ACMA CURRENCY NOTES

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In this issue:

CASH AND NEXT GENERATION PAYMENTS, CAN THEY WORK IN UNISON OR IS IT TOO LATE?

Huseyin Memis

Technology

Emerging innovations, including the much-touted Internet of Things and blockchain, will significantly transform the overall payment market landscape, with data becoming a central component of payments. Mobile payments, connected devices, and media will considerably increase non-cash transaction volumes. In the next five years, experts anticipate that more than 15 billion machine to machine (M2M) and consumer electronic devices will be connected. Numerous mobile wallets and person to person (P2P) payments schemes are being trialled on blockchain technology. It is probably that many of these will be widely adopted in the near future.

Further growth in mobile payments will spurred by changes to the user experience, including alternative payment methods such as contactless, wearables, and augmented reality. In particular, wearables and smart phones, retailers' branded mobile wallets, and mobile wallets launched by credit card issuers/financial institutions will significantly extend the reach of mobile payments and disrupt the overall payment marketplace.

According to Capgemini's 2017 World Payments Report, electronic and mobile payments are forecast to make up a significant share of total global non-cash transaction volumes (~32%), with an anticipated Compound Annual Growth Rate (CAGR) of 10.5% from 2015 to 2020. This growth will likely be impacted by new payment innovations based on biometric data and artificial intelligence (AI).

Electronic and mobile payments are on the rise now and in the immediate future.

By 2019, Capgemini estimates that approximately half of all global transactions carried out using a credit or debit card will be made either online or through a mobile phone. Electronic and mobile payments constituted about 31.2% of total card transaction volumes worldwide in 2015 and are estimated to

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Is this the end of hard cash? South Korea intends to stop minting coins by 2020.

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increase to 45% by 2019.

Retail customers will drive the spread and uptake of these next-gen payment methods, with governments and central authorities ensuring a level playing field through regulation and other initiatives. Collaboration among all stakeholders in alternative payments is a must if the challenges and complexities of adoption and uptake are to be avoided.

Cash

Digital payments are steadily emerging as a competitor to cash and cash use appears to be declining in some markets. For example, as the International Monetary Fund (IMF) notes, fewer Nordic banks are using cash in their branches, India's recent demonetization effort scrapped 86% of its banknotes, and South Korea plans to stop minting coins by 2020. Digital payments are becoming ubiquitous and progress towards the cashless society seems inevitable. However, digital payments are not completely overtaking cash and levels of non-cash uptake vary greatly between regions.

Millennials, in particular, in addition to those in higher socio-economic strata, are most comfortable paying with digital technologies such as card or mobile. At the same time, cash remains king in many developed jurisdictions such as Germany, Japan, and Switzerland. While the steady uptake of digital payments is a trend that shows no sign of abating, low-value cash payments remain robustly popular. As Peter Sands, former chief executive of Standard Chartered Bank, notes, you don't need electricity, Wi-Fi, cellular signals, or even basic literacy to make cash work.

A 2016 study, "Consumer Cash Usage: A Cross-Country Comparison with Payment Diary Survey Data," showed that cash is firmly entrenched in advanced economies. According to the survey data collected from several central banks, cash still accounts for more than half of all transactions by volume in six of seven reporting countries. The total share was a remarkable 82% in both Austria and Germany. Interestingly, all reporting countries noted that cash use decreases with increased education and income. Why would individuals from lower socio-economic brackets use cash more? One reason among many is that cash use, as opposed to digital payments, allows households on tight budgets a simple way to monitor expenditures.

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Cash payments are said to trigger more positive emotions.

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According to the researchers who authored the 2014 Deutsche Bundesbank study, "The Usage, Costs, and Benefits of Cash—Revisited," cash payments trigger more positive emotions than paying by card. Another way to think of it: "It's more satisfying to give a child a crisp new banknote as a present rather than a gift card."

Cash can take on different meanings for different members of the population. Some see cash as a tangible expression of social standing, while others view it as functioning tool of democracy and individual freedom, in essence a defence against an all-digital surveillance state that traces citizens' movements through a trail of electronic payments.

This article continues in the next issue of ACMA Currency Notes, with a look into the future of cash in the face of technological innovations.

RECENT ACMA EVENTS

ACMA WORKSHOP
HELD AT THE ASIA CASH CYCLE SEMINAR IN BANGKOK ON 11 SEP 2017

First part of the ACMA Workshop, led by Scott Forster, at the Asia Cash Cycle Seminar in Bangkok.

Part I: Industry Legislation, Attacks and Losses

Second part of the ACMA Workshop, led by Charles Wink, at the Asia Cash Cycle Seminar in Bangkok.

Part II: Cash Services - Crafting of a Master Service Agreement

ACMA ANNUAL GENERAL MEETING
HELD AT THE ASIA CASH CYCLE SEMINAR IN BANGKOK ON 11 SEP 2017

Discussions at the 2017 ACMA Annual General Meeting.

GOING CASHLESS - POLITICAL MONETARY MACHINATIONS OR THE WILL OF THE PEOPLE?

Tan Jit Kent

Today governments around the world look – albeit to varying degrees – to cashless payments as *the* way forward. Despite certain drawbacks, including risk of payment system failure, additional costs of handling electronic payments, and disenfranchisement of the poor, the powers that be remain keen on going cashless. Writing in *The Spectator*, author-journalist Ross Clark dissects the monetary motivations for this and its implications for the people at large.

In times of financial crises and recession, interest rates are slashed to promote spending in an effort to jumpstart the economy. Clark elaborates on the UK's 2007 experience where the interest rate fell from 5.75% to 0.5% in 18 months, and explores what would happen if another recession were to take place while the rate was already at a low. And the answer is that interest would certainly dip well into the negatives – people who put away their money in banks would return only to find that their savings had shrunk. Such a scenario is sure to rouse outrage, particularly in more frugal circles. But there is a mitigating measure here: cash. In times of negative interest, account holders embark on a mass pilgrimage to ATMs – emptying their savings and stowing the money in personal safes, jam jars, under the mattress, virtually any refuge they can find from negative interest. In his article, Clark illustrates this by citing the UK's 30% surge in banknote value, which rose from £36 billion to £48 billion, during the banking crisis of the last decade.

Old but gold: Physical money presents a robust medium through which savings can be protected from the effects of negative interest rates.

So what would happen then, if there were no more cash?

Clark adds on that in the absence of cash, savers would be at the mercy of central banks' monetary policies. With no way to safeguard their savings, they would be helpless while their fund reserves effectively serve as bail-outs for less prudent borrower-spenders. This, he says, is the reason why Britain proposed in 2015 to become the world's first cashless economy by 2020. And it isn't just in Britain. Kenneth Rogoff, former chief economist of the International Monetary Fund, has also proposed abolishing cash to help set negative

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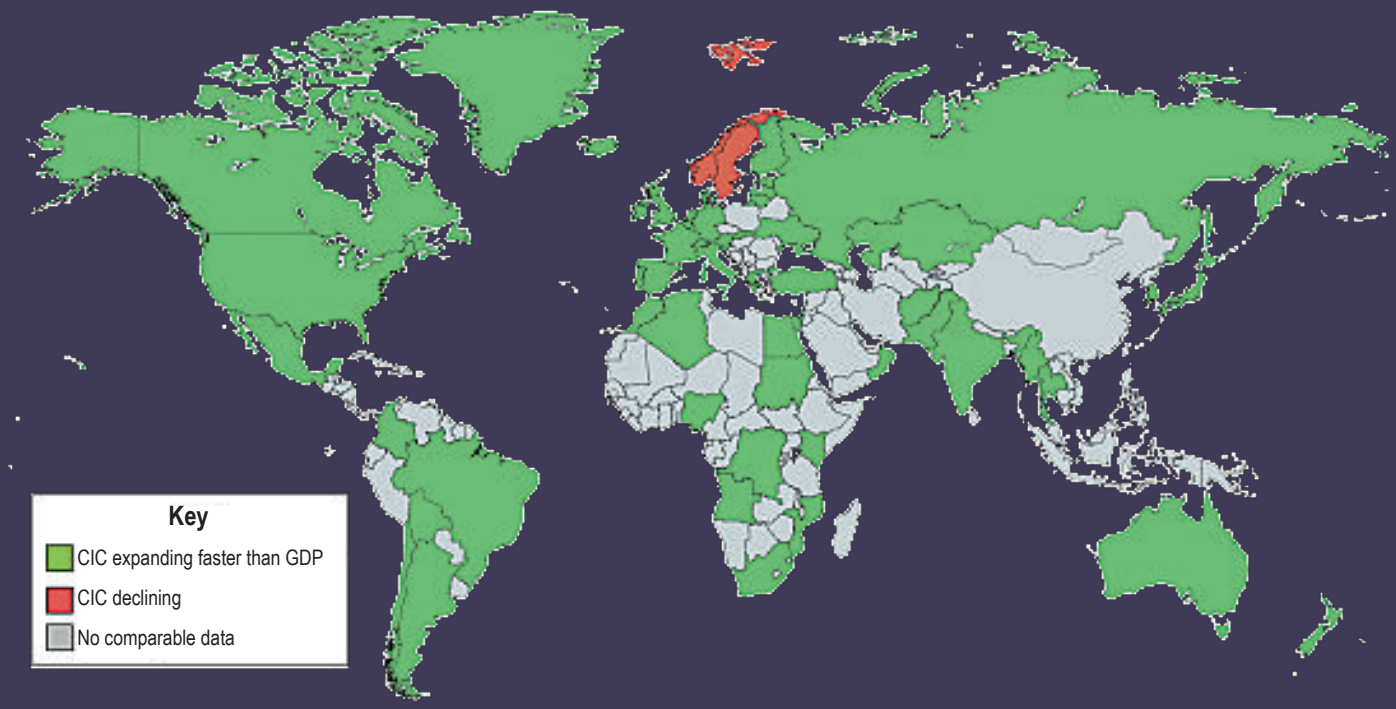

Much of the world's currency in circulation (CIC) increased in relation to GDP over the last 10 years, as indicated by green zones on the map. *Image from IMF, John WIlliams, and Claire Wang of the San Fransisco Federal Reserve.*

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interest rates. If this were allowed to happen, argues Clark, savers would be made to quite literally pay the price each time a financial crisis rears its head – a crisis they played no part in creating.

Fortunately for the frugal, cash appears to show no signs of dying out – as published in two November 2017 reports by the Federal Reserve Bank of San Francisco. The first of these reports, *Reports of the Death of Cash are Greatly Exaggerated*, shows that barring Sweden and Norway, currency in circulation grew in relation to GDP in much of the world over the past 10 years. In a separate report, data from the Federal Reserve's Diary of Consumer Payment Choice (DCPC) indicate that cash remains the top payment instrument by transaction volume, with wide usage across age groups and income levels. The report also notes that demand for US notes is growing, particularly for high value denominations. The Federal Reserve concludes that cash remains resilient due to its appeal across demographics and its dependability in times of crisis.

*Cash remains the **top payment instrument** by transaction volume, with wide usage **across age groups** and **income levels**.*

Further reading:

1. Ross Clark's article: *Politicians want to move us towards a cashless world. It would be a disaster*
2. Federal Reserve Bank of San Francisco: *Reports of the Death of Cash are Greatly Exaggerated*
3. Federal Reserve Bank of San Francisco: *Understanding Consumer Cash Use: Preliminary Findings from the 2016 Diary of Consumer Payment Choice*

INNOVATIVE SECURITY LEADERSHIP IN MALAYSIA - ATM INK PROTECTION AND THE IMPACT ON THE CASH MANAGEMENT INDUSTRY

Anthony McAndrew

In the journey from developing to developed economy the financial sector is faced with plenty of challenges; as the socio-economic landscape changes the legislators need to constantly revise their controls for the market. No area is perhaps more contentious, captures more press column inches and evokes stronger public emotion than those thrown up by crime-combating programmes.

It therefore requires both the vision to anticipate the necessary actions to be taken and no small degree of courage to see through the resultant plans, not least because criminality is so often unpredictable and the steps taken can often seem disproportionate when viewed as a snapshot.

The central bank of Malaysia, Bank Negara Malaysia (BNM), offers an interesting example of long-sighted policy-making with their policy on and steadfast commitment to ink staining protection, including the enforced introduction of the technology onto a percentage of all Self Service Terminals (SSTs) in the country by the end of 2019.

The exercise was originally launched by the publishing of BNMs Guidelines on Dye Stained Notes in 2013. This heralded the start of a lengthy consultation and proof of concept exercise with the commercial banking community, SST manufacturers, law enforcement bodies and the Cash in Transit providers.

This innovative step from the central bank was a proactive measure to combat a rise in physical ATM attacks, which become a concern for the regulating authority. The value of their far sightedness may have been

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As the country continues to develop, Malaysia faces quite a challenge in revising its legislative controls for the financial sector.

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proven by the reduction in ATM attacks even during the limited and lengthy trial period, from late 2015 to 2017.

Naturally there have been some problems and setbacks during the proof of concept trial phase but overall the results were adjudged to be sufficiently positive to enable BNM to mark 2017 as the start of the implementation phase of the programme, with a target of 5% of the nation's SSTs to be converted to Ink Bank Note Staining (IBNS) by year end. Another 10% are to be converted by the end of 2018 and a further 10% by the end of the following year.

Looking beyond the impact on crime, what lessons has this regulatory decision brought to bear for the industry participants?

Firstly, the value of consultation and review has been proven. There was an effective consultation period conducted by the central bank and the Association of Banks of Malaysia and involving all parties, including the CIT operators from early 2015 to 2016. Out of this came the final determination that IBNS would only be specified for in-machine protection. This was a critical decision, limiting investment demands and simplifying the task of implementation to the wider industry.

Secondly, with the early decision the extended trial potential ink-protection vendors have had time to showcase their products and a number of the larger banks and CIT companies have cut their teeth on the IBNS technologies without the pressure of high attack rates, increasing the chances of success after deployment.

Thirdly, the selection of IBNS providers does require careful and balanced assessment, and the international vendors need to understand the local requirements for their products. Each market has its own dynamics and influencing factors and in some cases these render the standard products inappropriate. Strong product development capability, proven manufacturing reliability, open-minded listening and commercial flexibility are essential characteristics of successful technology providers and partners. Providers who are short on any of these qualities can struggle to cope with the demands of the new market.

Finally, the challenge of funding for the SST operators (commercial banks in all but one case in Malaysia) is also a major shaper in the resultant adoption. Many SST operators have chosen to delay investment until the eleventh hour, and in some cases they have chosen to reduce machine estate size to limit their investment obligations. A few have sought out potential partners in countries willing to take over the duties of SST operational management, including the required investment although this is still proving to be a hopeful aspiration.

Clearly there has been a limit on the operators' willingness to comply with the initiative, and the central bank has recently found it appropriate to re-emphasise the mandatory nature of compliance. Further to this, new guidelines have been issued by the central bank to curb the noticeable reduction in ATMs within the country, whereby the operator must gain approval from the central bank before terminating any SST.

On reflection the reticence of the operators might have been anticipated and proactive controls could have been introduced to increase engagement and maintain momentum in the programme.

For the CIT enterprises the challenges of this initiative may feel familiar. Despite inclusion within the initial consultation process, the CIT providers have found themselves out in the cold when it comes to determining the end solution.

Given the SST operators' understandable reluctance to invest beyond the minimum, and their limited enthusiasm for meaningful technological engagement much of the responsibility for solution specification has been handed to the machine vendors.

To date the vendors, led by the industry giants NCR and Diebold-Nixdorf, have covered much ground in determining their IBNS partners, but the suitability of the solutions in question for CIT operational

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Ink staining protection: Notes with ink on their surface are devalued and cannot be used.

*The central bank of Malaysia, **Bank Negara Malaysia** (BNM), offers an interesting example of **long-sighted** policy-making with their policy on and steadfast commitment to **ink staining protection**...*

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models has not been high on their agendas. This has the potential to cause problems for the industry going forward.

Perhaps more concerning is the prioritisation of cost over technical capability and product history. The consequences of this could be substantial and time will tell if this leads to significant problems in the field. Unfortunately any issues of liability or consequential damages are likely to fall onto the CIT providers or SST manufacturers and a period of contract development is going to be critical for businesses going forward.

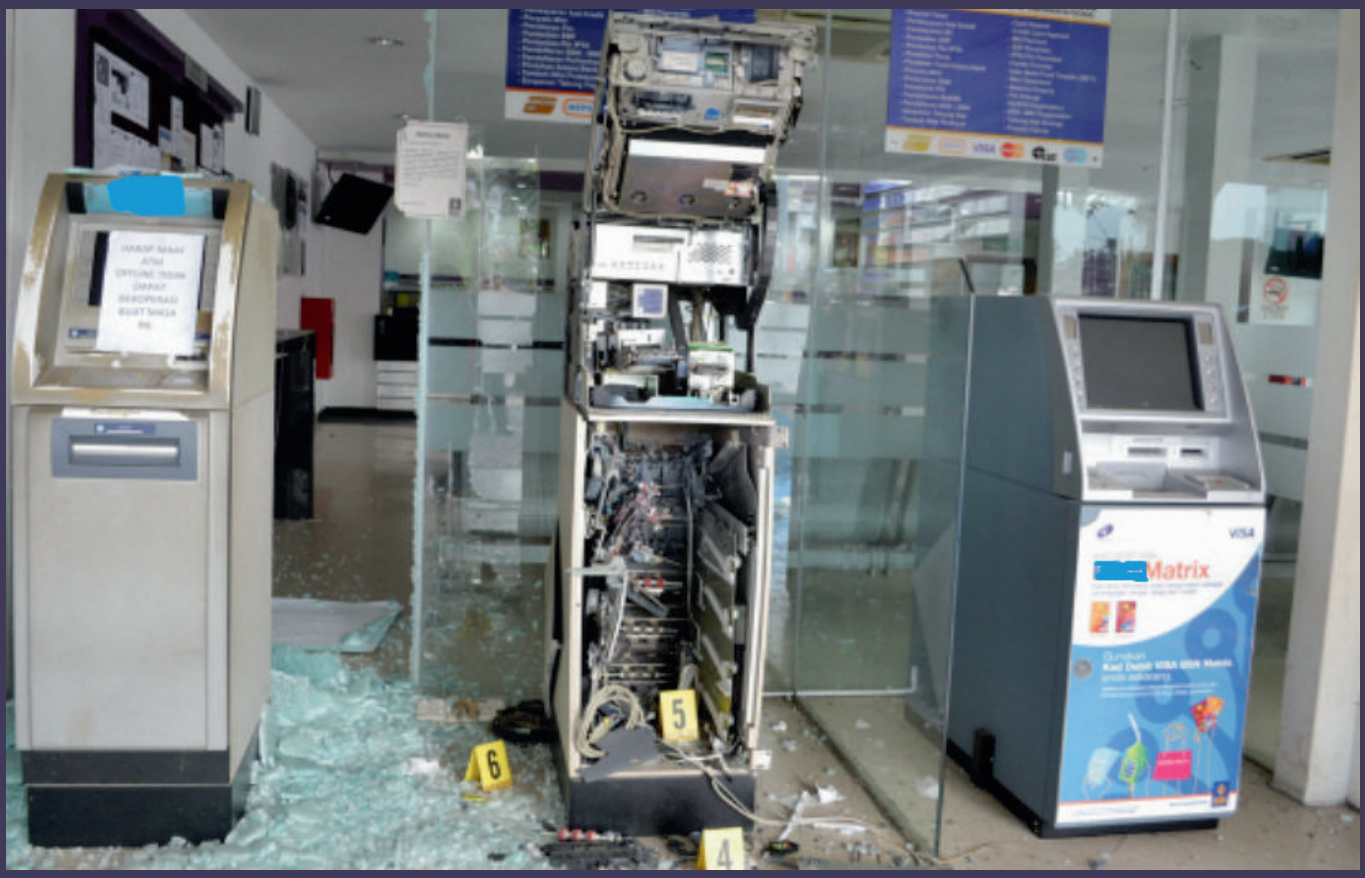
The challenge for the CIT industry is how to ensure their operations are geared up for the implementation of IBNS hardware and processes. Inevitably the introduction of more technology adds to the complexity of SST servicing, with failure to comply with associated specific processes ever more important. The danger of false activations destroying equipment and rendering cash value-less (although a process to recoup costs from the central bank has been defined) is a potentially expensive one for the CIT service provider.

The advice to CIT companies having to use IBNS technology would be to get involved in the consultation process at an early stage:

- Work with the IBNS suppliers on their products' operational requirements to ensure smooth management before widespread implementation.
- Develop your procedural amendments in time for testing, verification and, if required, modification so these can be communicated to the teams in a timely manner.
- Agree with vendors on a process for determining liabilities in the case of equipment failure, damage and/or false activations.
- Develop a robust training plan for your CIT teams to ensure they are all able to manage the technology as part of their daily norm. Listen to their feedback and bring in operational aids and equipment where necessary.
- Invest in material handling solutions to minimise damage to the hardware. It is highly probable that any costs incurred here will be more than offset by the avoidance of losses in failed performance post-implementation.

These proactive steps will not only reduce costs of damage and repair but improve your relationships with the vendors and SST operators, enhancing your reputation as a provider of expertise.

It is too early to say with certainty how successful the IBNS programme in Malaysia has been. The real evidence will only emerge in 2019 and beyond via crime statistics; however, in the meantime the positives achieved to date means that this could be the first step in a region-wide change in SST servicing.



ATM attacks using various destructive techniques have been increasing in Malaysia, leading BNM to pass new guidelines to the industry set forth in the regulations.

INDUSTRY APPOINTMENTS

Spinnaker International Enter the Southeast Asian Market

October 2017 saw an important milestone in the history of Spinnaker International Ltd, with the opening of its new Asia office in Kuala Lumpur together with the appointment of its new Regional Business Development Director, Anthony McAndrew.

Spinnaker International protect over 11,000 ATMs with ink-protection today worlwide.

Spinnaker claims to be the world's largest manufacturer of ink-stain protection systems, with over 50,000 devices successfully deployed in CIT and ATM operations in nearly 40 countries, across five continents. Today they protect over 11,500 ATMs worldwide, including NCR, Diebold and Wincor-Nixdorf devices with patented solutions that have successfully defended cash for thirty years.

Tony Westington, Managing Director of Spinnaker International said, "We are delighted to have made this investment in the company's long-term future in Asia. We were well served by our local distributor in the region previously but with ATM and Cash Security becoming a greater focus for central banks and policy makers in the region, now is the right time for us to establish a direct presence."

Anthony McAndrew joins forces with Spinnaker after twelve years' experience in the cash management industry, having led multi-national operations in the UK, Malaysia and Indonesia. "We believe that having a permanent presence in this region of the world will bring better levels of innovation, collaboration and service to our new customers here. Our new system a2m 180® has been developed with the needs of this region in mind."

If you would like more information on Spinnaker and their capabilities, please contact Anthony at anthony.mcandrew@spinnaker.co.uk or call him on +601 7328 2505.

ABOUT ACMA

Mission

To provide a platform for Cash Management Companies (CMCs) in Asia, Africa and Australia & Oceania to raise their professional reputation and standing in the Cash Handling and Cash Management Industry, and to act as a representative with the appropriate authorities on issues of common interest.

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