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Data as the Catalyst for Innovation in Asset and Wealth Management

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INVESTMENT MANAGEMENT UNDER PRESSURE

Asset and wealth management firms are being squeezed between downward pressures on sources of revenues and upward pressures on costs. They are also facing pressure to operate in a more streamlined way, and to offer new and innovative products to new, possibly unfamiliar groups of customers. As a result, many firms are considering whether and how to re-engineer their businesses.

Firms are facing a migration en masse to passive investment funds. The result, a recent Morgan Stanley report has forecast, will be a one-third drop in active management fees by 2023. Meanwhile, the complexity of today's regulatory landscape is adding to costs, with research suggesting there may be as many as 500 new pieces of regulation due for implementation in the coming few years. And while not all of these will affect fund managers, buy-side firms can no longer rely on the sell side to help them achieve compliance.

At the same time, firms are under pressure to run leaner, faster, better. They need to speed up decision-making and get it right first time, making access to up-to-date, high-quality data essential. Clients want more, and they want ease of access to services, based on service levels they get from digital providers both in financial services and in other industries. This is pressuring investment firms to improve the customer experience through higher level of engagement, new products and ease of consumption of services.

Finally, it's becoming clear that a conventional relationship-based approach to wealth management cannot scale to serve new sets of the 'mass affluent'. Firms are realising that digital transformation can help 'democratise' the data and analytics at their disposal, making capabilities heretofore restricted to internal institutional users available to select groups of clients, and those historically restricted to premium clients available more widely.

Against this backdrop, new technologies are offering organisations the opportunity to take a data-driven approach to their business. This can help them better manage their data resources (and tap into new data sources) with the objective of:

1. Offering new types of services
2. Reaching new clients
3. Improving existing service offerings
4. Achieving better investment decisions and improving alpha.

As they find it more and more difficult to attract funds, management firms are looking to change the way their business works. Given their historically conservative nature, many firms have been slow to adopt new digital techniques across their activities. They are now realising that digital transformation of their organisations to a more data-driven approach can yield the results they desire.

Some buy-side firms have already embarked on digital transformation programmes. For example, some are outsourcing the core investment management platforms that host 'commodity' processes like trading and portfolio management, thereby freeing up expertise and IT resource to concentrate on differentiated services such as more in-depth data-driven client reporting and portfolio analysis.

Creating a data-driven organisation can allow firms to create new, more personalised products; target new and broader client segments; offer customers a richer, more digital user experience; and ultimately generate more alpha. But to achieve this, they need to be smarter about their use of technology and of the growing number of data sets available to them.

OBSTACLES TO CHANGE

Active fund managers are looking for ways to improve performance to justify their fees, while streamlining operations in order to control costs. Many recognise that change is required if they are able to succeed going forwards. But they face significant challenges.

For one thing, investment management as an industry is conservative by nature. This translates into internal processes and appetite for change. Asset and wealth management firms aren't known for spearheading technological innovation, a mindset that can hold back the change required for future success.

For another, firms remain siloed, often as a result of a long history of corporate mergers and acquisitions. Old organisational structures remain in place, and with them their technology platforms and operational processes. Legacy data management systems and practices limit their ability to leverage the data sets at their disposal, making it hard to take advantage of this data to introduce new products, improve services and streamline operations.

Firms are also inundated with data. This stems from their own internal processes, from high-volume market data sources, as well as from new so-called alternative data, which increasingly offers new insights into investments and customer segments. These data sets - examples include insurance policy renewals data, telephone call centre records or shipping traffic information - are often huge, and many alternative data sets are unstructured, making them difficult to ingest and manage.

Financial institutions are facing other, perhaps more benign but still very real, obstacles to change. These include:

- Valuable IT resources tied up performing undifferentiated, commoditised tasks;
- Ageing IT systems (including wide populations of relational technology); and
- Conventional (possibly out-of-date) approaches to IT project implementation (such as waterfall) that increase project risk, increase scepticism of IT's ability to deliver, and fail to support a close, iterative working relationship with the business.

To break the mould, firms need to adopt emerging technologies that can help them make better informed decisions and offer more personalised investment products, which is key to attracting and retaining clients. Early adopters are already working on ways to make better use of the data at their disposal. Specifically, they are exploring how they can use next-generation database technologies as well as AI techniques like machine learning to transform their firms into data-driven organisations that can offer better performance and customer experience at a lower overall cost base.

WHAT DOES A DATA-DRIVEN APPROACH LOOK LIKE?

As with many data-related initiatives, a data-driven approach combines people, process and technology to ensure the data at a firm's disposal is put to optimal use in order to meet its business goals.

Technology continues to evolve rapidly, particularly in the data management space. While the initial hype of Big Data has passed, many of the techniques and outcomes it promised have gone mainstream, and are feasible using emerging technologies that aren't necessarily reliant on abstract Big Data platforms. This means standard technologies can be deployed as the foundation for the transformation to a data-driven architecture.

Changing processes is key to operational change. Taking a new approach to data capture, storage and analysis can help combine information from disparate sources into useful management information that helps in decision-making across the board.

Finally, it's imperative to create a culture and operating environment for people involved in the transformative shift to a data-driven organisation. Stakeholders need to be on board, have to have the right skill sets, and need clear and robust governance structures in place. To institute this kind of environment, it's important to understand the value chain for data across the whole organisation.

A good starting point is the alignment of the data strategy with the business strategy. This points to the need for the Chief Data Officer to operate closely alongside senior management, as it helps gain buy-in as the firm moves towards a more data-driven approach. Understanding the current state is also important: where are the weaknesses in the existing data sets, around data management processes, data management technology and data managers' skillsets.

By benchmarking this current status it's possible to review and compare the impact of the data transformation initiative. This can prove invaluable when seeking to demonstrate the business value of a new data management project. It's critical to quickly prove the value of a data-driven project at a smaller scale to open budget/ funding for broader usage.

Using development 'sprints' (POCs) with clearly defined deliverables and metrics is best way to do this. It's essential to establish agreed metrics around the data transformation initiative. If those are in business terms - perhaps measuring the impact of customer churn or pension default rates - this can help with engagement with senior management, lending credibility to the project.

By taking this kind of approach to implementing new technologies, firms can integrate internal and external unstructured data sets with traditional financial information, and start to build a view of client behaviours. This can be used to provide better levels of service and more targeted service offerings.

With the Big Data buzz fading, and the limits posed by relational database technologies a thing of the past, firms are realising that data warehouses and data lakes (for unstructured data) are no guarantee of delivery on data quality promises. Many are finding it's no longer necessary to put in place a huge set of relational tables that describe data relationships before they can even start to plan their new data architectures.

Instead, they are considering a data hub approach, which brings together all information from within the organisation and combines it to enhance value, identifying lineage and bringing together meta data while leaving the original data in place. Investment firms, for example, could take this approach to combine customer data with actual trade executions, and use this enriched data set to feed downstream applications and form basis for offering new digital services with increased scale and precision.

Data lineage is becoming increasingly important, not only to satisfy regulators but for boosting trust in the data. By showing the original source of the data and tracking subsequent modifications, additions and commingling, firms can show clients the 'workings' of analysis and calculations thereby demonstrating how a decision was reached.

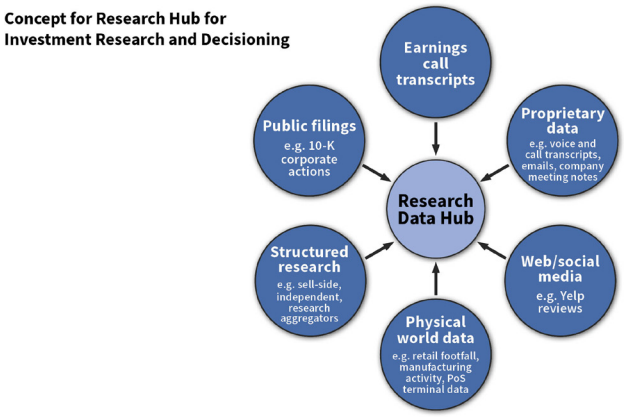
CREATING A DATA-DRIVEN ORGANISATION

New technologies can help firms create the kind of data-driven organisation that can give them a competitive edge in the face of the challenges described above. But it isn't all about technology. It's essential to first put in place the right environment - cultural and organisational - to allow data scientists to flourish and do their work.

The most obvious aspect of this - though not necessarily the most straightforward is breaking down organisational silos. Many firms operate as multiple lines of business, but true value can be derived from the data at their disposal only if that data is allowed to flow across these organisational boundaries.

Achieving this may require a change in mindset as well as a change in technological approach. By opening up data flows, though, firms are able to provide the right foundation for data scientists to do their job without spending the vast majority of their time data wrangling and having to deal with inefficient and rigid conventional data models.

Taking this approach could result in a data hub structure like the one illustrated below, which can be used to drive investment decisions.



As can be seen, a data-driven organisation can begin to reap benefits from data generated from all of its activities, even those like internal research, meetings and conference calls, transcripts of which can be captured, standardised, integrated and inserted into the decision-making process.

Data hubs are able to scale beyond the limitations of existing systems, and are able to ingest data from all sources and cleanse that data for consumption by investment managers and the analytics and applications that support them. By adopting a data hub at the heart of a data-driven transformation - tapping into resources currently not available in an integrated way - asset/wealth management firms can make more informed investment decisions, improving performance.

As well as incorporating internal data sets into their decision-making, firms can also tap into emerging, alternative external data sets, including physical world data like real estate intelligence, private jet transponder data and so on. The scope for generating alpha from these new data types is well documented. More exotic examples include the ability to trace corporate jet activity in the hopes of predicting mergers and acquisitions. Less glamorous uses include analysis of car insurance policy take-up rates to forecast car production ahead of official reports or the study of cable television cancellation rates to gather insight into the heat of the property market.

Meanwhile, technology concepts like artificial intelligence and cloud are gaining credibility and acceptance as obstacles to their use fade away. But that's not to say they don't present challenges of their own. AI techniques like machine learning can add scale to firms' digital transformation efforts. But it's essentially to feed these processes with high-quality data if one is to avoid the proverbial 'garbage in, garbage out' scenario.

Being data-driven is not only about applying at scale what you know today but also researching and identifying new patterns to give the organisation an edge. This might be alpha generation. It might be managing risk. It might be identifying an optimal, personalised portfolio for an individual according to their life circumstances, objectives and current portfolio. But without a quality data platform, any results from AI models can't be trusted.

Cloud is also gaining credence. Financial services organisations have not been the fastest at adopting cloud, particularly public cloud technology platforms, due to concerns over privacy and control. But this is changing. Financial institutions, especially large ones, increasingly are switching access to services in the public cloud to reduce costs, increase agility, deal with innovation-inhibiting hardware acquisition times and, generally, to stop reinventing the wheel.

Notwithstanding nagging doubts about privacy and security, legitimate concerns can arise over lock-in to a particular public cloud supplier. But these can be mitigated through having more than one cloud provider, or through using software and services that can be migrated from one provider to another.

Embracing emerging technologies can help firms adopt a data-driven approach that can yield new insights that until now have been unavailable to asset/wealth data analysts and product managers, allowing them to discover hidden connections that can improve investment decisions and generate alpha. This in turn can help give firms an edge against the backdrop of a general trend toward passive fund management (putting pressure on the performance expectations of active fund managers) and downward pressure on fees across the board.

BENEFITS OF A DATA-DRIVEN APPROACH

Firms are realising that there is a lot of value in the data they already hold. They are increasingly viewing it as an asset, and now they want to see value from it. Putting in place a data-driven organisation can give a firm the analytics and insights it needs to make better decisions, whether about an investment opportunity, a client segment or an infrastructure performance issue.

Real-world examples can illustrate how firms are benefiting from this approach. A Tier 1 active asset manager with 1,400 investment analysts worldwide, for instance, wanted to address the issue of meeting performance expectations in the face of the exodus to passive funds.

This fund manager implemented a data management platform to integrate different types of structured and unstructured data, including its own original research, as well as third-party research from brokers and independent analyst shops. Using this approach the firm was able to use semantics to extract deeper relationships between these data sets, identify correlations and generate personalised alerts to items of interest.

In another case, a large North American asset manager and global custodian wanted to understand its clients better, by getting a 360-degree view of all interactions from on-boarding, to Know Your Customer checks through to details of transactions and holdings. The idea was to give its managers a clearer picture of client preferences based on past activities. The challenge was that many process were manual and much of the underlying data was held in unstructured and even non-digital formats, including stored paper files.

The firm implemented a data-driven environment that eliminated the need for printed copies and allowed it to combine client interaction data to understand customer portfolios and trades in the context of a goal-powered investment programme. The new platform gave managers sight of clients' financial goals and ethical constraints, allowing them to devise a strategy that supported investments according to these criteria.

Finally, a Tier 1 European asset and wealth management firm wanted to establish a single view of data across the entire organisation, but found internal IT teams were plagued by long lead times resulting in missed deadlines and business opportunities. The firm wanted to gain an integrated view across core trading data, portfolio holdings data and customer information, then use that to power a set of new digital strategies relating to customer relationships and goal-powered investments. It also wanted to reach new demographics by identifying new channels to market via emerging FinTechs and private banks.

Adopting data management platform, the firm was able to establish this comprehensive view, better inform its managers and secure new distribution arrangements to reach new types of client. At the same time, it reduced its reliance on internal IT, reducing time to market and exploiting emerging opportunities.

In addition to the business benefits from the examples above, the firms in question were able to put in place a more robust data environment that aided in meeting their regulatory obligations. As reliance on the sell side for meeting these obligations subsides, and with no experience or culture of ensuring compliance themselves, buy-side firms today require robust data governance and lineage that allow them to trace where data has come from, if it was changed, when and by whom.

This capability is critical to regulatory compliance. But it also establishes trust in the data, which itself is key to allowing the firm to derive actionable insights from it. Furthermore, this trusted data becomes even more useful and powerful when it can be shared safely across the firm and with clients and outside partners. Legacy technologies like data lakes have struggled with data security and managing access and entitlements. New technologies offering flexible and granular access controls, with encryption by default, can ensure that the right subset of data will be accessible only by authorised people and automated processes.

More Information

Investment firms use MarkLogic to streamline business operations and achieve faster time to market with differentiated insights and new investment products.

To find out more, visit: https://www.marklogic.com/solutions/industry/financial-services/investment-research-authoring/

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Data integration is one of the most complex IT challenges, and our mission is to simplify it. The MarkLogic Data Hub is a highly differentiated data platform that eliminates friction at every step of the data integration process, enabling organizations to achieve a 360° view faster than ever. By simplifying data integration, MarkLogic helps organizations gain agility, lower IT costs, and safely share their data.

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