



Spotlight on Inclusion: Scotiabank
Innovative Data Use for Proactive Assistance
July 2021, by Mina Loldj

This series highlights innovations by IIF's member firms in promoting financial inclusion through digitalization. This edition focuses on Scotiabank's innovative use of artificial intelligence / machine learning technologies in forecasting liquidity in short-term predictions, addressing their clients' unique financial needs, providing proactive assistance, and establishing trust.

Against the backdrop of the COVID-19 pandemic, many faced uncertainty, financial hardships, and became more susceptible to short term fringe financial services that often exacerbate financial instability. In an effort to support customers through this turbulent period, Scotiabank deployed their Strategic Operating Framework for Insights and Analytics (SOFIA).

Through the use of ML and AI technologies, SOFIA provides short-term liquidity projections to enable Scotiabank to predict (not react to) their customer's needs. Scotiabank's use of these technologies within their existing customer base emphasizes the need for inclusion efforts to not only be targeted to un- and under-banked populations, but to vulnerable customers within the existing banked population as well, mitigating financial exclusion and instability.

Development of SOFIA

SOFIA was initially developed in 2019 to automate the annual review process for Scotiabank's commercial customers. At the start of the pandemic, Scotiabank realized the potential of SOFIA for a different application - by leveraging historical commercial banking data, combined with SOFIA's use of AI and ML to forecast client's financial health, Scotiabank was able to provide short term predictions for customer's financial liquidity. These predictions of as short as 4 weeks became vital this past year, especially to the bank's most vulnerable customers. Yannick Abba, VP Analytics and Risk Management, explains:

"We quickly found that there was much more value that could be realized from the insights SOFIA could provide to proactively to support our customers. Then the pandemic hit and pivoted. Through cross-functional partnership and collaboration in risk management and across the Bank, we realized that the information SOFIA provided would be useful during this difficult period to get out in front of customers in real time."

Scotiabank's commercial bankers and credit officers actively use SOFIA to have proactive client conversations, providing customer assistance, mitigating potential financial loss, and monitoring their customer's financial health. Where customers could be swayed to use fringe financial services, such as predatory loans and payday lenders, SOFIA helps establish stronger and more trustworthy relationships to ensure that customers have the right advice that meets their financial needs, before complications arise.

Innovative applications

SOFIA's applicability pivot highlights an important point in the space of digital financial inclusion – inclusion is not a niche issue that should be addressed in isolation, nor is it an issue exclusive to emerging markets. SOFIA functions horizontally across the bank, with no particular segment or group to target, instead focusing on customer accounts in general. Daniel Moore, Chief Risk Officer at Scotiabank, states:

“When we reach out to you, we can’t give you a one-size-fits-all solution. But if we understand the data and the situation you’re in, and can tailor products and services to really help you get through these challenges – SOFIA was born in that environment, of wanting to get to ultimately a segment of one and truly understand and provide value on an individualized basis.”

It is important to note that inclusion is not an easily solvable issue, and not one that exists in a vacuum – the tools to support the financially excluded and vulnerable can be the same tools used for historically high earning customers. By targeting this “segment of one” and providing curated attention, rather than relying on blanket approaches to customer engagement, Scotiabank develops a much stronger relationship with their customers, especially those experiencing financial hardship. Scotiabank can leverage their platforms to provide products and services that can assist these customers and can recommend products and services to help accelerate their growth. SOFIA is also used to highlight customers with high or predictable cash flow and offer them tools for growth; if executed well, those who are vulnerable customers can ultimately grow their financial stability to that same degree. With creative applications, as shown by SOFIA's wide range of utility, inclusion can be part of a bank's holistic approach to their customer relationships, rather than a separate initiative.

Looking ahead with SOFIA

Scotiabank plans to scale SOFIA internationally and across retail banking, continuing to use its predictive abilities to provide proactive assistance to their customers. Given the nature of AI/ML applications, as SOFIA continues to grow and accumulate data, its accuracy and responsiveness will continue to improve, providing more opportunities for expansion. In a recent FRT Podcast Episode¹, Moore stated:

“The better you can understand your customer, the better you can help them. So that’s where we started, with the conviction that previous solutions were scalable and addressing the most pressing needs of our customers is key. We’re doing this in the commercial segment, and we believe SOFIA is highly scalable in small business, to retail, and across our international footprint as well.”

Scotiabank demonstrates the ability for new and existing technologies to be applied to financial inclusion, as well as throughout the bank widely. SOFIA's journey, from annual review automation, to making cash flow predictions to vulnerable customers, to using those same predictions on high earning customers, showcases the scalability and growth of AI/ML technologies. With creative applications and a conviction to improving their customer's financial health and wellbeing, Scotiabank makes clear the breadth and versatility of their technologies' use capabilities.

This series will continue looking at other initiatives across the financial services sector where digital technology is enabling greater inclusion. For more information, please contact Mina at mloldj@iif.com.

¹ FRT Episode 101: Innovation & Transformation, with Scotiabank CRO Daniel Moore