India: A story of digital disruption

December 1964: *"First and foremost, the efforts to increase agricultural production on a steady, long-term basis deserve the highest priority."*

- Dr. Lal Bahadur Shastri (India's 2nd Prime Minister)

November 2020: *"Our governance model is technology-first. Our government has [not only] successfully created a market for digital and tech solutions, but it has made technology a key part of all schemes."*

- Narendra Modi (India's 14th and current Prime Minister)

India had a history of susceptiblilty to famines, even though agriculture contributed over 40% to GDP as recently as the 1960s. With successive governments focusing on crop yields and land productivity, India has since transformed into a food surplus country even while the contribution of agriculture has reduced to just 18% of GDP. Adapting to the needs of the hour, the current government has focused on upgrading India's technological prowess, showing remarkable foresight in treating IT as a pillar of the nation's infrastructure.

In the backdrop of recent times, the government has made herculean efforts to collect and leverage the most important resource in the world of today... following the maxim *"data is the new oil"*. The Indian government has invested heavily to build national IT infrastructure thereby transforming financial and non-financial interactions between the central and state governments, businesses and consumers. Needless to say, success has varied across the numerous initiatives undertaken, but a number have done impressively well.

The flagship of the 'Digital India' mission is the *Aadhar* card (literally, 'Support' card), described by World Bank Chief Economist Paul Romer as "the most sophisticated ID program in the world". Unlike conventional identification programs issued by other governments, *Aadhar* has been used as a platform for the identification, financial inclusion, and reliable disbursement of government funds directly into the bank accounts of the needy. While teething issues were inevitable given the scale and ambition, the *Aadhar* platform now has 99% of the population enrolled, processing 40 million transactions per day – almost 500 per second!

Alongside the widely maligned demonetization scheme, the government also introduced the *Jan Dhan Yojna* program ("People's Money Plan"). The lofty goal of promoting financial inclusion is being achieved by encouraging the active usage of bank accounts. Since launch in mid-2014, there has been a surge in the number of bank accounts, with the banked portion of the population increasing from 53% to 80% today.

Furthering its mission of digital and financial inclusion, the government launched the 'Unified Payments Interface' (UPI) in 2016, an interbank real-time settlement service that attacks the Visa and Mastercard networks head-on, while obviating the need to pay them ~1.5% of each transaction's value. UPI allows the common man to transact with any other individual or business, providing a seamless and instantaneous payment experience. During the pandemic, electronic payments have experienced particularly strong adoption with the UPI network recording $55 billion of value across 2.2 billion transactions in December 2020 alone. In contrast to the past when millions of cheques burdened the Indian banking (and postal) systems, we estimate that UPI is already generating efficiency gains of more than $12 billion annually, i.e, 0.43% of GDP.

It is perhaps no small coincidence that the chief architect of *Aadhar* was none other than Nandan Nilekani, co-founder and Chairman of Infosys, one of India's leading IT services company. Following suit, successive governments do seem to have imbibed the IT services model into their DNA. Numerous IT-enabled infrastructure schemes have been announced, such as registries for universal health records, credit scoring, and land records. True to the "copy and paste" playbook, the government has even formulated an export-led model to offer IT-enabled infrastructure solutions to other nations via a pay-as-you-go model over the cloud!

Until a decade or so ago, the Indian economy suffered from the malaise of an acute lack of data. Businesses were hard pressed to reliably calculate market sizes or market shares, discern consumer habits or spending patterns. Business and investment decisions relied more on hunch than on rigorous analysis. With the digitalization of the economy, there has been a permeation of the measurement and timely publication of monthly and even daily data including valuable government information such as tax receipts, volume sales of freight and various goods and transaction volume data such as UPI. Aside from the efficiency gains for the economy, we believe there is considerable scope for superior decision making for those investors and businesses most inclined to leverage the data that is increasingly available.