undue pressure on other parts of their portfolios or holdings.

2. Do you identify hedges to carry trades? Because carry trades are generally low-cost to get into, there is a temptation not to hedge against movement in the stable, low-priced security or currency. In the case of the Swiss franc, however, a little insurance would have gone a long way – because it was pegged, it would have been extremely inexpensive to bet that the SNB would end its peg. The lesson is that if a carry trade is crowded and there's a lot of leverage, it may be prudent to put on a hedge for at least part of the position. That said, it was probably unlikely that those involved in the Swiss carry trade contemplated hedging – having reached a comfort level with several years of relatively stable trading in the currency.

3. Are you reading the tea leaves correctly? Analytics tools are constantly improving. However, just because more data becomes available does not mean it is easier to analyze. Using sophisticated data mining techniques cannot just be the purview of the quant funds. All funds need to make use of this tool to

remain competitive and avoid or hedge against crowded trades. One example is to compile and analyze the top holders of companies to get a sense of the crowdedness of single name equity trades.

4. Are you prepared for unforeseen instability? These are volatile times. It is important to try to identify issues before they become major problems to be prepared for both the challenges and opportunities created by fluctuations in currency markets.

Crowded trades and the reversal of crowded trades can happen in any instrument or any asset class. The best advice is to stay vigilant and always have controls in place to assess investments and determine the extent to which a position is held in a crowded trade. It is important to understand what you have exposure to so that you can engage in a dialogue about how best to manage that exposure.

With volatility an ever-present feature of markets that can pop up seemingly out of nowhere, financial services leaders need to prepare, hedge, and potentially gain a competitive advantage during periods of volatility in the currency markets. ■

CONTRIBUTORS

John Budzyna
National Leader for Market Development, Alternative Investments, KPMG (US) Managing Director

KPMG in the US

T: +1 212 954 3079

E: jbudzyna@kpmg.com

John M. Budzyna is a Managing Director at KPMG in the US and is a National Leader responsible for market development for alternative investments. His 38-year career in financial services has encompassed delivering professional services to an extensive range of financial market companies, including hedge funds, commodity pool operators and funds, private equity organizations and venture capital funds.

Constance Hunter
Chief Economist, KPMG (US) Managing Director

KPMG in the US

T: +1 212 954 3396

E: constancehunter@kpmg.com

Constance Hunter is the Chief Economist of KPMG in the US. She is an economic thought leader focusing on how economic factors impact asset prices and business performance worldwide. In her role at KPMG, Constance works closely with the firm's leadership and clients to identify inflection points, risks and opportunities that arise in the constantly evolving economic landscape. Known for correctly calling economic indicators that presage market turning points such as the Russian currency devaluation in 1998, the dotcom bubble in 2001, the real estate and credit crisis in 2007–08, the recovery of the housing market and concurrent low-bond yields in 2012 and the continued low-bond yields into 2015.



Big data:

The BIG factor driving competitive advantage

Garrett Flynn, KPMG in the US
James Griffin, KPMG in Australia
Eddie Short, KPMG in the UK

By now, most insurers understand the potential value that big data could deliver to their organizations. But our experience suggests that few insurers today are ready to take full advantage of the many opportunities that could be captured with greater data insights. Thankfully, there are a number of ways that insurers could start improving their data and analytics capabilities immediately.

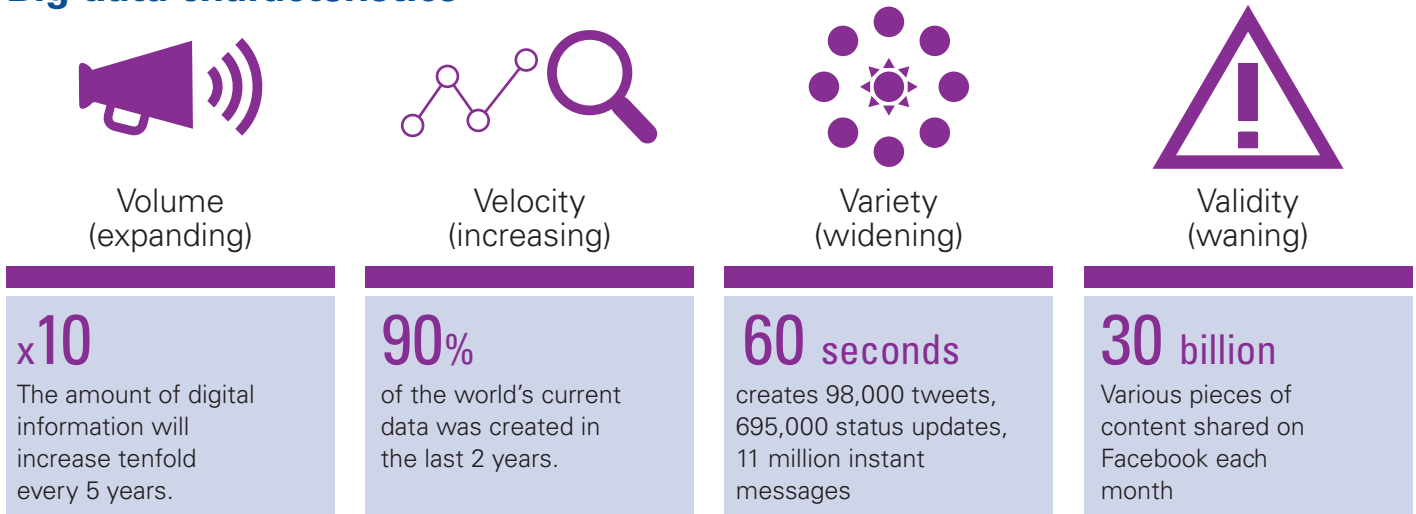
To start the transformational journey into the type of data-driven, insight-led organizations seen in other sectors, insurers will need to be bold in their approach. We see several opportunities for insurers to catalyze

change including reducing the 'bloat' and sprawl of internal data and infrastructure before starting to add new data into the mix; instituting a data governance model that is flexible across the business; enthusing a culture of experimentation; and creating an enterprise data

management function that is empowered to break down internal silos. It will be critical for organizations to look for ways to shake-up their business model and challenge the status quo, while moving towards profitability-based analytics.



Big data characteristics



Source: Data, Data Everywhere! KPMG in the US, 2014.

A rising wave of data

The fact that data – and more specifically the analytics of data – is creating massive value for organizations is irrefutable. Almost 70 percent of all C-level executives say that data and analytics (D&A) will be important to revenue growth going forward and 55 percent say they have already changed their business strategy to meet the challenges of big data.

Yet while the potential value of D&A may be clear, many organizations – insurers included – continue to struggle to make the most of their D&A capabilities. More than half of all business leaders say they consider it to be difficult or very difficult to make decisions around analyzing data. Almost all executives (96 percent) agree that they could be better utilizing D&A in their organizations.

Part of the challenge, and certainly this is not new news, is that big data is continuously growing, not only in size and scope, but also in complexity. As a result, many insurers now need to explore new forms of data acquisition management and integration in order to wring real insights from their data.

The reality is that today's big data is not tomorrow's big data; what qualifies as 'big data' will necessarily change over time as the tools and techniques to handle it evolve, the storage capacity increases and processing power improves.

Perception	Reality
Big data is only about massive data volume	It is about variety, velocity, validity and volume
Big data is for social media sentiment analysis	Big data is about viewing all types of data sources broadly
Big data is a technology issue	Big data is a business issue
The more data you have, the better the insights	Having the right data is more important than having the most data
Analytics is about software and tools	Analytics is about making better decisions by asking better questions
Analytics is just another business trend	It's a permanent change in the business landscape
Analytics is what data scientists do	It's about enabling your employees across the organization, not just a silo of specialists
Predictive analytics is THE answer	Adoption rates for predictive analytics are still low and there is still much benefit to be gained from the basics

A world of opportunity

Some of the opportunities are fairly easy to recognize. Consider, for example, the insights that could be gained simply by integrating social media data with claims data to identify potentially fraudulent activity (such as pictures of a worker's compensation claimant riding a roller-coaster) or to quickly verify evidence of flood damage through geo-tagged photos on Flickr. Claims could be reduced, liabilities more accurately assessed and risks better monitored.

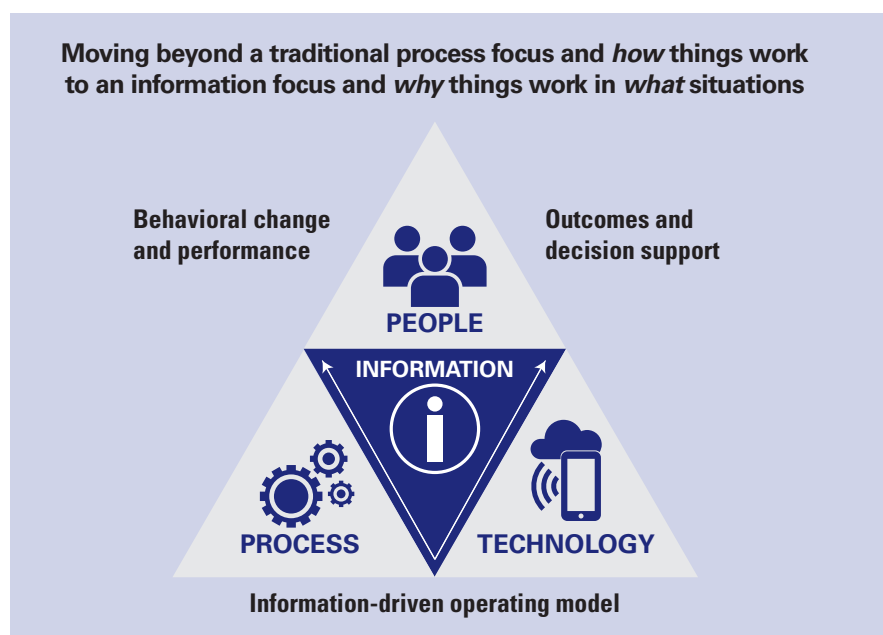
Think more broadly, however, and the possibilities are almost endless. We recently worked with one insurer to create a 'risk dashboard' that integrates data from more than 40 different social media sources to provide real-time monitoring of a range of risks in key geographies. Shipping clients, for example, can use the tool to keep track of storm activity; mining companies may use the tool to monitor for political or social unrest around their operations; infrastructure providers could use the dashboard to track for service interruptions.

For the insurer, the tool is a potential game-changer. Not only does it provide its customers with the ability to more actively manage and monitor their risks, which, in turn, reduces overall risk for the insurer, it also improves the 'stickiness' of its larger corporate customers who see the service as a significant value-add. Better yet, the insurer can now also use the tool (or sell it on as a service) to proactively warn other customers of potential risks and emerging issues, thereby further reinforcing their overall customer experience.

However, moving beyond a traditional 'process' focus (i.e. how things get done) and towards a more 'informational' focus (in other words, why things get done and in what situations) will not be easy and will require insurers to reconsider their approach to people, process and technology.

Many rivers to cross

While some insurers are clearly starting to turn their data into competitive advantage, the reality is that most insurance executives still see big data as a 'big challenge' rather



Source: Data, Data Everywhere! KPMG in the US, 2014.

than a 'big opportunity' and – with little competitive pressure to adapt and a long list of other high-priority challenges on the horizon – most have opted to dabble with their data rather than attack it.

This is not entirely surprising; most insurance organizations will need to do quite a bit of heavy-lifting before they can truly start wringing insights from their data.

Likely the greatest challenge facing most insurers revolves around their current data management strategy. Particularly at larger, more complex organizations, data is often trapped in silos, inconsistently labeled or locked behind access controls making it virtually impossible to achieve a 'single view of the truth'. Likewise, data governance and ownership is often spread across the organization, meaning that few insurance organizations have a centralized view of what data they have and how it is being managed and used.

Even those with more mature approaches to data management and analytics are struggling as the business environment shifts. The trend towards the outsourcing of some back-office business processes, for example, has potentially added more complexity as insurers start to come to grips with their data footprint.

Those purchasing data from outside the organization, such as social media data, economic data or demographic data, face further challenges as they grapple with the implications of integrating and analyzing their various data sources. Multinationals will also need to understand how local and regional data privacy regulations may impact their ability to collect, analyze and share data across the enterprise.

Identifying opportunities to catalyze change

Clearly, it will take something of a transformation for insurance organizations to evolve into the type of data-driven, insight-led organizations that are now emerging in other sectors. But our experience suggests that there are a number of actions that insurance organizations could be taking today in order to start laying the groundwork.

• Clean up what you already have:

Before going out and purchasing reams of new data sets and sources, insurance organizations should start by cleaning up and integrating the data they already have. Ultimately, the objective should be to reduce the 'bloat' and sprawl of internal data and infrastructure before starting to add new data into the mix. That being said, one of the truly valuable characteristics of

big data is that organizations can often start identifying important insights from data sets that aren't technically 'clean', meaning that big data can quickly and easily be overlaid on top of the organizations existing (and clean) data.

- **Develop a data governance model:** With dozens of data warehouses and often blurred lines of data ownership, most insurance organizations will need to focus on creating an enterprise-wide approach to data governance that provides flexibility to the business while also giving consistency in the standards and controls guiding data usage. Those hoping to eventually start leveraging big data and external sources may want to consider developing a 'hybrid' governance model that provides different controls for proprietary information (such as core CDCs) versus external data.
- **Create an enterprise data management function:** While many insurance organizations already have some form of data stewardship function, such as a chief data officer, most are rather single-mindedly focused on creating policies rather than improving information flow and usage. Insurers may want to consider creating an enterprise data management function that can act as a bridge between IT, the business and the data to help ensure that the right information is being used – consistently – across the organization. Ideally, the enterprise data management group would be empowered as the primary source for all data requests that come from the business.
- **Build a culture of experimentation:** Given the level of regulation governing the insurance sector, it is not surprising that most organizations tend towards a more risk-averse corporate culture. What this means, however, is that few employees or business units feel incentivized to innovate. Those seeking to encourage new ideas and approaches will want to consider how they might implement a culture of experimentation that recognizes the fact that some projects will fail and therefore provides employees and business units with the right guidelines – and the flexibility – to safely test out new approaches.

- **Look for the blue sky:** Rather than trying to force your data to tell you things you already know about your business, focus your attention on creating new areas for improvement or value creation. Whether opportunities are found in commercializing your existing data and insights or in leveraging your data to develop entirely new products and services that suit more targeted demographics, insurance organizations should be looking for ways to use their data to shake-up the business model and transform the status quo.
- **Move towards probability-based analytics:** When dealing with big data, the key to driving insights is being able to eliminate the 95 to 99 percent of information that isn't relevant to your needs (i.e. the 'noisy data'). This can't be accomplished through traditional root cause or 'regression' analytics; finding value in big data will require insurers to understand, and embed, probability-based approaches and techniques into their core data and analytics capabilities.
- **Make sure you are asking the right questions:** Getting useful insights from your data all depends on your ability to ask the right questions. But it also means being able to identify which questions you can't currently answer with your existing tools and techniques. However, if insurers invest in identifying the right questions to ask of big data – and then couple the right questions with smart probability-based analytics – insights can start to flow very quickly.

At the end of the day, the biggest technology risk for insurers is that they are left behind in the race to turn data into insights and insights into value. Our experience suggests that it will be those that are able to create the right environment and governance models to support data-driven experimentation and exploration that will win in the more customer-centric insurance model of the future.

Given the pace of change in the market, those who continue to merely 'dabble' with their data may soon find it difficult to catch up. ■

CONTRIBUTORS

Garrett Flynn Principal

KPMG in the US

T: +1 312 665 1608

E: gflynn@kpmg.com

Garrett has spent his career helping organizations transform their business through carefully planned and effectively executed IT and process enablement. He has worked with national and global organizations to both manage and deliver large programs that focused on the integration of business function, process, technology, data and people.

James Griffin Director, Risk Consulting and Innovation Practice

KPMG in Australia

T: +61 2 9346 5402

E: jgriffin1@kpmg.com.au

James has worked with many of the world's leading corporations, government departments and political leaders to help them understand the opportunities and challenges they face from digital disruption, in particular social media. He has been the recipient of the 'Young Business Person of the Year' award from Australia's largest Chamber of Commerce, the NSW Business Chamber. James joined KPMG Australia as part of its acquisition of SR7.

Wondering whether it is better to buy, lease or build new technology solutions to garner data insights? Read our article on page 31, Tapping into Insurance FinTech.

Chief data officers:

The next generation of leaders transforming banks

Nick Urry, KPMG in the UK
Robert Parr, KPMG in the US

The stage is set for chief data officers (CDOs) to bring much-needed direction to banks' data management strategies, helping them remain compliant and unleash the commercial potential of information.



It has often been said of organizations that 'people are our greatest asset'. Substitute the word 'people' with 'data' and many bank chief executive officers (CEOs) would nod in agreement.

But, if data is so important, why have banks struggled to make the most of this precious yet abundant resource?

Whether reporting to regulatory authorities, or providing analysis and support for trading, investment, risk management and loan decisions, banks and other financial institutions routinely suffer from incomplete data from a huge number of sources in an equally wide range of forms. For many institutions, this results in slower response times, higher costs, loss of trust, increased regulatory scrutiny and missed business opportunities.

A CDO can help fill this vacuum, offering a central point of contact and providing the coordination necessary to enable data stewardship and, ultimately, data quality across the organization. Through common structures, standards and processes, he or she works with the lines of business and functions to guide the flow of data and ensure it is up-to-date, accurate and consistent for both regulatory submissions and as vital intelligence to inform critical management decisions.



The lack of a coordinated approach to data management across countries, lines and functions has real demonstrative cost to the institution.

Keeping on the right side of the regulators

Since the global financial crisis, the hand of risk has weighed heavy on the financial services sector, with organizations under constant pressure to demonstrate sound risk management. Regulators expect accurate and complete reporting, signed off at board level, to prove an absence of unauthorized trading and corruption, such as fixing LIBOR or foreign exchange rates, or money laundering. Providing transparency to data lineage and data quality controls is an essential element. Regulators expect accurate and complete reporting that covers all of the major risks and appropriately informs decision-making. They also expect that any material inaccuracies or deficiencies in the quality or completeness of a report will be highlighted to the recipient, where 'material' deficiency means that it would have impacted on the decision. The regulators and executive management are also expecting that data will be available to provide early identification of activities such as unauthorized trading, rate fixing, money laundering, corruption, insider trading, misreporting of transactions, etc., both to avoid direct losses but also to avoid the significant regulatory penalties that have occurred recently. This requires both accurate reports and high quality data, combined with effective and pragmatic data ownership and governance.

Wary of the potential for future catastrophes, authorities also want evidence that banks can avoid crises – or react appropriately should the worst happen. This needs to reflect the first

and second order risks created by political and economic events, for example, the Ukraine or Greece crises. These stressed scenarios need to be accurately and consistently assessed within different banking divisions of a global bank as well as within different banking entities or specific country boundaries. Global banks have multiple lines of business, yet capital and liquidity are often managed at group or worldwide level. With local regulators taking an increasing interest in risk, country or business unit managers can find it hard to access the right information and may find it impossible to manage the required transformation to the underlying data architecture or processes. This is where the chief data officer can play a significant role in co-ordinating the activities of data owners, data stewards and data architects to create the target state data architecture and to influence the portfolio of change projects to create an effective delivery roadmap and to manage convergence to the roadmap across a global bank.

Additional regulations on transactional reporting can put a huge strain on fragile systems. In a trading environment, it is not unusual to see millions of trades a day, each of which must have an accurate time recording. Failure to meet such requirements, or prove that controls are in place to spot discrepancies, can lead to fines and higher capital limits that push up costs.

In the fast-moving banking environment or trading room, it is easy for incorrect data to be entered, and worse still, be labeled in a multitude of ways, making it extremely difficult to trace. As multiple extracts use this source data and proliferate it to various warehouses, models and reports, the error is then multiplied a hundred- or thousand-fold. Onboarding new clients through a (largely manual) Know Your Customer (KYC) process provides similar scope for error. Rather than catch discrepancies at point of entry, financial institutions devote valuable resources and cost trying to unravel a trail at the data warehouse. Often resorting to social networks or word of mouth, analysts can spend a significant proportion of their time in relatively low-level detective work, finding, fixing and presenting data – time that would be better spent on delivering insights that could drive the business forward.

Establishing accountability for data beyond the CIO

As data proliferates at a meteoric rate, most, if not all, banks lack a person or team responsible for assuring quality and standardization of inputs and outputs, and coordinating information across complex organizational structures. The chief information officer (CIO) may be assumed to be the go-to person, but he or she is typically not a data expert and is unlikely

Key responsibilities of a CDO

Increasingly the CDO will sit outside of IT. Many bank CDOs will sit within risk or another non-IT area of the bank as recognition of their need to be independent from technology. In general, their key areas of focus include:

- **collaborating** with lines of business and functions; defining strategic priorities for data; identifying data capabilities to support new business opportunities
- **managing** a technology team focused on building, maintaining and evolving the data supply chain
- **overseeing** enterprise data programs and capital investments aimed at enhancing the data supply chain either through tools or new processes
- **governing** the data supply chain by implementing enterprise-wide data governance standards, creating transparency from lines of business to the board for critical data
- **advocating** and evangelizing the strategic value of data and linking that to the needed business disciplines and required capacity
- **building** analytic communities across the organizational scope.

to have a mandate to control the way that data is managed. This individual owns the information technology (IT) people, architecture, equipment and budget, and sets the technical direction, but lacks the critical levers to govern and control data quality at the source.

The individuals that enter data typically will not report to the CIO, nor to the Finance team that prepare reports for the regulator, management and the board. Ownership and responsibility for data should rest jointly with business owners, modelers of source data in finance and risk management, and the initial 'producers' of the data in the front office. But who can guide them?

Enter the CDO. As a 'custodian', rather than an owner of data, this person and their team creates a more accurate, orderly and up-to-date information flow from the source (point of input) to the point of consumption (reports, models, analysis, dashboards). Most bank regulators are actively advocating for this central point of contact.

The CDO needs to work in conjunction with IT and the business to:

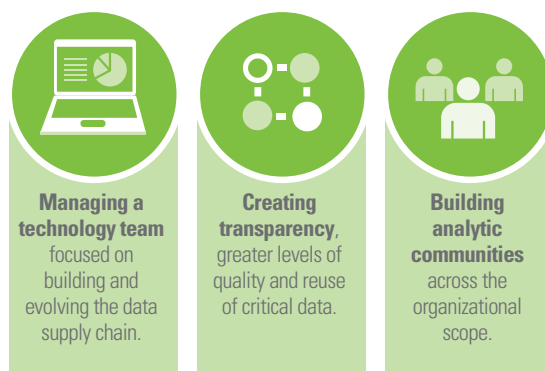
- engage businesses and functions to build ownership and competency in data stewardship
- craft an integrated data strategy focusing on the capabilities across the data supply chain covering infrastructure, roles and organization, processes and standards, advanced analytics and reporting
- develop funding models for shared capabilities and align with project funding processes
- define, fund and oversee the implementation of the new capabilities
- develop data governance and quality standards, processes, measurement and decision rights
- enhance overall analytic efficiency and competency within finance, risk

Chief data officer on the rise

Why the CDO?

+100	In 2014, there were more than 100 chief data officers in large global companies.
2x	The number of large global company CDOs has already doubled since 2012.
17%	By the end of 2014, 17% of larger organizations plan to have a CDO, requiring CIOs to adjust their role expectations.
25%	More than 25% of CDOs are female.

Key responsibilities



Source: Gartner, CIO Advisory: The Chief Data Officer Trend Gains Momentum, Jan 2014.

and lines of business by reducing time spent finding and fixing data after an error is spread.

Value – broader than the foundational plumbing

The structure, effort and alignment enabling data quality is often below the waterline. Many organizations struggle to articulate the value beyond establishing basic discipline around data quality to enable regulatory and management confidence in data quality. In fact, through

their role, CDOs have line of sight into efficiencies in the area of third party data spend (e.g. payment and credit bureaus) and sourcing simplification to name a few. But the value and momentum is felt the greatest through finance, risk and the lines of business where the CDO is focused on improving analyst cycle times and model development efficiency – this leads to improved targeting, pricing, more predictive credit and liquidity models, and better capital planning that can all have dramatic impacts on the bottom line.

Successful CDOs focus on transformation not just implementation

With all the moving parts involved in data management, it's easy to plan and treat this like another technical implementation. However, a long list of failed attempts across the industry show otherwise. Rather, those CDOs that focus on the transformative nature of what they are doing – focus on building engagement and adoption across the C-suite on down – recognize the trade-offs that will have to be made and the need to work the complete data supply chain. The focus needs to be on people, processes and technology, in that order.

The role of CDO is not for the faint hearted. It requires patience and persistence, plus an ability to exercise a high degree of influence, often without formal authority. The CDO must possess excellent communication and networking skills, to work across the business at both senior and junior levels. They have to understand the organizational data value chain and foster a structured, sustainable approach to data management, with appropriate controls, providing oversight of enterprise data programs and

implementing enterprise-wide data governance that is ingrained into the management fabric.

By forging a perception of data as a vital business asset that can drive revenue and reduce costs, the CDO acts as an evangelist, helping leaders understand their roles and accountabilities in maintaining high quality data.

Such a rare individual must possess a unique combination of strategic and operational capabilities along with change management skills, topped up with a tremendous drive to push through new ideas and ways of working that will stretch the organization and its people. If successful, the notion that 'data is our most valuable asset' should be more than just hot air, and will reflect an organization that truly understands and appreciates the links between data and business value.

Although not all financial institutions have chosen to appoint a CDO, such a position has enormous potential to speed up response times to regulatory demands, reduce data management costs and use information to drive important strategic decisions. ■

CONTRIBUTORS

Nick Urry
Partner
Management Consulting
KPMG in the UK
T: +44 20 76942330
E: nick.urry@kpmg.co.uk

Nick is the Partner responsible for KPMG in the UK's Technology Enablement Practice and has been working in banking for over 25 years. He has a specific focus on strategic data architecture projects and on transformational projects in data quality, data governance and data management at global banks. In the last 5 years, he has worked extensively on finance, risk and treasury data architectures, and risk data aggregation and reporting (BCBS 239), either working for management or as independent quality assurance on behalf of regulatory authorities.

Robert Parr
Managing Director
Banking Data Strategy and Operations
KPMG in the US
T: +1 312 665 8410
E: rparr@kpmg.com

Bob is a Managing Director with over 22 years of banking and financial services experience in both the US and Canada and a leader of the US Banking and Capital Markets Data Governance and Quality Solution. He hosts KPMG's North American Data Share Forum that brings 15 financial services CDOs together every 6 months to discuss current issues in this space.

Do you need a CDO?

- Take a collection of your most critical regulatory submissions and reports: Are your data quality controls sufficient across your supply chain from source to warehouse, to models, and are you confident that you know the underlying data is sound? Is there a string of unbroken accountability from source to report?
- When the regulators want to talk about data, is there a central point of contact and accountability?
- Are analysts spending a significant portion of their time finding and fixing the data underlying these reports?
- Do you have a common repository for metadata (information about your data) that can be leveraged by analysts across each of your business functions?

Hedge funds and institutional investors:

A changing future

Robert Mirsky, KPMG in the US

Aidan Dunne, KPMG in the US

As the environment for alternative investments continues to evolve, hedge fund managers are rethinking their products, fee structures and investor mix to refocus on institutional investors – particularly pension funds. But, at the same time, the world's pension funds are also starting to shift their investment criteria and objectives, creating new demands on the managers they choose to invest with. Clearly, the long-term impacts will be significant for both hedge fund managers and their investors.

New investors, new dynamics

The fact that hedge fund investor demographics and types are changing should come as no surprise to managers around the world. The shift towards institutional investors has

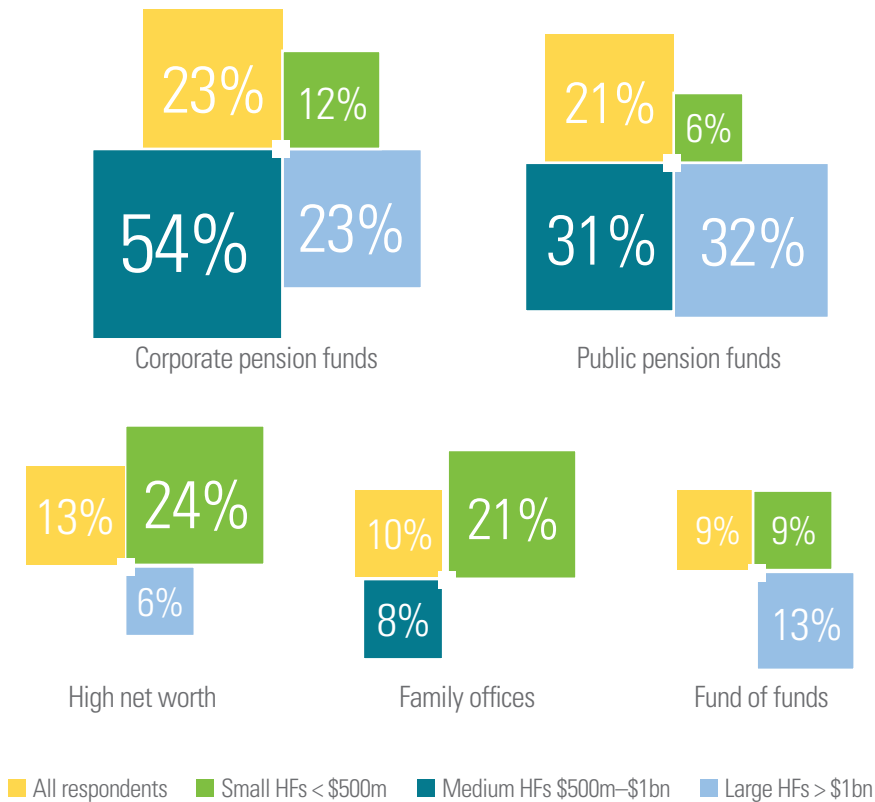
been evident for some time. However, recent evidence suggests that most hedge fund managers now believe that institutional investors – pension funds in particular – will soon become their largest investor group.

Many expect the shift to happen quickly. Indeed, according to a recent report published by KPMG, the Alternative Investment Management Association (AIMA) and the Managed Funds Association (MFA),¹ most managers

¹ *Growing Up: A New Environment for Hedge Funds*, KPMG/AIMA/MFA, 2015.



Corporate and public pension funds will be the primary sources of investment for medium and large hedge funds over the next 5 years.



Source: Growing Up: A New Environment for Hedge Funds, KPMG International, 2015. (Top 5 responses.)

expect to see a significant shift in their primary sources of capital over the next 5 years.

The change in investor demographics will be remarkable. Slightly less than a quarter of respondents (23 percent) said that – by 2020 – corporate pension funds would be their primary source of capital while 21 percent said they expected public pension funds to be their primary source of capital in 5 years. Only 13 percent pointed to high net worth investors (hitherto the ‘bread and butter’ of hedge fund management) and just 10 percent pointed to family offices as their primary source of capital in the future.

Hedge fund managers have good reason to shift their long-term focus towards pension funds. Isolated high-profile exits aside, all evidence suggests that most pension fund managers are committed to maintaining alternative investments as part of their investment portfolio. However, if hedge fund managers hope to secure part of the anticipated funding, it is clear they will need to dramatically change their models, structures and products to meet the needs of their new investment audiences.

Shifting strategies and structures

To start, hedge fund managers will need to rethink whether their current fund

The fact that hedge fund investor demographics and types are changing should come as no surprise to managers around the world. The shift towards institutional investors has been evident for some time.

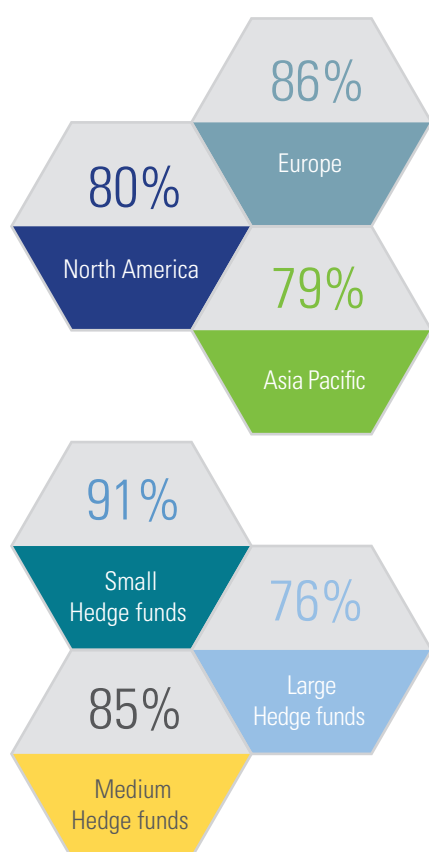
strategies are suitable for attracting these new investors. The reality is that many institutional investors have been focused on cutting their investment management costs for some time now, and this has already had a significant impact on the hedge fund sector.

In some cases, pension funds have conducted a general consolidation of investments towards a smaller number of large (and, therefore, presumably less risky) managers. While this trend towards fewer investments may make life easier for investment managers, it will likely also make it more difficult for new and smaller managers. With this in mind, three-quarters of respondents said that they expect the number of hedge fund managers to either decrease or stay the same over the next 5 years.

For other pension fund managers, cost cutting has focused on negotiating more flexible fee arrangement. Management fees, in particular, seem set to fluctuate with the vast majority (84 percent) of hedge fund managers now saying they expect to compromise on fee arrangement over the next 5 years. That being said, our experience also suggests that – while pension fund managers are now pushing back on high management fees and questionable expenses –

Over the next 5 years, customized fee structures are expected to be more prevalent

84%
agree



Source: Growing Up: A New Environment for Hedge Funds, KPMG International, 2015.

most are still willing to compensate handsomely for the right levels of performance.

Both investors and managers must remember, however, that pressure to reduce fees must be balanced against expectations for performance. Simply put, to attract the brightest talent, hedge funds need to offer above-average compensation, and to do that, they need secure fee income. Squeeze fees too far, therefore, and performance will likely suffer.

A future of customized strategies

Hedge fund managers will also find that pension funds are increasingly focusing on securing highly customized products – such as funds of one and managed accounts – rather than participating in co-mingled funds and limited partnerships.

These realities are not lost on the hedge fund sector. Almost two-thirds (64 percent) of respondents said they were witnessing increased demand for ‘solutions’ such as managed accounts and funds of one from their investors. And managers are responding: 44 percent say they already offer customized solutions to their investors and a further 22 percent say they are preparing to do so.

Over the next decade, we expect to see customization become increasingly commonplace in the hedge fund sector. Indeed, our experience working with pension funds and other institutional investors suggests that investment managers are becoming less concerned about the specific asset class they are buying, preferring instead to focus on investing in whatever asset class will provide the right risk, fees and returns to fill specific gaps in their portfolios. If hedge fund managers hope to compete for that investment, they will need to

customize their products to suit their investors’ needs.

More transparency, new targets

The shift towards institutional investors will also force hedge fund managers to rethink their performance targets and reporting processes. Pension funds (particularly public ones) and most sovereign wealth funds demand significant transparency from their managers; some may struggle to meet the more stringent reporting requirements of these investors.

Interestingly, greater participation by institutional investors may also change the return profile of the industry, as pension funds opt for lower-volatility and more stable returns, driven largely by the desire to lower the risk for pensioners. Indeed, many pension funds aim for targets of 7 to 8 percent, which requires a different approach from the traditional hedge model of high returns with higher volatility.

Recognizing the potential for increased scrutiny from institutional investors, almost half (46 percent) of the respondents in our survey said they worried about the potential impacts of underperformance, while four in 10 said they saw pricing pressures as a significant barrier to future growth.

Does size matter?

It’s not just large funds that are gearing up to attract new investor types and demographics; smaller funds also report shifting towards greater customization of fees and products to suit new investor audiences. More than a quarter of smaller funds already say they offer a fund of one solution. More than half say they plan to offer one within the next 5 years.

However, the reality is that most larger pension funds and institutional investors

tend to cap their investments as a certain percentage of the manager's total assets under management (AUM), meaning that many smaller managers may not be able to compete on their own for a share of the anticipated institutional investments (a 10 percent cap on a \$30 million AUM manager, for example, allows only a \$3 million investment, far below the usual investment threshold for many larger institutional investors).

Looking ahead, platforms seem to offer a strong solution for both smaller hedge funds seeking to attract institutional investors and for institutional investors looking to tap into new sources of talent. Most of today's platforms provide a full suite of investor services – from the due diligence on the underlying fund managers through to the audit and tax processes – making it fairly easy for institutional investors seeking to reduce complexity.

Managers of smaller funds understand this and increasingly recognize the long-term need to leverage platforms to attract new investors. One in five managers of smaller funds said they would use platforms as their preferred method for launching new products into the market (versus just 8 percent of medium funds and 3 percent of larger funds).

The future state of the industry

Clearly, the hedge fund sector is in the midst of an era of unprecedented change. Institutional investors will continue to eclipse high net worth individuals as the industry's primary sources of investment. Traditional fee arrangements will erode in the face of more customized models. And new markets will emerge both as investment destinations and as potential customers. It is also likely that larger investors will increasingly turn to specialist programs aimed at finding emerging managers.

Against this backdrop, we believe that assets currently considered as 'alternative investments' will soon become more mainstream as products become more available across multiple platforms and through to retail investors. When combined with the cost of regulation, we expect to see increased use of technology within the sector as smaller funds start to band together to achieve the mass they require to attract institutional investors.

Change will also come to the institutional investors themselves as the current approach shifts quickly towards a more bespoke model within the next 5 to 10 years. Partly as a result, we may start to see co-mingled funds disappear as part of institutional investors' portfolios. It is also likely that larger investors will increasingly turn to specialist programs aimed at finding emerging managers. Small investors, family offices and high net worth individuals, though, are expected to continue to invest in co-mingled funds.

We believe that the increasingly rapid shift towards pension funds, in particular, will catalyze significant changes in the way that managers structure, manage and market their products in the long-term. So, too, will the opening up of Asian markets, as funds from mainland China start to flood into the market.

What is clear is that hedge fund managers and their investors will need to start working closer together to develop the right products with the right returns in the right markets to achieve everyone's future objectives. And as customization becomes more accepted, managers will need to think seriously about how these arrangements impact their business models and fund strategies going forward. ■

CONTRIBUTORS

Robert Mirsky
Principal, Tax, FS Asset Management
KPMG in the US
T: +1 212 954 6162
E: robertmirsky@kpmg.com

Robert is a senior alternative investment management professional and Global Head of KPMG's Hedge Fund Practice. Robert recently moved to the US firm from the UK member firm, based in London, where he spent the last 10 years. In the UK, he also worked with KPMG in a similar capacity.

Aidan Dunne
Partner, Audit, Asset Management
KPMG in the US
T: +1 415 963 7881
E: adunne@kpmg.com

Aidan has over 15 years of experience serving primarily financial services companies including commercial and community banks, investment banks, broker-dealers, investment partnerships, venture funds, investment advisors and mutual funds.

Social physics:

How good ideas spread and lessons for the banking sector

David Sayer, KPMG in the UK

There is a strong and growing conversation around the pace and speed of innovation in today's banking model and how banks can pivot to take advantage of the latest advances in FinTech innovation and big data. However, many feel that if banks are to achieve success in innovation, more than just technology acquisition must take place. They point out that banks must also consider how they can be prepared as an organizational culture to be ready and equipped to fully embrace the challenges and benefits of innovation and, ultimately, business transformation.



In the same vein, when Alex 'Sandy' Pentland published his research on social physics last year, business leaders in a variety of sectors paid attention. People had already been talking about Sandy's team at the Massachusetts Institute of Technology (MIT); his approach to social physics helped his team win the highly publicized DARPA Network Challenge in 2009, proving that social networks can be leveraged as a powerful source of information and sharing.

His recent book on the topic, entitled *Social Physics: How Social Networks Can Make Us Smarter*, was selected by *Strategy + Business* as a *Best Book in Business Innovation*. *The Economist* described the book as "filled with rich findings about what makes people tick ... a fascinating look at a new field by one of its principal geeks." In 2012, *Forbes* named Sandy as one of the seven most powerful data scientists in the world.

I recently exchanged views with Sandy to talk about his book and to find out how

his powerful ideas can be applied to the banking sector. Here is what he had to say.

DS: Your book has received fantastic reviews from business leaders and publications around the world. What exactly is 'social physics', and why is the concept becoming increasingly important to business leaders today?

SP: I think the book and the concept have captured business leaders' attention because social physics offers an entirely different way to improve businesses at a time where technology and change are putting extreme pressure on organizations.

Simply put, social physics is a new way of understanding human behavior by using big data – essentially the 'digital breadcrumbs' of society – to tell us more about all aspects of human life and how ideas move, evolve and spread. For businesses, this unlocks all sorts of amazing possibilities and offers a path towards building more cooperative, productive and creative organizations.

And that means more resilient and more profitable organizations as a result.

Today, people tend to view management as an 'art'. Social physics takes this art and turns it into a science by allowing decision-makers to qualify things, find the patterns, visualize them and then manage towards them. In other words, it's adding discipline to the art by taking a 'major' in interaction and understanding the patterns of interaction that lead to innovation.

DS: Banks are certainly feeling pressure to change in today's environment. Are there ways that banks can benefit from using social physics?

SP: I think banks, in particular, have a real challenge in that the fundamentals of their business model haven't changed much over the years and – as a result – everybody thinks they know what it means to be a bank. In fact, there may be various ways to successfully organize a bank but people haven't thought of them yet because they're constrained



by pre-conceived notions of how a bank traditionally works.

The idea behind social physics is to understand how people interact not only with organizations (such as banks) but also with each other and to use that information to find new ways to inspire innovation. Even at the more operational level, banks can benefit tremendously from social physics approaches.

DS: In your book, you show some very compelling examples of how social physics has been practically applied at a variety of organizations. Can you give a few examples of how banks might use social physics to solve a current challenge?

SP: One of the clearest practical examples of how social physics can be applied in the banking sector relates to credit scoring. As part of our research, we looked at a large body of bank data from developing countries and found that we could achieve almost 50 percent more accurate credit scoring than the bank could because we were looking at the social physics – the behavior of the people – rather than traditional bank data such as age, income or repayment history.¹

What we found was that you can get a much more accurate prediction of whether someone will pay back their loan by looking at the space and time pattern of how they spend their money, irrespective of the amounts of money. So knowing where the person goes and how often they go there will often provide more insight into their future activities and creditworthiness than simply knowing how much they made that year.

The same approach can be taken for assessing SME loans. Instead of looking at their business income and collateral, banks should instead be trying to figure out where that merchant sits in the network. What we do with social physics is use Big Data to identify who the potential customers of the new enterprise would be, understand what other stores they go to and then find out if those stores are also

regularly profitable. If they are, chances are very high that your new enterprise will be as well.

DS: I think it's fair to say that the mainstream banks struggle with innovation, largely due to organizational size, complexity and fears that any change in the model may bring unwanted regulatory scrutiny. Are banks too big and constrained by compliance concerns to apply social physics concepts to the business?

SP: Not at all. We've worked with some really big banks to improve their customer-facing channels with really huge effect. In fact, the concept of social physics and the sort of things we talk about actually help big, complex organizations break down their silos and become more agile. And banks could certainly benefit from breaking down the silos.

That being said, banks are certainly struggling, in part because they tend to manage themselves very rigidly. And what that means is that you tend to cut off all of your latent capabilities – all of your 'green sprouts' for growth as it were – and that dulls the ability of the organization to change and innovate.

But it's exactly this sort of exploration that banks will actually need in order to succeed in the long term. Yes, it may cause some disruption in the model and it may take some thinking to get there, but when market conditions start to change again, or when times get tough, those that have adopted social physics approaches will be the ones that know where to go, how to change things and what to do next.

DS: Culture is clearly an important aspect of incorporating social physics into the enterprise. Do you have any advice for banking executives?

SP: Culture is very important and banks really need to start building up a culture of innovation within which these 'green sprouts' can grow. This is about looking for wisdom from the leaves of the tree, not from the top of it. The top of the tree

needs to be able to say what direction it wants to grow in, but coming up with the right way to achieve those goals requires creative solutions from the people that are actually spread right across the organization, doing the day-to-day stuff.

Part of this culture change will come from rethinking the way bank employees are incentivized. The truth is that people don't actually respond all that well to financial incentives; they work hard to meet their goals, but if they can find ways to cut corners and achieve the same goal, they usually will.

Social incentives, on the other hand, have very different properties. Think of it a bit like the way some sports teams reward their players for being on the field when the goal gets scored. Everyone on the field works together because they all see a benefit when they help each other reach the goal. In fact, social incentives tend to be much more sophisticated because you are incentivizing a group of people who are doing a job together and they are the ones that know best whether their colleagues are doing what they need to do to achieve their goals.

DS: As your book suggests, part of the challenge for executives is moving from saying that they want to break up the silos to actually doing it. Do you have any suggestions to help banks move forward quickly using social physics approaches?

SP: I believe that executives and those responsible for catalyzing innovation need to start by piloting social physics approaches in a way that allows them to really visualize what that means for their organization and their decision-making process.

I also think banks should start thinking about ways to encourage new ideas within the business, possibly by starting new businesses within the umbrella of the overall organization; trying to build groups that have different cultures and different bases of funding which, in turn, allow them to operate differently than the core bank. Examples of other industries the same are automobile companies and their captive car loan services, or (somewhat differently) banks and the Visa network.

¹ The Predictability of Consumer Visitation Patterns, Coco Krumme, Alejandro Llorente, Manuel Cebrian, Alex ('Sandy') Pentland & Esteban Moro Scientific Reports 3, No.1645 doi:10.1038/srep01645.

One area where this might deliver significant benefits is in the way banks think about digital technology. Over the past few years, there have been a raft of new technologies and innovations that could easily disrupt the status quo for banks and they often have a very different logic behind them that doesn't necessarily translate into the traditional business model for banks. You really need to create a new space for them that uses non-traditional banking capabilities and skills to look down the road and take a longer-term view to building an all-digital model.

DS: Can social physics deliver short-term benefits?

SP: There are a number of examples in the book about cases where we've gone in and applied social physics principles to a particular problem and delivered some very quick benefits through very simple fixes.

One example we use in the book was for a German bank that wanted to improve their productivity within a certain department but weren't making much headway. Using social physics approaches, we showed them that the root of the problem was that they didn't have enough informal communication between groups in the department, simply because some groups were spread throughout the building. They rearranged the office space to improve communication flow and collaboration and finally fixed some of their major challenges.

But I believe that the longer-term benefits of applying social physics principles can be very significant. It starts with a real change in the level of innovation and the 'esprit de corps' within the organization. That, in turn, improves organizational agility and that's where the 'green sprouts' will come from. And, when done right, that can happen pretty quickly as is evident from the 1990s with other industry icons such as IBM and the change from hardware to services business or Microsoft's shift from stand-alone computing to web computing.

One tends to think of banks as big monolithic structures, but I believe that it's possible to begin to shine the light in and unfreeze the frozen relatively quickly. At least enough in the short-term to be able to start to plot where your organization should be going next.

DS: What struck me when reading your book was that banks really need to start considering how they can embed some of the ideas you discuss and make their capacity to innovate and transform more consistent, measureable and achievable.

Creating a corporate culture that is socially incentivized to share and adapt will maximize the pace and impact of innovation by encouraging strong creative idea flow within and across the bank. The implications for our global banking clients are significant as it demonstrates the need to think creatively and comprehensively to achieve true business transformation and an enduring culture of innovation.

Thank you for sharing your ideas, Sandy. ■

Case study

Changing the corporate culture to adopt innovation is a compelling concern for banks but so, too, is their ability to partner externally with clients and partners to move their innovation agenda forward. An interesting example of how KPMG is creating partner/alliance innovation is our connection with McLaren Applied Technology (MAT) where we combine the engineering prowess of MAT with the academic lens of the KPMG Centre for Advanced Analytics and the business acumen of KPMG. Partnering with MAT, we are innovating our audit process to allow us to provide McLaren more actionable insights, enhanced quality and greater efficiency in areas of judgment. In turn, KPMG is taking the innovation we co-develop in this alliance and applying these innovations to client needs in other sectors, including a new approach to the audit of and loan loss provisions in the financial services sector. For more information on this unique approach to partner-based innovation go to: kpmg.com/mclaren

CONTRIBUTORS

David Sayer,
Head, Global Banking KPMG
KPMG in the UK
T: +44 20 73115404
E: david.sayer@kpmg.co.uk

David leads the Global Banking team which provides audit, tax and advisory services to a very wide range of clients from global banks to small savings and loan providers. He has had 26 years of experience as an advisor and practitioner and oversees the more than 16,000 professional KPMG staff working with banks.



The perfect storm of technology and capital markets:

The modern history of FinTech

Bob Hayward, KPMG in Singapore
Ian Pollari, KPMG in Australia

Is 2015 the 'year of FinTech'? A perfect storm of conditions is brewing that makes financial technology (FinTech) the right solution for the right conditions at the right time. And that time is now.

The investment banking industry is in a state of flux. Seismic shifts, brought about in large part by the monumental costs and complexities associated with increasing regulation, have altered the economics of investment banking forever. The challenges posed by the regulatory environment added to the pressures from customers for higher yields and lower fees present challenges for banks' capital markets businesses. And as the digital revolution and reduced information asymmetry continue to transfer more power to the buy-side with greater levels of electronic, or self-directed trading, the sustainability of intermediation must, at some point, come into question.

There is also the issue of trust. Beyond the investment banking and capital markets sector's legacy technology systems, trust has weakened between customers, investors and the banks that serve them, between counterparties that trade with each other and even between regulators.

Power to the buy-side

Technological advances will continue to reshape capital markets' operating models and service delivery paradigms over the next several years. The 'democratization' of technology has already seen buy-side institutions assuming more control over the trading systems they employ, reducing their dependency on the sell-side to supply them with the tools they need. This shift will continue to gather momentum as the buy-side becomes more empowered, seeks to preserve returns in a difficult market, takes more control over the quality of execution and the sell-side struggles with its capacity to respond.

For those investment banks that wish to thrive, now is the time to adapt with new business processes and operational models, steeped in innovation and engineered for a new set of business realities and more intense levels of competition, particularly from 'new world' entrants. Therefore, the emergence of FinTech represents both a threat and an opportunity for the capital markets sector.

// *The future is already here – it's just not very evenly distributed.* //

– William Gibson¹

High technology, low barriers to entry

Interestingly, technology itself has eroded barriers to entry in the FinTech marketplace. It's never been easier and less expensive to start a new financial services venture than today. It only takes a little capital to tap into almost any capability required – all delivered on demand 'as a service' through cloud computing anywhere in the world and requiring no upfront investment. Some of the leading financial institutions are encouraging this wave of innovation

¹ "The Science in Science Fiction" on *Talk of the Nation*, NPR (30 November 1999, Timecode 11:55).



by opening up their existing systems through new Application Program Interfaces (APIs) that can help build new global-caliber FinTech software applications.

The price and timing couldn't be better for development: The cost of computing and IT has fallen dramatically, even as the large banks continue to struggle under the weight of their legacy infrastructure and traditional application burden.

A symbiotic relationship is emerging in which traditional companies saddled by internal technology constraints are cultivating relationships with smaller, more nimble FinTech companies. Banks with more than 100 years of history are suddenly creating FinTech-focused venture capitalist (VC) funds, asking staff to mentor start-ups in FinTech incubators, forming research teams to understand every emerging FinTech business model, writing API layers across their current systems and inviting newly formed ventures to company-sponsored accelerators and hackathons.

Demand for tech-inspired innovation is trickling into the thinking of investment banks. This traditional world is primed for 21st century modernization. Though this transition can be a challenge, outmoded IT systems are slowly being replaced with modern technology often born of innovation outside the banking industry. In some instances, investment banks are beginning to outsource critical IT infrastructure and explore the creation of industry utilities in non-competitive, manually intensive and costly processes, such as anti-money laundering (AML), Know Your Customer (KYC) and customer onboarding. We expect to see further development of these approaches and a new level of flexibility in technology implementation, particularly as legacy back-office IT systems are gradually removed from service.

Timing is everything

We believe the shift in the current environment is more than a mere window of opportunity. In fact, we foresee a long-term and permanent shift in the way of doing business, as investment banks embrace financial

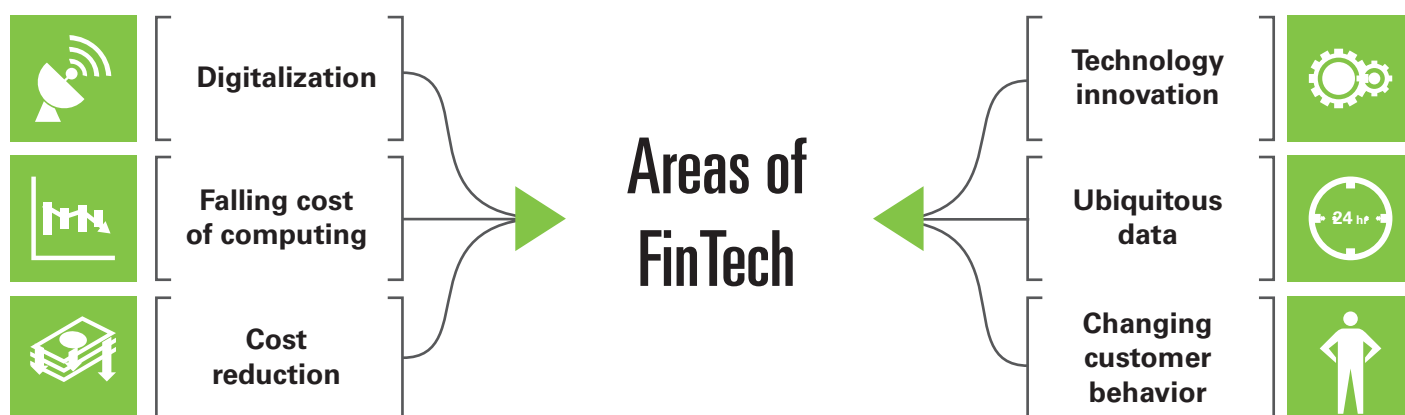
technology in their daily dealings. So, if you are not already engaged with FinTech, the time is now.

We are already seeing a change in capital markets. Though these changes are not nearly as evident as online and mobile banking on the consumer side, a revolution is underway in the back-office space as the new business model takes hold.

Disruptive effects

FinTech is disruptive to banks' 'business-as-usual' models. The advent of FinTech is generational – figuratively and literally – with a younger breed of innovators providing timely and creative solutions. FinTechs bring radical ideas to build, deliver, access and advance IT infrastructure at investment banks. This union of pacesetters and the established banking order seems to work: FinTechs innovate in ways that banks find hard to do. And the banks need this infusion of fresh thinking to remain competitive – or get ahead.

In capital markets, these disruptive players are getting a seat at the table. Boards and bank leadership face a



Source: KPMG's 'Unlocking the potential: The FinTech opportunity for Sydney,' October 2014.

dilemma: They often are aware of FinTech innovation but can't duplicate it within their own walls. The solution? Bypass their own IT providers in favor of FinTechs born in the digital age and not burdened by the entrenched constraints in the industry.

The downsides of disruptive FinTech

It is not surprising that for all of the benefits of FinTech, there are an equal number of potential pitfalls. There are always some downsides with new disruptive technologies, and the effects here are compounded in the world of investment banking and capital markets.

1. Security risks – There are new risk exposures in the new world. While the banks and market providers generally consider themselves to be impenetrable fortresses, FinTech can open the virtual vault door to criminal activities. As the technologies advance, so too do hackers' abilities and resources. Today, we see that the nature of attackers has grown highly organized and even reaches the level of nation states. We are only now discovering how big the risk will really be for the industry, and whether or not the threats will hamper acceptance of FinTech on a broader level.

2. Regulatory attention – When it comes to regulatory issues, the downsides for FinTech might even be

more profound and immediate than potential security risks. Technology generally helps circumnavigate traditional national borders. In the case of FinTech, national borders might seem less relevant, but regulatory agencies on all sides are keeping a close watch, particularly when it comes to international sovereignty issues, legal jurisdiction, protecting customer data and taxation.

While regulators with risk management on their agenda currently are a perceived barrier to FinTech ventures, we expect to see a higher level of coordination among the banks, FinTech firms and regulatory officials. This might be easier said than done, but it would be a disservice to stifle such a promising industry change at this stage of development.

3. Culture – There is a cultural challenge on how technology will be accepted in institutional banks. For example, in Seoul, the South Korean government realizes that FinTech is changing the nature of financial services. But the industry there is highly regulated, and the government worries about the viability of their existing banking infrastructure going forward; without FinTech innovation, is there a new risk of technology complacency and eventual obsolescence relative to other countries? Without taking some steps to advance their financial technologies,

South Korea's financial institutions risk losing competitive advantage by allowing their financial environment to become non-competitive on the global arena.

While innovation usually emerges from highly refined areas of the world, sometimes, true innovation emerges from more constrained environments, such as China and India, where they are accustomed to working in environments of low cost expectations, unsophisticated consumers of financial products, spotty infrastructure and a rapid rate of change.

Revolutionizing financial markets

In the highly globalized world of investment and commercial banking, the financial capitals of New York and London are becoming the hubs of FinTech innovation. FinTech firms are sprouting up in places where the technology is needed most and where innovators congregate. This crossroad where finance meets technology is potentially a whole new marketplace in the making. Capital markets need to work with these FinTechs to adapt to new opportunities – and they seem to be catching on.

Competitive advantage is the name of the game. As FinTech takes hold, innovation matters most where it can impact the stability, simplicity, costs of doing

There are new risk exposures in the new world. While the banks and market providers generally consider themselves to be impenetrable fortresses, FinTech can open the virtual vault door to criminal activities.

The capital markets sector is seeing a number of exciting new FinTech companies emerge, across the full spectrum of the marketplace (exchanges, investment, networks, brokerage, research and risk management).

- **Cinnober** – started as four men working in a basement in Sweden, now employs over 230 people. Cinnober is an independent provider of mission-critical solutions and services to major trading and clearing venues including exchanges. Their TRADEExpress trading system is a multi-asset trading platform serving high-volume trading venues globally.
- **eToro** – an online social trading tool with social investment network, lets investors and traders tap into the crowd and copy traders they like. eToro encourages people to connect with one another to discuss, trade, invest, learn and share knowledge across the network.
- **Metamako** – a technology company based in Australia that specializes in solutions for latency sensitive businesses. They build smarter trading networks through ultra-low latency devices for exchanges and the trading community.

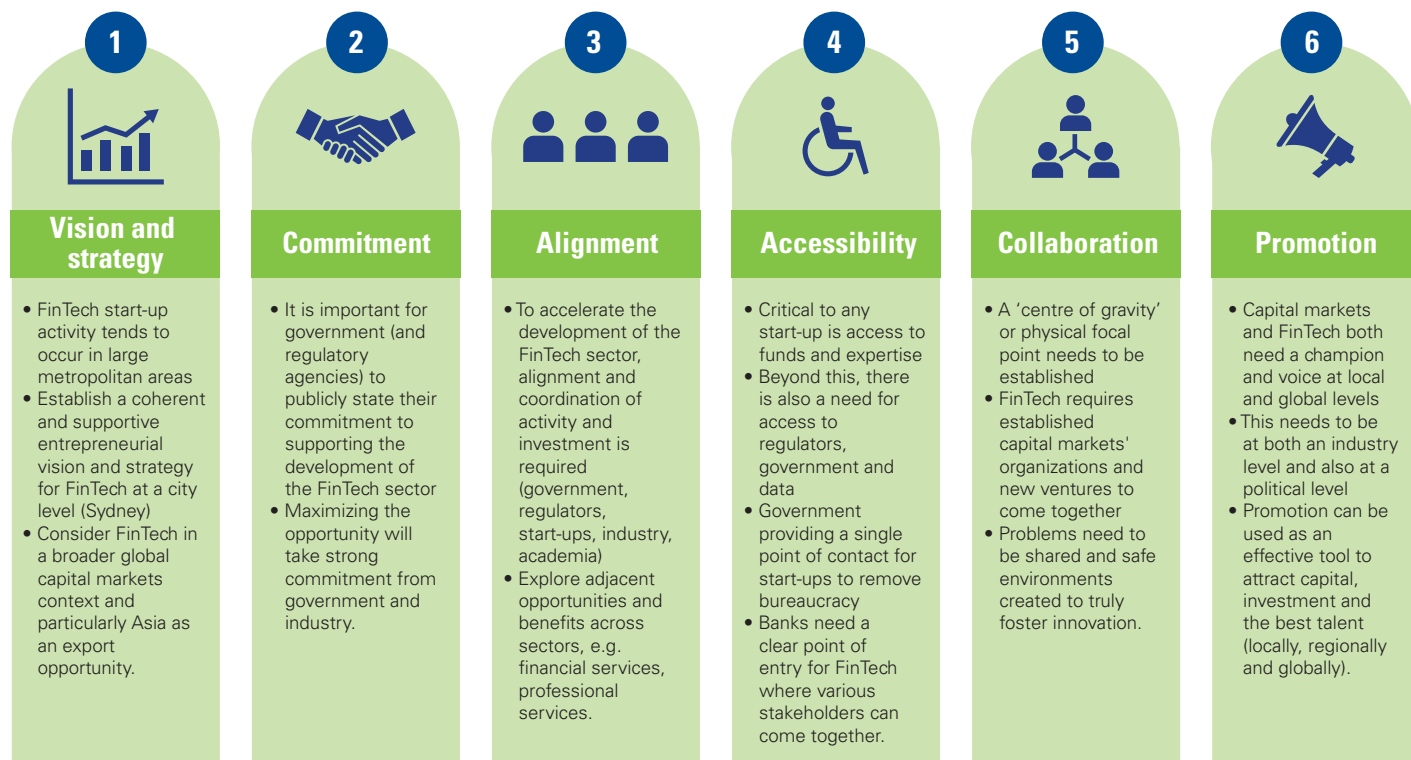
- **Robinhood** – is a zero commission stock brokerage based in Palo Alto, US. It allows traders to place orders to buy and sell stocks, and the self-directed orders will receive the best possible trade execution (across all stock exchanges).
- **Magna** – KPMG's Magna solution provides a tool for the proactive detection of unauthorized trading activity, allowing organizations to monitor risk exposure in real time, flag instances of abnormal or risky behavior, and investigate and resolve cases before the risk escalates.
- **Estimize** – based in New York, is an open financial estimates platform which facilitates the aggregation of fundamental estimates from independent, buy-side and sell-side analysts along with those of private investors and students.

Some of these FinTech companies are featured in *The 50 Best FinTech Innovators* report, produced by KPMG in Australia in partnership with the Financial Services Council and Australasian Wealth Investments.

KPMG's magna solution – trader surveillance



Six steps to capital markets FinTech adoption



Source: Unlocking the Potential: The FinTech Opportunity for Sydney, October 2014.

business and profitability in financial institutions. The futures of FinTech and the investment banking industry will become more interconnected. The so-called perfect storm of technology and capital markets will not blow over – particularly as new advances on the technology front coupled with evolving thinking from banking leaders hold such great promise for the industry.

The investment banking landscape is changing rapidly and the stakes are high. Ultimately, the firms that emerge as the leaders in the decades to come will be those that are best able to

quickly respond to changes in their external environment, business mix and operating models, as well as meet the needs of increasingly sophisticated and empowered corporate clients and investors.

Incumbent organizations will not be able to successfully innovate on their own. Partnering with FinTech companies provides large banks a broader range and lower cost access to innovation, greater agility, potential investment opportunities and, above all, strategic optionality for an uncertain future, where collaboration will be king. ■

CONTRIBUTORS

Bob Hayward
Principal Advisor
Management Consulting
KPMG in Singapore

T: +6564118172

E: bobhayward@kpmg.com.sg

Bob is the leader of KPMG's CIO Center of Excellence for Asia-Pacific. In this role, Bob works with IT leaders across the region to take maximum advantage of technology innovations to drive growth, enhance customer experience and improve bottom line results.

Ian Pollari
Partner, Banking
KPMG in Australia

T: +61 2 9335 8408

E: ipollari@kpmg.com.au

Ian Pollari is a partner at KPMG in Australia and is currently the Head of KPMG's Banking sector in Australia, leading the firm's banking practice across Audit, Tax and Advisory. Ian co-authored the first Australian study into Financial services technology titled, *Building Momentum: The FinTech Opportunity for Sydney*.



Staying one step ahead with social media risk analytics

Martin Blake, KPMG in Australia
James Griffin, KPMG in Australia

Social media are evolving rapidly. Old linear communications have been supplanted by an interactive, multichannel universe with information flowing in all directions. Social media are toppling governments and dictators, and influencing the market. They have changed the way consumers seek information, how brand and product awareness are generated, and how friends, companies and governments interact. The conservative wealth management industry is certainly not immune, and social media are impacting it in significant, often unforeseen and likely irreversible ways.

Of course, there are both opportunities and risks for wealth managers: Ignore social media and they risk damage to their brand and industry; embrace social media and they might just discover new prospects to extend their client base. Social media can be a blessing or a curse, though we believe the positives far outweigh the negatives, particularly when it comes to advancing the wealth management conversation. But this takes work.

Social media are quickly becoming integral to the risk management process. Active monitoring and effective participation are required to enhance a wealth brand, understand activist campaign activities, and manage client kudos and complaints. As never before, there is a real opportunity to educate and converse with clients, and enhance wealth management service offerings.

Wealth management's time is now

The industry still is recovering from its crisis of confidence following the Eurozone and US debt crises. In 2014, the wealth management industry totaled some US\$87 trillion. In the next 5 years, we expect to see growth upward of US\$100 trillion.



The key drivers to growth in the wealth management industry are real and immediate: The prospective pool of global savers is growing larger, older and richer, and has a greater capacity to consume. Further, global life expectancies continue to rise, the ratio of global wealth to income is going up, and pension programs are becoming compulsory in many countries. These drivers bode well for the industry. The scale and pace in the industry is the greatest ever, with wealth growing exponentially on a global scale. With such high volumes of cash flowing into retirement savings, the upside potential – and possible downside risks – are significant, and require added vigilance across old and new media channels.

New media, new vulnerabilities ... and new opportunities

It comes as little surprise that a rise in available assets is spurring intense

competition in wealth management. However, the conservative nature of the industry makes it slow to address lurking reputational vulnerabilities and embrace the new level of communications and risk management required to succeed in the social media age. The disruptive nature of social media is helping to evolve client expectations on how they receive information and interact with wealth managers. Clients already embrace social media in their daily lives; the industry must shift focus to social media to better influence the influencers and take better control of its reputation – or else risk disintermediation.

Wealth management organizations must also come to a new understanding about who is responsible for handling social media risk. Social media are not strictly

The power to persuade has shifted and now firmly resides in the hands of individuals with computers, tablets, smartphones and Internet connections.

a function of marketing. The chief risk officer and head of public affairs must be fully engaged to ensure a productive outcome from the corporate social media footprint.

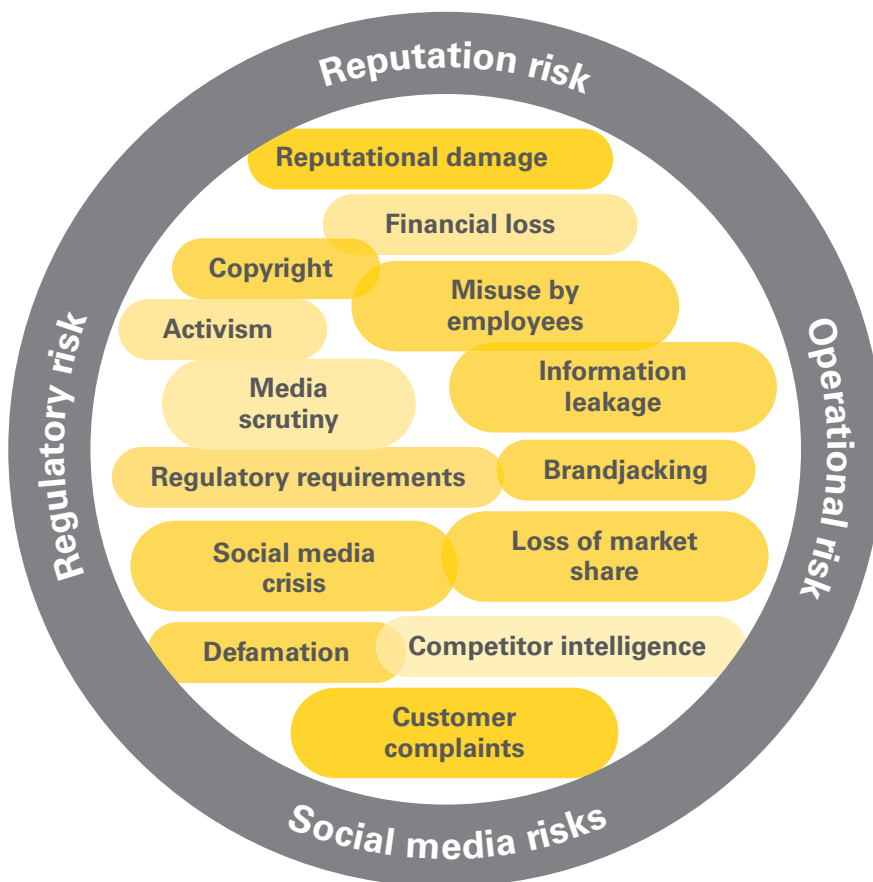
Many firms are still in the early stages of social media planning, despite the urgent need to more quickly get up to speed. Social media are not merely a passing fad. In fact, they are becoming systemic in how influence is created. The power to persuade has shifted and now firmly resides in the hands of individuals with computers, tablets, smartphones and Internet connections.

Social media are so pervasive that the 1-hour news cycle has shrunk again – this time to 2 minutes ... or less. The old adage “good news travels fast” has never been more valid; but in this viral social media age, bad news seems to travel even faster. Failing to understand this presents risks that wealth managers cannot afford to take.

Social media analytics

It is always helpful to understand which way the wind is blowing within the wealth management industry. Social media are instant indicators of sentiment that have the potential to merely dissipate over time or blow up into the latest crisis. As such, social media analytics provide deep insights into the interplay between social and traditional media, and are vital tools for handling risk in wealth management.

In the context of social media, ‘sentiment’ has become both measurable and meaningful (and potentially profitable).



Source: KPMG International, 2015.

Risk management



Source: KPMG International, 2015.

In the US, a Boston hedge fund will take this a step further and launch a new fund that tracks consumer sentiment in social media to make investment decisions.¹ In China, Tencent (and many other companies) waged a virtual 'red envelope' gift campaign to ring in the Chinese Lunar New Year, opening the virtual wallets of hundreds of millions of revelers (read: potential clients) in the process.²

Social media analytics take a uniform and robust approach to capture consumer data, analyze its meaning, identify influencers, predict potential problems and help preempt them from becoming business obstacles.

The key is to recognize actionable trends early on, before they reach critical mass. Clearly, views expressed via social media can be highly influential. In wealth management, social media analytics help uncover customer attitudes from a range of online sources and can put your social media data to work for you to better understand your markets, manage your brand and improve the experience of your clients.

Beware of third party software that merely monitors social media. So-called 'vanity metrics', such as counting 'likes' and 'tweets', are based predominantly on online volume around topics. Such quantitative analysis does nothing to interpret the qualitative aspects. Addressing complex issues raised online can't be boiled down merely by the numbers. On social media, the context matters. Understanding the nuances of who is saying what and how they are engaged leads to more actionable intelligence for wealth managers.

For example, in October 2014, a tax avoidance issue relating to base erosion and profit sharing (BEPS) blew up in the mainstream press. Traditional media broke the news that BEPS could have adverse impacts on Australian economic activity, tax revenues and the potential to diminish the status of Australia as a regional investment hub. Three front-page newspaper articles in a single week touted the seriousness of the implications. However, this was old news. The BEPS conversation had been

Growth opportunities



brewing in social media circles for several months but had only just bubbled up to the surface in traditional media.

When it comes to reputation, wealth management organizations could have been more aware had they been closely monitoring social media. Further, utilizing social media analytics, managers can help identify themes of discussion to prepare responses for clients and regulators.

Social media activism

A rise in social media activism is adding pressure on investment funds, particularly when it comes to the areas in which they invest. Social media activists employ media and communication technology to affect social and political campaigns for change by posting to social sites, creating video, blogging, and reporting information (right or wrong) to personal and professional groups.

The highly interactive nature of social media creates fast-moving messages that reach wide audiences. Twitter, Facebook, LinkedIn, YouTube and other social channels

¹ Sabrina Willmer, "Hedge Fund Mines Twitter for Stock," Bloomberg, April 1, 2015, <http://www.bloomberg.com/news/articles/2015-04-01/hedge-fund-mines-twitter-information-overload-for-trading>

² Liyan Chen, "Red Envelope War: How Alibaba and Tencent Fight Over Chinese New Year," Forbes, February 19, 2015 <http://www.forbes.com/sites/liyanchen/2015/02/19/red-envelope-war-how-alibaba-and-tencent-fight-over-chinese-new-year/>

can reach thousands – if not millions – of people with a few keystrokes and a zero cost of entry. The rules of traditional media go out the window. There is no fact-checking or approval process in the modern equivalent of “I heard it through the grapevine.”

This can be dangerous. In the world of wealth management, social media activists target customers to help dissuade investment in what they perceive as immoral or unethical assets, or encourage investments in more ‘virtuous’ funds. Take for example several large funds in Australia. Social media activists are working to prevent these superfunds from investing in certain areas. In these cases, ‘word of mouth’ can drastically hinder wealth management fund success.

The bottom line

Social media are effective tools to build competitive advantage, when executives get on board. So what’s today’s wealth management CEO to do? Here are a few next steps.

1. **Get with it.** You can’t put this genie back in the bottle. Social media are here to stay.
2. **Embrace it.** Get to understand your organization’s social media footprint. Commission an audit or review. This is increasingly done as part of internal audit or traditional review processes.
3. **Understand it.** There are both social media opportunities and threats to your business. Use social media to bring customers into your community, and listen to what they have to say.
4. **Focus on it.** Pay attention, request reports on social media activity to be shared across the organization, not just in marketing.
5. **Take it all in.** Don’t ignore your weaknesses. Your head of risk, CFO and audit committee chair should be in on the good, the bad and the ugly. Be prepared to manage crises.

Social media facts

- Social media is the number one activity on the Web, with **1.8 billion** users globally.³
- Facebook has **1.4 billion** active users.⁴
 - 45–54 year olds are the fastest-growing demographic.
- QZone, China’s most popular social media platform, has **629 million active users**.⁵
- The 2014 Australian Budget produced over **80,000 Tweets** in 3^{1/2} hours.

6. **Have a POV or two.** Compete on your own terms. Your points of view and points of differentiation can help create value for your customers, investors and distributors, and ultimately manage any downside risks.
7. **Don’t be afraid.** This is too important to let fear get in the way. Respect what your users are saying. Think about the short- and long-term effects.

The future for wealth management is quite promising, particularly as new media technologies take hold. Clearly, social media are a disruptive technology in the wealth management industry with the potential to keep connected firms one step ahead of nascent trends. Additionally, social media have created new channels, by which investors can more easily obtain information and interact directly with asset managers. As digital natives come up the ranks, we expect to see strong users rise to executive-level positions in asset management firms. This, accompanied by a systemic shift in attitudes toward social media, will help smart asset firms gain strategic advantage over less tech-capable competitors. ■

CONTRIBUTORS

Martin Blake
Chairman, New South Wales
KPMG in Australia
T: +61 2 9335 8316
E: mblake@kpmg.com.au

Martin has over 20 years, experience in managing large transformation programs and developing business strategies for corporations in Australia and Asia. His areas of expertise include business and growth strategies, merger integration and separation, target operating model development, process and organization design to support large scale transformation programs. In addition, to his Chairman role, Martin was recently appointed Head of Insurance for KPMG in Australia.

James Griffin
Director, Risk Consulting
and Innovation Practice
KPMG in Australia
T: +61 2 9346 5402
E: jgriffen1@kpmg.com.au

James has worked with many of the world’s leading corporations, government departments and political leaders to help them understand the opportunities and challenges they face from digital disruption, in particular social media. He has been the recipient of the ‘Young Business Person of the Year’ award from Australia’s largest Chamber of Commerce, the NSW Business Chamber. He has also been listed as one of Australia’s Top Entrepreneurs Under 30. James joined KPMG Australia as part of its acquisition of SR7.

Social media: The ups and downs

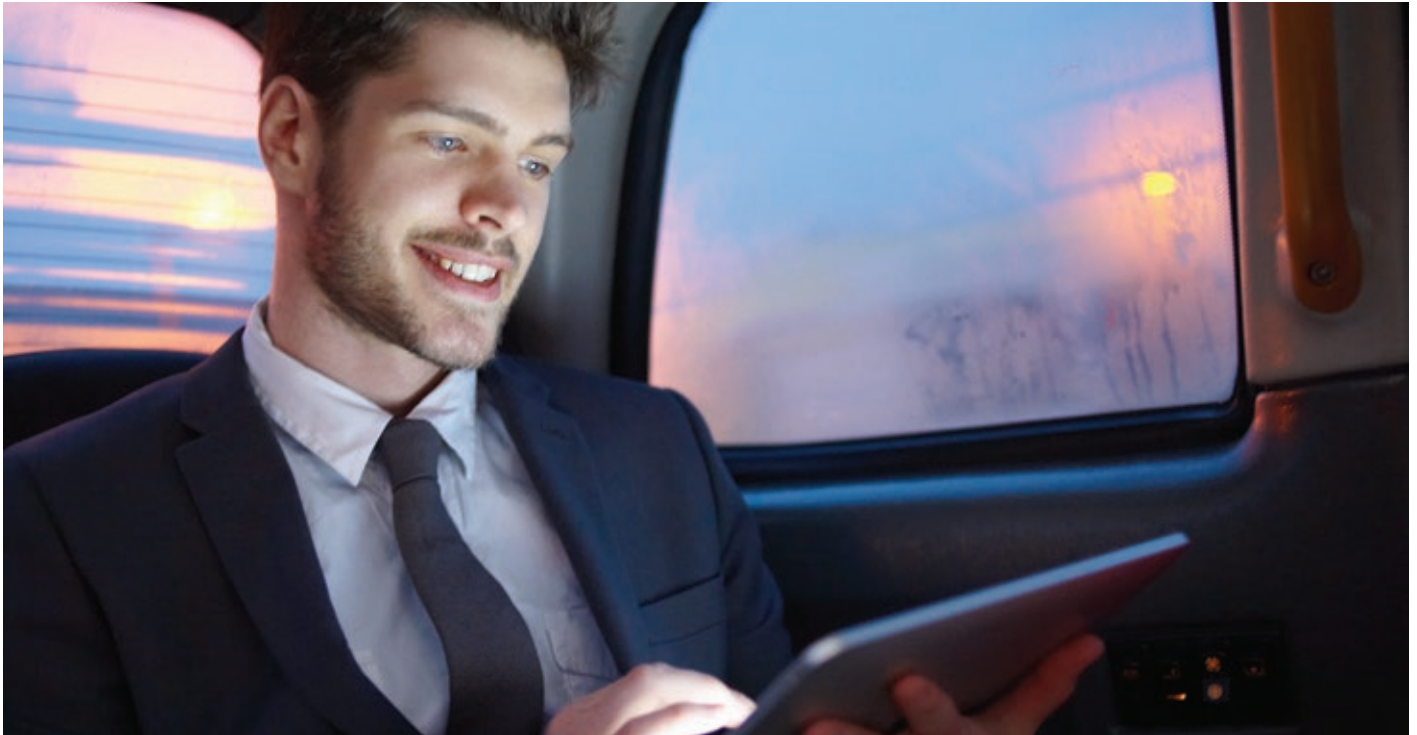
The upsides	
Meet your customers	Ignore social media
Engage your customers	Hope nothing bad happens
Understand your customers	Plead ignorance
Give customers what they want	Have your legal team on standby
Be proactive about problems	Be reactive to problems
Let them vent	Be surprised when things boil over
Build customer loyalty	Lose customers
The downsides	

Source: KPMG International, 2015.

3 <http://www.statista.com/statistics/278414/number-of-worldwide-social-network-users/>

4 <http://www.statista.com/statistics/272014/global-social-networks-ranked-by-number-of-users/>

5 ibid



Tapping into insurance FinTech: **Own it, lease it or share it?**

Martin Blake, KPMG in Australia

Sam Evans, KPMG in the UK

Ralf Baukloh, KPMG in Germany

Eddie Short, KPMG in the UK

Facing increasing pressure on performance and a growing desire to get closer to their customers, most insurers are now looking for virtually any technology that may help them get – and keep – a competitive edge. Not surprisingly, activity in the Financial Technology sector (better known as FinTech) has exploded with insurers actively competing head-on with banks, private equity firms and global technology companies to secure some of the latest technologies.

Rather than snapping up the latest technology and forcing it onto the organization, today's insurers seem to be taking a variety of approaches to securing FinTech innovations, often running multiple initiatives at the same time. And in doing so, many are finding that 'owning' the technology may not be as important as they once believed.

Pressure for change

Over the past decade, the pace of change in the insurance sector has been unprecedented with new models, new competitors, new technologies and new regulations quickly changing the rules of the game for insurers around the world. All signs seem to indicate that the pace of change is only going to increase in the future.

Indeed, tomorrow's insurance customer is likely to be even more demanding – and potentially less loyal – driven by increasing demand for a more personalized service level that delivers immediacy, simplicity and transparency. As a result, competition for customers is also moving into hyperdrive catalyzed (in large part) by the emergence of a set of new non-traditional players who are using technology and data to create a new value proposition to the market.



Competition heats up

The idea of leveraging technology to improve customer experience and business performance is certainly not new to the insurance sector. The widespread adoption of telematics for auto insurance policies, for example, shows how open the sector can be to incorporating new technologies into the business model. And most insurers are already using some form of data and analytics (D&A) to improve their customer segmentation and experience.

However, the rapid introduction of new technologies such as telematics also demonstrated to insurance executives just how quickly the market could be disrupted by a 'good idea' or non-traditional competitor. Technology suddenly rocketed up the insurance agenda and FinTech – long the darling of the banking sector – became the new 'hot topic' at insurance gatherings and conferences.

Competition for the newest financial services technologies has become fierce. In 2008, FinTech firms attracted just US\$100 million in financing; by 2013, that number had increased to more than US\$3 billion. And it's not just insurers and banks that are fighting to secure the 'next big thing'; private equity and venture capital houses have also proven to be voracious for deals in the FinTech sector. Some estimates suggest that total global

investments into FinTech may have topped US\$7 billion in 2014.¹

Governments, too, are vying to attract FinTech start-ups, incubators and talent. Sydney, Australia, for example, recently launched a new FinTech hub – known as Stone and Chalk – in an effort to improve collaboration between FinTech start-ups and industry while providing access to the '4 Cs' needed for successful incubation: **capital, collaboration, connections and coaching**. Sydney's hub brings the city in competition with other existing FinTech centers such as Silicon Valley, New York, London, Berlin, Tel Aviv, Singapore and Hong Kong.

Incubating innovation

Against a backdrop of strong competition and rising prices for new technologies, a growing number of insurers have started to take matters into their own hands by developing their own technology incubators or venture capital funds. In 2013, AXA set up the AXA Lab in Silicon Valley with the stated aim of accelerating the groups' digital transformation.² Allianz's Digital Accelerator initiative, also launched in 2013, is focused on building new business models that can ultimately better serve and build value for their customers.³

By taking this approach, both organizations have seemingly recognized that their existing corporate culture may not be conducive to incubating and growing new –

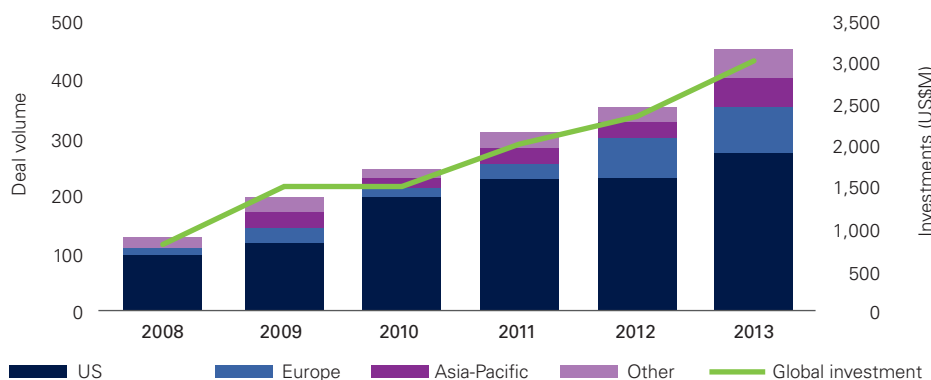
Over the past decade, the pace of change in the insurance sector has been unprecedented with new models, new competitors, new technologies and new regulations quickly changing the rules of the game for insurers around the world.

and more radical – ideas. Allianz's group, for example, makes it clear that they are looking for 'partnerships' for the testing of new business models but categorically denies any interest in 'taking control' of the technology or idea.

Group-level labs can also help reduce some of the disruption that often comes with the introduction of new ideas into the insurance sector. The reality is that changing an insurance business is a complex endeavor and many insurers suffer from a type of 'back-book inertia' that prioritizes the protection of the existing book of business over the need for long-term change. One of the stated missions for AXA's initiative, therefore, is to help change the culture within the wider Group to become more accepting of new technologies.

Another key benefit of elevating 'labs' to the group level is that organizations are freeing their innovation machines from the (often short-term) financial pressures of the business, thereby affording them greater flexibility and autonomy in the development process. For entrepreneurs who want to keep some level of control over their new ideas, the labs approach can be very appealing.

FinTech financing activity (US\$)



Source: Pitchbook Accenture: CB Insights.

¹ <http://www.statista.com/statistics/376891/value-of-global-fintech-investment-areas/>

² <http://www.axa.com/en/news/2013/f1a097vwo1pxn59s4zwl.aspx>

³ <http://digital-accelerator.com/#>

The right model for the right strategy

Insurance executives will need to consider a number of key questions as they develop their optimal FinTech investment strategy.

Strategy development

- What are you trying to achieve?
- How much control do you require over the technology?
- What is your long-term vision for the technology or innovation?

Partner selection

- Which organizations currently have the capabilities or technologies you require?
- How will you prioritize partner identification and selection?
- What is the right way to approach the new partner?

Due diligence

- Do you know exactly what you are investing in and what you will receive in return?
- Have you assessed any and all third party risks?
- Have you created key performance indicators and metrics to monitor progress?

Valuation

- What is the appropriate way to value the investment?
- What are the associated implementation costs?

Post-deal considerations

- What changes are required to your operating model to embrace and maximize value from the investment?
- How will you integrate two potentially very different cultures?
- Who will own any new innovations or technologies that emerge?
- What Transitional Service Agreements may be required to integrate the operations?

Sharing risks and benefits

While Allianz and AXA may be taking a more independent path, other insurers are creating their own models for tapping into new FinTech innovations. The Ergo Insurance Group, for example, has partnered with Axel Springer, a Berlin-based technology accelerator, to focus on 'innovation in new technologies' and to encourage new start-ups in the FinTech sector.⁴ The Talanx Group teamed up with Mercedes-Benz and Bosch in an initiative called Startupbootcamp in order to share not only new ideas but (presumably) also costs and risks.⁵

Sydney's Stone and Chalk hub shows that many insurers believe that collaboration within the industry can also lead to strong commercial outcomes. The endeavor has been funded by some of Australia's largest financial institutions, with ANZ Banking Group, HSBC, Macquarie Group, Suncorp Bank, Westpac Banking Corp, AMP and Insurance Australia Group announced as foundation corporate partners.⁶

At the same time, many insurers are also scouring the FinTech sector for potential acquisition targets that could help them expand or 'scale up' their business. Last year's purchase of bswift (a private health insurance exchange platform in the US) by Aetna wasn't just about capturing part of the US private health exchange business, it also gave the company unfettered access to bswift's consumer-friendly technologies.⁷

Taking the optimal approach

With so much activity swirling around the FinTech sector, many insurance executives are now starting to reconsider their optimal approach to investing in innovation. Many of the conversations we have with our clients center around finding the right model – or, more often, models – to make the most of their FinTech investments. Unfortunately, there is no cut-and-dry answer.

Most often, the choice of ownership structure comes down to what you are trying to achieve with your investments. Those seeking to create a new customer-interaction process will likely want to exercise tight control over things like customer outcomes and service levels and, as a result, may want to consider an outright purchase of the technology or company (as Aetna did with bswift).

Those looking to tap into a highly technical or niche FinTech innovation, on the other hand, may prefer to select a partnership or outsourcing model that provides access to the new technology without requiring significant up-front development costs or risks. Initiatives that impact the core of the underwriting decision capability, on the other hand, may need to be developed fully in-house or by leveraging a combination of purchases and partnerships.

A multi-strategy approach

Many organizations are using a combination of strategies to maximize their investments and reduce their risk. We are working with one insurer, for example, who is pursuing an M&A strategy to lock down specific technology solutions that support their target operating model; partnerships to improve aspects of their distribution and sales models; and in-house developers to bring new ideas for their core underwriting engine.

At KPMG, we are taking a similar approach to maximize our global network's investments into D&A and FinTech. In 2013, we set up KPMG Capital as an investment vehicle to help our network develop partnerships, incubate and commercialize new ideas and technologies.

At the same time, our individual member firms and practices have also been entering into partnerships and conducting acquisitions to fill specific gaps within their own business areas,

4 <http://www.axelspringerplugandplay.com/2014/corporate-partner-program-ergo-insurance-group-axel-springer-plug-play/>

5 <http://techcrunch.com/2013/04/16/mercedes-benz-bosch-and-hdi-create-new-accelerator-with-startupbootcamp-berlin/>

6 <http://www.smh.com.au/business/banking-and-finance/craig-dunn-to-chair-fintech-hub-stone-and-chalk-20150303-13tgnk.html>

7 <http://finance.yahoo.com/news/aetna-aet-acquires-bswift-focuses-202002944.html>

for example, KPMG in Australia recently purchased SR7, a social media 'listening' firm, and KPMG in the UK recently entered into a partnership with McLaren Applied Technologies. We've also been developing our own unique solutions and platforms in-house – such as KPMG Magna, a financial risk tool, and KPMG Konduct, a customer insight platform.

Our experience suggests that this type of multi-strategy approach may be the best way forward, particularly for national and mid-sized organizations seeking to create a new competitive differentiator through technology enablement.

The reality is that the market is moving quickly and good ideas may emerge from a range of different sources.

Those that put all of their investment dollars and efforts into just one or two initiatives – or those that are tied to a specific investment model – may lack the flexibility to adapt to new market changes in the future.

In today's FinTech market, ownership clearly isn't everything. ■

For more information on how insurers are leveraging data and analytics see Big data: The BIG factor driving competitive advantage, page 16.

CONTRIBUTORS

Sam Evans **Global Insurance Deal Advisory Lead**

KPMG in the UK

T: +44 20 7694 1326

E: sam.evans@kpmg.co.uk

Sam has significant insurance transaction experience, having worked on deals in many of the major global insurance markets. Sam has worked with KPMG member firms in the UK, Australia, Switzerland and Hong Kong. He currently leads KPMG International's Global Insurance Deal Advisory team.

Martin Blake **Chairman, New South Wales**

KPMG in Australia

T: +61 2 9335 8316

E: mblake@kpmg.com.au

Martin has over twenty years' experience in managing large transformation programs and developing business strategies for corporations in Australia and Asia. His areas of expertise include business and growth strategies, merger integration and separation, target operating model development, process and organization design to support large scale transformation programs. In addition to his Chairman role, Martin was recently appointed Head of Insurance for KPMG in Australia.

Ralf Baukloh **Partner**

KPMG in Germany

T: +49 69 9587 3440

E: rbaukloh@kpmg.com

Ralf joined KPMG in Germany in 2010. He is heading the Financial Services team with a focus on Strategic Advisory as well as Deal Advisory, which he also represents in the insurance sector. Ralf is member of the German Financial Services Leadership team and is the Global Head of M&A for financial services. In addition to that, he is heading the Corporate Development team of KPMG in Germany.

Effective wealth management transformation requires



Robert McGraw, KPMG in the US
Tracey Ah Hee, KPMG in the US

The wealth sector is experiencing unprecedented competitive pressures as traditional firms, registered investment advisors and disruptive new market entrants converge on the same base of lucrative investors. Margin improvements are difficult to achieve without re-thinking key aspects of the business and operating model to unlock structural costs to offset the impacts of fee erosion and higher embedded costs for risk and compliance.

The growth challenge has already hit many firms. An examination of net new asset inflows highlights the challenges many firms are facing – the traditional value propositions and service models offered by incumbent providers are not attracting new investors at the same rate as the overall high net worth (HNW) and ultra-high net worth (UHNW) market growth. Across the industry, firms are seeking ways to attract the next generation of wealth during their asset accumulation stages to offset natural outflows from retirees in the boomer and silent generation.

The world's wealth management firms have recognized the need to respond by embarking on customer-driven transformation programs that will require:

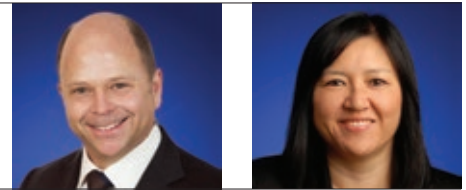
- a business model focused on key growth areas
- an integrated multichannel service

strategy that addresses how the firm supports advisors and clients across channels

- a strong core digital offering, with additional capabilities added in specific segments to differentiate service
- insights from data analytics to focus the business model, operationalize the strategies and deliver a personalized customer experience – sponsorship and senior level leadership to execute the strategy and remove organizational barriers to change.

The path to transformation

The critical and logical first step for organizational transformation is to refine the business model and place strategic bets around key growth markets and segments. Investments in deeper insights into customer needs and



behaviors are often required to then sharpen the value propositions and service offerings delivered to meet these needs. With this foundation in place, many firms are then able to realize that there are opportunities to simplify customer offerings by focusing on the core services that will drive future growth and exiting tertiary services that are not contributing to customer and shareholder value creation.

With a sharpened business model in place, the firm can adapt their operating model to architect a differentiated service model

which is positioned to attract and retain clients and deliver a more engaged and integrated customer experience across channels. By overlaying the new business model upon the current models, leaders can identify the significant capability gaps that require attention and then prioritize the transformation program investments that are best positioned to deliver meaningful client and financial outcomes.

Existing governance models and leadership roles need to adapt to ensure proper business, customer and channel alignment. For many firms, this can be

a significant change in how programs are justified and managed. Traditional business cases and initiatives were defined around satisfying discrete objectives centered on product, internal effectiveness and operational efficiencies versus external drivers and the impact potential investments have on market and customer differentiation.

Aligning customer and channel capabilities

An integrated multichannel service strategy, enabled by the right business architecture and customer focus can help firms realize growth and margin improvements. In order to achieve this business potential, firms need to re-think key aspects of how the firm supports advisors and clients across channels.

For full-service firms, the services performed from the branch channel can be streamlined to focus primarily on client-intimate processes. Administrative and support functions can be either digitized or migrated to more cost-effective channels. Call center and digital channels are being repositioned to raise client awareness of additional service capabilities and satisfy growing demands for immediacy, personalization and self-service.

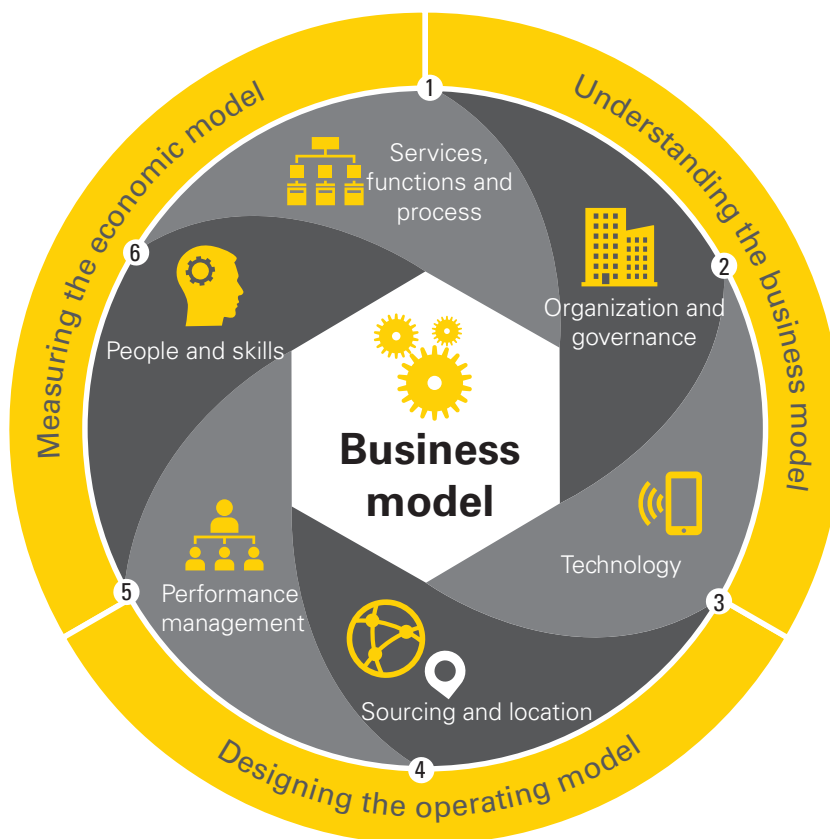
We have found that an in-depth analysis of customer, channel and product profitability – including an examination of high cost, inefficient and toxic customer servicing processes – can serve as a catalyst for re-thinking existing transformation program investments.

Digital delivery responds to changing clients

While the robo-advisor debate plays out in the press, the role of the digital channel in a traditional full-service wealth management model is beginning to crystallize. The role of an advisor remains central to serving HNW and UHNW clients. Digital strategies can drive new forms of customer engagement between advisors, the firm and clients to strengthen the overall client relationship.

To achieve customer experience 'parity' with the experiences being delivered by

Transformation starts with optimizing the business and operating model

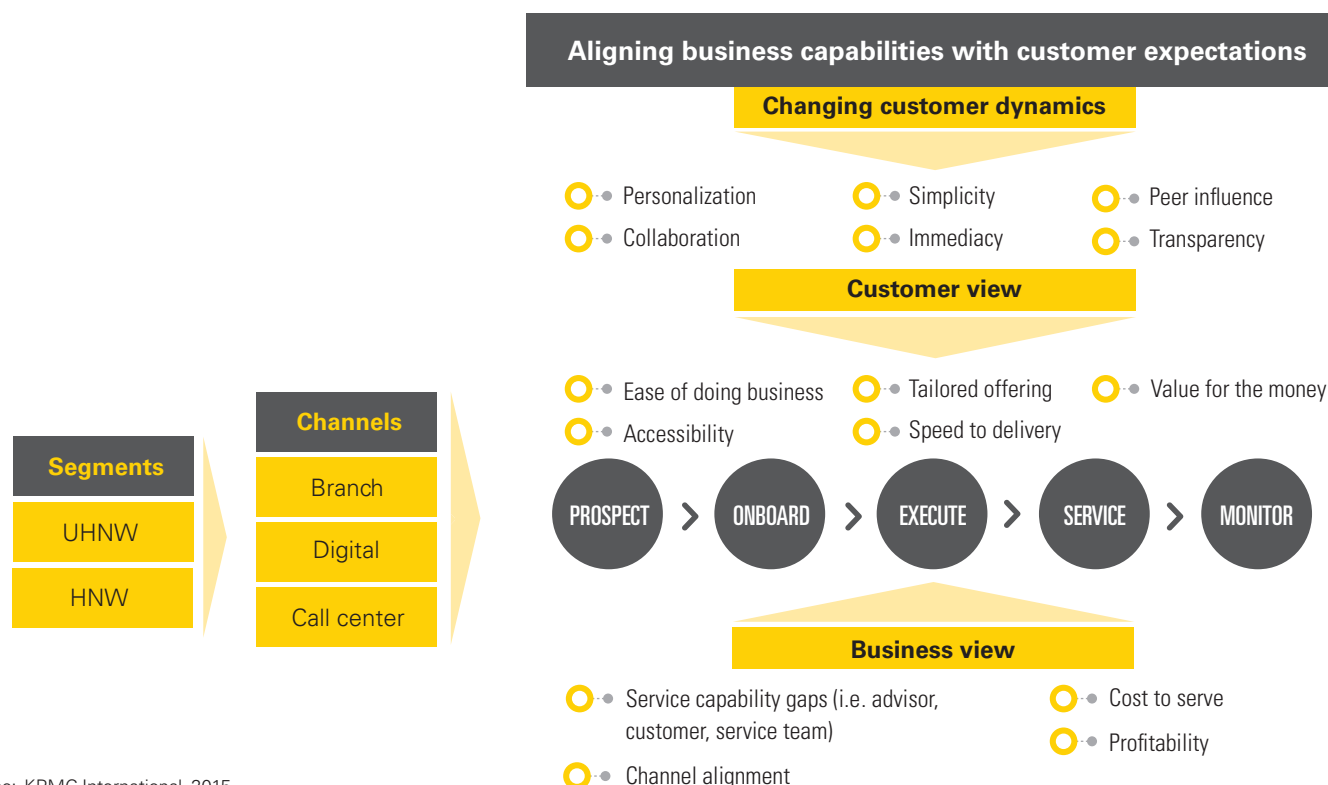


Business model refinement

- Markets/segments
- Products/services
- Value propositions

Operating model design

- Optimizing channels and service delivery
- Integrated digital capabilities to drive collaboration, customer engagement and service differentiation
- Cost-competitive IT services



Source: KPMG International, 2015.

An integrated approach to align the firm's investment priorities to enable growth, differentiation and margin improvement

digitally enabled wealth start-ups, traditional providers will need to deliver a very strong digital 'core' offering, which addresses crucial customer experience priorities and strengthens the overall relationship between the firm, client and advisor.

Service differentiation is enabled by providing additional digital capabilities in specific segments to deliver enhanced services including risk management, estate and trust, and banking.

By instilling this degree of service delivery innovation across the spectrum of client needs, wealth managers can leverage their unique brand and specialization to compete effectively, improve service, address a broader set of investor needs and reduce operating expenses.

Customer analytics to focus and operationalize the transformation

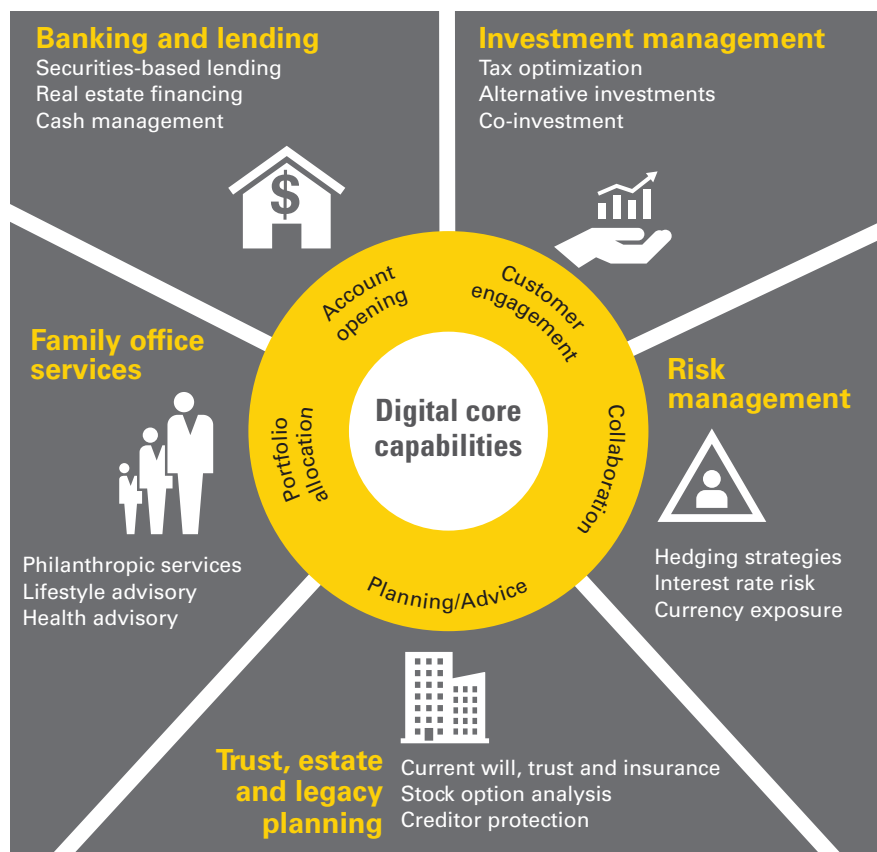
- Customer analytics and insights are critical inputs to re-focusing the business model, shaping new value propositions and refining customer segmentation strategies:

- Mining internal and external information sources can drive deeper insights into customer wallet share and relationship penetration.
- Integration of sociodemographic and behavioral characteristic data can help firms identify micro-customer segments. With these insights, marketing and communication strategies can be honed to deliver a more personalized approach to relationship development.
- Predictive analytics and scenario-based modeling can improve the effectiveness of relationship-based pricing strategies to attract additional assets and penetrate banking and lending needs.
- Advanced analytics can also be used to operationalize growth strategies and enable a more personalized customer experience across channels.
- While practice management and customer book of business analysis analytics have been utilized for many years now to help advisors prioritize client development time, there has been uneven adoption of these tools. The next

evolution of these capabilities is to provide more actionable insights and ideas at the customer level, which can be executed by the advisor, prompted by a service center support associate, or introduced to the client directly as a topic of potential interest through digital channels.

- Digital customer experiences become much more personalized and relevant to addressing relationship needs, by leveraging customer insights and tailoring the communications messaging to the unique servicing needs of micro-segments.
- Several firms are integrating natural language solutions to deliver timely and relevant information to advisors and clients around key market or thematic trends. Behind the scenes, analytics are being used to examine customer portfolios, and use business rules and event triggering to deliver a tailored client message that quantifies the impacts to the client's balance sheet.
- Predictive analytics are being applied to identify early warning indicators of client attrition. With these insights, firms can operationalize the appropriate client

Wealth managers can focus on mastering digital core capabilities and selectively integrating segment specific capabilities



■ Aspects of digital core capabilities ■ Segment-specific differentiators

Source: KPMG International, 2015.

engagement strategies to address unmet needs. While these analytical approaches have been used for many years now, the degree of precision that is now possible with advanced data mining and integration of 'big data' is yielding much deeper and actionable insights.

Conclusions

The wealth sector remains a very attractive business for continued growth across the globe. There are opportunities for firms both large and small to thrive in this competitive landscape. Over the next 3–5 years, some firms will emerge as the clear leaders and 'providers of choice' in serving investors for the next decade.

Capitalizing on this window of opportunity will require firms to embrace change, sharpen their transformation agenda, and accelerate the delivery of innovative advisor and client-facing solutions to deliver a differentiated service experience.

Opportunities to grow will only be realized when firms integrate strategy with rapid execution as the market becomes much more competitive. ■

CONTRIBUTORS

Robert McGraw
Principal, Financial Services Advisory
KPMG in the US
T: +1 917 861 3151

E: rmcgraw@kpmg.com
Robert advises wealth and asset management firms on strategic change initiatives – helping them to profitably grow – addressing a spectrum of challenges: improving overall advisor productivity, responding to regulatory change and delivering a differentiated multichannel customer experience.

Tracey Ah Hee
Principal, Customer Experience and Customer Strategy & Growth
KPMG in the US
T: +1 212 954 2076
E: tahhee@kpmg.com

Tracy specializes in building businesses from the ground up, customer profitability optimization, business development, M&As customer base valuation, development and implementation of customer strategy.

Where is your firm on the transformation continuum?

These questions can help to identify areas for program acceleration or improved alignment.

Customer

- Is your growth strategy focused on defined and actionable customer segments?
- Do you have a clear understanding of customer behavior, buyer values and needs by micro-segments?
- Are there defined discrete value propositions for each segment?

Service delivery

- Do you have a clear understanding of the cost to serve customers by segment and channel?

- Is the digital strategy fully integrated with the business and customer strategy?
- Are you investing in the right capabilities to deliver a more engaged and collaborative client experience to attract and retain a more digitally savvy investor?

Leadership

- Are the existing governance and oversight functions aligning investments across the organization to drive clear market and customer differentiation?
- Is the transformation agenda bold enough to address market and competitor movements and the need to significantly reduce structural costs through channel optimization?

Publications

KPMG member firms provide a wide-ranging offering of studies, analysis and insights on the financial services industry. For more information, please go to kpmg.com/financialservices



The Evolving Role of Corporate Development in Banking

April 2015

Insight into the changing role of corporate development since 2010 and what lies ahead for banking M&A.



Growing Up: A New Environment for Hedge Funds: 2015 KPMG/AIMA/MFA Global Hedge Fund Survey

March 2015

The hedge fund industry is in the midst of a transformation. Managers have become more focused on improving performance and operational effectiveness. New strategies, new investors, new markets and new products and services are forever changing the market dynamics.



Evolving Banking Regulation

April 2015

In the current business environment, banks face a complex mix of inter-related regulatory, economic and commercial pressures that are driving changes in bank structure. This report looks at recent and forthcoming banking regulation.



Perspective: Trends Driving the Insurance M&A Landscape in 2015

March 2015

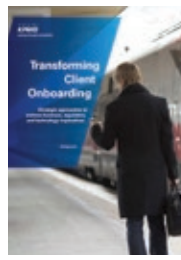
A strategic focus for many insurers and reinsurers as they look to enter new markets, secure partnerships or rationalize non-core operations, M&A can offer competitive advantage and profitable growth. In this report, we share our insights on four broad trends we predict will have the biggest influence on deal activity over the coming months.



Evolving Insurance Regulation

April 2015

2015 is seeing international developments dominate regulatory change in the insurance industry. The IAIS's proposed new global insurance capital standard, the implementation of Solvency II, and the completion of IFRS 4 Phase 2, leave no doubt we are witnessing a new era in insurance regulation.



Transforming Client Onboarding

October 2014

KPMG lays out a multifaceted strategy to coordinate the business, regulatory and technology imperatives involved in bringing on new customers in a highly automated, digital-based fashion.



Embracing Technology for Rapid Transformation: Data, Digitization and Disruption

March 2015

Capital markets businesses have a lot of distance to cover on the road to leveraging better technology for faster business transformation that so many entities seek. KPMG's Capital Markets practice takes a view of where the industry is now and where it is headed.



Transforming Insurance: Securing competitive advantage

October 2014

Transforming Insurance delivers a vivid picture of the global insurance landscape, as market players respond to the digital and technological changes that are transforming all aspects of their business. Based on extensive research and interviews with clients and KPMG professionals.

Missed an issue of Frontiers in Finance?



Back issues are available to download from www.kpmg.com/frontiersinfinance

Frontiers in Finance is a forward-looking collection of market insights, thought provoking perspectives and sector-specific issues that impact key decision-makers of financial services organizations around the world. All articles are written by industry leading and experienced professionals from across our Global Financial Services practice.

KPMG's Global Financial Services practice has more than 34,000 partners and professionals across our global network of 155 member firms, providing audit, tax and advisory services to the retail banking, corporate and investment banking, investment management and insurance sectors. Each one of our professionals brings ideas, innovation and experience from across this vast network, to the benefit of each of our financial services clients around the world. We serve leading financial institutions with practical advice and strategies backed by world class implementation. We believe our commitment to the industry, our sector-specific insights and our passion for serving our member firms' clients to the very best of our abilities help us stand out.

We welcome the opportunity to discuss how KPMG member firms can help you achieve your business objectives.



Contacts



Timo Ankelo
Head of Financial Services
KPMG in Finland
T: +358 20 760 3947
E: timo.ankelo@kpmg.fi



Christian Liljeström
Head of Advisory Services
KPMG in Finland
T: +358 20 760 3832
E: christian.liljestrom@kpmg.fi



Juha-Pekka Mylén
Head of Financial Services, Audit
KPMG in Finland
T: +358 20 760 3761
E: juha-pekka.mysten@kpmg.fi

kpmg.com
kpmg.com/socialmedia



kpmg.com/frontiersinfinance
kpmg.com/app



The information contained herein is of a general nature and is not intended to address the circumstances of any particular individual or entity. Although we endeavour to provide accurate and timely information, there can be no guarantee that such information is accurate as of the date it is received or that it will continue to be accurate in the future. No one should act on such information without appropriate professional advice after a thorough examination of the particular situation.

© 2015 KPMG International Cooperative ("KPMG International"), a Swiss entity. Member firms of the KPMG network of independent member firms affiliated with KPMG International. KPMG International provides no client services. No member firm has any authority to obligate or bind KPMG International or any other member firm vis-à-vis third parties, nor does KPMG International have any such authority to obligate or bind any member firm. All rights reserved.

The KPMG name, logo and "cutting through complexity" are registered trademarks or trademarks of KPMG International.

Produced by KPMG's Global Financial Services Practice

Designed by Evalueserve.

Publication name: Frontiers in Finance – June 2015 – Finland

Publication number: 132368-G (Finland)

Publication date: June 2015

Printed on recycled material.