



How artificial intelligence is impacting Southeast Asia's biggest players

Indra Utoyo, Director of Digital Technology and Operations at Bank BRI discusses the increasing prominence of AI in the financial services industry, and how digital solutions have allowed for financial services providers to broaden their reach beyond the traditional customer base of the mass affluent and HNWIs as the industry witnesses an evolution in the relationship between firms and their end clients.

BY:
Indra Utoyo, Director of Digital Technology and Operations
BANK BRI

ARTIFICIAL INTELLIGENCE (AI) HAS PERMEATED NEARLY EVERY TECHNOLOGICAL INSTITUTION WE ARE IN TOUCH WITH TODAY, and the finance world is no different. Plenty of big banks around the world are using AI to communicate with customers, access and predict spending habits, and even decide on personal and business credit scores.

But the truly exciting potential of AI sits squarely within microfinance institutions (MFIs) and their customers. By and large, these are people living in rural and remote areas of emerging markets like Indonesia. They earn and spend less than a few dollars per day and until just recently were completely unbanked and off the formal financial grid.

Most MFIs don't have access to troves of reliable data, unlike established banks that serve hundreds of thousands, if not millions of customers. But their need for data is just as palpable. Big data and consumer behaviour information is a necessary tool for helping those in rural and remote areas become more financially and (if all goes well) economically included.

Traditionally, loan officers would manually review new applicants based on a variety of factors such as a person's credit score, debt repayment history, and more. But how can you analyse credit risks accurately if the customer has no formal credit history to draw from?

AI-driven analytics are powering transformative changes in this area. Now better equipped with capabilities to generate trend analysis, modelling, and predictions with even the most basic or limited source data. Algorithms can examine people's checking and savings accounts to understand individual spending and saving patterns. They can determine how and when applicants pay their utility bills, top-up their pre-paid mobile credit regularly, or indulge in casual shopping, and from there make what we call "alternative credit assessments."

AI's role in economic inclusion

The Centre for the Study of Financial Innovation, a non-profit think-tank, explains in its report on AI in financial services succinctly how machine learning and AI can be used to an MFI's advantage. When assessing whether an individual or company is likely to repay a loan, machine learning enables creditors to analyse a much larger number of data points, perform more complex pattern analysis, and make decisions more quickly - sometimes instantly, the report says.

It goes on to say where applicants lack traditional credit histories, machine learning algorithms are increasingly being deployed to analyse alternative data - from utility bills to data from social media accounts - to evaluate creditworthiness.

The use of AI in credit scoring systems, fraud detection systems, and merchant assessment systems has been especially innovative, and in many cases, extremely successful, in recent years.

Cutting edge tech also introduced algorithms to help financial institutions assess non-numerical factors in an applicant's creditworthiness and risk levels. This has led to fewer missed opportunities for applicants who might otherwise have been denied a loan and has empowered banks and MFIs to be more proactive in meeting the customer's needs.

Take, for example, Alibaba's financial services arm, Ant Financial. Today, it's the highest valued fintech company in the world. In 2018, Ant Financial shouted from the rooftops about how AI has helped it process huge amounts of transaction data generated by small businesses on its platform. This led to the company lending over USD13.4 billion to nearly 3 million small businesses.

Loans as small as USD50 could be processed within just a few minutes thanks to Ant Financial's algorithms, which also calculated, assigned, and stored business credit scores to improve decision-making on every loan. The integration of AI in every step of the lending process generated a default rate of just around 1%, compared to an estimated average of 4% worldwide.

New grounds for AI-powered MFI services

Right here in Indonesia, the tech is blooming right in front of us, in the palms of our hands. Lenddo, a Singapore-based platform that processes hundreds of thousands of loan applications every month, partnered with major credit scoring agency Experian in 2017 to bring its financial services to the unbanked populations in Indonesia and Vietnam. Lenddo uses social media and smartphone records to determine a loan applicant's financial stability and is backed by banks and other lenders.

Even closer to home, peer-to-peer (P2P) lending apps exploded after 2016, with numerous apps such as Koin-Works, Akseleran, Investree, and Modalku storming the gates. These apps set off sparks in the market when they began using AI to evaluate creditworthiness and were very much in tune with the interests of local borrowers.

However, wariness and rationality have since set in around the P2P business model - which until recently was largely unregulated - as Indonesia has seen how allowing the market to grow too freely resulted in

multiple infamous scams in markets like China and the US. Some MFIs have tuned into more sustainable answers to P2P lending, such as rolling out their own microloan mobile apps.

A massive surge in newly-banked customers in recent years, thanks to the proliferation of mobile, internet, and MFI services makes Indonesia the perfect sandbox for AI-powered services to flourish. Many new customers have no formal credit history, but they have access to the web, their own social media accounts, and they frequently send and receive money via mobile e-wallets.

Thanks to AI-powered access to this information, revenue has begun to boom from the rural agent networks of ASEAN's microfinance players. This was the case for Indonesia's largest agent network, as we saw revenue spike from USD1.5 billion in 2017 to a whopping USD36

billion in 2018. In 2019, the network produced a transaction volume of approximately USD44.8 billion.

Amid the excitement about how AI can create more financial inclusion however, we must not get too carried away. Automation has plenty of great benefits, but it must be a collaboration between humans and machine learning, instead of swapping out one for the other.

Banks in Indonesia are more than aware of the opportunities digitising their services, with 84% of Indonesian banks reporting they would be likely to invest in transforming their tech back in 2017, according to a PwC report.

If we can strike this balance, then big banks and formal financial institutions have the fuel to move faster and deeper, with AI as the key to organising and analysing massive treasure chests of consumer data. ■

