in depth **technology**

TECH TAKES
FINANCE SECTOR
BY STORM

Globally, customer expectations are being driven by the slick experience they are receiving from disruptive solutions in other industries, such as Uber and Airbnb, says Peter Alkema, chief information officer at FNB Business. Can the local banking sector keep up?

By Ruan Jooste

Peter Alkema
Chief information
officer at FNB Business

With its high cost structures, the financial services sector, and banking in particular, is ripe for disruption by technology. These changes will be brought about by so-called "fintech start-ups".

"Huge, fixed-cost infrastructure and 50% cost-to-income ratios leave the industry wide open for low-cost entrants, if they can offer a competitive depth and breadth of banking products and services," says **Peter Alkema, chief information officer at FNB Business.**

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US states."

Abroad, fintech is presently on the rise – non-traditional telecoms and technology players are now actively acquiring banking licences. "Nearly 30 new banking licences were awarded in the UK over the last decade and Google already has banking licences for close to 30 US states," says Alkema.

He predicts full fintech disruption in South Africa to be delayed for at least another five years. This is because fintech companies only provide mono-line product offerings and not a single, digitised, end-to-end service covering a wide range of products like the larger banks, Alkema says. "When they eventually consolidate, the disruption will move exponentially."

Stephan Lamprecht, owner of Venture Solutions, an innovation management and commercialisation operation, agrees. "Although fintech companies have the advantage of new innovation, the banks still have the upper hand in terms of scale," he says.

SUCCESS STORIES

Despite all the hype around the emergence of fintech abroad, local banks are far from becoming extinct and pretty much still run the show, Lamprecht says, with most successful fintech start-ups evolving out of the banks' very own incubators.

Lamprecht, who conducts research around early-stage venture capital and angel investments for the SA Venture Capital Association, says strong deal flow only exists for transactions closely linked with the banks. "The incubator deal flows are technically the banks building their future supply chains," he adds.

In the beginning of the year Rand Merchant Bank launched an incubator for financial services start-ups called

Rainfin, the Cape Town-based peer-to-peer lender, provides more than

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a day to the local small business sector.

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AlphaCode. A collaboration between Barclays Africa and Think Rise Africa, for fintech and health tech start-ups, and Standard Bank's business and technical incubator were both launched in 2015.

Probably the most renowned bank-incubated fintech in South Africa is Snapscan, which is backed by Standard Bank. Snapscan provides a simplified way for consumers to pay for items at various retail outlets by using their mobile phones and QR payment codes.

Rainfin, supported by Barclays, is another example. The Cape Town-based peer-to-peer lender provides more than R1m a day to the local small business sector.

Mobile transaction solutions company Wigroup boasts Investec Asset Management as one of its biggest investors. Wigroup provides a point-of-sale-integrated, open and interoperable mobile transaction platform and has processed close to R5bn in transactions up to now.

The banks are more than aware that they have to refresh their business models constantly to ensure they remain relevant, Alkema says. FNB has funded and supported a number of programmes, including Codefest, WeThinkCode, Alpha Code, Foundery and the annual devOps IT conference.

But not everything will be replaced by technology. Alkema says that while the way banks relate to customers is changing, and although converting services onto e-channels offers convenient, cheaper banking, there are some processes FNB wouldn't digitise, like relationship banking.

However, it has become more than just about the banks trying to protect their turfs and developing their own products as big non-bank technology companies are entering the fray in an attempt to exploit the mismatch in banking's business model. New competitors include mobile operators (e.g. Vodafone's mobile phone-based payment system M-Pesa, which is hugely successful in East Africa).

In June, MTN announced that it had appointed Rob Shuter, who has extensive experience in both the banking and telecommunications sectors, as its next CEO. This forms part of MTN's aim to transform itself into a fintech company by foraying into mobile money, e-insurance and e-commerce. One major opportunity for MTN is to tap into the $21bn-a-year remittances market in Nigeria, where it is the biggest telecommunications player. ■
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Local fintech players

A number of local fintech companies are offering ways to simplify anything from filing tax returns to processing payments.

TaxTim
TaxTim's goal is to make it quick and easy to process tax returns, requiring you as the client to answer a number of simple questions in order to allow the software to complete and submit your tax return to Sars. It promises to get your taxes done in 20 minutes or less while maximising your tax refund.

Peach Payments
This company provides a state-of-the-art payment solution, allowing online and mobile businesses to accept payments easily from consumers across the globe. Its payment solution is currently offered directly in SA and Europe, and in Brazil and Turkey through its partners.

iKhokha
iKhokha offers a mobile credit card machine "for anyone needing to accept debt and credit card payments from home, work or even on the go". The device attaches to the merchant's cellphone and can process credit card transactions.

Electrum
This company's platform can be used to accept payments. It can also deliver remittances, loyalty rewards and value-added services to consumers.

YueDiligence
YueDiligence is an interactive web-based tool that aims to assist entrepreneurs and investors with due diligence through its web-based questionnaire, GAP analysis, and a range of other tools. Services include analysing business gaps in key functional areas, and the identification of key action items "to get your business or investment where it needs to be, assisting you in raising funding and/or becoming exit-ready".

Stock Shop
The Stock Shop provides tools that can be used by financial service providers to educate their customers about money. The company's other offering is The Stock Shop Academy, which provides a variety of investment and finance courses.

SOURCE: Companies' respective websites

Rise of the machines

Robo-advisers are poised to upend the global wealth management industry in various ways, with research showing that the adoption of artificial intelligence (AI) will change the way assets are managed in the next three years.

Robo-advisers are simple online platforms where investors are guided towards a suitable set of investment products. The system assesses their investment goals, risk tolerance and investment horizons by asking investors various questions, according to Sygnia.

Some members of the financial planning fraternity are concerned that human financial advice and services will be supplanted with offerings of all-day access to portfolios and automated "best-practices" advice. However, many believe much opportunity can be found in the rise of the machines, for example by combining the best hands-on advice with the best technology has to offer.

It is important to distinguish between a pure robo-adviser and an online advice model. Robots in essence will aim to disintermediate the adviser as much as possible and, in some demographics if applicable, act as a direct competitor, says Matthew Chapman, an analyst at NFB Asset Management.

One positive is that robo-advisers could also expand access to financial advice to many more individuals, particularly in the lower end of the market, says Richus Nel, head of financial planning at Brenthurst Wealth.

An increased regulatory burden on advisers has added a costly "compliance requirement" for the industry, Nel says. This has forced the industry to focus on fewer, "wealthier" individuals and the unintended side-effect is that many companies have abandoned smaller investors.

"Robo-advisory aims at thinner profit margins, bigger client volumes and automated investment advice," he adds. This makes it particularly suitable for investors with basic advice requirements.

However, there will still be a need for personal, non-automated advice, Nel believes. "Investment solutions require extensive knowledge of the investment universe and the regulatory environment, which will maintain demand for personal advice, especially for wealthier individuals with complex investment and fiduciary requirements," he adds.

One downside is that rising automation will lead to job cuts. Darryl Bernstein, a partner at global law firm Baker & McKenzie, says local banks are already cutting down on employees as the banks become more digitally orientated.

"Computing technology enhances data processing significantly. I suspect we will see the introduction of different business models, with some jobs ceasing and others developing," Bernstein says.

A recent Baker & McKenzie study on how AI will affect financial services found that the most dramatic changes expected to be brought about by AI within three years are in the areas of credit provision, asset management, trading and hedge funds.

"Within trading and investment management, some companies are pioneering AI trading programmes. They employ a combination of machine learning techniques and evolutionary algorithms to crunch huge amounts of data, in order to recognise obscure patterns that others have not identified," the survey found.

Many of these AI software programmes learn and update their models automatically and independently of human interference.

Absa was the first local bank to announce the adoption of robotics when it said in April that it plans to pilot a chatbot within its call centres in order to answer simple customer queries and free up call centre agents to deal with more complicated requests. Chatbots use AI to simulate intelligent conversation through written or spoken text. ∎

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The tracking of absolutely everything

Blockchain technology has been made famous by Bitcoin, a type of digital currency that relies on "encryption techniques to regulate the generation of units of currency and verify the transfer of funds, operating independently of a central bank".

But blockchain technology has many applications other than just managing a payment system. It is effectively a tamper-proof data ledger (accounting platform) that is available to anybody who wants to use it. This makes it the ideal system to keep records that are shared between a number of parties and should not be alterable in any way, for example property transfers or the exchange of securities. What makes the technology so innovative is the fact that the transfer of ownership of any type of asset is digitally recorded, transparent and impossible to hack, which almost eliminates the possibility of fraud or human error.

It could for example have saved the South African government a lot of time and effort in determining and managing its own property portfolio if all transactions were recorded digitally using blockchain technology, rather than going through heaps of paperwork at the deeds office.

Locally, the technology has predominantly grabbed the attention of financial services providers. This is especially because of its potential to streamline processes, which would save the companies time and money.

South African banks started to engage on blockchain in 2015, and are expected to invest more aggressively in the technology, Dominique Collett, Rand Merchant Investments senior investment executive, told ITWeb earlier this year.

"Blockchain is beginning to become more mainstream and people are recognising that it is a massively powerful and transformative technology for the financial services industry," she said.

The technology would serve as a type of clearing house that brings buyers and sellers together to ensure failed trades are kept to a minimum, similar to central security depositories (CSDs).

Monica Singer, CEO of Strate, SA's CSD, says the company is in the process of investigating the potential applications of blockchain across a multitude of assets and industries, "pretty much the same way we did with the digitisation of other financial instruments so many years ago, when we imported technology from Switzerland to revolutionise the way share trading was done in SA".

Singer was the driving force behind Strate bringing technology into the country to dematerialise the settlement of equities, bonds and money-market instruments. The transition to an efficient electronic settlement system increased market activity and improved the international perception of the SA market by reducing settlement and operational risk in the market, increasing efficiency and ultimately reducing costs, she says.

The advantage of blockchain technology is that it provides a "complete audit trail of transactions and full transparency, [meaning] there will never be any doubt of ownership. There will also be no need for consolidation, meaning fewer people are needed in the supply chain and reduced cost," she says.

"We already have the experience of the market and infrastructure in place to optimally administrate such technology across various platforms. We are also a trusted third party with a solid track record," Singer says. ∎

Monica Singer
CEO of Strate,
SA's CSD