



Sweet 16

Sixteen Trends that Are Shaking Up Asset Management
Technology and Operations in 2016



While some of the topics in this year’s outlook may be familiar, we’ve been seeing changes in trends over the past two years that indicate our industry is poised for a revolution. From vendor consolidation, to data infrastructure initiatives, to tech disruption (read: #fintech), we weigh in on which hot topics will change the industry in 2016—and which will not.

Contents

- Vendor Consolidation **STARVED FOR CHOICE** 3
- Regulatory Landscape **THE MORE THINGS CHANGE, THE MORE THEY STAY THE SAME** 3
- Tech Disruption **NOT SHAKEN UP...YET** 4
- Joining Forces **THE CONVERGENCE OF FRONT AND MIDDLE OFFICE** 4
- Managed Services **THE NEW NORMAL** 5
- Resource Management **THE INTERNAL / EXTERNAL BALANCING ACT** 5
- Outsourcing **BEST-OF-BREED PULLS AHEAD** 6
- Holistic Governance **GUIDING THE SHIP** 6
- Data Governance **GOVERNING IN THESE FAST-MOVING TIMES** 7
- Client Reporting **ON DEMAND ACCESS** 7
- Investment Risk Management **THE BELLE OF THE BALL** 8
- The Global Operating Model **MYTH OR REALITY?** 8
- Multi-Asset Classes **STRIVING TOWARD STREAMLINED** 9
- Data Projects **THE FUTURE IS BRIGHT** 9
- The Millennials **WHAT TALENT GAP?** 10
- Social Media **OUTCASTS NO LONGER** 10
- Conclusion 11



Vendor Consolidation

STARVED FOR CHOICE

Advent. PORTIA. SunGard. DST. Equipos. CADIS. Wall Street Office. thinkFolio. Varden. QED. Bonaire. What do these names have in common? The answer should be pretty easy if you are a regular reader of our blog pieces or a student of the FinTech space. They were all once formidable companies and/or software products in the buy-side asset management technology world, prior to being targeted and acquired by their new, respective parent companies. In some cases, the acquirer has invested back into the product, and the current version of the product continues to gain market share and move aggressively forward in their target market(s). In other cases, the acquisitions were blatant market share grabs of software products that had long since moved into the “cash cow” phase of their existence (Click [here](#) for a definition of the BCG growth-share matrix).

Regardless of how you view these acquisitions, it’s hard to make the case that the run on vendors in our space is a positive development. The consolidation over the past 3-5 years has left the industry with precious few choices with which to entrust functions vital to their business—OMS, Portfolio Accounting, Middle Office Outsourcing, and Client Reporting have all been impacted. There are a few functional areas in which we are seeing new entrants—Enterprise Data Management comes to mind—however that is the exception and not the rule. In most cases, we simply have not seen viable newcomers take the place of those cash cows that have been acquired and ‘milked’ by their new parent.

Regulatory Landscape

THE MORE THINGS CHANGE, THE MORE THEY STAY THE SAME

Since the financial crisis, the speed at which governing bodies have rolled out new regulation has not slowed and we don’t foresee the pace letting up any time soon. Solvency II, MiFID II, money fund rules, liquidity disclosures, and derivatives trading rules (just to name a few) have had a significant impact on investment managers, service providers, and technology vendors. To borrow a quote from a client’s senior executive, “compliance is driving the ship.”

Being nimble enough to proactively address new regulations will become a focus in 2016. Unfortunately, it is a significant challenge for

smaller managers to absorb the operational and technology costs of compliance as stress on margins and profitability grows in a tumultuous global market. We expect these managers with resource limitations to look externally to help them address and meet regulatory requirements.

Despite the growing challenges of a complex regulatory landscape, most of us would agree that maintaining investor trust is paramount to our collective success. While adapting to new regulation is costly, it will ultimately help us achieve transparency and rebuild trust.

Tech Disruption

NOT SHAKEN UP...YET

Technology disruption is top of mind when considering our rapidly changing world and the many industries that are being transformed. Few businesses have emerged unscathed once the disruptors hit—hoteling, television, cars, newspapers, retail, and music have been turned upside-down overnight. Depending on what you read, Financial Services is up next; or at least, that's what several talking heads (or serial bloggers) want you to believe. At Citisoft, we're a bit more balanced (or skeptical). Maybe it's the fact that most of our clients are still tethered to their Blackberry's (against their will); maybe it's because every time we map out a current state workflow, the data is often moved from Point A to

Point B in much the same fashion as it was 20 years ago; or maybe it's the simple fact that the saturated regulatory-driven marketplace forces the industry to move at a glacial pace.

Despite the fact that our industry is a notoriously slow adopter of bleeding-edge technology, that doesn't mean that investments aren't being made. In fact, we have had multiple conversations of late with some of the largest vendors and service providers in our space and they are bullish on disruption in the short-term, primarily as it pertains to big data analytics and its push into the front office. Is this the second coming of Uber, Airbnb or Netflix? No, but it is certainly noteworthy for our industry. The fact

that multiple solutions providers are spending time with Silicon Valley-based firms, hiring data scientists, and investing in "think tanks" with the likes of Stanford, MIT, Harvard, and Cal Berkeley, certainly portends that a change is coming. FinTech is changing, certainly – we're sure you'll hear quite a bit in the coming months about blockchain, machine learning, cloud-based services, reference data consolidation and the like. Looking ahead to 2016, our money is on the continued transformation of data-driven solutions across the asset management lifecycle, and a continued convergence of the front and middle office.

Joining Forces

THE CONVERGENCE OF FRONT AND MIDDLE OFFICE

The investment management middle office has had a long evolution. In the 1980's almost all managers were performing their own back office accounting and paper filled the halls. The 1990's saw the introduction of Order Management Systems, DTC Matching, SWIFT messaging, and can be pointed to as the advent of the middle office. The 2000's saw enhancements to trade operations, trade messaging, derivatives, outsourcing options, and increased needs to provide front offices with cash and position data.

Halfway through this decade, the demands on the middle office have exploded. Complex investment strategies continue to evolve, the demand for more timely data has stressed operations ability to ensure its accuracy, regulatory requirements have increased, and the industry is preparing for shorter settlement cycles. We believe the second half of the decade will transform the middle office in a way not seen since its inception. This evolution will be driven by the convergence of some front and middle office functions—namely the generation of risk and attribution data.

Middle office risk and attribution capabilities scratch the surface of front office needs, with very basic models. The primary reason is complexity. Most front office systems were developed over time by PhD's working with investment professionals while middle office systems were focused on trade settlement and accounting. Outsourcers recognize the opportunity to provide more complete services to the front office, and will drive the evolution of the middle office through investments in their own platforms. We won't see front office systems go away this decade or perhaps even the next, but we will begin to see the day where the middle office and accounting (IBOR) provides core risk and attribution data similarly to how they provide cash and position data today.



Managed Services

THE NEW NORMAL

If you've been in the asset management industry for any length of time (let's call it 10+ years), you've seen a sea of change not only in the vendor products and service providers that cater to the space, but also in the deployment options and solution models utilized by the major players in the market. It wasn't all that long ago that the major question was "buy" or "build". These days, the question is not so simple. Depending on the business function being considered, solution options may include outsourcing, managed services, SaaS, PaaS, onshore/offshore, cloud-based solutions or a hybrid combination of these models.

It certainly appears that the trend towards the cloud and its cousins (read: outsourcing, SaaS, PaaS) will continue to usurp the installed software market; a 2014 CEB TowerGroup report maintains

that 71% of firms intend to adopt cloud-based solutions or increase its usage by 2017. This doesn't mean that the adoption of all things cloud and managed services is without its challenges – there are still concerns around data security, compliance, and integration challenges often associated with the full embrace of the cloud. However, we believe that these hurdles will be overcome in time; the massive benefits are too hard to ignore. The reduction of application hosting overhead and maintenance, increased scalability, and a lower cost of ownership are all feathers in the cap for going down the cloud-based computing path. Those vendors or service providers that are not investing heavily in making these deployment options a reality will soon go the way of the dinosaur.

Resource Management

THE INTERNAL / EXTERNAL BALANCING ACT

When considering a technology overhaul or largescale implementation, resource constraints are typically top of mind. The tradeoffs between time and cost must be weighed carefully but we often see projects hit a roadblock when they don't have the right balance of intellectual capital. We rarely see firms go it alone, but we do see our clients struggle to understand what type of consulting resources they need vs. who they need to have in-house.

While a consulting partner will be able to educate and enhance your team, they aren't a replacement for in-house experts. Once an implementation goes live, asset managers need the right resources to bring a strategic initiative across the finish line and to reap the benefits of a new infrastructure that you've dedicated months or years to building. That said, choosing the right consulting

partner is still a key consideration. Any firm worth partnering with should offer objectivity, expertise, experience, and ironclad references.

An approach to consulting engagements we've seen in the past is the contract or mercenary model where consultants from multiple firms are hired for a single engagement. The benefit of this strategy often looks like cost-savings, but asset managers are learning that this is rarely the case in the long run. With consultants from different firms, there is often competition, differing methodologies, and skillsets that are poorly matched. This causes projects to be extended and budgets to increase. We think this model will soon go by the wayside in favor of partnering with one consulting firm that makes it their priority to keep projects on-time and on-budget.

Outsourcing

BEST-OF-BREED PULLS AHEAD

We see firms across a broad spectrum using external third party service providers, from component outsourcing to full “business process outsourcing.” Outsourcing has been an industry focus for over a decade, and firms are just now building a true understanding of the diversity of offerings and vendors as they gain substantial firsthand experience outsourcing middle and back office functions.

We’ve recently seen companies who’ve been around the outsourcing block opt to diversify their vendor relationships. A vendor that excels in client service in one area of the business may be critical, while a service provider with global capabilities may be more important in another.

Akin to debate over best-of-breed vs. single suite technology, we’re seeing a growing number of asset managers move to (or consider) best-of-breed service providers for various areas of the business (e.g. data management, middle office, back office).

An important consideration for these companies will be whether they have standardized their data and oversight processes enough to make these changes seamlessly. There can be significant business benefit to taking a best-of-breed approach, but making that change (and experimenting) will be a lost cause without the right infrastructure in place.

Holistic Governance

GUIDING THE SHIP

We hear the term everywhere, but what exactly is governance? The business definition is the establishment of policies, and continuous monitoring of their proper implementation, by the members of the governing body of an organization. Sounds simple enough but what does this apply to? Turns out, a lot more than you might think.

In one of our recent publications, we outlined a few of the basic ‘ABCs’ of investment governance, including Asset Allocation, Benchmark Management and Compliance. Our main point was that governance is not all about data. It applies throughout the business and necessitates guidelines that are well

communicated and coordinated to ensure proper management of risk and execution.

Proper management includes policies to manage the people, process, technology, and data required to support the business strategy. Not only that, but it requires ongoing review so that adjustments can be made to ensure proper alignment. Many of Citisoft’s client partners have created investment councils that maintain oversight in order to manage the governance decisions and communication throughout the firm. We expect to see continued efforts in this area in 2016 as firms undertake more initiatives to balance their priorities.

Data Governance

GOVERNING IN THESE FAST-MOVING TIMES

Now that we've established the importance of holistic governance, we'd be remiss not to mention the hottest topic in the governance dialogue: data. Our industry continues to grapple with the data explosion and with more regulatory deadlines coming in 2016, this challenge isn't going anywhere.

The concept of data governance remains relatively straight-forward (see aforementioned definition); however, bringing it to life remains difficult in practice. There continues to be a strong appetite for getting the 'data house' in order, so to speak. Unfortunately, unwinding what has been crafted over the years emerges as a daunting challenge for even the least complex asset managers. What firms have realized is that a data governance framework needs to be established before any unwinding exercise begins.

We've always said that data governance is a significant cultural shift for a firm who is looking to adopt its practices. That cultural shift takes time and a strong voice from senior leadership of a firm. Because of the effort needed for adoption, rolling out a strategy to govern/master certain key sets of data to start with, and have others follow, will help demonstrate those early successes necessary for data governance programs to gain momentum. That said, it will continue to be difficult to measure the value that a data governance program provides. However, reputational, financial, and operational risks can be reduced significantly through a solid data governance program. With an increased focus on risk management in 2016, we foresee data governance initiatives finally gaining the traction they need.

Client Reporting

ON DEMAND ACCESS

Although there hasn't been as much visible debate in the industry specific to client reporting when compared to big data, data governance, and IBOR/ABOR/PBOR in the past year, it still remains a hot topic with investment managers. Historically, investment managers have been narrowly focused on solving client reporting issues. Fast forward to today, and that narrow focus has widened considerably to include sales and marketing materials as well as report delivery.

Vendors in the reporting space are now pressured to become a one stop shop for a solution that handles the creation and multiple distribution channels for client reports, as well as sales and marketing materials. In the past, the sales and marketing team would have a seat at the table, albeit passive, when discussing solutions for client reporting. Today, those same sales and marketing teams are an active participant in the evaluation and selection of solutions for firm-wide reporting needs.

One reporting challenge that we foresee in 2016 is the desire to provide investors with more channels to consume information at a faster rate. Recently, client RFI's have been emphasizing the concept of

'portals'. To start, there isn't a common industry definition of what constitutes a portal. Is it access to the data via mobile device, is it the ability to provide self-service, or is there another approach a client desires? Providing access to client information via a tablet does not necessarily satisfy a client's need to access their information. What we expect to see as vendors continue to enhance their platforms in the coming year is further definition of the portal requirements desired by clients to access their data.

One thing we can all agree on is that investor's appetite to consume data at faster rates of speed will only continue. Being ahead of that curve is the challenge for those who provide solutions in this space. People, process, and technology will continue to evolve at a rapid pace to meet this demand.

Investment Risk Management

THE BELLE OF THE BALL

Today's investment managers spend as much time managing risk as they do return. Money managers are increasingly developing comprehensive risk frameworks to support better downside protection, while still seeking higher returns and more optimal diversified investment portfolios. On the extremes, some managers are looking to use risk to identify opportunities to make money in the downturns.

As alternative asset classes, such as private equity, complex derivatives, and structured products continue to become mainstream investment vehicles, the need for proactive risk management is being magnified. Unfortunately, there is no single solution available to meet the needs of asset managers who are increasingly mindful of these investment risks. Existing technology solutions have differing strengths with respect to risk models. This leads to the need for multiple platforms which present challenges correlating risk, running scenarios, and modeling. The agility of firms who are looking to evolve and expand their risk strategies to mitigate risk early in the investment lifecycle is currently constrained due to the lack of

comprehensive solutions.

As such, front-office risk management systems are now front and center in the minds of chief investment officers, portfolio managers, and analysts as they look for ways to understand aggregated risk across all of their investments and portfolios. Additionally, changes in how managers want to analyze markets and construct portfolios will begin driving firms to seek more integrated and robust solutions, enabling asset managers to take advantage of the benefits of expanded risk strategies.

We believe that investment risk management initiatives will continue to be a major theme for 2016. To meet growing demand, we expect to see technologies to support these complex risk strategies continue to appear in the marketplace from financial software vendors and third party asset service providers.



The Global Operating Model

MYTH OR REALITY?

It wasn't long ago that achieving a global operating model was the top priority for large, multi-national asset managers. And for good reason. The global operating model touts the ultimate operational efficiency with streamlined processing, holistic risk management, and truly global investment strategies. Asset managers looked to a single investment middle and back office operational model that could improve efficiency and reduce cost to transform a business's operations across regions. The problem with this approach? It's extremely difficult to implement without standardized data.

Among the many asset managers who dedicated a massive amount of time and resources to achieving a truly global model, we're hard-pressed to name one who has been able to accomplish this goal. The initiatives to deploy a global operating model all seemed to have a singular focus on fitting people, process, and technology into a round peg. In hindsight,

that approach was doomed to fail. What we've seen firms realize in the past year or so, is that data—not technology—is the key to unlocking global operations.

The focus on technology that we observed when firms were trying to achieve a global operating model neglected to address the many issues of a diverse (and changing) regulatory landscape. Region-specific requirements could not be supported by any one operating model and technology teams came to the unhappy conclusion that a common data platform is imperative for standardized global operations. In 2016, we foresee that business processes will continue to be built around data. And while these processes may not quite live up to the myth of the global operating model, it will begin to look a lot like it.



Multi-Asset Classes

STRIVING TOWARD STREAMLINED

In recent years, we've seen multi-asset class strategies go mainstream. Once the province of alternative investment managers, multi-asset strategies and portfolios have quickly gained traction with even the most traditional managers. This trend is really all about risk mitigation and targeting positive returns regardless of market conditions—protecting investors from downward performance spikes and volatility in the market, for example. With rising interest rates, high volatility, and a bleak market outlook, it's clear that multi-asset class investment are here to stay.

Firms who manage money with dedicated desks have also deployed technology solutions in operational silos using best-of-breed solutions to service each asset class. With various front office systems for different asset classes, firms run into

increased risk, redundant use of resources, and widespread inefficiencies. It goes without saying that this is eating away at operating margins as their usage grows. It has also constrained vendor expansion into true multi-asset environments.

We believe that we'll be hearing more about the development of multi-asset class platforms in 2016—although it seems unlikely that anything will hit the market in the near future. Until new technology becomes available, we'll likely see asset managers continue the trend of large-scale data standardization initiatives which will position them for a smooth transition if a multi-asset class platform becomes available.

Data Projects

THE FUTURE IS BRIGHT

A happy confluence of regulatory, global market, and operational drivers have forced investment managers to get serious about data. Risk Data Aggregation (RDA) principles of BCBS 239, global economic concern, and business demands have stoked a proliferation of governance, operations, and architecture initiatives. In a paradigm shift, investment managers are required to be data management innovators who carve the path with cutting edge thinking rather than waiting to adopt more mature and proven technology models.

This innovative thinking involves organizational design, investment in new skill sets, and evolving information technology support models to enable a self-service business. More dynamic architectures are required which provide quicker access to data and business intelligence capabilities. Investment managers are also learning to innovate with their millennial-

generation brainpower that has been shaped by the age of online, instant, and dynamic access to information. In addition, firms are realizing there is an opportunity to create a competitive edge with open architectures and tools to enable data analytics beyond what IT organizations could historically support in a traditional warehouse and reporting world.

Overall, the industry is still relatively immature with respect to data architecture, management, and governance. Today's drivers and a new generation of workforce are now influential enough to finally push the envelope on innovation, and we hope to see an acceleration of the industry's overall maturity with respect to data in 2016.

The Millennials

WHAT TALENT GAP?

We've written about the millennial generation in the past, both in our blog series, as well as the Year in Review IP that was released last December. We've attempted to mix in a bit of humor with our take on Millennials, as we've referenced hoodies, flip-flops, entitlement, participation trophies, the Social Network and other 'descriptors' often associated with this demographic. As we try to get a handle on what makes them tick, we've asked—What drives them? What industries are they attracted to? How do they dress? How do they approach work-life balance? Rest assured, Citisoft has begun to dip our toe in the millennial talent pool. Our verdict? They rock!

It's certainly been an eye-opening experience as we look to meld some of our more 'seasoned' consultants with this twenty-something millennial crowd. Citisoft has historically prided itself on the average years' experience of our consulting staff; our consultants have been there and done that,

having grown up in this industry with the battle scars to prove it. How do we continue to take advantage of one of our greatest differentiators, while also introducing new ways of approaching our business, often suggested by our most recent and "junior" hires? Frankly, in several areas of our business, we've chosen to take a step back, embrace the differences, and open our eyes, ears and minds. Work schedules, marketing strategies, sales tools, office furniture, travel, collaboration techniques, project management methodologies, and several other functions are being challenged like never before. This is exciting for us, and we can't wait to see what is in store for us in 2016... we certainly wouldn't have bet on having a Citisoft Instagram account (@CitisoftInc) if asked this question 12 months ago!



Social Media

OUTCASTS NO LONGER

Social media is finally hitting its stride in financial services. In just the past year, we've noted that even the most conservative financial services institutions are actively engaging in the social media dialogue (just check out #fintech, #blockchain, or #solvenyII on your platform of choice). While our industry has been slow to adopt social technology for business use, its benefits have become too hard to ignore.

In order to communicate a relevant message, it's imperative that firms incorporate social into their marketing mix. However, usage shouldn't be limited to the marketing team. Social platforms can be extremely effective tools throughout the business for learning about best practices, emerging regulation, and new technology. One trend in particular to watch next year is Twitter chats. These are virtual roundtables where industry thought leaders agree to tweet on a topic (e.g. #mifidIIchat) at a specified time. Anyone

is welcome to join and interact which provides incredible access to industry heavyweights as well as peers. We've seen a few of these targeted toward our industry, but anticipate increased participation in 2016 as more Twitter aficionados understand their usage and business value.

While the boom in social adoption for asset managers has primarily focused on LinkedIn and Twitter, we think we will also see firms dipping their toe in the water of new platforms. We may see more asset managers on platforms like SlideShare and Instagram in the coming year. Some truly early adopters, like Goldman Sachs, have even joined Snapchat. As for Citisoft? You can now get a glimpse of our office life on our new Instagram account, @CitisoftInc.

Conclusion

If you're still with us then you may be sensing that these 16 trends are overshadowed by a recurring theme: the standardization of information (data). From outsourcing to multi-asset classes to global operating models, the biggest story is all about data. Could 2016 finally be the year that data management initiatives take a front-seat?

