Managing Complexity With Technology
Technology trends within the UK hedge fund industry

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The hedge fund industry is in the midst of a period of significant change driven by the pressure of both regulators and investors. Regulators are now requiring hedge funds to provide more transparency into their risk and control function by asking them to demonstrate if they could provide valuation services in-house, in case the fund administrator went bust. Investors are also becoming sophisticated, demanding more information on the valuation, liquidity and exposures of the hedge funds in order to assess potential risk factors.

To generate alpha, long/short equity strategies are no longer adequate and hedge funds are now relying on multi-asset strategies, which require them to operate at the highest level in terms of people, process and technology. Technology is not only an enabler for driving performance, but a critical factor for operating a multi-asset hedge fund. Technology by itself is no longer a differentiator; if it’s not there it simply will be impossible to run the business successfully. In its place it is vital to have the appropriate systems so hedge fund managers can remain in control of the diverse risks undertaken and demonstrate that they can react to the poorest situations.

To fully understand the state of software use within hedge funds, Dr Sven Kuenzel and Anika Schlien at the University of Greenwich Business School, in collaboration with Copia Digital, conducted a study to assess current and future trends. Questionnaires were forwarded to 556 hedge fund executives and the study analyses the following key issues in order to create a comprehensive understanding of the industry’s decision making when it comes to technology:

- Data reporting and management
- Software needs and trends
- Software preferences

Data management and reporting – reporting online, managing offline

Given the regulatory pressure on transparency, data protection and security, hedge funds need to re-think their approach to data management and reporting. At the moment, 73.8% of the respondents stated that they are using emails to report their data. However, there is a decline of 8.2% when asked for future data reporting tools. In contrast, the usage of web portals for data reporting is expected to increase by 4.9% from currently 60.7% of the participating companies using this medium to 65.6%. Reasons for this increase could be the possibility of customizing the portals to the individual requirements of the companies and clients. Furthermore, analytic tools and dashboards can be implemented. To improve data flows, portals
A variety of answers were provided which have been
clustered into themes as seen within the cluster
map, see Fig. 3.

Consolidated reporting: Most hedge funds currently
operate in a silo-fashion. This means that the trade,
risk, client, finance and portfolio management
information is stored across different systems
within their organization. As regulatory pressure for
providing more transparency is increasing, hedge
funds are increasingly consolidating the information
from different data sources to provide unified views
of client, trade, risk and portfolio management. This
approach towards consolidation is being further
accelerated due to most market making activity
being done using electronic trading.

Flexible reporting: Flexible reporting is required
to serve increasingly sophisticated clients and
stringent regulatory requirements. Data should
be easily extracted from data management systems and
support creation of compliance and regulatory reports. Also, internally CIOs can use
data management tools to support their decision
making in terms of extracting best value from
traders, portfolio managers and asset allocation. This
give clients increased confidence that they are
getting value for their money.

CRM systems: Participants raised their need for
an efficient customer relationship management system
that goes beyond existing contact databases. That
means these advanced systems will not only incorporate client data, but also data from trading, risk and portfolio management. Ideally these
systems should build-up on their existing contacts
system so no information regarding client history
and data will get lost in the process of transition. The
need for an advanced CRM system is based on the
requirement to generate reports from a single source
to enhance simplicity and transparency as demands
from investors as well as from regulators increase.

Software-as-a-service and the Cloud: With the
volumes of equity dropping, most hedge funds have
become cost conscious. This requires them to have
scalable operating platforms and increasingly
hedge funds are moving to a software-as-a-service
model. The change in approach is being matched
by a change in the revenue model. Infrastructure
firms are moving to provide fixed term contracts for
their services rather than one-off license fees. Cloud
technology provides the platform for deploying
services and software globally without having to
build and host the infrastructure in-house. However,
security issues need to be addressed and are a main
priority for decision making.

Portfolio management: Due to the drop in
investment opportunities worldwide, most hedge
funds are turning to multi-asset strategies. This
requires hedge funds to be able to clearly see how
assets of a fund are invested across different asset
classes to determine where they are getting an alpha
in terms of return. Portfolio Management Systems
therefore need to be cross-asset and integrated with
the trading and execution systems to capture this
information and represent it in a unified form to the
portfolio manager to be able to accurately determine
risk and return.

Workflow management: With the increased
regulation new checks and controls are being put
in place across the trade lifecycle. It is therefore
important for workflows management tools to be
integrated and to have hooks into the relevant front,
middle and back office systems to quickly provide a
scalable, configurable and transparent process flow.

Critical factors for software buy vs. make
decisions

Overall, the study revealed that the hedge fund
industry is reacting to changing market trends with
technology being a main transformation factor to
meet regulatory and client requirements. However,
their internal decision making is driven by a variety
of factors which the survey exposed as shown below:

- Keeping data in-house
- Security and confidentiality
- Data/application security
- Cutting edge features
- Integration
- Vendor reputation
- Web reporting
- Scalability
- Costs

For hedge funds, their trading strategies and client
data is of key importance and the basis of their
competitive advantage. There is a high degree of
keenness to build vs. buy when it comes to
infrastructure services hence the respondents stated
a clear preference to keeping data in-house.

Security and confidentiality are paramount for
hedge funds and will therefore play an important
part in acquiring new software and services. Not
only is security an important consideration when
purchasing new software, the data/application
security as well as the provision of audit trails has
been rated by the participants as very important.
With increased regulation around transparency on
trading activities it is becoming more important
for hedge funds to be able to demonstrate a clear
log of investment decisions and trading decisions.
In particular large hedge funds with AUM over $5
billion rate this feature as pertinent to their software
purchase decision-making. As hedge fund strategies
become increasingly sophisticated and regulatory
requirements become more demanding, software
solutions now need to cater for a host of variables. The data requirements to implement strategies requires software architectures to be scaleable and of high performance in terms of speed. To meet regulatory requirements the workflows within the software systems should allow for new controls and transparency.

Despite the growing interest for Cloud-based services, the respondents stated that it is currently not a necessity to receive services from the Cloud. This may be due to the fact that the technology is still in its early adoption phase and security concerns are dominating the decision making for implementing Cloud-based software. It seems likely that hedge funds at the beginning remain extremely cost sensitive and are more inclined to go for Cloud based services, nonetheless as the size of the fund becomes larger, there seems to be a tendency to insource the services to get more control back into the organisation.

Hedge funds spend a very small portion of their assets under management on IT and they are not extracted from their management fees. This causes them to be particularly cost sensitive when purchasing new software. While cost concerns are a consideration, hedge funds prefer to deal with reputable software providers who have been in the market for a long time and have a number of clients. Most hedge funds build software in-house and therefore require significant reengineering when deploying new vendor software. One obstacle to buying off-the-shelf software is the substantial costs of integration which frequently results in businesses remaining with in-house sub-optimal systems and processes despite being aware of external vendor systems which could drastically reduce total cost of ownership. This challenges suppliers in coming up with appropriate price-value-propositions.

Overall, cutting edge features are of importance for the hedge fund industry. However, most hedge funds are driving technology with their sophisticated and time-sensitive investment strategies. Therefore, it is very difficult for vendors to react to changing market conditions and incorporate these specialized features. Building up close client relationships and intense market research is absolutely key to serving the complex needs of hedge funds given the dynamic environment they operate in.

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