



Blockchain – Creating new horizons for South Africa

The dramatic shift in thinking over cryptocurrencies—and by implication, its underlying blockchain technology—in South Africa is nothing short of remarkable. In December 2014, barely 18 months ago, the South African Reserve Bank (SARB) published a paper cautioning against the unregulated nature of virtual currencies but briefly acknowledging that “DCVCs (Decentralized Convertible Virtual Currencies)...may reduce the costs associated with the conventional banking system...” By August 2016, the governor of SARB mentioned at a cybersecurity conference in Johannesburg, that the central bank was “willing to consider the merits and risks of blockchain technology and other distributed ledgers” – indicating agility and desire to keep up with rapid change of pace of technology to drive financial inclusion. The reason? Close to a quarter of the adult population (23.5% or 12 million) remains unbanked with approximately R12 billion stashed away in cash. Financial inclusion and reducing the risk around using physical cash have become compelling reasons to research use of blockchain technology in South Africa.

Now could be the perfect time for South Africa to warm up to blockchain. Earlier this year venture capitalist and Managing Partner of Newtown Partners Llew Claasen was appointed Executive Director of the Bitcoin Foundation, which works to build acceptance for the leading cryptocurrency Bitcoin, along with internet entrepreneur Vinny Lingham, already on the Board of the Foundation. Both are South Africans, a nation where innovation in payment systems is already well recognized. Their presence could have a psychological effect on furthering blockchain-led innovation in the region.

In September 2016, Barclays Africa also completed the first trade using blockchain technology for one of its clients. Speaking to media, the bank’s Chief Executive Of Corporate And Investment banking in Africa, provided a list of advantages that the technology presents. But the most important, said the executive, was that it saves time. Admittedly, the complete extent to which blockchain will impact the industry remains, as yet, unclear. But almost half a dozen traditional financial institutions are not waiting - many are putting blockchain at the top of the watch list, wary of the fact it could be an Uber moment: sudden extinction because of overwhelming legacy burdens. Meanwhile, the Cape Innovation and Technology Initiative (CiTi) has launched a digital currency hub and incubator with the intent of supporting development in the blockchain space. CiTi has also set up a blockchain academy to help build the skills required to develop related applications. Wipro has just launched a blockchain innovation lab that encourages experimentation.

Right ecosystem for fintech innovation

South Africa is turning out to be the perfect crossroad in which blockchain can evolve: it has a large unbanked population with hard cash running amok. Blockchain can help correct that. The reason blockchain will likely progress in South Africa is the head start it has with the available entrepreneurship/thinking around the technology, the wonderful multi-cultural blend of flavors across regions and the support from the central bank.

Under the hood with blockchain

The confusion over blockchain begins when the question, “What’s different about blockchain from a normal database?” pops up. Think of chaining technology that has been around since the 1980s. Each link in the chain is a block. A block contains data for transactions plus additional code that can add and validate new transactions based on pre-defined rules and then broadcast the new “blocks” to other computers on the network, thus ensuring the entire network has a copy of the same data. Traditionally, when account owners transfer money, a central bank works to ensure that ledgers are reconciled so that the same money cannot be transferred twice – an eminent risk, especially when the transfer is of digital currency that can be easily duplicated. The traditional right ecosystem for fintech innovation Under the hood with blockchain process is time consuming and expensive, adding to the cost of each transaction. Blockchain changes this. Since the ledgers are distributed, the chain becomes tamper-proof. It provides immutable evidence of who owns what at any given moment. When an interbank payment or

equities settlement is initiated, each computer on the network must approve it, checking that the transfer is between legitimate entities, before the new transaction is recorded using sophisticated cryptography on a block. Notice the absence of a central bank to validate the entities, the transaction or to manage reconciliation of ledgers. The fact that the process is not centralized makes payments and settlements faster, cheaper and more transparent.

Right ecosystem for fintech innovation

A study by a leading global bank says that blockchain can save the industry US\$15 to 20 billion a year in infrastructure costs by 2022. This means that not using blockchain could burden a bank with extraordinary overheads, driving it to inevitable irrelevance. Given the existing high level of innovation around peer-to-peer payments, what South African banks need is a strong advisory and technology partner that understands the domain and can develop significant use-cases that bring in early ROI and/or innovation from implementing a blockchain.



About the author

Mary Ann

**Executive Advisor, Global Corporate
Treasury, Payments and
Blockchain practices,
Wipro Limited**

She is a legacy banker and was responsible for the Global Trade and Treasury Division at the 8th largest bank in the U.S. She is a respected industry leader and speaker, and sits on several industry forums in a leadership capacity, including the NACHA Board Advisory group. She further brings Wipro thought-leadership with her expansive global network of partners and providers in all practices.



Wipro Limited

Doddakannelli, Sarjapur Road,
Bangalore-560 035, India

Tel: +91 (80) 2844 0011

Fax: +91 (80) 2844 0256

wipro.com

Wipro Limited (NYSE: WIT, BSE: 507685, NSE: WIPRO) is a leading global information technology, consulting and business process services company. We harness the power of cognitive computing, hyper-automation, robotics, cloud, analytics and emerging technologies to help our clients adapt to the digital world and make them successful. A company recognized globally for its comprehensive portfolio of services, strong commitment to sustainability and good corporate citizenship, we have over 160,000 dedicated employees serving clients across six continents. Together, we discover ideas and connect the dots to build a better and a bold new future.

For more information,
please write to us at
info@wipro.com

