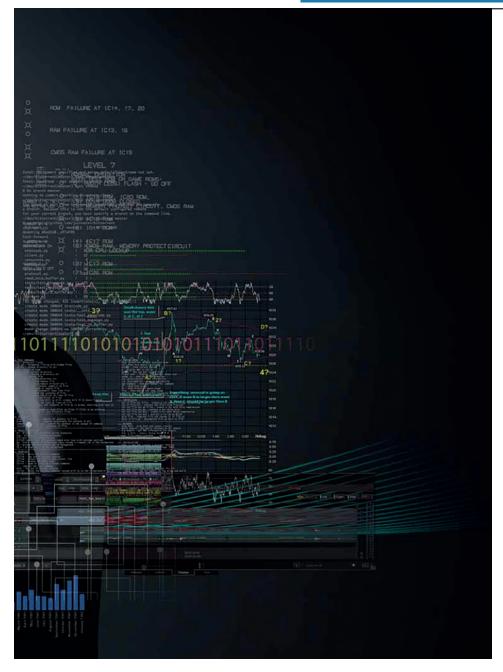


Technological innovations such as artificial intelligence, machine learning, data analytics and blockchain are disrupting and reshaping the financial services sector. The team from IMAP Mexico (Serficor) shares an overview of the major developments and grants us access to the insights of **Juan Carlos Arroyo**, a top executive currently leading the digital transformation efforts at Banco Azteca, one of Mexico's largest banks.



a survey conducted by Accenture in 2018, over 43% of retail banking executives expected their technology investments to improve customer loyalty.

Since the Bitcoin peak in 2017, blockchain technology has proven to be a core asset in the digital payment industry, though its potential still isn't being fully exploited. Today, blockchain is the centerpiece of investments among large financial institutions, with applications being developed, tested and implemented principally in international trade; cross-border payments, clearing and settlement and insurance. Blockchain's incredibly powerful processing capabilities are not its only benefit, it is also the most secure and transparent method of digital payments to date, storing transaction-related information in thousands of nodes. It is already being adopted in Anti-Money Laundering (AML) and Know Your Client (KYC) practices within regulatory agencies.

Artificial intelligence (AI) is playing an ever-increasing role in the financial services industry. Its most interesting application is without a doubt in Asset Management, where so-called Robo-Advisors outperform the market regularly by using complex machine learning algorithms that calculate the best investment opportunities. Financial institutions are starting to realize that using big data analytics is essential in order to compete in this fast-paced industry. Huge investments are being made in tools that can process client data more quickly and accurately and allow financial institutions to better serve customers and increase profitability.

The application of AI in investment banking is starting to become a reality, since its technology is now able to analyze large amounts of information within a relatively small amount of time. It can help M&A advisors at almost any stage of the process; from the initial screening of potential counterparts and more accurate and efficient financial modeling/valuation, to processing and storing large amounts of information required during the Due Diligence process. This frees up time and allows the team to concentrate on the 'soft' aspects of a transaction. Furthermore, executives of the combined

It seems the adjective "smart" has won an overwhelming presence in our day to day vocabulary. The turn of the 21st century marked a significant change in how we use technology and feats that seemed impossible or too far out of reach are now suddenly within people's grasp. The use of technology as a tool to make our lives easier, from home appliances to smartphones, also deeply impacts the way in which we do business.

Technology has also transformed the Financial Services Industry, which is struggling in a hostile competitive environment. The adoption of smartphones, vast use of electronic payments and development of solid security systems have created the perfect ecosystem for mobile banking, where customer-centric services are now the new standard in innovation and digital transformation is a key component of every corporate strategy. The ever-present threat of smaller, more flexible and innovative companies taking customers away from the retail banking industry, has pushed large banks to invest heavily in enhancing the interactivity, speed, and security of mobile banking. According to

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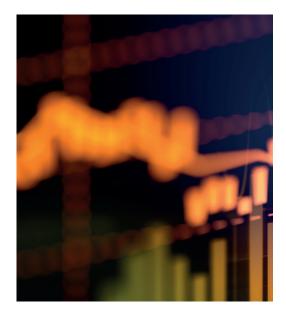
The technological advancements set to revolutionize the Mexican financial services industry within the next 5 years are those 'disruptive technologies' that apply artificial intelligence, machine learning and data analytics

entity created by the acquisition, will have better tools to implement the post-closing integration plans.

In a private interview with Juan Carlos Arroyo, leader of the digital transformation efforts at Banco Azteca, one of the country's largest consumer loan and microlending banks, he stated that Mexico is on the right track to a successful digital transformation. "The first and most important component of a country's digital transformation is the smartphone and if we look at how Mexico is positioned in terms of smartphone penetration, we can see that it is doing much better than other emerging economies". Although Mexico is listed as the 9th country with the most smartphone users in the world, further investments in telecommunications infrastructure, along with improved regulation and a reduction in mobile data costs are still necessary. Arroyo argues that Mexico's digital transformation is developing at a fast pace, not only because smartphone penetration figures are above the international average, but also due to the exponential growth in e-commerce in the country (21% CAGR expected in the next 3 years), increased data usage in mobile phones and activity

across social networks. These are clear examples of a country hungry for new and improved technologies.

But what does this mean for the financial services industry in Mexico? What challenges and opportunities lie ahead for Mexico's commercial banks and Fintech startups? Arroyo is convinced that there are clear signs of the growing appetite for financial digitalization within the Mexican lower to middleincome class (Banco Azteca's target customer base). His theory is based on the fact that in 2018, over 3 million of Banco Azteca's clients went digital. In comparison, the country's leading bank, BBVA Bancomer, only managed to digitalize 1 million of its clients. Arroyo believes that the technological advancements set to revolutionize the Mexican financial services industry within the next 5 years are those 'disruptive technologies' that apply artificial intelligence, machine learning and data analytics. Financial institutions already have the means to implement this innovative technology, by taking advantage of the use of smartphones and their impressive 75% penetration,



which allows banks to be connected to their client's day-in-day-out. The crucial next step, however, is for financial institutions to be able to anticipate their clients' behaviors and needs. "By finding a way to solve our client's most basic problems, whether or not they are related to financial products, we can become extremely relevant in their minds."

Alongside artificial intelligence and big data, Arroyo believes blockchain is another disruptive technology with extreme potential in the financial services industry. He sees cryptocurrencies not as a viable application of the technology in the short term, but as a first approach to solving age-old transactional problems in the industry, such as security, speed and AML, among others. "Blockchain will allow us to offer our clients better services, especially





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within the cross-border world, which includes money transfers, international credit letters and foreign exchange (FX)." This technology can guarantee both parties full control of the transaction, meaning more transparency and allowing the funds to travel immediately and in a safer manner. Although these are only a few of the potential applications of blockchain technology, its use can potentially eliminate certain transactional intermediaries along the way, including commercial banks.

Mexico is the second largest fintech investment hub in Latin America and the number of fintech startups in the country grew 40% in 2018<sup>1</sup>, reaching 330 in total. Arroyo explained that fintechs in Latin America are different from their North American or European counterparts. In Europe, he says, the objective for most fintech companies, is

to disrupt the financial industry through their breakthrough ideas and innovative business models, while in Mexico and Latin America, they are used to working hand in hand with banks, offering a range of opportunities for them to optimize and outsource part of their value chain.

Most of Mexico's fintech ecosystem is centered upon the end consumer, although some companies have opted to offer B2B services for small and medium-sized companies, including point of sale terminals, accounting and other operative processes. The environment is also extremely varied and you can find startups that target different parts of the social pyramid. From low-income households with microcredits and other financial products, through small and medium-sized companies offering cheap and innovative financing models, to high net worth individuals and wealth management

institutions using highly complex Robo-Advisors applying artificial intelligence.

Before joining Banco Azteca, Juan Carlos Arroyo oversaw the Digitalization department in BBVA Bancomer, Mexico's largest bank, where he spearheaded the financial digital transformation we see in the country today. He explains that 4 years ago, while managing the digital innovation efforts at BBVA Bancomer, the conversations he had with young entrepreneurs were very different to what he experiences today. Large banks are beginning to understand that they can operate more efficiently in certain areas of their value chain if they collaborate with fintech startups, adding immense value from a user experience point of view, while decreasing the high structural costs a commercial bank typically experiences.

Furthermore, according to Arroyo, in the last 4 years, the popularity of fintech investments compared to other industries has soared. He sees Mexico as a "must-have" market for fintech companies in Latin America and thus, expects M&A activity to continue its upward pace over the following years. Arroyo also says there is an increasing appetite from Private Equity funds for fintech investments due to the exponential growth perspective as a result of what is a relatively underdeveloped industry in Mexico.



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