

Transforming Big into Smart: How FX can benefit from the alchemy of new data technology

By Matthew Hodgson, CEO of Mosaic Smart Data



Matthew Hodgson

To say data is critical to success in today's FX market is a vast understatement, but for many banks,

the ability to extract the true value of their data has remained beyond their grasp. Adoption of AI and machine learning to this end is now picking up pace amongst forward thinking participants – and firms that don't adopt it will soon be at a significant competitive disadvantage.

The value of market and transactional data is nothing new. It's the lifeblood of financial markets and an integral component in every participant's toolkit. Every institution uses its data differently – but what unites many of them is that they are not fully maximising its value.

In the FX market, this is particularly apparent. All FX trading businesses are under unparalleled pressure due to the changing risk conditions and increased scrutiny due to the constraints of new regulatory initiatives. In addition, the spot FX market has become increasingly fragmented across multiple electronic and voice trading channels, creating a unique heterogeneity challenge when it comes to data. Firms also need to be able to extract insight from a growing number of unstructured data sources in addition to their internal client data, including newsfeeds and other macro sources.

369,758

255,4732

206,3654

146,9581

162,7432

189,4631

101,829

108,985

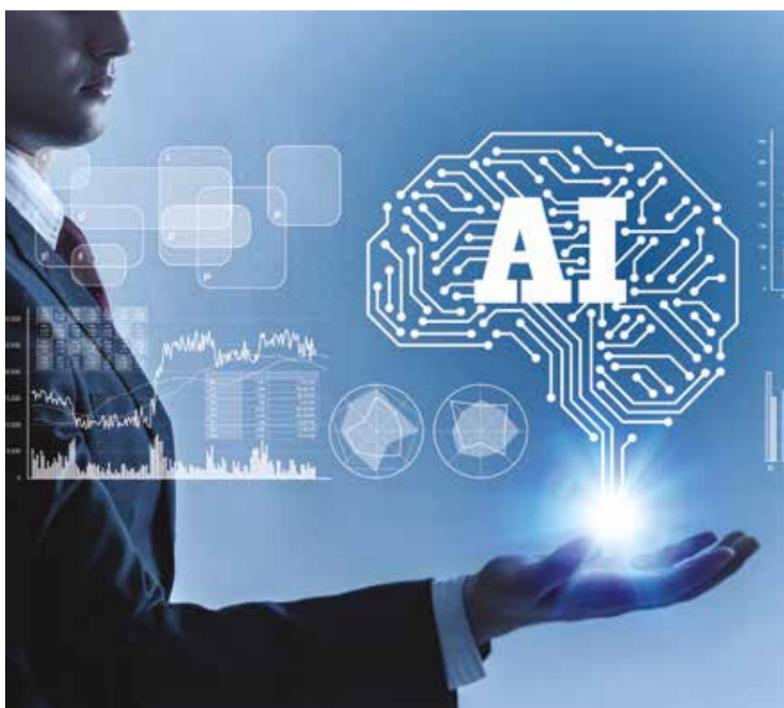


Many FX trading firms struggle to unlock the value in their data and transform it from 'big' to 'smart.'

Against this backdrop, many FX trading firms struggle to unlock the value in their data and transform it from 'big' to 'smart.' Thankfully, there is a solution: advanced analytics, powered by AI and machine learning.

The key driver for the growing adoption of this technology is the demand for improved productivity. A recent PwC survey found that an overwhelming number of financial

institutions recognise they must accelerate productivity efforts if they are to create sustainable business models. 72% stated they were planning to implement specific productivity measures, compared to just 53% in 2018. Of these institutions, 54% are using AI, 40% deep learning and 37% robotic process automation – and 90% of these businesses have seen an improvement in productivity as a direct result.



AI can allow the FX desk to predict its clients' needs very effectively

This technology has been in use by the most sophisticated FX firms for years, mainly for modelling around pricing and price execution. Many of them already have whole teams dedicated to model validation. And these tools are equally as valuable to small banks as they are to large banks – if you have a robust enough FX transaction flow, your productivity can be boosted with AI. Where it is much more in its infancy is in scenarios where humans and machines must cooperate. However, adoption here is also now growing, and is expected to radically accelerate because – quite simply – firms that don't adopt it will soon be left behind.

PARTNERING WITH AN EXPERT – THE SHORTCUT TO SUCCESS

It's not quite as simple, however, as flicking a switch and suddenly extracting actionable insight from your data. All analytics programmes must begin with putting fundamental data foundations in place. Without the right preparatory work, valuable insights may remain inaccessible, and AI will have limited benefits.

Quality over quantity is also key. Consuming vast swathes of market data is no longer the be-all and end-all of data usage. Instead, intelligent data analytics is based around the premise that less data that is more comprehensive is better than vast quantities that lack value.

Despite this, some market data vendors are still trying to sell unyielding swollen data sets that are incoherent, unwieldy and require huge amounts of time to extract anything of any value. For a bank to truly transform its FX business, it must turn its big data into smart data. But how can this be achieved? Banks' technology teams can't possibly

work across every possible project and explore the full potential in all emerging fields such as data science and AI simultaneously. Even the largest firm would struggle to find the internal resources to ensure each avenue is explored thoroughly.

Knowing when to engage the help of specialist fintech partners is a critical step towards gaining a competitive edge. Perhaps the most obvious question a firm should ask is: what is this project's chance of success?

In today's environment banks must do everything in their power to ensure they minimise innovation risk – and the quickest route to success is partnering with innovative fintech startups to implement best-in-class solutions quickly and efficiently, with predictable and transparent costs.

ONE STEP AT A TIME: LAYING THE FOUNDATIONS FOR IMPLEMENTATION OF AI

All FX trading firms sit on a vast untapped bedrock of market and transactional data. This data is a precious commodity, but the majority of these institutions are unable to harness it in a way that allows them to provide added value, AI-powered services direct to customers and generate more income for themselves. As the FX market evolves, banks will have to be smarter than ever when it comes to gaining a comprehensive view of their data and extracting value from it. As the PwC survey found, productivity is key to retaining a competitive edge, and AI can allow the FX desk to predict its clients' needs far more effectively and, ultimately, drive more business.

Using AI and machine learning you can, for example, see which customers are about to defect, and therefore up your defensive measures – after all, it's much more expensive

to gain a new customer that maintain an existing one. You can also become more offensive, because you are able to see what customer activity you anticipate on a particular day and then serve that customer with the appropriate inventory. This technology can be leveraged to improve the service a bank's FX desk can offer to all types of client – corporates, retail customers, hedge funds, asset managers, central banks and even internal clients.

Another application of AI and machine learning is atomised research. This is hyper-customised research – often only a few paragraphs, rather than pages and pages, and relevant only to the specific trades a customer has been active in. However, before this can be implemented, the journey must begin with the normalisation of transaction and market data. Aggregating, standardising and enriching data sets are the foundation of any successful analytics programme.

From this solid foundation, advanced analytics and AI tools can then begin to deliver value, providing insights across the organisation. The critical gain firms will experience on this journey is analysis and reporting becoming dynamic, actionable and profitable.

IMPLEMENTING CULTURE CHANGE FROM THE TOP DOWN

In the current market environment, many banks' FX businesses need significant re-engineering to retain a competitive edge. The traditional sales function at investment banks is simply no longer fit for purpose, but cultural stasis is the gorilla in the room when it comes to improving productivity.

Data is clearly at the centre of the re-engineering required by banks, but analytics must be championed

from the top if an institution is going to truly evolve. This often requires a total cultural overhaul for a bank.

The good news is that the bulk of the information needed for this transformation is already within the enterprise, so major and costly data acquisition is not needed. However, leaders must not be stubborn in the face of change and focus on establishing a culture of analytics – which means hiring the right people and deploying the right technology.

Looking further ahead, making the right changes today can deliver significant long-term returns. Smart analytics and AI can certainly be used to achieve a profitable improvement to productivity in the immediate term, but equally importantly they can also serve to future-proof the business. The same PwC survey found that financial institutions are spending, on average, a staggering 14% of annual operating costs on change management functions in order to drive greater productivity gains.

Responding to future change more effectively is one of the core benefits of gaining control over data and utilising AI to its full potential. Those firms who make optimal use of smart data and analytics today will also be able to anticipate and prepare for change far more efficiently and profitably in the future. Herein lies the key to real, quantifiable productivity gains.

TACKLING COMPLEXITY

When you consider how many clients that FX desks cover, all with different needs, demands, areas of expertise and areas of focus, this journey can be daunting and complex. This challenge can be overcome most effectively by engaging a specialist analytics firm to cleanse, normalise and enrich raw transaction data.

Transforming Big into Smart: How FX can benefit from the alchemy of new data technology

This provides a consolidated real-time view and analysis of the transactions flowing through the organisation, delivered in a language that financial market professionals can understand.

The ability to use AI and machine learning techniques effectively depends on having access to complete and high-quality data – a challenge that financial institutions rank as in the top three key hurdles to AI implementation. In order to act seamlessly and efficiently banks have to be able, at the drop of a hat, to answer questions like, who are their best clients? Which asset class is seeing

the most business? and many more. The answers to these questions lie in transaction data, real-time analytics and AI, however the vast majority of banks do not have their data in a place where this is even possible.

What this tells us is that banks must address the fundamentals of their data business before expanding onwards into further technological development. The current operating environment is both uncertain and challenging, but a carefully planned programme that combines cutting-edge data analytics and AI technology holds the key to driving growth and turning the tide of

decline. After all, it's typically during periods of stress where relationships are forged. As a bank, if you're able to guide a client through the fog of confusion, you will likely have a relationship for life – and AI and machine learning can facilitate this.

The next 12 months will be a critical period for all FX trading businesses and partnering with a specialist analytics firm to effectively harness the value locked within data and the potential of AI and machine learning will help ensure an efficient, profitable and productive transition to a data-driven future. Be bold and take action today.

DATA SERVICES AIMED AT HELPING TRADERS NAVIGATE THE CURRENT MARKET VOLATILITY

Last year at the height of pandemic-induced market volatility, in conjunction with CLS and MUFG, Mosaic Smart Data launched a free data service aimed at helping traders navigate the current market volatility. Liquidity is one of key variables that everybody in every market depends on to measure stability. FX is no different. With our FXLIQUIDITY tool we were able to use AI and machine learning to gain an understanding of liquidity profiles and how they had shifted pre- and post-COVID. It showed us how much liquidity had diminished and when during a 24-hour period the best liquidity is available. It showed us that last year, in some FX crosses, liquidity was down more than 50% compared with pre-COVID market conditions. This information can then help a firm guide a particular investor who is looking to mitigate risk through hedging, by telling them the best windows to access the market. This is a great example of the value where AI and machine can add value in stressed market conditions – and testament to this is the interest we had from all corners of the FX market. In addition to liquidity challenges, as regulations look set to continue to increase over the near future, competent data sets will be critical to allow institutions to manoeuvre the new regulatory landscape while also having a significant impact on profitability from the AI-driven insights that can be delivered as a result of this. A client recently told us that since deploying our MSX360 platform, their sales team had made 20% more calls, has 22% longer conversations with clients, and this had resulted in significantly more volume. If you're a salesperson known

to have the best information, the client will call you first. It's that simple.



- For USD/JPY, the average liquidity in pre-COVID market conditions is about double the average liquidity in recent market conditions.
- In the recent market conditions, the average liquidity for USD/JPY is highest around Sydney close. This is different to pre-COVID market conditions when the highest average liquidity is observed around Tokyo close and London open.
- Liquidity in USD/JPY drops off sharply between 13:00 and 14:00 GMT (going into London close and New York open) in the recent market conditions, relative to pre-COVID market conditions.