



THE FUTURE OF FINANCE – REARCHITECTING FINANCIAL SERVICES

Financial services have a long way to go before reaching optimal efficiency. In 2021 and beyond, transparent and understandable platforms built on artificial intelligence-backed technologies will shape the industry and make regulators and governments comfortable with its adoption.

In what has already been a tough decade for financial services, this new one started with another test like never before. During the pandemic, the financial services industry proved that it can deliver quickly when necessary. But there still remain far too many inefficiencies. As we move forward in the new decade, now is a good time to look at how we can completely overhaul the way the industry is architected and what the future of financial services must be built on.

The adoption of platforms built on artificial intelligence (AI)-backed technologies to rearchitect financial services will now gather steam. But there will also be increased focus on making technology transparent, accountable, and understandable — governing AI-enabled technologies will go a long way in making regulators and governments comfortable with its adoption.

Platforms to rebuild financial services

The future of financial services is going to require significantly more efficient delivery of financial services.

We believe that platforms are going to be key to the modernization of financial services architecture. This would require a larger number of financial firms to consider moving to a platform or shared platforms where they are differentiated on value-added services and outsourcing repetitive services or services that can be automated.

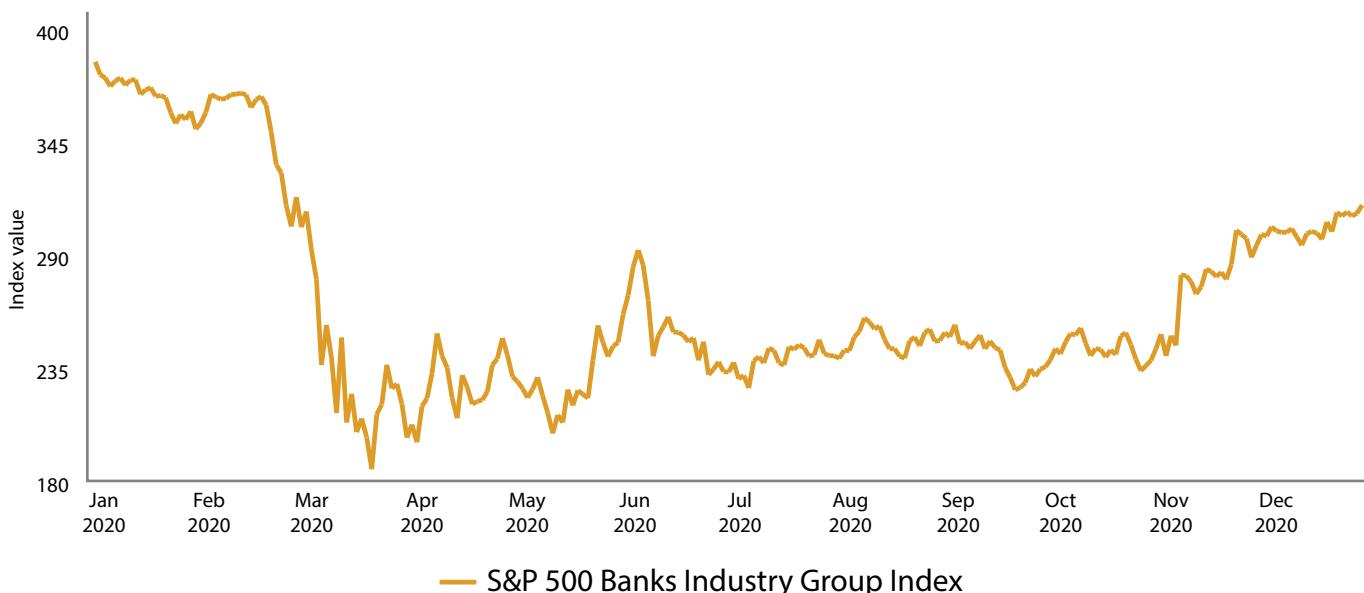
Platforms will be key to modernize financial services architecture

Currently, banking systems are not efficient enough and are burdened by costs. By moving to platforms, banks can provide a larger number of services more cheaply to a wider range of customers. A cost-effective infrastructure allows banks to be well equipped to provide microfinance services and thus help spread financial inclusion. An IMF study revealed that digital platforms such as WeChat Pay (China), Paytm (India), and M-Pesa (Kenya) led to a significant rise in financial inclusion in the past decade.¹

Underlined by data, these digitized systems leverage expert capabilities and automate operations. Analytics on customer data help platforms provide deeper insights, thus allowing personalization of services and products. On the one hand, personalization improves customer experiences and helps match the right services to the right customer. On the other hand, automation enables the reduction of fees and servicing costs. Unbundling costs in turn increases transparency and builds customer trust.

Electronic Know Your Customer (eKYC) platforms have served well, most recently during the pandemic. With lockdowns in place and bank branches inaccessible, these platforms supplied the necessary infrastructure to onboard new customers and continue banking operations. With limited in-person human verification, the adoption of such digital platforms accelerated. eKYC platforms allow financial institutions to obtain and verify documents with government agencies in real time, without the need for any physical document verification or authentication. Supported by regulatory authorities, banks have

Figure 1. 2020 has had a significant impact on bank valuations



Source: Market Watch

enthusiastically embraced these platforms during the pandemic. Fintech startups providing such platforms have flourished. [Signzy](#) is one such example. This Indian startup provides a plug-and-play video KYC infrastructure and can onboard customers within minutes² — the fintech has doubled its client base in 2020. Another example is how banks in the Middle East, especially Bahrain, have benefited from the use of a national eKYC platform.¹

Rearchitecting payments infrastructure

It is critical for payment systems to enable quick and flexible payouts to those in need. Yet the underlying technology and infrastructure that enterprises and governments depend on are obsolete, slow, and rigid. The traditional correspondent payments' system is fraught with inefficiencies and is time-consuming — correspondent banks have to keep their ledgers updated, with domestic clearing houses in between them. An added complexity is the impact of foreign exchange. Often the systems of record vary and need to be reconciled.

Currently, the payments networks are not robust, efficient, and fast enough for the future. A change in the payment infrastructure is required to enable businesses and trade to work in the future, and a complete redesign will help support modern commerce. There are so many more efficiencies that can be created. For trade and business to work fluidly, a payments network must be modernized and new structures and architectures that enable free flow of capital must be considered, making it transparent, traceable, trustworthy, and legitimate.

Faster and more efficient payments can be built on a platform. A more distributed and open system is required. Perhaps blockchain could be the disruption we are looking for. Blockchain isn't owned by

one institution and is effectively a dispersed system. By nature, it creates a ledger of payments and is shared with all parties involved, but most importantly, it is transparent. Yet, the technology is reliant on its adoption by partners. By virtue of its being slow and energy intensive, it is somehow still imperfect in its being, although it does offer automation and efficiencies.

Another theme that is likely to proliferate is the increased adoption of AI-backed technologies to reduce risks and enhance efficiencies. AI will be used to process transactions faster, better recognize card fraud and prevent unusual purchases, stave off money laundering, and identify and remove false positives. For example, [Neener Analytics'](#) AI examines a prospective borrower's personality or willingness to repay and identifies whether a prospect is overclaiming income or underclaiming debt on an application. The AI analyzes every word and their combinations, and correlates them to specific individual financial risk outcomes.

Balancing risks and the need for speed in capital markets

The sharp fall in asset prices globally kept pace with the length of lockdowns. But unlike in 2008, governments and central banks have been quick to react. A wave of liquidity shored up asset prices, which have more than outpaced the recovery in the economy.

While the sharp volatility has been good for traditional trading firms, operationally they are inefficient. As the cost to trade steadily declines, consolidation in the capital markets space will be pursued. Meanwhile, fintech startups have been competing aggressively by offering low-cost trading platforms that leverage AI.

Trading firms use platforms across the value chain — from client onboarding to trading to risk management and

regulatory compliance. AI-enabled platforms automate KYC checks for new clients, enabling them to begin trading in less than a day. Fraud and risk management platforms build the resiliency of enterprises and offer a comprehensive view of transactions and exposures. These platforms are also embedded with predictive analytics that helps identify unusual trading activities and understand flash crash events better. At the back office, post-trade platforms are being digitized, allowing trading firms to increase their business agility and enhance the user experience.

Algorithmic trading is quite prevalent in markets today, yet its blend with AI capabilities increases the competitive advantages of firms and helps in making split-second investment decisions, much faster than a human. Nearly 80% of daily volumes in the U.S.³ are now traded electronically using algorithms; this is not without its own set of risks.⁴ And that's why interpreting AI decisions will go a long way in building confidence with management, regulators, and investors, and help develop effective risk management strategies.

AI brings efficiency to the mortgage life cycle

This era of COVID-19 has been a real struggle for mortgage borrowers and lenders. As economies grapple to get back on their feet and as unemployment rates remain steep, there are likely going to be more mortgage defaults over the next few years.

Cost-effective, fast, and efficient services are a must, especially, during volatile times

The mortgage market has historically been a relatively low-margin business, with growth often heavily correlated to

economic activity. Therefore, in volatile times such as the one we are in, it becomes increasingly important to provide services that are cost-effective, efficient, and fast. This is possible when the origination, servicing, and default management are digitally transformed — perhaps through platforms. For example, digital mortgage aggregator platforms such as Blend and MortgageHippo provide customers with digital experiences and help mortgage originators stay competitive.

Stater, the mortgage servicer, allows mortgage providers to focus on what they do best — funding and turning the economy — while the company's experts deal with the task of enabling smooth servicing of mortgages.

For the mortgage process to be efficient, technology must be interwoven into existing systems. Enterprises use AI-backed machine learning to assess a borrower's creditworthiness, automate document verification, predict prepayments, and even identify fraud. AI helps give a voice to prospective borrowers with no credit history, thus increasing financial inclusion. Yet "explainability" remains the final frontier. Regulators and customers will require transparency regarding why a mortgage application was rejected by the AI. This will build trust in the technology and help remove the risk of bias creeping into the process.

Hyperpersonalized retirements

Given the aging population and an increasing life expectancy, retirements are going to be crucial. Societies are increasingly pivoting toward retirement-readiness, searching for better outcomes, and expecting digital experiences to be delivered. Yet a lack of financial planning will result in the retirement pension funding gap

growing to \$400 trillion by 2050 from \$70 trillion in 2015 across the eight most populated or developed savings markets.⁵

Fintech startups have started to make inroads in the retirements industry. These digital natives are technologically equipped and are challenging incumbents, often offering better experiences by making data personalized, portable, and easily accessible.

Platforms can act as a key differentiator and allow the incumbents to become flexible, scalable, and efficient. Retirement services will only get larger with time and will need to be managed more efficiently. Digital transformation will bring in the necessary cost-efficiencies and enable institutions to deliver better outcomes and quicken new product delivery.

A digital shift has already begun from legacy systems to digital platforms that use AI to study financial behaviors and engage better with participants. AI-backed technology is also enabling quicker and easier employee enrollment, and aids participants in fund selection.

into AI-powered models increases organizational sentience, in addition to providing a financial by-product — research shows that AI-first enterprises can increase operating margins by as much as three percentage points as they progress along their AI journey.⁶

AI-powered models that ingest data boost organizational sentience

Understanding and governing AI in its form is presently the last step in the AI journey. This helps improve the technology, remove any form of bias, and keep it ethically compliant. While early-bird enterprises were oblivious to this need, financial institutions can now learn and better lay the foundation to deal with the interpretability conundrum. This provides institutions that embrace this strategy with an edge over their peers, especially when regulations, such as those found in the EU's AI framework, are adopted or in dealings with their customers and other regulators.

A silver lining — yet a long way to go

The upside is that there are platforms that can modernize financial services and overhaul its infrastructure. But the industry must be more agile to become responsive to dynamic customer needs and accept that customers want cheaper, more efficient services. To achieve this, enterprises must continuously learn and modify their DNA to be digitally equipped.

Digital transformation entails investing in infrastructure that lightens the technology load and technologies that empower AI. Ingesting data

References

- ¹ [The Post-COVID-19 Financial System Global Future Council on Financial and Monetary Systems](#), October 2020, World Economic Forum.
- ² [Manage in-person KYC, remotely](#), Mandar Joshi, Abhik Kar, Sharan Bathija, April 2020, Infosys Knowledge Institute
- ³ [Sell-offs could be down to machines that control 80% of the US stock market, fund manager says](#), Silvia Amaro, December 5, 2018, CNBC.
- ⁴ [The Human Touch in AI-Aided Trading](#), Rajneesh Malviya, Dr. Ashok Hegde, Samad Masood, et al., June 2019, Infosys Knowledge Institute.
- ⁵ [Can we automate our way out of the savings crisis?](#) Martha King, Mohit Joshi, January 15, 2021, World Economic Forum.
- ⁶ [Maturing AI in the Organization](#), John Gikopoulos, Harry Keir Hughes, Saibal Samaddar, et al., December 2020, Infosys Knowledge Institute.

Authors

Mohit Joshi

President

mohit_joshi@infosys.com

Sharan Bathija

Infosys Knowledge Institute

sharan_bp@infosys.com

About Infosys Knowledge Institute

The Infosys Knowledge Institute helps industry leaders develop a deeper understanding of business and technology trends through compelling thought leadership. Our researchers and subject matter experts provide a fact base that aids decision making on critical business and technology issues.

To view our research, visit Infosys Knowledge Institute at [infosys.com/IKI](https://www.infosys.com/IKI)

For more information, contact askus@infosys.com

© 2021 Infosys Limited, Bengaluru, India. All Rights Reserved. Infosys believes the information in this document is accurate as of its publication date; such information is subject to change without notice. Infosys acknowledges the proprietary rights of other companies to the trademarks, product names and such other intellectual property rights mentioned in this document. Except as expressly permitted, neither this documentation nor any part of it may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, printing, photocopying, recording or otherwise, without the prior permission of Infosys Limited and/or any named intellectual property rights holders under this document.