



# FINTECH AND THE HYPE

**Suren Rajakarier**

Partner, KPMG Sri Lanka

## 1) Introduction

FinTech is the term used to explain any technology applied to financial services sector. More interestingly, it's also used to highlight disruptive innovations in technology reshaping the financial services sector to improve customer experience, reduce costs and drive growth and profitability. Many disruptive innovations are reshaping banking, globally. Technology and consumer demand has enabled non-bank players to provide services that are affecting banks' traditional markets such as payment systems and peer-to-peer lending websites for cheap loans or savings returns. Smartphones have become mobile wallets, enabling them to be used for a variety of banking transactions. Mobile operators and supermarket chains are offering convenience with an array of services including e-cash and other financial services, to retain and expand their customer base at a lower cost. It is significant that the world's most successful money transferring service M-Pesa belongs to Vodafone, a telco and not a bank.

Investment in technology in the Sri Lankan financial services sector is mainly driven by small projects that are focused on reducing costs with greater short term benefits. Banks in Sri Lanka have not made large discretionary technology investments in order to have a system that will encompass changes arising from the anticipated consolidation of the financial services sector and other changes in regulation and accounting standards. However, certain strategic projects were implemented to have a multi-channel banking strategy with mobile and contactless payments, connect social media and also upgrade security to ensure cyber security.

Financial services in general and banking in particular have transformed multiple times over the past couple of decades. With innovation and technology as the backbone, innovation in products, processes, distribution, payments, and customer service have helped banks grow significantly and become more efficient.

- **Silicon Valley meets Main Street**

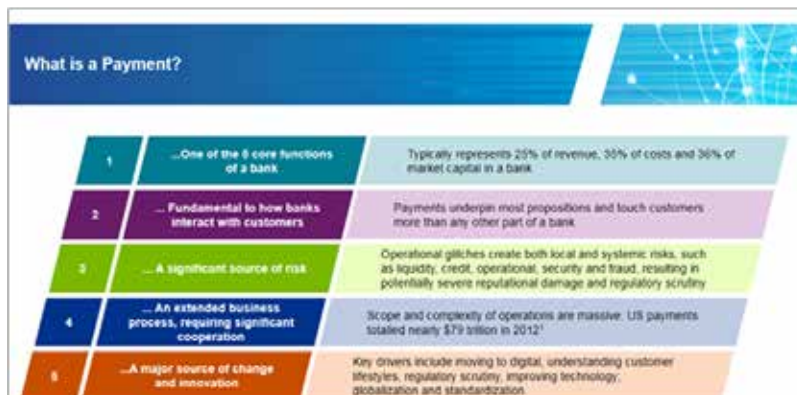
In this context, I was in the Silicon Valley at the KPMG Global Financial Services Conference in San Francisco, in May 2014 which focused heavily on the FinTech agenda – the convergence of technology and finance that is rapidly re-shaping the industry. The conference was wide-ranging: we had participation from six FinTech companies that are all looking to disrupt the industry in different ways, three plenary speakers with quite different views on the future of the industry and a panel of venture capitalists who are known for a different and refreshing perspective. Many of the trends written in this article stem from the discussions at the Conference and other insights collated from KPMG material.



There were three big themes that emerged from the conference:

- How the customer experience is changing in the digital age. There were two great examples of this disruption in action. **Upstart** has created a funding marketplace designed to provide people early in their careers with access to loans and capital. The money comes from private investors who can also provide career advice and support. **Prosper** is a more mainstream peer to peer lending marketplace – borrowers list loan requests between US\$2,000 and US\$35,000 and individual lenders invest as little as US\$25 in each loan listing they select. In addition to credit scores, ratings and histories, investors can consider borrowers’ personal loan descriptions, endorsements from friends and community affiliations.
- Technology as a driver for new business models and process improvement. One of the examples was, **InvestCloud** an innovative startup that is using the cloud and an application based model to deliver an end-to end investment management back-office solution. This in turn is allowing for new, low cost startups in the investment management industry which are competing effectively with the established players.
- How data and analytics are being harnessed to drive growth and profitability. The deliberations focused on the huge reserves of data held by the Financial Services industry. What has changed is the way that data can now be extracted and analysed. In addition there is a new ability to combine internal and external “big” data to enhance information and decision making. Advances in data access, the use of geo-spatial and unstructured data and data visualisation have all combined to give financial services companies a powerful new resource.

## 2) The payment system



Source: 2012 Federal Reserve Payments Study

Figure 1: Understanding Payments



The global payment trends indicate that significant growth is expected, not only in volume, but also in value between now and 2020. Significant growth is expected in cross border transactions and in the wholesale market. According to a KPMG analysis on World Payments (2010), revenue from global payments, including retail payments, was estimated at \$600 billion in 2010, and it's estimated to grow to \$1.6 trillion by 2020.

There is tremendous activity at the moment in the payments sector driven by advances in communications and associated technology. The current payments landscape is extremely dynamic and under constant pressure from regulators. Payment providers, both banks and non-banks, are racing to deliver innovative payment solutions to their customers across an evolving environment.

Some of the market drivers for the anticipated growth in this area are;

- \* Nontraditional competition
- \* Global payments growth
- \* Fraud, risk and identity management
- \* Payments convergence

Key drivers include moving to digital, understanding customer lifestyles, regulatory scrutiny, improving technology; globalization and standardization

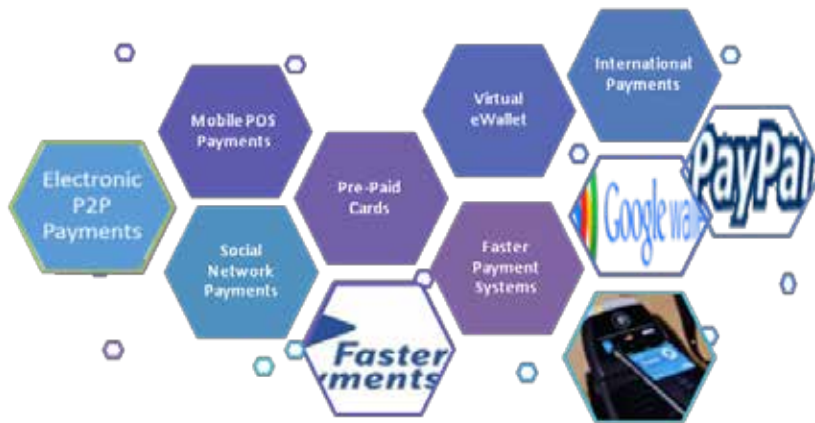


Figure 2: Emerging Environment

Much of the disruptive power of technology derives not from the ability to access new customers or deliver a better customer experience but rather from the potential to fundamentally re-think and re-design the basic operating model.



- **Mobile banking and payments**

Many consumers make the mistake of using these two terms, mobile banking and mobile payments, interchangeably. But there is a difference: Mobile banking refers to platforms that enable customers to access financial services (such as transfers, bill payments, balance information and investment options). Mobile payments, on the other hand, is generally defined as the process of using a hand-held device to pay for a product or service, either remotely or at a point-of-sale.

Many are trying to break into the space of mobile banking and payments as this offers the opportunity to gain market share, tap into new revenue streams and reduce the overall cost to serve customers. This large market is driven by the significant growth in mobile phones, around the world. Further, Smart Phones will surpass traditional mobile phones and drive the market for mobile banking and payments, sky-high.

Banks are often less keen and may often be seen as a barrier to mobile payments rather than an enabler. However, business models that allow cooperation between banks and telcos, with the telco managing the customer relationship but the bank managing the funds and risk, are gradually emerging.

The last few years have seen a growing number of initiatives in the payments sector, especially in mobile payments technology. The range and variety of current developments is extensive and potentially quite confusing. What is less certain is which, if any, of this multitude of initiatives will have the potential to penetrate mass markets and truly transform consumer behavior.

The shift towards easy payment modes as opposed to the use of cash has been occurring slowly but showing steady growth with the promotion of credit and debit cards in Sri Lanka. In advanced economies like in North America and Western Europe, the use of cheques has dwindled in favor of payment cards of various types. The indication in many parts of the world is that consumers would embrace simple-to-use, reliable, cash-free payments methods.

Merchants who use point-of-sale card terminals typically pay fees of 2-5 percent of gross sales value to credit card companies and acquirers for credit card use and a lower rate for debit card acceptance. This is a necessary cost for the card companies to provide the system backbone. Consumers are willing to pay this cost as it reduces the inconvenience of carrying cash and the risk of crime, but 2-5 percent is a high cost to bear. However, due to pressure exerted by advanced countries there is no doubt that cheaper payment alternatives would emerge very soon.

Card companies, perhaps the market participants most threatened by transformational payments technologies, have stronger interests than many in controlling the direction of innovation. Payment networks, card-issuing companies, payment processing companies and banks all face differing challenges and some may be more exposed than others.



As already stated, one of the major enablers for this market disruption, is technology. Two areas have proved especially significant. The first is near field communication (NFC). Earlier radio frequency identification (RFID) allowed enabled devices to operate as contactless payment methods. Though contactless smart cards have been in use, adoption was initially limited by unreliability and by the need for significant capital investment by retailers. NFC extends the technology by allowing higher capacity two-way communication between devices. These can function as contactless payment systems as before, but can also form the basis for more advanced and reliable systems. The second key enabler is the platform of advanced technologies now available in smartphones.

Some of the developments/opportunities in payments and mobile technology are;

- \* Near Field Communications (NFC) are becoming increasingly popular in Australia. MasterCard has mandated that merchant terminals be 100% NFC capable by 2014.
- \* East Asia has an estimated 240 million mobile banking users versus only 54 million mobile banking users in the US, and in 2017 it is estimated that the region will make up almost half of projected 1 billion global mobile banking users.
- \* Partnerships are forming between stake-holders across the mobile financial value chain- Google and Discover will launch a Google-branded credit card to integrate with Google Wallet to provide a plastic alternative when a merchant doesn't accept NFC mobile payments.
- \* The U.K. Payments Council launched PayM in April 2014, a mobile payments service that enables customers to securely send and receive payments using their registered mobile phone associated with their bank account without disclosing banking credentials.

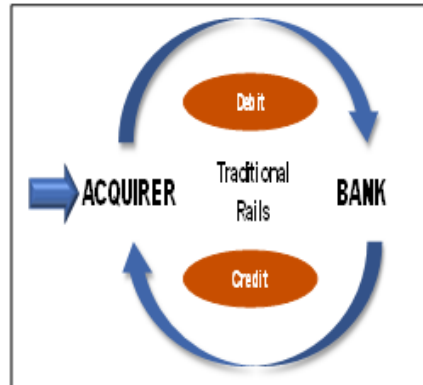
Customers are seeing a growing number of real-time, transaction specific payment and lending options at the point-of-sale. There is pressure on the standard "card-based" payment model to remain competitive as emerging payment options become more user-friendly. The payment options of tomorrow will emerge as partnerships between banks and payment innovators, as illustrated.



### Today

- Traditional debit or credit card payment options
- Processing over network rails
- Regulatory mandates increasing cost of network processing

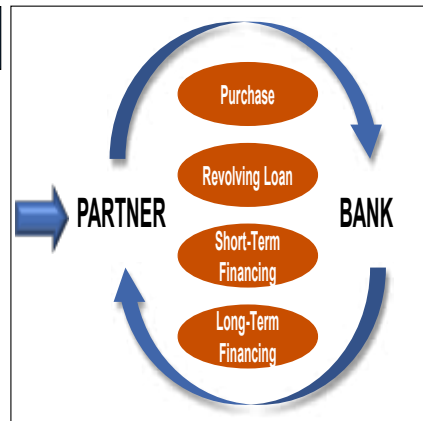
### Traditional Wallet



### Tomorrow

- Transaction specific payment and financing options
- Direct partnerships between banks and payment innovators
- Disintermediation of traditional payment network providers
- Cards become less relevant

### Digital Wallet



## Recent global developments

- **Barclays Pingit** allows holders of any current account in the UK to transfer and receive money using any Android or iOS device. Small business operators and traders can use Pingit to get paid instantly by customers. Consumers can transfer cash between friends and family members, split bills in restaurants and so on. Pingit uses the UK's Faster Payments Service, introduced to radically reduce transfer and clearing delays, so payments are effectively instantaneous as well as free. Barclays also hopes to attract new customers for its wider banking services.

- **New entrants** such as Moven (from Movencorp Inc. in the US) and Ontrees are also competing directly with the banks by offering a combination of mobile banking and payments services via smartphone. Ontrees integrates data from customer bank accounts and purchase transactions, allowing a variety of analyses, services and presentations of



financial information. Moven offers comparable benefits, combined with a payment infrastructure based on both debit card and RFID.

- **Point-of-sale** is traditionally the world of credit and debit card companies and acquirers. A number of retailers are introducing or have introduced new payment options based on mobile phone apps and NFC, including Starbucks in the US and Canada. In the UK, MasterCard recently announced a partnership with Weve (owned by Vodafone, Everything Everywhere (EE) and Telefónica UK (O2)) to develop a comprehensive contactless mobile payments system. However, the introduction of contactless NFC terminals has not been problem-free and there have been complaints over reliability and security.

- **Zapp:** Also in the UK, Vocalink, which already operates link, one of the largest ATM networks and provides the infrastructure for clearing services for credit transfers and Direct Debit is launching Zapp, which will allow retail customers to pay for purchases via a mobile application loaded on their smartphones.

- **Systems targeted at small businesses and sole entrepreneurs** include Square Register from Square, Inc1 in North America and iZettle, a Swedish company currently operating in a number of European and Latin American territories. Both solutions involve extending the range of existing payment card technology with the use of a card reader; this plugs into the audio jack of a smartphone and allows it to read either the magnetic stripe or the chip on the payment card and communicate with a payment provider. In 2013, iZettle formed a partnership with Santander. Intuit, who market the QuickBooks accounts software for small businesses in the UK and PayPal, eBay's global payments services provider, have both introduced similar services.

- **eBay acquisition of Braintree:** In September 2013, eBay acquired the payments provider Braintree, whose Venmo app supports payments by tablet and smartphone for US\$800 million. Braintree will operate within eBay's PayPal business, strengthening its capability in mobile systems. At the same time, the acquisition eliminates a rapidly growing competitor. As PayPal continues to explore NFC, the company is developing a virtual wallet and the ability to support peer-to-peer transactions.

Figure 3: Source-KPMG *Frontiers in Finance*/April 2014/ *Beyond the hype?*



Dialog Axiata PLC, in Sri Lanka provides a unique service of 'eZ Cash - Money in your Mobile' even if you don't have a bank account. eZ Cash enables to perform a wide array of financial transactions using a Dialog and Etisalat mobile phone. eZ Cash enables a Cash Account in your mobile phone which one can top-up and carry out a range of cash transactions direct from the mobile phone, including withdrawal of money from the eZ Cash account.

The significant range of current developments proves that many players are innovating to improve customer experience and gain economic advantage for their growth and survival. However, the markets simply may not support a large number of payments systems. Regulators, too, should increasingly drive consistency and standards to protect consumers.

The potential value of being in the payments market lies in control of the consumer interface and the access it provides: to customer and market data and the ability to target added value services, advertising and promotions directly to the customer at the right time in the right place. This explains why Google or Facebook would pay billions to have access to such data. In effect, payment data is more valuable than payment fees: payment transaction data can generate value for all of the participants in the payments value chain. Technology and applications that can exploit payments data, for example, in delivering assessments of payment information quality or customer and marketing analytics, can help develop marketing strategies and inform audience segmentation.

### 3) Mobile banking becoming mainstream

With the increase of smart phones and mobile users, banking mobile applications can be so disruptive that they could be in a position to authenticate an individual face, finger print and iris. Mobile applications will likely be integrated with core banking to enable signature verification, instantly. Around the world, banks of all sizes –both retail and commercial– are rapidly deploying an array of mobile banking solutions aimed at customer convenience and cost reduction. According to the UK's Department for International Development, more than 2.7 billion people in developing countries have no access to financial services. In addition, according to the same source, by 2012 there would have been 1.7 billion people who own a mobile phone but do not have a bank account.

Another trend that everyone is banking on is social media. Whether it is investors pushing up valuations for shares in social media sites, financial institutions investing in new social platforms or the launch and use of new social currencies. What is clear is that social media has gone from being seen as a disruptive technology to become a tool for innovation in financial services. The evidence of integrating social media into banking can be found right across the globe. Some, like **ICICIdirect** in India, are investing in social media 'games' to drive customer loyalty and financial literacy. Others, such as GTBank in Nigeria, have launched social media banking applications allowing customers to complete a range of core banking functions through their Facebook account.





Any emerging mobile technology has pros and cons in transforming it into a secure payment method, as described below;

Technology	Use	Pros	Cons
SMS text	Widespread in developing world, many alert applications and some payment options in developed world.	Can be used across platforms and carriers, smart and dumb phones, easy to use and fairly safe.	Not permitted in some regions, some security concerns, reduced functionality.
Mobile browser	Widespread in developed world, particularly within regional and second tier banks, mobile browsers connect mobile users to an augmented internet banking site.	Familiar to internet banking customers, simple integration with existing internet platforms, works across devices and MNOs.	Fairly common practice (no competitive advantage), takes a number of steps to log in, adaption to small screen not always done well.
Custom application	Gaining significant traction in the developed world, used for mobile banking, coupons, location based services.	Provides a rich user experience on a custom application, tends to be more secure and stable, retains loyalty and offers cross-selling opportunities.	Integration issues as customization required for each device, must be installed by customer, can be more expensive to deploy.

Figure 4: Mobile Banking Technologies

Source: KPMG/Monetizing Mobile/July 2011

Many banks already offer some form of mobile banking service. Hatton National Bank (HNB) launched the mobile POS branded as MOMO, in September 2013 to be used in the payment card acquisition space. This facilitates the use of credit and debit cards on the move with a feature to trigger a SMS to the customer confirming the transaction. It was also reported in the Annual Report of 2013, that HNB offers 4 mobile banking technologies in SMS, USSD, SmartApp and Browser.

Similarly, in 2013, the Commercial Bank of Ceylon (CBCL) also launched an iOS application that provides iPhone and iPad users the ability to access the Bank's online banking facility. The bank also introduced a USSD based mobile banking app for Dialog subscribers. The Bank also began to support mobile money products such as eZCash by Dialog and mCash by Mobitel, enabling subscribers to top up their mobile wallets.

Smart phone users are increasingly becoming comfortable using their devices for multiple tasks. Due to this, mobile banking will have widespread customer adoption. Most banks provide basic information services such as balance updates, payment alerts and account transfers, whilst, a number of banks have also started to incorporate remote mobile payment solutions as well.

As illustrated above, the drive towards mobile banking and payments can take many forms. The following scenarios summarized in the KPMG publication, after studies conducted



by KPMG International to develop a clearer picture of the mobile banking landscape, examine some of the impacts, benefits, challenges and customer considerations facing banks starting with basic mobile banking and progresses towards mobile payments at the POS.

	Basic mobile banking	Enhanced mobile banking and remote mobile payments	Mobile payments at the physical POS
Overview	The basic mobile banking market consists of financial institutions that are focused on developing and refining their mobile banking platform.	The enhanced mobile banking and remote payments market consists of players with mature mobile offerings, healthy adoption rates, and basic remote payment services.	The physical POS mobile payments marketplace is composed of traditional and non-traditional players vying for early market share of m-payment revenues.
Key features	Typically includes core service offerings such as account access, balance information and internal transfers and are usually on 1-2 technology platforms serviced by a vendor.	Typically consists of market leading mobile banking features such as mobile deposit capture, mobile capture and bill pay, enhanced enrollment features, and some remote payment offerings such as person to person (P2P) payments.	Features and functionality widely vary depending on the players involved and geography where the solution is being launched.
Benefits	<ul style="list-style-type: none"> <li>Enhanced reputation and customer service</li> <li>Reduced cost to serve (and therefore more flexible capital)</li> <li>Can be straightforward to deploy.</li> <li>Easily integrated into existing internet banking services</li> <li>Demonstrates innovation</li> <li>Creates a base comfort level for consumers using mobile devices</li> <li>Builds in-house experience and skills</li> </ul>	<ul style="list-style-type: none"> <li>Reduces cost to serve and increases available capital</li> <li>Streamlines processes and reduces manual intervention</li> <li>Builds in-house experience and skills</li> <li>Capitalizes on “first-to-market” opportunities</li> <li>Provides new revenue streams</li> </ul>	<ul style="list-style-type: none"> <li>Protects existing payments revenues</li> <li>Creates new revenue opportunities</li> <li>Responds to customer demands</li> </ul>
Customer impact	<ul style="list-style-type: none"> <li>Unfettered access to banking information and basic transactions</li> <li>Convenience and ease of use</li> <li>Integrated view of banking information and accounts</li> <li>Higher customer loyalty and stickiness.</li> </ul>	<ul style="list-style-type: none"> <li>Reduces branch and ATM visits</li> <li>Delivers increased flexibility to customers</li> <li>Builds comfort and acceptance of mobile payment solutions</li> <li>Acts as a stepping stone to contactless and proximity payments</li> </ul>	<ul style="list-style-type: none"> <li>Convenience and ease of use, particularly for low value payments</li> <li>Tighter security and privacy</li> <li>Replaces traditional wallet existing stored value accounts and electronic purse cards.</li> </ul>
Key considerations	<ul style="list-style-type: none"> <li>What is our mobile channel strategy?</li> <li>What is our mobile commerce strategy?</li> <li>What is our position on mobile payments?</li> <li>What are our current mobile banking capabilities?</li> </ul>	<ul style="list-style-type: none"> <li>Who is our mobile service vendor and are their capabilities sufficient?</li> <li>What are leading practices in mobile commerce?</li> <li>What should our mobile payments product look like?</li> <li>What should our revenue sharing model look like?</li> </ul>	<ul style="list-style-type: none"> <li>How should we plan for enhancements to our mobile platform?</li> <li>How should we rollout our mobile payments pilot?</li> <li>What are the estimated costs of the mobile payments initiative?</li> </ul>

Figure 5: Scenario Spectrum/ Source: KPMG Monetizing Mobile



- **Mobile banking innovations in Kenya**

M-Pesa (M for mobile, pesa is Swahili for money) is a mobile-phone based money transfer and micro financing service, launched in 2007 by Vodafone for Safaricom and Vodacom, the largest mobile network operators in Kenya and Tanzania. M-Pesa has become so popular in parts of Africa that it is now a virtual currency, offering a secure means of payment for people who do not have easy access to banking services. It is a branchless banking service designed to enable users to complete basic banking transactions without visiting a bank branch. A mobile phone text message is all that is needed to pay for everything from bills and schools fees to flights and fish, and means that the mobile phone can double as an office for the continent's smaller entrepreneurs.

It has since expanded to Afghanistan, South Africa, India and in 2014 to Eastern Europe. M-Pesa allows users with a national ID card or passport to deposit, withdraw, and transfer money easily with a mobile device. The initial concept of M-Pesa was to create a service which allowed microfinance borrowers to conveniently receive and repay loans using the network of Safaricom.

Google launched an electronic payment system **BebaPay** in Kenya, in competition with M-Pesa. The BebaPay card standardizes bus fares and provides riders with receipts, protecting them from unscrupulous conductors charging hiked up fares or not providing change. And it costs consumers next to nothing: the card is free and there are no transaction fees, although cell phone operators can charge to transfer money to the card.

Google has teamed up with Equity Bank, the Kenyan bank with the largest customer base on this initiative. The card uses Near Field Communication (NFC) technology, which means payment can take place offline even when there is no power or network connectivity.

On their Africa blog, Google has already announced that they will roll out BebaPay beyond the transportation system, and into shops and small businesses. The free BebaPay app will turn any NFC-enabled Android phone into a card reader. Google also plans to take BebaPay to other African countries.

#### **4) Faster payments system**

Real-time, digital and point-to-point technologies have emerged as transformational forces. Faster payments will continue to move the banking industry into the 21st century. Multiple countries have mandated real-time payments, and global interest continues to grow. Banks will need to prepare a strategy to ensure they are not marginalized by non-traditional players that are looking to capitalize on first mover advantage.

Many retail businesses, telcos and other issuers of prepaid cards and accounts offer discounts to customers using these payment methods; this means that many customers can get better deals this way than by keeping money in a deposit account. In other words these



retailer-owned balances actually represent a better return on capital for many users than bank accounts. Whereas banks do not provide visibility of the value date to the customer and hence earns through delayed transfers. Faster payments (for example, the UK's near-real-time service) do not mean that all payments take place earlier; since the payer retains control of the value-date, some will take place earlier and others later.

While corporate customers have for some time sought the ability to 'track and trace' payments, consumers initiating transactions online or by mobile phone increasingly want a clear view of the process as well. They would like to see the payment leave their account and arrive at the payee's account. Real-time notifications are as important as real-time payments, and opacity is no longer acceptable; if the bank earns three days' interest on the balance being transferred, then – in response to consumer demand – many regulators now say it must identify that charge.

- **Faster Payments Service (FPS)**

It's a UK banking initiative to reduce payment times between different banks' customer accounts from three working days using the long-established BACS system, to a few hours. CHAPS already provides limited faster-than-BACS service (by close of business that day) for 'high value' transactions, while FPS is focused on the much larger number of payments of smaller values (the actual limits depend on the individual banks, with some allowing Faster Payments up to the value £100,000).

## 5) Bitcoin

Bitcoin is the world's most widely used alternative currency with a total market cap of approximately US\$5.5 billion. It is a software-based online payment system and was introduced as open-source software in 2009. Payments are recorded in a public ledger using its own unit of account, which is also called 'Bitcoin'. Payments work peer-to-peer without a central repository or single administrator, which has led the US Treasury to call bitcoin a decentralized virtual currency.

Bitcoins are created as a reward for payment processing work in which users offer their computing power to verify and record payments into the public ledger. Called mining, individuals or companies engage in this activity in exchange for transaction fees and newly created bitcoins. Besides mining, bitcoins can be obtained in exchange for fiat money (Fiat money is currency which derives its value from government regulation or law. It differs from commodity money), products, and services. Users can send and receive bitcoins electronically for an optional transaction fee using wallet software on a personal computer, mobile device, or a web application.

**Coinbase** is a Bitcoin exchange headquartered in San Francisco California. It is an international digital wallet that allows one to securely buy, use, and accept bitcoin currency.



An individual needs to sign up for a Coinbase account. This will give a secure place to store bitcoin, and easy payment methods to convert the local currency into or out of bitcoin. There are many Coinbase apps available and few are highlighted below:



Source: Coinbase apps: <https://coinbase.com/apps>

## 6) Changing customer experience - online direct consumer lending

The idea of peer-to-peer lending, which uses the Internet to eliminate the banks between borrowers and lenders, has been gaining popularity due to the lower rates for borrowers and higher returns for lenders. In America, the two largest P2P lenders, Lending Club and Prosper, dominate with over 95% of the market.

**Lending Club**, is the world's largest peer-to-peer lending platform. As of June 2014, the platform has originated over 5 billion USD in loans. It's hard to dismiss the concept of 'crowdfunding' after you see the impressive growth of the Lending Club platform. Lending Club operates an online lending platform that enables borrowers to obtain a loan, and investors to purchase notes backed by payments made on loans.

Rapidly growing Lending Club is a prime example of a FinTech initiative that is beginning to transform the financial sector from the ground up. As the largest peer-to-peer lending platform in the world, Lending Club attracts private investors to lend directly to individuals and small



business. With technology that helps it better assess credit risk and service loans more efficiently than traditional banks, the company offers lower rates and higher returns for investors. In fact, a growing number of U.S. banks now invest in loans through the platform instead of originating, issuing and servicing the loans themselves.

**Prosper**, which is a FinTech company, makes its money through charging an origination fee of approximately 1-5% as well as a service fee of 1% of the outstanding balance. The company does not carry any credit risk. The company offers a credit risk assessment, using an iterative scoring model, on each of their borrowers obtaining approximately 500 pieces of data. Following all the FDIC rules, Prosper grants each borrower a unique credit score and offers them personalized terms. Half of the loans are fully funded in 2 days.

**Upstart**, a crowd funding platform and the future of “pre-seed” funding. The idea behind Upstart is to identify prime borrowers who have just entered into the workforce with very promising career paths, but have yet to build a credit history and hence are deemed by traditional credit checking models as “high risk”. Upstart offers traditional loans as well as income share agreements, where repayments are based on actual earnings. The company aims to target these select group of individuals and get entrenched early into the borrower life cycle – to prove it is a superior alternative form of financing compared with traditional banks as well as platforms. Upstart uses existing credit and salary data, in addition to education-related variables to predict earning potential, employability and thus propensity to repay a loan.

**Investcloud**, a design and software engineering company, specializes in SaaS and BPaaS solutions for the financial industry. The company uses the cloud and an application based model to deliver an end-to-end investment management back-office solution. This in turn is allowing for new, low cost startups in the Investment Management industry which are competing effectively with the established players. The company’s platform supports hedge funds, wealth managers, family offices, prime brokers, fund administrator, custodians, asset manager, and fund of funds

Whilst the above are lending options available using the internet, there is another relatively new concept called Crowdsourcing being introduced by banks. This concept is very well accepted in other consumer-focused sectors like retail, telecoms and healthcare. Essentially, crowdsourcing is where organizations use social media tools to build a collaborative ‘crowd’ that they can tap into for any number of reasons. Some, like the Commonwealth Bank of Australia or Sberbank of Russia, already use crowdsourcing approaches to encourage their customers to propose new ideas and products, exchange opinions and vote on other customers’ new ideas.



## 7) Technology as a source of risk

Historically, IT risk has been managed by the IT manager in his little IT division. As we can see from the above innovations, now more than ever before, technology is widely used to mediate relationships with customers and counterparties and to communicate instantly and across the globe. The consequence of such extensive reliance on technology is that weaknesses in systems and processes have become potentially much more serious, with more profound impacts. Also, the potential risk for systemic errors to be introduced and not be recognized is high. Any such failures can damage confidence and threaten brand value. Therefore, technology risk has become a major component of operational risk and is a growing focus of concern for senior management and regulators alike.

In recent times, the focus has been redirected to taking data risk out of the control of IT divisions and integrating it into an enterprise-wide risk management framework. Operational risk (including IT risk) must truly become the 'third leg' of the risk stool alongside credit risk and market risk. As a result, it is now increasingly understood that IT risk is too important to be left solely to IT people. It is also important that the business line be an integral part of any technology related project, as they're the end user.

## 8) Will FinTech transcend hype?

The above innovations raise the question: Will large groups of consumers switch to new technologies and a new way of transacting business? Whether we like it or not smart phones will unseat computers as the preferred method for accessing the internet, soon. Consumers are becoming increasingly comfortable with using their mobile devices to support highly secure and mission-critical tasks. The tech savvy Generation Y segment will drive innovations for financial services due to their ascendance and acceptance of mobile technology.

In addition to all the above disruption caused by innovative technologies, another group of innovative banks are leveraging social media to create competitive advantages. It's not a question for banks whether they should invest in social media or not, but rather how they can use social media to improve customer experience.

However, a word of caution: tread carefully with effective risk management practices and techniques in place. Banks should be in a position to overcome the limitations of traditional risk management practices in identifying systemic risks arising from this new norms, not to mention cyber terrorism, money laundering with virtual currencies or mobile payment systems, etc. To do this requires the active consideration and modelling of systemic risks, as well as their reporting to risk committees and boards.

In short, FinTech will show enormous growth potential and redefine the future of financial services and the winners will be those who embrace disruptive technologies in true understanding of stakeholder requirement rather than those who adopt an incremental approach.



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Websites: Bitcoin, Coinbase, M-Pesa, Bebapay.