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ENHANCING DATA EMPOWERMENT IN FINANCIAL SERVICES WITH MODERN CLOUD ANALYTICS

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ENHANCED DATA EMPOWERMENT

Modern cloud analytics can help financial services organisations to gain greater insight into their ever-increasing volumes of data, enabling them to improve customer experience, boost productivity and generate new revenue streams

Perhaps more than any other industry, financial services firms understand the value of data. The sector is an early adopter of new technologies such as artificial intelligence (AI) and machine learning (ML). Keeping up with the latest digital developments is seen as essential to deliver great customer experiences, drive operational efficiencies and to manage risks and compliance.

But competitive pressures mean that financial services companies cannot keep still. They need even more insights out of their data to push innovation and to exploit new business opportunities. The rise of emerging, digitally native fintech firms is only increasing the urge to maintain a competitive edge.

In today's challenging economic climate, data can help organisations to take a proactive stance against global shocks and to weather unexpected events.

The data challenge for financial services

Financial services is the backbone to the economy and data is central to its operations. Successful firms recognise the business value that good data and analytics can provide. However, data volumes are growing exponentially, and they must glean insights at ever-increasing speeds.

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Alvin Huang, capital markets specialist for worldwide financial services business development, AWS

"The challenge for financial services institutions is more and more data becoming available more quickly. That data comes from diverse sources and must be looked at in real time," says Ruben Falk, capital markets specialist for worldwide financial business development at Amazon Web Services (AWS).

"The competitive edge from data comes from the ability to digest insights from data and serve back in the form of intelligence."

With growing data volumes also comes a need to cut data processing costs.

"Cloud technologies give financial services institutions the ability to gain efficiencies and scale in a flexible and agile way based on pay-per-use," says Falk.

Where in the past it was acceptable to run, say, a specific project to exploit insights from data, the pressure has increased to do much more in a shorter time to respond to economic events.

"Financial services institutions run advanced analytics, for example, with risk modelling. AWS provides extra compute so instead of just one good idea, it is possible to run 10 good ideas at once with flexibility and agility," explains Alvin Huang, capital markets specialist for worldwide financial services business development, AWS.

A stark requirement of the need for agility with data came at the beginning of the Covid-19 pandemic. "All hell broke loose. Spending patterns changed overnight and moved from a hybrid mixture of face-to-face and online, to just online," says Huang.

"Banking and behavioural analytics, with a focus on fraud detection and risk modelling, had to be recalibrated immediately. People wanted to leverage alternative datasets, such as Google location data, in real time. Using AWS and Tableau allowed for this level of activity and agility."

Although many financial services institutions are using cloud technologies, ML and AI, the level

CASE STUDY: YORKSHIRE BUILDING SOCIETY

Yorkshire Building Society (YBS) is using Tableau Cloud, which runs on AWS, to deliver a single dashboard providing self-service data analytics to managers across its 230-strong branch network.

Before Tableau, data was difficult to access across the organisation. "In the past, if you asked 100 managers how they were performing, you would get 100 different answers," says Gary Fowler, director of retail distribution at YBS. "Now we can see instantly how the business is performing."

Dashboards underpin data analysis covering everything from branch insights, underwriting service delivery and product performance, to customer service, mortgage collections, and digital channels. For example, a manager can review how customers are using the branch with analytics providing insight into areas such as footfall, type of enquiries and volume of transactions, which is used to optimise branch performance.

"We are experiencing the highest customer retention we have ever seen," says Fowler. "Tableau has sparked curiosity in analytics. People are interested to know what's happening in each branch. Armed with these immediate insights, we are more agile and more informed as an organisation."

of uptake remains patchy and data silos are often responsible for lack of progress.

"The challenge for many financial services institutions, such as large global banks, is where data resides in silos; having lots of business users; how to democratise data; how to make data easily searchable and discoverable; and how to give access to data," says Huang.

Different institutions are evolving at varying paces on their data journey. "Some financial

services institutions have moved 100% to the cloud, but lots of small and large organisations have not made the journey yet. There are wide discrepancies," says Falk.

Fintechs are often at an advantage compared with traditional banks that may have spun out a digital arm but lack a unified view of their data.

"Fintechs are ahead of the curve because they live and die by how they serve their customers, and data is essential to this. Traditional banks have clean data where they are legally mandated to meet compliance objectives, but they are slow to break down silos," says Andy Kemp, senior manager for solution engineering at Tableau Software.

The fintechs' advantage meant they were able to move swiftly during the pandemic and grabbed a large share of crisis-related services, for example, Covid-19 recovery loans. More recently, the war in Ukraine served as a wake-up call for one bank, which chose to partner with Tableau to understand how it would be affected by sanctions on Russia.

"This large banking customer couldn't see its risk exposure to Russia," says Francois Zimmermann, field chief technology officer for Europe, Middle East and Africa at Tableau. "It was already running data in the cloud but hadn't changed its analytical processes. It worked the same way as before, now just in a different place. While it finally stored data at the lowest level of granularity it had no new tools for the business users to ask questions of it."

Creating such stove pipes in the cloud to process data is antithetical to the potential of modern cloud analytics.

"Traditional banks have the data and should be able to analyse it, but the question comes down to storage and access and how to become more agile with a 360° view of customers," explains Alice Steels, regional

sales director for financial services in the UK and Ireland, at Tableau.

The data opportunity

Financial services firms have vast amounts of data from varied sources that they want to turn into real insight to galvanise their business. ML- and AI-based decision-making are paving the way for the democratisation of data where anyone with a business idea can turn data to their

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"Democratisation of data means that everybody who should have access to data, can have access to data, but they need to be able to do something with the data to give them insight"
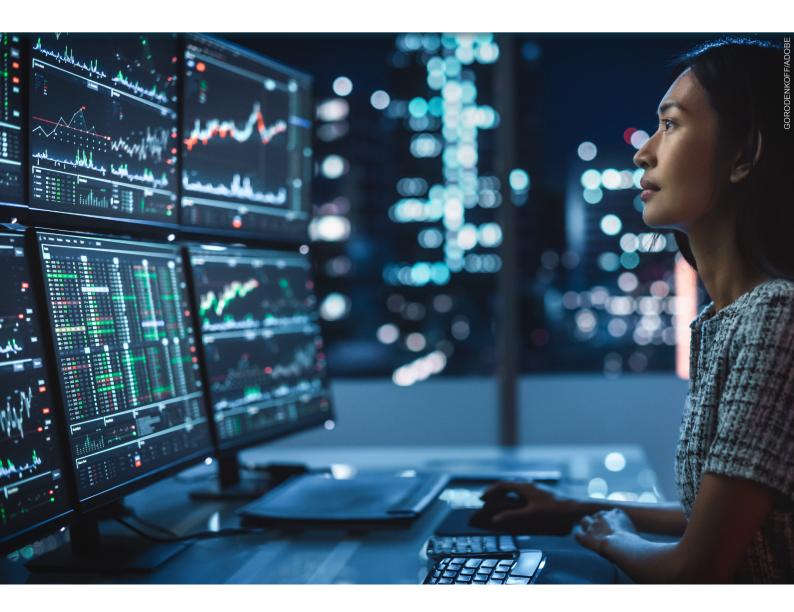
Andy Kemp, senior manager for solution engineering, Tableau Software

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advantage and investigate theses and opportunities. Democratising access to data allows institutions to move away from Excel towards a solution that is easy to use and delivers insight to queries in real time.

"One of the benefits of AI and ML in the cloud is the democratisation of data," says Huang. "Most analysts today use Excel for data consumption, but it is not suited for data-intense applications in financial services."

Tableau provides a front end to interpret data that is easily consumable for business analysts and does not require specialist data scientists to make sense of the data. The easy-to-use low-code/no-code environment means that analysts without coding skills can still play with the data and run complex analytics.

"Democratisation of data means that everybody who should have access to data, can have

access to data, but they need to be able to do something with the data to give them insight," says Kemp.

Institutions that democratise data in this way can drive innovation and use the insights for new product development and revenue streams. However, this can prove a challenge.

"Many are good at managing data for compliance but are not good at using data for new products," says Zimmermann.

Banks focused on customer experience and digital transformation are leading the way.

"Customers can use data, ML and analytics to develop new products and revenue streams," says Falk.

AWS and Tableau working together

Modern cloud analytics delivered by AWS and Tableau enables financial services institutions to explore a range of possibilities through data. "AWS and Tableau allow what was unthinkable five to 10 years ago to be standard practice today," says Huang.

This revolution is possible because Tableau integrates with AWS through direct connections to Amazon data sources, including Amazon Redshift, Amazon Aurora, Amazon Athena and Amazon EMR. Institutions can tailor their offerings and speak directly to individuals, forming closer and more rewarding relationships, for example, more specialised investment portfolios based on where people are in their lives.

The speed to insight allows businesses to react in almost real time, making them more robust.

"Risk calculation is no longer once a day, for example – it is multiple times throughout the day. With AWS and Tableau, financial services institutions can react more quickly to changing customer dynamics," says Huang.

AWS with Tableau offers a strategic partnership focused on innovation.

"Tableau's software-as-a-service offering was launched first on AWS. We have a rich and deep integration into AWS cloud services. We have a long-term investment in each other," says Zimmermann.

Security and automation

Financial services institutions are among the most regulated businesses in the global economy. The risk of fraud, cyber crime and data getting into the wrong hands – with the consequential loss of reputation and enormous fines – is a major incentive to adopt technologies that ensure state-of-the art security and compliance.

AWS is architected to be the most flexible and secure cloud computing environment available today, with SOC1, SOC2, SOC3 and PCI DSS Level 1 eligible compliance. Tableau's enterprise-grade security and governance models ensure data is only accessed by staff with the right privileges.

Tableau and AWS provide secure and scalable cloud analytics without compromising data integrity, governance or security. Tableau Cloud running on AWS provides the strongest available security, but there's a cultural shift that must also be addressed.

"The regulatory burden for banks is huge. AWS can make it easier for them to meet this burden, but they have to be comfortable with cloud and make an effort their end," says Falk.

Workarounds with spreadsheets present a security risk that modern cloud analytics can reduce.

"Weaning people off spreadsheets is a decade-old problem. If you don't create opportunities for people to explore data in situ, they will extract it and as workarounds increase, data security is compromised," says Zimmermann.

"Skills, culture and experience all have to come together to ensure the journey to cloud analytics is successful"

Ruben Falk, capital markets specialist for worldwide financial business development, AWS

Every organisation will have its own culture and skill sets to grapple with and plan its journey.

"There is no exact recipe to meet compliance. It requires evaluation. Skills, culture and experience all have to come together to ensure the journey to cloud analytics is successful and meets compliance and security requirements," says Falk.

The Financial Industry Regulatory Authority, a privately held, independent regulator of financial markets, put its mission-critical market surveillance platforms on AWS, along with 90% of its data in 2016.

"They moved their crown jewels from on-premise to AWS, but they didn't just jump headfirst into the deep end," says Huang.

"They spent two years analysing on-premise and cloud and concluded that cloud is more secure than on-premise because you can encrypt all the data and do more segmentation in the cloud, compared with on-premise where it

would prove super-onerous. Education and conversations were at the forefront of the project."

The way forward

Financial services institutions looking at how to extract maximum value out of their data and insight are turning to modern cloud analytics.

"The financial services sector is highly competitive, and many institutions want to expose data to make money from it, but they also want to improve customer satisfaction, increase transparency and sustainability," says Steel.

Key use cases for data include meeting obligations around financial compliance and regulation; branch transformation; HR and retaining top talent; and investigating risk exposure.

"Risk is always one of the areas where financial institutions choose to use Tableau. They need to be agile and to understand all data and go wherever investigations take them," says Kemp.

To future-proof the organisation and explore how data can work for the business, Tableau and AWS offer a compelling proposition.

"The key strength is we can adapt together. Tableau can flex very rapidly to a changing and evolving situation, which you need to answer questions for the business. AWS is elastic and has the ability to scale to ensure that can happen," says Kemp.

For sustained success, financial services institutions should adopt modern cloud analytics as a business strategy. "We are not just a point solution – we are business as usual," says Kemp.

Conclusions

Modern cloud analytics from Tableau and AWS helps financial services institutions to meet compliance objectives; process data efficiently; improve customer experience; increase productivity; and create new revenue streams in a highly competitive sector.

"Tableau and AWS deliver insights to the people who need to use the data for insights to drive the business. We work together for a new generation of analysts," says Falk.

Financial services firms can use data to go beyond compliance.

"It is critical to ensure that data is an asset, not a liability… Use data as a competitive advantage where the business can ask questions of it"

Francois Zimmermann, field chief technology officer for Europe, Middle East and Africa, Tableau

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"Data can be used for ensuring effective governance to reduce reputational risk; and they can use data to pivot when events change by empowering individual managers with the right levels of data at the right time for business insight," says Zimmermann.

A data-sharing culture is key to success

"It is critical to ensure that data is an asset, not a liability, and to have an effective data-sharing strategy. Use data as a competitive advantage where the business can ask questions of it," says Zimmermann.

Leadership should come from the top, says Steel: "If you talk about a data democratisation, you must have a plan around using data in the right way; and leadership must come from the top or it will remain in silos."

As a result, the value of data can gain company-wide appreciation, Zimmermann concludes: "Data is not just a productivity tool for the individual to ask ad hoc questions – data can make the organisation smarter."