Digital Money Adoption: No Small Change

The benefits of digital money may be plenty, but getting into a position to reap them given the complex, deeply ingrained relationship we have with physical money is no small undertaking. The 2014 Digital Money Symposium brought together senior figures across the digital money ecosystem to discuss where we stand in our journey towards a cashless economy.

Disruptive technologies have already begun to influence the way in which we live, work and conduct commerce,” said Naveed Sultan, Global Head of Treasury and Trade Solutions, Citi, as he introduced the 2014 Citi and Imperial College London Digital Money Symposium. “But within this overall phenomenon, the digitisation of money and information has emerged as one of the most important trends of our age.”

And the figures support this.

Indeed, Citi research indicates that the digitisation of financial flows – such as mobile payments and collections – is expected to reach a transaction value of around USD1 trillion by 2016.

So what is driving this transition to digital money? In order to understand more about this phenomenon, Citi and Imperial College London combined their efforts to create a Digital Money Index, which aims to comparatively tabulate each country’s readiness to adopt and embrace cashless technology. The Index also explores the common enablers and barriers that exist along each stage of readiness – as well as the clear benefits.

This Index – together with speakers from the mayoral office of London and the Indian government, MasterCard, Booz & Company, FTI Consulting, Monitise, Radiant Capital, The Economist, IBM Academy of Technology, Egerton Capital and British Telecom – generated a lively and informative symposium on the ongoing digital money journey.

Changing the world

Digital money has the potential to change the world. Processes that are arduous, complex or exposed to human error become simple and secure. Instead of paying in cash and calculating change, transactions simply take a single “swipe” or “tap”.

Certainly, this saves costs. Citi estimates show that companies can spend between 2% and 5% of the cash they collect on its lifecycle management. Through simplifying the collections process, digital money eliminates these costs.

And, of course, digital money adds security. The World Economic Forum estimates that there is a leakage of 5% to 25% of all government benefits to fraud, theft and incorrect payments. Digital money not only removes the need for
And the benefits of bringing financial services to the unbanked are widespread. Indeed, Greg Baxter, Global Head of Digital Strategy, Citi – who presented the Digital Money Index – predicted that if all the countries represented in the Index increased their uptake of digital money adoption by 10% it would bring USD1 trillion from the informal economy into the formal economy.

“At a 10% tax rate, that would mean about USD100 billion comes into the government’s economy,” described Baxter. “And it would also bring 220 million people into the financial services sector – equating to USD80 billion of additional deposits.”

This increase in funds to the government and financial services sector would also have a knock-on effect – benefiting businesses and therefore increasing employment.

In Mexico, for instance, financial inclusion has meant that entrepreneurs and people with innovative ideas are able to get the capital they need to start businesses and provide services. This – following a study by the World Bank – was found to have caused a 7% increase in employment.

Of course, the power of digital money to “change the world” is not limited to money. The information and technology gained from digital money can be used to develop applications that improve other areas of everyday life.

“Information allows you to see the world in different ways – and transform it,” explained Rashik Parmar, President, IBM Academy of Technology. “There has been some emergence of leveraging data from digital money to create insights. For instance, payment flows can help you understand the carbon footprint of your company.”

Climbing the economic pyramid

Of all the benefits, however, one stands out as the most significant: financial inclusion.

Financial inclusion can trigger pivotal change in both the developing and developed markets. Some 300 million Indians are living below the poverty line, 70 to 75% of Nigerians do not have bank accounts and “even in the United States, 70 million people are unbanked,” highlighted Paul Tucker from Egerton Capital.

By enabling citizens to access the banking system and make transactions through mobile phones – without the need to connect to the internet or travel to bank branches – digital money brings financial services to people who would otherwise have no choice but to rely on cash.

And the benefits of transporting cash – therefore reducing the risk of theft – but also removes the need for intermediaries. Through digitally transferring money directly to the recipient, the risk of leakages and fraud are significantly reduced, and the risk of human error eliminated.

In Argentina, the use of digital money has led to a decrease from 3.6% to 0.3% in the number of people paying bribes to intermediaries in order to receive payments.

Yet the security digital money provides is not solely due to removing physical money transactions. The use of digital money also makes it easier to track payments and collections, and observe patterns.

“Being able to understand what happens in payment networks will reduce fraud and money laundering for both consumers and companies,” highlighted Dr Simon Thompson, Head of Practice, Big Data and Customer Experience at British Telecom, during the final panel debate of the symposium.

“Transport, for instance, has been able to use the information available to create applications, such as CityMapper in London, that ease citizens’ commutes. Indeed, the identification technology developed to enable digital transactions can also act as a “currency” in the healthcare sector – informing doctors of patients’ medical history.

“Healthcare will benefit from pulling the data and identity aspects of digital money,” described Vishal Gulati, Partner, Radiant Capital.

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Enabling digital money
The symposium, held at London’s Saatchi Gallery, invited delegates to look at the Index not as a ranking but more as a grouping of the common enablers of readiness along one of four key stages: incipient, emerging, in-transition and materially ready. Having analysed the characteristics of each stage, Baxter indicated that digital money enablers fall into four “pillars”: institutional environment, enabling infrastructure, solution propensity and propensity to adopt.

Sam Pitroda, Adviser to the Prime Minister of India on Public Information Infrastructure and Innovation, and Kit Malthouse, Deputy Mayor of London for Business and Enterprise, showed first-hand what governments are doing, and could do, to encourage the creation and adoption of digital money initiatives.

For India – in the “emerging” stage of the Digital Money Index – the key drivers for the creation of digital money initiatives are security and financial inclusion.

“We have a lot of leakages because of manual systems,” explained Pitroda. “We are trying to plug this but do find resistance from judges, lawyers and local governments who don’t want to lose control.”

Despite such resistance, India continues to create standards around mobile payments, and the government has started issuing government benefits and student scholarships through the technology.

“We are creating Indian standards, because we believe applications will drive payments and not the other way around,” said Pitroda.

Digital money also acts as a means to make data more readily available, which India sees as crucial for financial inclusion.

“Impressive growth is the key mantra for India,” explained Pitroda. “A lot of poverty is down to poverty of information. So we have spent around USD20 billion of government money in order to democratise information.”
In the mid to early 1980s, we had 2 million telephones for 750 million people. Today we have 900 million phones,” described Pitroda. “We need to use this connectivity to change everything.”

Swaying the consumer

Once the government has created a sophisticated regulatory and infrastructure backdrop, and encouraged investment and collaboration, all that remains is creating solutions to suit the needs of the region, and persuading the consumer to adopt. These final two enablers, however – “solution propensity” and “propensity to adopt” – are perhaps the trickiest to achieve.

For both, there is a clear divide between the developing and the developed markets. The developing markets – where poverty is more extreme and leakages and theft more significant – are driven by need. “Solution propensity” – the third pillar of digital money enablers – is associated with the creation of solutions that are suited to the target consumer and region. Solutions created for these markets, therefore, may need to be multifunctional – providing a platform not just for payments transactions, but also access to healthcare initiatives, for instance. They also need to be created to suit the technology available – enabling transactions through text functions, rather than smart phone applications.

The developed markets, on the other hand – where the vast majority of citizens already have access to sophisticated and convenient banking and payment processes (notably, cards and internet banking) – are driven by desire. For them, it is a “form factor” question – deciding which method is the most convenient and the most efficient. Here, innovators have to look at the already advanced solutions and ask what it is they are unable to do.

“Cashless parking, for instance, and one-touch payments are growing across the city,” described Malthouse. “And there are lots of businesses in London that operate completely cash-free – a phenomenon that will continue to grow, particularly in retail.”

Now in this final stage, the UK government is focused on enabling collaboration, ensuring efficient allocation of resources and extending its digital infrastructure.

And, of course, this effort to extend digital infrastructure is pivotal to the success of digital money. The second pillar listed in the Digital Money Index is “enabling infrastructure”. Developing regulations and solutions is pointless without the adequate infrastructure to support the digital transaction of money. In London, for instance, 63% of adults own a smartphone, and the city boasts the biggest penetration of e-commerce in the world. And it continues to grow – with plans to increase broadband speed. India, too, is growing its infrastructure.

London – the capital city of a country listed in the Index as “materially ready” – is further along in the journey towards “cashlessness” than India. Indeed, by the time London had decided it wanted to become cashless, it was already half-way there – with many solutions such as the Oyster card (initially created for increased efficiency) firmly in place and widely used by citizens.

Kit Malthouse described the “institutional environment” enabler in London in three stages: first, organically (when the government was creating digital money solutions purely out of a desire for efficiency); second, actively (when The London 2012 Olympics meant finding a way to host millions of commuters and deliver hundreds of gigabytes of sporting activity around the world); and finally through a desire for “cashlessness”.

Once the government has created a sophisticated regulatory and infrastructure backdrop, and encouraged investment and collaboration, all that remains is creating solutions to suit the needs of the region, and persuading the consumer to adopt.
Again, the challenge is particularly evident in the developed markets where it is harder to establish what needs to be changed, and therefore harder to convince the consumer.

“There are still a lot of gaps in understanding what the consumer needs,” explained Thompson. “Which explains the lack of significant pull or uptake.”

For both markets, however, the need to develop consumer trust is essential. Just as in “institutional environment” — where the government must work to build the confidence of the private sector — “propensity to adopt” requires corporates to invest in building the confidence of the consumer, for instance through pilot schemes. But success in digital money — once achieved — grows quickly. Indeed, Citi’s joint venture with America Movil in Mexico is proof.

“Less than six months after launch, we crossed 400,000 users,” described Smilowicz. “Very quickly after that, we reached 800,000 and are now approaching one million users.”

And success, sometimes, is unexpected. While it may chart low on the scale for “readiness” as defined by the Index, Venezuela, for instance, has a large appetite for digital money solutions. In fact — driven by the desire to reduce fraud, theft and leakages — Venezuela has more installed point of sale terminals than many European countries that appear higher on the index (Germany, France, Italy and the Scandinavian states amongst them).

And this divide between the developing and the developed markets will be reflected in innovation — with the majority of new solutions expected to emerge from the developing markets, despite the fact they have less sophisticated infrastructure. For both markets, however, the need to develop consumer trust is essential.

“The more ‘ready’ a country is the less hunger there is for innovation,” added Gauder in the “Turning Insight into Action” panel debate. “If you are in a country where hardly anyone uses cash, there is hardly any incentive to invest in innovation and win over that remaining 10%.”

Certainly, this conflict between need and desire that exists between the developing and the developed markets influences consumers’ “propensity to adopt” – the final pillar of enablers highlighted in the Digital Money Index.
“Competition prevents them from working together for the greater good,” explained Victor Koss, Partner, Booz & Company, during the first panel debate of the symposium. “Governments are trying to mandate this, and legal structures are being put in place.”

And this is a challenge that is particularly true in the West.

“In countries such as Japan or South Korea, organisations are increasingly culturally following others — even if it may be of short-term detriment to them — because they see the greater good,” said Koss. “We don’t do that in the West.”

“There are multiple players,” explained Pitroda. “Banks have their version of digital money, merchants have their own version and mobile operators have their version. Everyone has their own little angle and wants to push their own agenda — which confuses the consumer.”

Digital money solutions need to be as advanced, sophisticated and as easy to use as they possibly can in order to encourage the consumer to adopt. And collaboration, not competition, is the only way to combine ideas to create comprehensive solutions that appeal to the consumer.

Identity also poses a challenge to digital money. Successful transactions rely on knowledge from where and to whom money is being transferred.

“Germany and Japan are two countries that are marked as ‘ready’ on the Digital Money Index, and yet they choose cash as their method of choice for payments,” described Baxter. Germany has about three times as many ATMs as they do point-of-sale terminals, owing to a belief that carrying cash prevents overspending.

“There are huge cultural, ethical and religious concerns with money,” explained Llewellyn Thomas from Imperial College London. “So changing it is extremely difficult.”

Yet while this does present a significant barrier to digital money adoption, it need not be a permanent one.

“Young people are quick to adapt to new things,” highlighted Pitroda — noting that the key drivers for consumer adoption will be “young people and more money in the form of disposable income”.

Changing something ingrained in culture may take several generations, but eventually “increasing sophistication and comfort through digitisation will lead to increased use,” agreed Thomas. “How long it will take? We will have to wait and see.”

Of course this cultural attitude is a challenge not only when it comes to the consumer but also when it comes to organisations, where the focus is on competition, not on collaboration.

India — as part of its effort to democratise information — has invested heavily in identification tools.

“The starting point is Unique Identification (UID),” explained Pitroda. “We launched UID, which has issued identification — fingerprints and so on — to 560 million people already. And we hope by the end of 2014 we will have issued it to 800 million people.”

Where there are enablers to be achieved, there are usually barriers to overcome. And the journey towards cashlessness is no different. Certainly one of the main barriers to consumer adoption discussed at the Digital Money Symposium revolved around cultural attitudes to money.
Although arduous, providing identification to consumers is part of the infrastructure required to enable digital money.

However, the need for identity faces one further challenge: a desire for privacy. While society is aware that passports, the internet and bank cards reduce privacy, the anonymity that cash offers – despite its many faults – remains attractive.

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**What the future holds**

The growth of digital money has prompted a rise in digital currencies, providing the consumer with the digital sophistication and the anonymity they crave. Of course, they are largely unregulated.

“The fluctuations are too large,” highlighted Pitroda. “The little guy who makes his money to buy food won’t waste it on a digital currency.”

What’s more, money is too important to society to remain entirely unregulated by the government. Once digital currencies start to make a significant impact on consumers, central banks will impose regulation.

“When it is regulated, it becomes less flexible, and therefore acts as a normal reserve currency,” described Smilowicz.

Digital money as a whole – not just digital currencies – is and will be regulated. Globally, central banks are seemingly taking one of two approaches: either they are becoming involved from the start – creating and introducing regulation as it develops – or they are letting digital money initiatives develop without their involvement: only stepping in once significant progress has been made.

And – while some initiatives such as M-Pesa (Kenya’s fantastically successful mobile banking initiative) operate without relying on banks – global banks will continue to play a crucial role in the future of digital money.

“There are two layers to digital money deployments,” explained Gauder. “One, the interface being used by the consumer to access...
Certainly, the journey has only just begun. While many of the “materially ready” countries already operate a sophisticated digital money platform, it is significant to remember that 30 of the 90 countries included in the Digital Money Index are still in the first incipient stage.

Identifying the benefits, enablers and barriers is merely the first stage of a long process. The final stage will be when cash is “printed” by central banks – with unique numbers, identification and security built in – directly onto mobile phones.

Starting the journey
“The technology of money, in all its various forms and in the information trail it creates is something we are just starting to understand,” said David Gann, CBE, Vice President, Development and Innovation, Imperial College London, in his closing remarks.

Identifying the benefits, enablers and barriers is merely the first stage of a long process. The final stage will be when cash is “printed” by central banks – with unique numbers, identification and security built in – directly onto mobile phones. “That’s the day I think we will see the real meaning and success of digital money.”