What the future of financial services looks like

AI-powered, data-driven, and risk-managed

BDO

The use of data in today's world is soaring at an unprecedented rate, it has become the foundation for any business looking to gain an advantage through technology. As predictive analytics, artificial intelligence (AI), and machine learning become more commonplace, their usage will continue to shift from a niche technology into a commodity business application.

On the same track, more and more organizations across the globe are capitalizing on data and AI in the financial services industry and are finding new ways to streamline operations to make more informed decisions.

While the evolution of AI has led to many positive advances, it has also presented missed opportunities as well as unforeseen risks that include security and compliance issues, addressed by BDO Canada's industry leaders in this report.

The status of financial services: are we at the forefront of innovation?

Many financial services organizations have already invested in AI for business domains, such as risk management and revenue generation, through new products and processes, and continue to expand their portfolios of AI-based solutions to address evolving complex challenges.

The industry turns to the data at hand to refresh its competitive advantage in the marketplace with a focus on customer engagement, revenue generation, and cost reduction, as a start, where innovation and agility remain imperative to any business that is looking long-term.

The megatrends of mobility, digital engagement, cloud, and AI are playing a fundamental role in driving financial services organizations to re-evaluate, elevate, transform, comply, and most importantly secure their business.

However, we still see many organizations having trouble unlocking value from the data they collect and how to enable their business for success. Daryl Senick, BDO Canada's Technology Partner and National Insurance Leader, says, "Few industries can derive more benefit from data and advanced analytics than financial services organizations. Nearly every transaction within the financial services industry is executed electronically and the amount of data generated is astounding. Properly harnessing this information presents a great opportunity for businesses."

On another note, security and regulatory concerns related to the proper use of AI, as well as the ability to keep up with an evolving environment, are also in play and require dedicated efforts and focus in order to stay atop market vicissitudes.

Data protection and security

AI, while a powerful asset for business, could also cause cybersecurity challenges considering the evolving cyber risk and threat space. Untended, these challenges can harm organizations and cause operational, financial, health and safety, and reputational damage.

> "AI is here to stay, and its use will continue to evolve. And while it provides many opportunities and benefits, it also introduces security risks that grow more complex and sophisticated as time passes and must therefore be addressed." **Daryl Senick, Partner, Technology and Insurance Leader**

The footprint of vulnerability, along with the sophistication of today's security threats and attacks, continually grow over time. It is important for businesses to constantly evolve their understanding of the risks associated with AI in order to move forward effectively while managing these risks.

Rocco Galletto, BDO's Partner and National Cybersecurity Lead explains, "throughout any given AI lifecycle, threats exist where data is collected in both structured and unstructured ways and is stored for analysis. It's crucial to monitor carefully for any anomalies that could occur early or in the course of implementation and ongoing operation."

When reviewing AI investments, it is important to consider more than just the robustness of technologies and automation tools, but also the means to secure, detect, and prevent potential security incidents. And while the amount and type of data businesses collect, store, and sometimes share with third parties continues to grow exponentially, here are a few recommendations for businesses within the financial services to consider:

1. Ensure cybersecurity and regulatory considerations are built in at the start of the project, throughout the project, and post the release. It's crucial to tag the data to identify any regulatory considerations, classify the data, and design the corresponding controls to keep the data safe.

2. Consider embedding threat monitoring during production to ensure that detection and response capabilities are in place to quickly thwart attackers—in the event anomalous behaviour or unauthorized access is detected.

3. Be sure to test the system regularly. Testing can come in the form of scanning and patching for new vulnerabilities in the technology or testing systems in a controlled way by taking the adversary lens on attempting to infiltrate information systems.

4. Finally, ensure cybersecurity incident response plans and playbooks are documented and tested regularly in case any systems get compromised, the business can swiftly remediate the issue before any more damage is done.

"When designing or planning an AI initiative, it is essential to consider ethics, bias, trust, and security from the beginning." **Rocco Galletto, Partner, National Cybersecurity Leader**

The application of ethical AI

While the world was caught up in the AI wave and devoted investments to activating automation in various operational business segments, concerns about ethics in the use of AI have arisen in every industry, particularly in the financial space.

The global financial industry is alarmed about the ethical implications of AI, especially regarding privacy and security threats and other issues that need to be addressed when advocating for AI.

The emergence of AI has led to increased reliance on data-driven decision making, resulting in many organizations overlooking the importance of ethical AI application and its potential to perpetuate unfair biases when making critically informed decisions.

Activating ESG programs through AI: is it a way forward?

The concept of environmental, social, and governance (ESG) is rapidly becoming an imperative cornerstone of long-term growth and sustainability for organizations worldwide; it's at the top of the global agenda.

"Investing in an ESG program is more important now than ever. The demand for businesses to demonstrate impact on issues that matter is growing. Forming an effective ESG strategy will optimize growth and align the needs and expectations of any given organization's clients, talent, and community."
Pierre Taillefer, Partner, Sustainability Leader

Financial services have a role in the transition toward a sustainable future; being the global major economic force. We see many institutions that have already embarked on their ESG journey through strategy, implementation, and assessment to enable sustainable financing and drive change.

However, while the global trend may indicate that financial institutions are increasingly keen on making ESG investments and are willing to employ AI tools, it is highly dependent on the geographical and economical status of the institution. The variances in the advancement and adoption of AI in ESG across geographies created gaps that need to be regulated. To this point, Taillefer explains, "The use of AI in ESG can help evolve some economically advanced regions over the others, creating more harm while increasing the gap globally. The need for governance around the role of AI in ESG is now a must."

6 data trends

BDO Canada's industry leaders see six data trends shaping the future of AI that will affect banks, credit unions, insurers, and other financial services organizations:

1

The application of machine learning in the fraud and risk sectors will continue to accelerate.

Data-scientist demand and supply continues to work towards an equilibrium. The application of advanced techniques will continue within fraud and risk analysis to improve models and allow acceleration towards more real-time analysis, detection, and alerting. This acceleration will come from education and real-world applications on market leaders.

2

Gaps will become more evident between early adopters and laggards.

On a global scale, the gap between developed regions with established AI infrastructure and those without grows with regard to the economic status and the ability to empower and support AI investments.

Similarly, and within any given region, we will still see banks that press the gas pedal and are ready to adopt new technology and those that remain conservative in their efforts to change their organization.

The stories and use cases will proliferate and become more varied, leading to increased evidence of strong, observable, and benchmarked business returns in the broader market. These will reflect substantive gains, not just lowered costs.

3

Data governance, lineage, and other compliance aspects will become more deeply integrated with data platforms.

In order to find a more complete and comprehensive data solution to manage compliance mandates, many financial services organizations develop or purchase point solutions, or try to use existing legacy platforms that are not able to deal with the data surge. Fortunately, companies have access to an increasing number of governance tools to solve this lineage issue via Hadoop. More importantly, these new platforms can reach beyond Hadoop and into traditional or legacy data stores to complete the picture for regulation, and they are doing so with the volume, speed, and detail needed to achieve compliance.
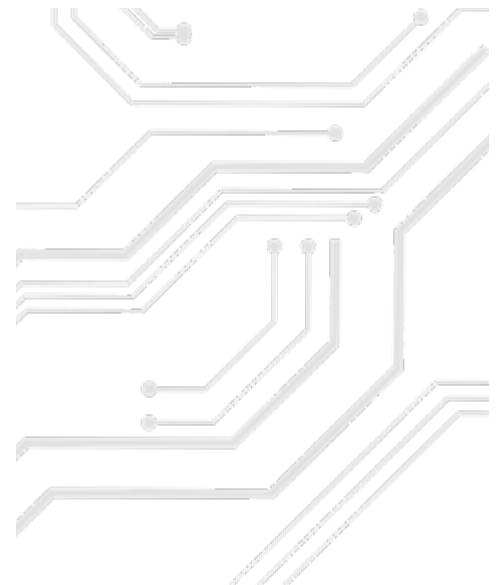
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The proliferation of the Internet of Things (IoT) and how growing financial services organizations leverage data in a meaningful way.

The old becomes new: this is the next wave that is grabbing attention in data, and questions abound for financial services applications and the extensibility of mashing data from multiple systems.

For some industries (telecom, retail, utilities, mining, and manufacturing) it is already a reality, and these segments have driven the need for IoT data and forced the current conversation. For financial services organizations, will IoT data be used more for ATM or mobile banking? Will the devices that are being placed in cars that leverage telemetry-based packages see a continued uptick in adoption? Areas that are worth exploring over the coming years involve multiple streams of activity in real-time and will require a clear set of requirements and a flexible architecture to capitalize on these trends.

5

### Risk, eDiscovery, and regulatory data management continue to be the top data platform priorities.

Growth and customer-centric activities sit atop the list of corporate strategies, and there will be progressive firms that can link those strategies to data.

Regardless of whether an organization is an advanced data-driven firm or not, the evolving nature of regulations, eDiscovery, and the mammoth challenge to aggregate risk and move towards predictive analytics is still a way off, yet it's still a requirement and an acknowledged benefit at the C-suite level. Unless regulators ease up on their requirements – an extremely unlikely possibility – risk and regulatory data management will still be the major challenges for financial institutions as data now becomes an asset.

6

Activating ESG programs will accelerate when embedding AI to drive change.

Every industry has its unique driving forces when developing ESG programs. Financial services organizations will need to align with the industry's specific drivers, understand stakeholder interests, and determine their own ESG values for impactful outcomes. Increased regulatory scrutiny will pressure organizations to comply and activate their ESG programs to drive change and sustain their competitive advantage. Every financial institution will be expected to have defined its ESG strategies in accordance with the industry standards and main drivers.
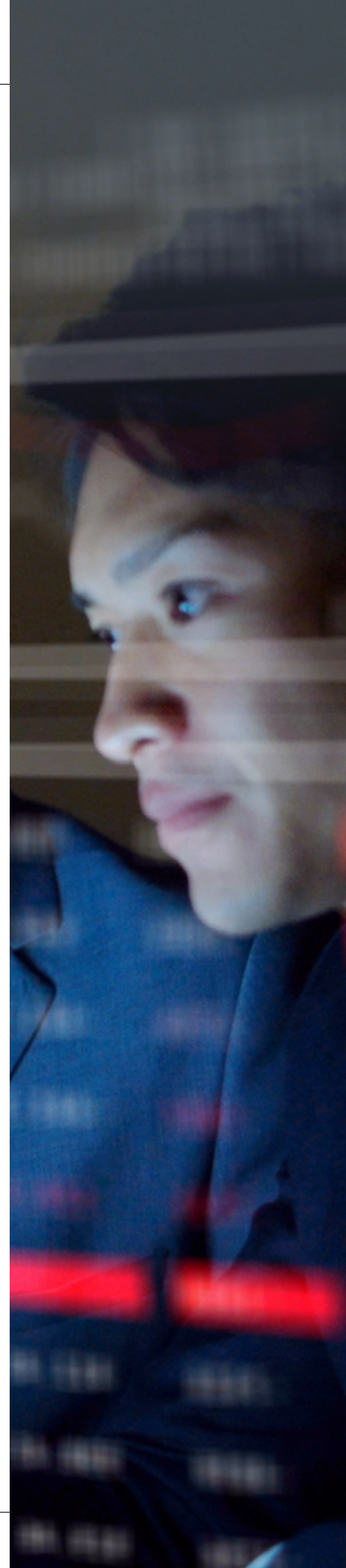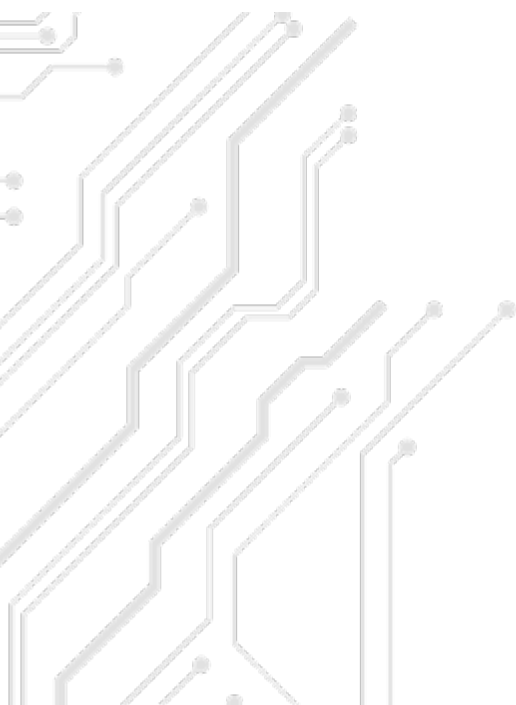
Data and AI in practice

Unlocking the value of every businesses data can enable growth and inform better decision-making. From data advisory and engineering to data visualization and science, BDO Canada's team has supported many clients in the financial services sector plan through their entire data journey, including strategy, roadmap, implementation, and operations. By covering the full cycle of data management and data governance, providing insights and analytics, and supporting an overall data-driven culture, BDO's team helps its business clients explore the many potential benefits of data.

Leading financial institutions are partnering with BDO Lixar, which is BDO Canada's technology consulting business arm, to make the most of their data and leverage the Microsoft Azure platform in ways they never thought possible just a few years ago.

The Microsoft data and analytics suite, powered by the team at BDO, is a fully managed, data and advanced analytics suite that has made huge leaps in its advanced analytics capacities. It is positively represented on the Gartner Magic Quadrant. Recent technological innovations in cloud computing, data, and advanced analytics are enabling financial services organizations to transform the vast stores of data at their disposal into game-changing insights across a broader set of applications. These insights help organizations increase sales, improve customer service, reduce risk and fraud, and slow customer churn.

And while many financial institutions embrace ESG and have come to see it as an important measure of success, BDO's sustainability team has supported many organizations understand and comply with the rapidly changing practices and regulations and has helped them seize opportunities by mapping out the qualitative and quantitative changes necessary to position them as leaders in ESG application.

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About BDO's Financial Services Practice

The financial services industry is a changing landscape, marked by regulatory reform, disruptive technology, and new service delivery channels. We're dedicated to helping our clients not only navigate this landscape, but stay competitive and successful. Our services, ranging from governance, risk, and compliance, to business process reviews and more, are tailored to meet the unique needs of financial services organizations.

http://www.bdo.ca/financial-services

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BDO is a leading provider of professional services, delivering a range of assurance & accounting, tax, and advisory services. Complemented by continuously advancing technology expertise, ESG focus, and 100+ years of being connected to local communities, we're proud to cultivate ongoing relationships with clients and employees across Canada and beyond.

Our people-first approach to our talent experience has earned us multiple awards, including a spot among Canada's Top 100 Employers for 2022.

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