

Digital Transformation in Banking is No Longer an Option

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Digital = Online Banking?

The terminology “Digital Banking” cropped up in recent years after the likes of “Cloud Computing”, “Big Data”, and “Social Media”. While there are generally accepted definitions for online, internet or e-banking, “digital banking” appears to mean different things depending on which source you consult.

According to the Oxford Dictionary of English, it defines internet banking as “*A method of banking in which the customer conducts transactions electronically via the Internet*”. From a legal perspective, the US has enacted various form of legislation following the proliferation of electronic banking; e.g. the Electronic Funds Transfer Act, 15 U.S.C.A. §§ 1693a et seq., protects consumers against unauthorized electronic funds transfer while the Gramm-Leach-Bliley Financial Modernization Act, PL 106-102 (S 900) November 12, 1999 focused on fees disclosure by banks for offering electronic banking services.

However, “digital banking” or “digital bank” has not acquired similar level of general acceptance nor legal status partly because of its “newest” and non-consensus on the wide ranging interpretations offered by various players. For instance, Chris Skinner’s view of a digital bank¹ is one that no longer relies on branches and channels as the core of banking businesses but McKinsey² noted that European retail banks tend to have a more narrow view of digital bank’s offering; more often associated with stand-alone front-end features such as mobile applications or online product-comparison charts.

So what is digital banking and how would digitalisation affect banking?

Bits and Bytes

Some 30 years ago, John Reed, ex-CEO/Chair of Citibank (1984 – 1988) described “*banking is just bits and bytes*” and this is not an understatement of what banking is really about. For instance, when we send a telegraphic transfer to an account overseas, no real cash exchange actually takes place but the electronic book settlement occurred between the nostro account held by the foreign bank and the vostro account of our bank.

If we examine banking from another perspective and breakdown the types of key services that banks performed, bank is essentially a manufacturer of products, a processor of transactions and a retailer/distributor of services – not much different from a number of other service organisations. Traditionally, banks were able to perform these functions not always in the most efficient manner because of exclusivity (banking licence) and strict code of bank-customer relationship (confidentiality).

With the advent of internet, uptake in smart phones and social media happening at lighting speed across different regions in the world, the status quo of regulated and protected environment for banks have changed over the years. One of the most documented areas is how the payment turf of banks has been eroded progressively by the emergence of payment services intermediaries such as PayPal, Google Wallet, etc. Non-bank providers now handle >15% of all payments worldwide, up from almost zero 10 years ago and this trend is accelerating across the globe; e.g. in Europe, non-banks payment accounted for 8% in 2013 up from 6% in 2010³.

Since most banking transactions nowadays involve some form of digitalisation; especially the movement of funds across banks and countries, the threat from virtual currencies is becoming imminent. In the case of Bitcoins, it is estimated that since its introduction in 2008, there are about 11.8 million bitcoins in circulation with a capitalization of US \$1.6 Billion⁴. Although minuscule in comparison with any major country financial system, the popularity of virtual currencies stemmed from banks’ own doing. High transaction and exchange fee, corresponding banks’ charges, taxes and payment delays (typically a minimum of 3 working days for a telegraphic transfer to be effected), etc have resulted in drivers promoting the creation, adoption and utilization of virtual currencies.

Other than payment services intermediaries, virtual currencies, banks are also facing another area of abnormality arising from digitalisation of other industries. In the past, besides central governments and libraries, banks are amongst those organisations that generate the most data in digital format but this has changed with the arrival of search engines and social media platforms.

How much data is actually generated every day on the internet?

There is no absolute answer but according to IBM, we create 2.5 quintillion bytes of data (this cardinal number equals 10^{18} in the US and 10^{30} in UK) every day⁵ and 90% of the data in the world today has been created in the last two years alone. Sources of data include posts to social media sites, digital pictures and videos, purchase transaction records, cell phone GPS signals, etc. Other sources give us different insight on some big numbers generated each day by some large online companies; PayPal processes some 9.3 million payment transactions⁶, Facebook takes in about 350 million uploaded images from its users⁷ and on a typical day 500 million tweets⁸ or 5,700 TPS (tweets per second). If we consider YouTube's 4 billion views per day and 50 billion WhatsApp messages per day⁹; the amount of digital information processed by banks pale in comparison.

If banking is just bits and bytes, then banks are missing out in this digitalised economy where social information about its customers, their preferences, decision making drivers, social connectors, ability to influence buying decision of friends, family members, customers, etc are already outside the domain and control of banks.

Transforming the Bank

There are numerous papers and survey reports on the changing trends in customer behaviour with respect to channel preference (branches vs. e-channels) and statistics on branch closure trends in recent years especially in the UK and the US. Obviously, all these documents point to the emergence of the e-savvy customers (Y-generation) preferring the use of mobile devices over branch visit and how banks could improve their bottom-line through branch rationalisation and closure.

While these reports are useful in providing possible insights into the future and changing trends in the market place, it is prudent to remind that banks are not created equal and there is no homogeneity in their customer base. In the UK for instance, while banks are pursuing branch consolidation strategies in general, such move is not well received in some communities and by certain customer segment¹⁰. This is despite the fact that UK as a country has the highest mobile subscription per 100 people (124) in 2013¹¹ compared to Japan (119), South Korea (111), Australia (107), France (98) and the US (96). To reinforce this point, UK has also one of the highest Internet User per 100 people of 89.8 in 2013 trailing behind Finland's 91.5¹².

But this is not to say that banks should not embark on their transformation journey but on the contrary should critically review its banking business with respect to the current and future value generation from its existing distribution network and opportunities presented from new digital medium. These review should examine how their customers profile are changing bearing in mind that over-emphasis on a particular emerging segment may not be always be the most appropriate approach unless it is a deliberate attempt to transform the bank.

Some industry practitioners advocate that bite-size changes don't often yield meaningful outcome compared with big-bang transformation but there are major challenges for this approach for some banks. The immediate hurdle faced by these banks would be how to transform its large branch network and a pool of resources that are efficiently trained over the years to use branches as the core of sales fulfillment complemented by e-channels for service delivery. Beyond changes in technology, products, processes, there are critical activities to prepare the staff on new mindset and training to help them adapt and thrive in the digital economy.

At real-estate level, developing transition plan for premises with long leases or that are owned by the banks and in the areas of risk management, the ability to identify, categorise, evaluate and manage new sources of risks presented through the integration of social media activities with banking transactions. These "new" services and transactions often involve the use of customer-owned devices where the banks

have no control over, involvement of 3rd party data and/or applications that typically entail the co-creation of products or services with customers' inputs in real-time or near real-time interactions.

Digitalisation of the bank cannot avoid the involvement and utilization of Big Data to acquire better and deeper analysis of the customers' needs and behaviour but much of these social media related data exist outside the bank so the issue is how to acquire these data feeds while ensuring data integrity, data security, privacy and confidentiality of customer information. For some customer segments including retail and the micro and smaller of the Small Medium Enterprise (SME) groups, helping them to progressively embrace the uptake of digital banking.

Many banks have shown their adaptation to the disruptions and disintermediation brought about by the internet and mobile technology and likewise, the ability to co-exist with non-bank players in electronic and mobile payments. Digital transformation of banking is a necessity and the forward looking banks understand the mammoth task ahead with an ever-shrinking timeline to re-invent themselves so that they remain competitive, innovative and relevant to their customers.

Notes:

¹ Chris Skinner, *Digital Bank: Strategies to launch or become a digital bank*, Marshall Cavendish Business, 2014

² McKinsey & Company, *The Rise of the Digital Bank*, Jul 2014:

http://www.mckinsey.com/insights/business_technology/the_rise_of_the_digital_bank

³ Deutsche Bank, DB Research: *The Future of (mobile) Payments*: http://www.dbresearch.com/PROD/DBR_INTERNET_EN-PROD/PROD0000000000298950/The+future+of+%28mobile%29+payments%3A+New+%28online%29+players+competing+with+banks.pdf

⁴ Money 3.0: *How Bitcoins May Change the Global Economy*:

<http://news.nationalgeographic.com/news/2013/10/131014-bitcoins-silk-road-virtual-currencies-internet-money/>

⁵ IBM: *What is Big Data*: <http://www-01.ibm.com/software/data/bigdata/what-is-big-data.html>

⁶ PayPal: <https://www.paypal-media.com/about>

⁷ Facebook Users are uploading 350 million new photos each day: <http://www.businessinsider.com/facebook-350-million-photos-each-day-2013-9?IR=T&>

⁸ Tweeter: <https://blog.twitter.com/2013/new-tweets-per-second-record-and-how>

⁹ WhatsApp sees 50 billion messages per day, more than all SMS combined: <http://www.tweaktown.com/news/34968/whatsapp-sees-50-billion-messages-per-day-more-than-all-sms-combined/index.html>

¹⁰ This is Money: 27 May 2014: <http://www.thisismoney.co.uk/money/saving/article-2638163/Barclays-We-dont-target-closures-You-say-villagers.html>

¹¹ World Bank Data, *Mobile Phone Subscription Per 100 People*: <http://data.worldbank.org/indicator/IT.NET.USER.P2>

¹² World Bank Data, *Internet Users Per 100 People*: <http://data.worldbank.org/indicator/IT.NET.USER.P2>

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