Capgemini

For Successful
Banking Transformation, it's All about Data

Introduction

The most valuable asset that banks have today is data. They capture massive amounts of it with the intent of being data-driven, customer-centric organizations. But it is fair to say that when banks look to derive meaningful and actionable business insights from their data, they aren't maximising its value.

While investment in data and analytics platforms is important, it's not enough. Banks need to become smart data organizations that are nimble enough to adjust and respond to the ever-changing risk management landscape. At Capgemini, we see five major data-driven trends that banks should consider and incorporate into their transformation journey.

Leading up to these trends, it's important to set the stage for what is happening in the industry to encourage their evolution.

*Only **26%** of banks today are able to get the required value from their data assets.[1]*

*Over **75%** of bank executives believe manual processes, data duplication and outdated systems slow down data handling.[1]*

Risk is shifting

There is a re-prioritisation of risks within the banking industry, which is being driven by advancement in technologies and changing operational risks.

At the top of the list for Chief Risk Officers is cybersecurity. Extreme focus is needed on ensuring the protection of bank infrastructure from any form of infiltration, damage to hardware and software, and cloning or theft of data. Assessment of systems is required but understanding the risk of data exposure can only be fully grasped once the proliferation of the data across the bank is known, and what data security (e.g., anonymisation and pseudonymisation) has been applied and where.

On top of the direct impact of cybersecurity remediation, negative publicity surrounding cyberattacks brings an adverse effect on customer trust and loyalty making cybersecurity management even more critical.

Model risk is also coupled to operational risk as the primary forward indicator of the bank's performance and outcomes. The models are built on assumptions, statistical and economic concepts and techniques, the key component being the underlying data that is used to train the models. Accurate indicators assume a high level of trust in data and models. The quality, accuracy and timeliness of the data available to execute these models is a direct input to competitive position and risk.

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[1] Capgemini's World Retail Banking Report 2020, www.worldretailbankingreport.com

Need for accelerated adoption of regulatory changes

The continuous changes in banking regulations have no signs of abating. The increasing diversity of data available to banks and the introduction of decision automation through AI and machine learning technologies is transforming the risk management operating model for compliance. Risk functions are changing from an analyse, consume, and publish process to a validate and publish model.

The processing of data through AI and machine learning models is accelerating data simulation and provide predictive models for new regulations. This transformation is pushing banks from their traditional responsibilities of curating foundational data eco-systems to ensure the quality, the data journey, the data relationships and data purposes are well understood.

The New World

The realities of the pandemic are creating new behaviours for banks and their interactions with customers. Banks are already moving at pace with the adoption of new technologies and a remote working delivery model that the pandemic is accelerating, which introduces even more risks and challenges.

We are already seeing a rise in the use of social media during the pandemic[2]. With the increase in digital interaction by customers, it is more important that data and the technologies have a positive impact to the growth of the bank. And, it's important to keep in mind that bad news travels faster than good news, and a negative customer experience has much stronger impact than a positive one.

The transition from avoiding risk to embracing risk will be driven by a transformational shift in how data is perceived, managed, consumed and valued. For example, hyper-personalization requires collection and processing of additional customer data attributes, which increases the risk of integrating and managing them, but also enables the bank to better understand each customer.

There is a surge in adoption of AI and machine learning processes for automated decisions using customer data. This, however, brings the risks associated with data bias and ethics to the list of priorities for the CRO. New data bias/ethical frameworks are required to ensure mitigations and control points provide the protection to both the bank and its customers.

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[2] July 2020 saw a rise of 10.5% in social media usage, compared with July 2019, according to a GlobalWebIndex survey. Some 46% of women and 41% of men said they've spent more time on social media during the pandemic, making it the second-most popular digital activity.

What should a bank be doing now?

There are five data-driven transformation trends that banks need to leverage to thrive in the post-pandemic world and beyond.

1. Democratise access to Enterprise Data

Data is the most elementary, yet important, requirement for any modern application or business function. Fundamentally, data can be classified into two types: Raw and Derived.

Raw data, while originating in customer acquisition or product processor applications, can exist as redundant copies in multiple data-stores across the bank. For example, raw data could be multiple customer masters (Master Data Management systems or customer databases) across Customer Relationship Management (CRM), finance, marketing, compliance reporting, risk modelling datawarehouses and Customer-360. Derived data is created by transforming raw data (e.g., calculating metrics). In any large bank, it is very difficult to keep multiple customer views across all these customer masters in sync due to different processes, requirements, priorities, technologies, geographic jurisdictions, and governance controls across organisational functions. Consider data as enterprise asset -- not just an asset of IT or support teams -- and build the management controls accordingly.

Data made available to applications for any type of consumption pattern (e.g., operational or analytic) needs to be controlled, democratised, clean, and complete. A fundamental way to achieving this is to decouple data controls from application design and build control patterns that can be reused across the enterprise.

For example, over the last two years, several global banks have created enterprise-wide programs to bring enterprise data into a 'data ocean' to make it available to the entire organisation via a secure and controlled self-service access.

It's important to note that banks that still have hard boundaries on data at a line of business or department level are not likely to succeed in risk and digital transformations.

Metadata based automated data-ingestion solutions enable automated connection, discovery, profiling, de-sensitisation and storage of enterprise data along with associated metadata tagging that provides on-demand self-service view to the underlying data by various types of consumers in authorised manner.

With evolving business models led by economic, technological, regulatory, competitive and pandemic conditions, enterprise data strategy definitions are mandating for additional considerations especially for data residency and governance. Solutions that instil trust in data enable banks to establish measurable data reliability within the data management processes that are implemented via DataOps procedures and develop controls that enable touchless flow of data with monitorable quality.

Other benefits that can be derived from harnessing data's value are to better enable the automation of KYC processes and fast-track client onboarding from weeks to a day or near real-time. This is accomplished by ensuring that the data management processes derive the valuable information from unstructured data that resides across archives or content stores. Whether it is the client documentation shared at the time of onboarding or KYC, identifying useful data from the internet for adverse media checks or identifying high risk clauses in client contract documents using NLP, technology is capable of helping banks in developing eKYC solutions for integrating information from structured data sources and unstructured content sources to build more comprehensive risk metrics, enhanced CDD and fraud prevention.
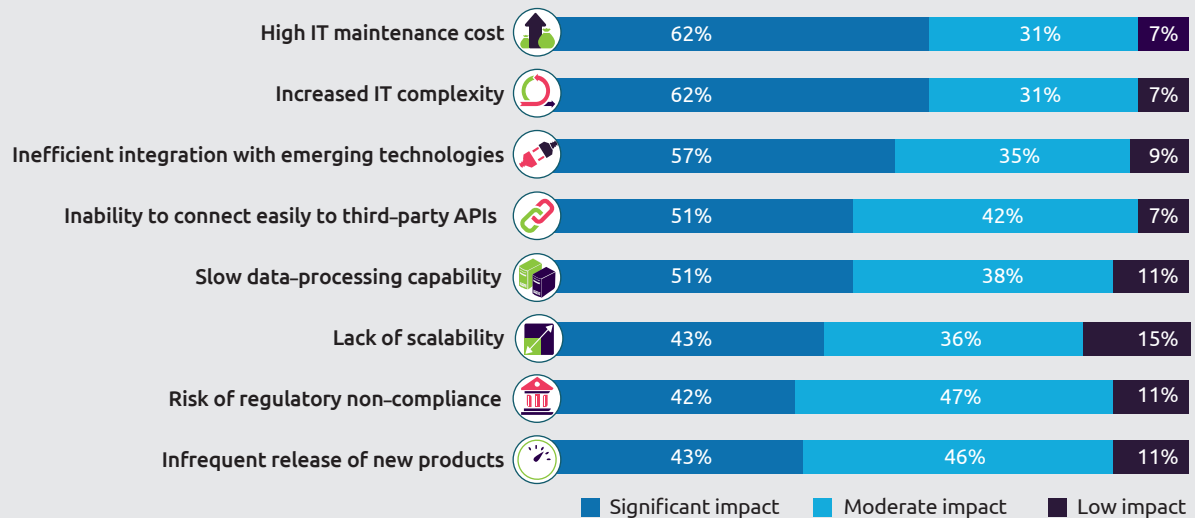
2. Switch to EDA for speed, agility and resilience

ROI of shifting to Event Driven Architecture (EDA) is very high. It enables rationalization of thousands of data-centric applications in a bank, provides real time outcome/impact of business events (e.g., carrying out dynamic risk profiling), allows for easy integration with external and unconventional data sources (e.g., data from agencies or IoT devices), creates faster and simpler business processes (e.g., onboarding and KYC), and gives targeted marketing and up-to-date views of customer sentiments and insights.

Alongside trustworthy data, (super)fluid data-integration is paramount to connect enterprise applications for business functions to perform cohesively. Data integration design patterns have evolved in complexity and sophistication over the past five years, thanks to exploding data volumes, the disruptive capabilities by FinTechs, and increasing acceptance for common data sharing standards.

Banks that do not prioritise adopting EDA as a necessary part of all transformation programs are very likely to lose their agility to change and consequent market competitiveness over next two years. A leading UK bank, spotting the early opportunity, has embarked on a major EDA-based modernisation program to redefine and re-wire their core business processes and associated systems. According to an analysis by Capgemini (refer figure below), a modernised core banking system creates flexibility to address top-line customer expectations, while effectively managing compliance and risks.

Impact and issues of legacy core banking systems

Issue	Significant impact	Moderate impact	Low impact
High IT maintenance cost	62%	31%	7%
Increased IT complexity	62%	31%	7%
Inefficient integration with emerging technologies	57%	35%	9%
Inability to connect easily to third-party APIs	51%	42%	7%
Slow data-processing capability	51%	38%	11%
Lack of scalability	43%	36%	15%
Risk of regulatory non-compliance	42%	47%	11%
Infrequent release of new products	43%	46%	11%

Source: Capgemini Financial Services Analysis, 2020; 2020 Global Retail Banking Executive Interviews and Survey.

3. Embed intelligence within processes and dataflows

Once a revised enterprise data strategy is implemented and business events-based data integration is set in motion, it is time to start reaping the benefits of effective insights and advanced analytics by embedding operational insights into the data pipes at different stages of data lifecycle. Doing this provides micro-level controls on compliance requirements, such as data lineage and PII (Personally Identifiable Information) identification, and closer monitoring of data quality. Deploying 'Intelligent PII' solutions that leverage machine learning to identify and manage personal information in data pipes with very high degree of precision is one simple example of embedding intelligence in dataflows.

The last five years have taught banks that lack of intelligent data controls can lead to heavy penalties, for instance, from an incorrect address of a corporate legal entity, the lack of GDPR controls or use of obsolete transaction monitoring checks.

Process and data workflows must be automated for effective paths as well as for exception handling and metrics monitoring requirements. For example, enabling real-time checks on customer's KYC documents with internal (existing) data and external sources such as bureaus, agencies and public data or developing a risk weighted score that facilitates fully/semi-automated KYC approvals make the customer onboarding process efficient and effective.

There are three major drivers affecting degree of success in embedding intelligence:

1. Deployment topology (on-premise, cloud or hybrid) should have a framework that evaluates feasibility and ROI of developing/migrating applications and data on cloud(s)

2. Platform vs. bespoke approach to leverage and connect platforms in favour of configure and use, as opposed to bespoke build (examples of platforms would be a Customer Data Platform (CDP), Salesforce, Capgemini 890 (an Insights & Data Exchange)

3. Exchange of data via open standards and design in a secure and managed manner

Dutch bank ABN AMRO collaborated with Tink, a Swedish FinTech, to develop Grip, a personal finance management app that allows customers to view their consolidated finances, including integrated accounts from other banks. As of August 2019, more than 670,000 ABN AMRO customers use Grip – and as a result, 50% reported an improved perception of the bank.[3]

Intelligent decisioning requires leveraging artificial intelligence to understand customers, transactions, products, micro/macro circumstances, risks as well as predicting likely outcomes. Banks must build their AI capability as an integrative function and plug-in this intelligence throughout the data value chain. Banks have started adoption of metadata-driven data discovery, ML based data profiling, Data Quality hallmarking and scoring, deriving meaningful information from data. Examples would be – identifying sensitive data, addressing anomalies, legal hierarchy breaks, finding suspicious transactions, redressals, dynamic monitoring of risk metrics, predicting customer complaints, potential fraud, and other financial metrics. All these tasks must be undertaken while managing potential bias in data.

4. Design self-healing data controls

When it comes to enterprise resilience, ESG (environmental, social and corporate governance), political issues and pandemics are certainly not the only considerations. A successful bank is one that has its business processes and data aligned to evolving business priorities in a lean, flexible, and robust manner. Compliance also requires that banks must define data residency reference architecture and policies for all 'change' projects.

Additionally, eliminating and avoiding accumulation of technology debt is very important. Self-healing measures include preventive measures too. Banks must anticipate customer needs and take proactive actions (e.g., automated routing of customer calls to most relevant service associates based on the predicted topic and sentiment of call.)
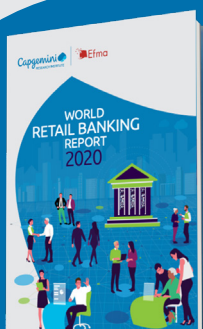
Self-healing measures also allow a bank to identify biases in data before they make undesirable impact (e.g., mortgage approvals based on diversity or age.)

And, lastly, self-healing measures as part of a data reference architecture allow a bank to develop routines to identify data breaks and initiate fixing the issues. For example, these measures can identify uncertainty around correctness of a client address in incoming data feeds and invoke the required data APIs to derive the most likely correct match and develop a corrected view of the client's address automatically.

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Capgemini's World Retail Banking Report 2020 identified that most banks are not able to capitalise on their advantages of being data-rich in these times due to inefficient legacy frameworks and systems. Solutions for data resiliency can help banks become more responsive to changing circumstances and priorities.

The pandemic has opened doors for numerous opportunities for banks to understand their customers better under stress situations. Organisations that are lacking a single (or consistent) and comprehensive trusted customer data view are struggling the most. Self-healing data controls ensure that such data views remain reliable and measurable.

5. Using data to drive innovation-at-scale

While it is important to have an effective and efficient enterprise data design, its value cannot be realised without a powerful operating model to drive and sustain it. This requires creating and embracing a culture of continuous innovation that is led by data.

And, creating this culture is more important now than ever before as banks face ever-evolving regulatory and compliance requirements. They are under enormous pressure to reduce operational costs and invest in newer operating models, such as 'digital only' banking, eCreditCards, consensus-based sanctions and approvals, etc. To manage such initiatives, it is vastly important that banks prioritise them and provide a safe environment to simulate outcomes that accelerate time-to-market for new products and services. A bonus of this approach is that it will scale up innovation which will aid in keeping their workforce motivated and ready for modern day technology and business challenges.

In a recent study on scaling innovation by the Capgemini Research Institute, the following three action points were identified to help organisations scale innovation successfully:

- Treat scaling as its own discipline within the innovation journey
- Design innovation governance to include scaling as a key responsibility
- Build a culture that is willing to make tough decisions on scaled innovations

Download the report

To Sum It Up

Thanks to transformational drivers around technology, digital adoption, changing customer demographics and regulations, banks are under unprecedented pressure to update their business models, offerings and engagement models. Given these challenges, smart data management is key for banks to prosper over the next few years. Without it, banks are likely to struggle as challengers leverage smart data management's value. Alongside core business knowledge, technology has the pivotal role in data-driven banking transformation and banks must partner with credible technology organisations who can help accelerate the journey before it becomes too late.

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