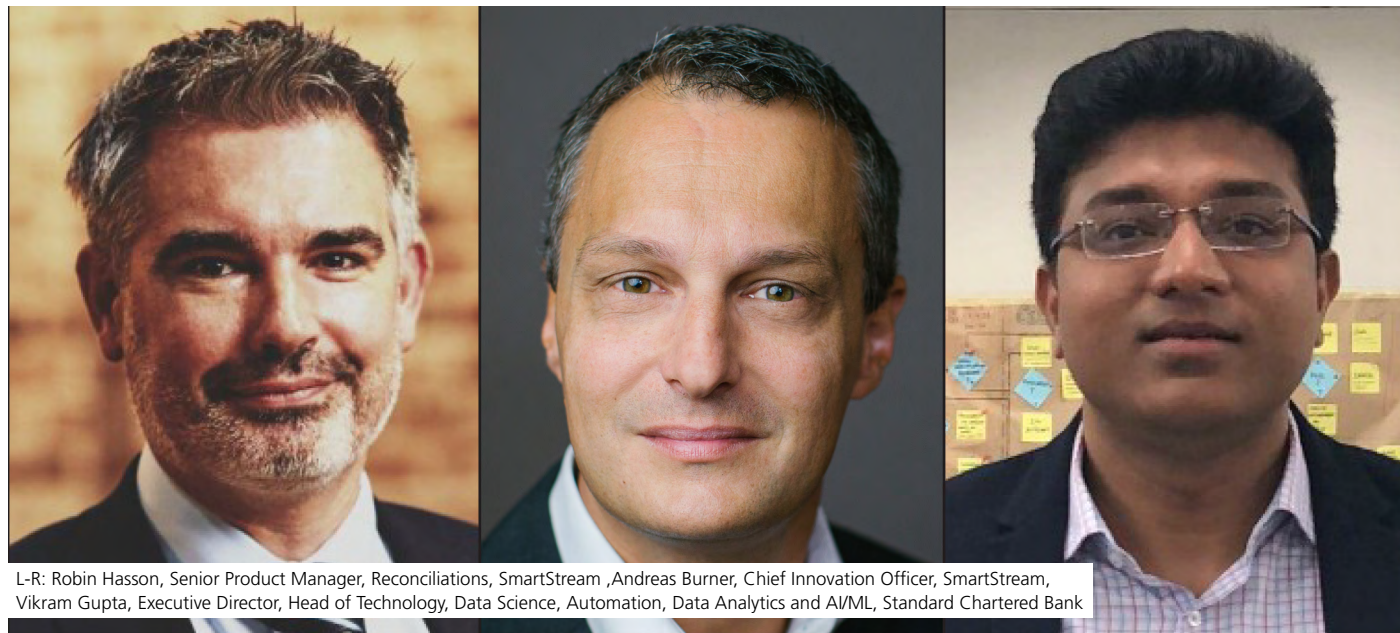


New technologies transform data validation and reconciliations in banking

AI and Machine Learning (ML) technologies improve operational efficiency and decision making for middle and back office.



L-R: Robin Hasson, Senior Product Manager, Reconciliations, SmartStream ,Andreas Burner, Chief Innovation Officer, SmartStream, Vikram Gupta, Executive Director, Head of Technology, Data Science, Automation, Data Analytics and AI/ML, Standard Chartered Bank

The current global pandemic has not just driven banks and financial institutions to up their digital transformation, but it has also compelled them to face the greater demand for data and transaction lifecycle validation, which is spanning higher volumes in more complex areas.

As such, many have been maximising artificial intelligence (AI) and machine learning (ML) to enable financial institutions to take big strides in improving their operational efficiency and decision making. The past years have also seen a significant increase in the use of data validation solutions in the region, especially as an accuracy check needed with the surge in digital payments processing.

Today, the dual challenge brought by the rapid change, as well as the increased volume and complexity, mean event lifecycle validation tools must evolve to take advantage of the AI and ML landscape.

In a recent interview with Asian Banking and Finance (ABF), Standard Chartered Bank's Executive Director and Head of Technology - Data Science, Automation, Data Analytics & AI/ML Vikram Gupta shared the traditional data and transaction

controls and checkpoints that are adopted by financial services firms, as well as the drivers for the increased demand and dependency on AI and ML.

"As a bank, we are really pushing the way we are managing our reference data systems, our sanction screening systems, our confirmation processes, settlements, balancing positions, so all these ecosystems where the data gets generated rigid digital footprint, those are areas which the banking is very much focused on," he said.

Gupta has also observed that with new business models emerging in banking, customer expectations also change. According to him, customers are now looking for 24/7 operations, personalised

services, and all digital.

"In addition, there are areas where we are putting a lot of focus, which are around single control frameworks to ensure we have the right level of oversight and transparency. Lastly, innovation is going to drive the future of businesses and technology advancements such as AI and ML. They are going to be the key differentiator for businesses to succeed in the future," he said.

AI cuts performance time, human error

Meanwhile, SmartStream Senior Product Manager - Reconciliations Robin Hasson pointed out that if stakeholders want to understand where the efficiencies and



SmartStream is conducting pilots to provide high-value AI business cases for the financial industry

opportunities lie, they have to consider today's challenges in the industry, such as increased volumes, diversity of a wider range of data, which is also more complex.

"All of these challenges mean that the reconciliations tools themselves have had to evolve. And that's certainly where we've invested heavily as a firm into AI and machine learning technologies," Hasson said.

He also mentioned SmartStream's latest AI observational learning capability called Affinity, a tool which learns from user interactions, as well as how to correlate and perform user interactions automatically, and mimicking those users automatically. Hasson noted that the efficient simulation reduces the time taken to perform matching types.

"So just by either a few clicks, or by learning from existing historical process data, Affinity is able to simulate that effect, really, very quickly. And that really reduces the time it will take to perform many of these new matching types, whether it's complex or simple. It can do all of that," he added.

At the same time, Hasson emphasised that using Affinity will give customers an improvement in accuracy and manage key man dependency, as it can identify patterns. With such capability, it can also manage volumes and complexities that otherwise would take a long time with manual task force.

"You could use your staff more effectively for more strategic or more risk management, risk-focused tasks, because we would expect you to complete the core reconciliations quicker. You will be able to manage breaks earlier and manage any kind of risk and exposure much earlier in the day. So that's a high level, that's where I see benefits," Hasson said.

Gupta added that banks like Standard Chartered are interested in the adoption of AI and ML as they have big data everywhere.

"I mean, we are talking about millions of transactions, thousands of flows, and, and it becomes a natural fit for AI and ML, to drive future efficiencies and increased revenues. And our bank, we are applying AI to grow new areas of business, to tap customers, markets, to streamline our operations, to build efficiencies, and we are accelerating our digital transformation journey and automating our operations," he said.



SmartStream's Affinity learns from user interactions and mimicking those users automatically

Accelerating digital transformation in banking

To aid in this change, SmartStream's Innovation Lab based in Vienna, Austria, has been conducting pilots to fast track and prove high-value AI business cases for the financial industry. SmartStream Chief Innovation Officer Andreas Burner said that to do this, they work with their largest customers and create a team where their customer provides the business know-how, and the data scenarios.

"Our target really is to allow quicker processes, better data enrichment and to help the financial services industry to improve their processes," Burner said.

He added that the Innovation Lab was launched to address big business problems in the industry, an area where AI thrives.

"AI is a solution to have better control for the financial services industry, to reduce the costs and to really gain more efficiency," Burner said.

However, he said that building a product and getting AI into production takes time as it has to work in many ways, be stable, and be sustainable. "SmartStream has done that for many years, so we know how to build that. But what is interesting is that with AI and ML technology, new things come in," he pointed out.

Burner noted that there are instances where AI technology learns something in production that it is not meant to.

"In general, AI and ML technology is very robust. If people make mistakes, if you do things a thousand times, and one time you do it wrong, it would not mind. It would learn from the other thousand times," he

said.

Hasson added that what is really important is to be able to integrate AI and ML technologies into the products as seamlessly as possible.

"When the users are seeing the information that comes from that as a prediction, it feels very natural. And as part of the workflow and the process flow, there's no interruption, so it continues to be a standard cycle. But it makes use of these new capabilities, gets the enrichment, gets the predictions and the benefits of machine learning as part of the standard cycle," he said.

Lessons in adopting AI and ML

Burner also revealed that adopting AI and ML capabilities into their solutions enabled them to more easily identify business problems, find API capabilities, recruit the right experts, increase awareness of the fintech space, and start discussions on product development.

"So there are a lot of things that are changing at the moment. And I think it's very interesting to see how users respond to that. And they see a lot of benefit, but they also see that they need a lot of confidence from the software and guidance from the software to allow that automation," he said.

Gupta noted finally that infrastructure requirements for AI deep learning should also be addressed.

"It is very important to have the right suite of technology and tools, and the right governing process is going to be the biggest success factor for AI for the next coming years," he said.

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