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## Building Tomorrow's Bank

### Predictions for 2012 and Beyond

Chris Skinner  
Chairman  
Financial Services Club

### Anytime Anywhere Secure Digital Currency

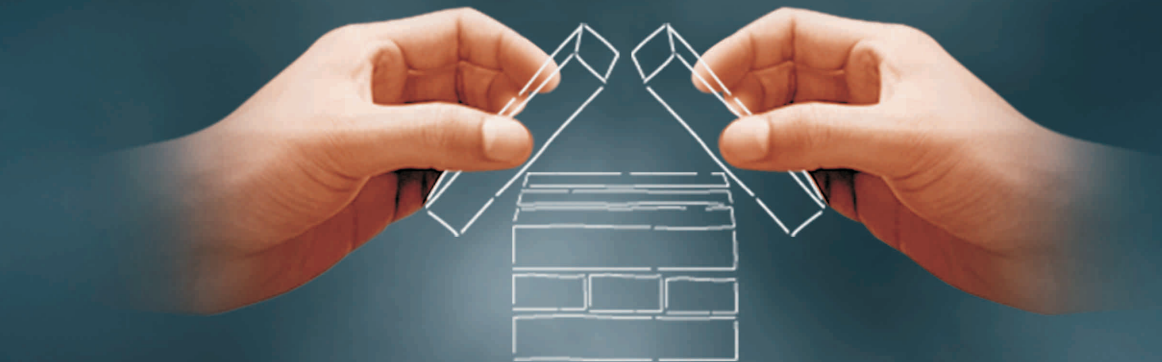
Donald Norman  
Co-founder  
Bitcoin Consultancy Ltd.

### Building Customer Engagement in the Bank of Tomorrow

Juan Carlos Mora  
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### Taming the Beast: The Role of Technology in Sanctions Compliance

Rob Green  
Chief Risk Officer  
Global Transactional Services  
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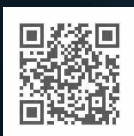
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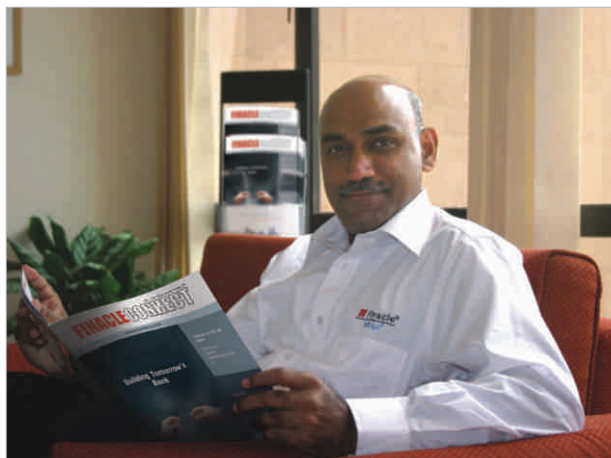
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Tomorrow. Which other word can evoke polar opposites the way this one can – the passage of one day and the birth of another; uncertainty and hope; a future that's upon us, or in the world of Scarlett O'Hara, a time that from today's vantage point, appears blissfully distant...

So, it is to be expected that emotions will run high, and perspectives will differ, when the talk turns to **Building Tomorrow's Bank**, the theme of this New Year edition of FinacleConnect.

Our **Cover Story** makes an impassioned case for accelerated growth into the banking future on the strength of a cohesive strategy for innovation and its implementation. Read about how the forces of consumerism driven sales, high regulation and new competition will pose both challenges and opportunities to tomorrow's banks.

**In Focus** talks about the need for tomorrow's banks to fully leverage their data resources. Author and financial commentator Chris Skinner predicts that in 2012, banks will add digitization to mobile and PFM, their top to do

items from last year, while in his piece in **Statute**, Gerald Ashley references the 90 year old Knightian Uncertainty theory in the context of tomorrow's risk intelligent bank.

Whom will they serve? This is the question that The **Big Bet and Stratagem** both tackle, as they analyze different aspects of tomorrow's banking customers and what it might take to win them over. Consequently, the banks of the future will face many new dilemmas – such as whether to put value above valuation, or growth before sustainability, and what to make of the social networking phenomenon – in addition to all of their current challenges.

**Inside Talk** features a set of interviews that throw light upon current and future innovation initiatives, from Bank Inter's iris recognizing smartphone app and SWIFT's 'Innotribe' idea generation program to crypto currency, which is not science fiction, but rather a secure digital currency of exchange that is in concept stage today but may well be in circulation tomorrow.

Building the collaborative enterprise – a new kind of organization that harnesses the knowledge of diverse specialists – is the subject of the current **People Perspective** feature.

We hope that you will find something engaging, something inspiring, and even something provocative in this collection of viewpoints. And that you will write in to let us know.

Until next time, happy reading!

**Haragopal. M.**

Global Head – Finacle  
Infosys



## Customer Analytics – The Hidden Advantage

### Précis

The paradox that banks face today can be summarized in a famous quote by Rutherford D. Roger – “We are drowning in information and starving for knowledge”. Banks today generate tera bytes of data every day. It seems a daunting task to even attempt to measure this data. But the truth remains that banking institutions are sitting on an almost unlimited treasure of data, and sadly, most of it lies unused.

Not that analytics is a stranger to banking. But in today's tough and competitive banking environment, the premium on customer insight is rising as banks become acutely aware that what they do with their data could impact the future of their business. And it seems that they are acting on that realization by investing in technologies that will help them extract value from their data resources.

In the year 2015, global spending on retail banking technology is expected to cross US\$ 130 billion. Banks will spend this money on technologies required in their branches, on online and mobile banking, and also on applications that improve efficiency, sales and service, such as analytics and business intelligence.

### Customer analytics and engagement

Acquiring and retaining customers through positive engagement is a top priority for banks, which go about it in many ways. Launching new products and promotions to lure prospects,

enhancing distribution to reach new markets, improving customer experience by providing online tools, self - service options and additional support over a range of channels, and introducing innovative models of banking are but some examples.

The efficacy of each of these actions can be improved with the right customer insight. For instance, knowing the product preferences and buying behavior of different segments can help banks target new launches at only those prospects or customers to whom they are relevant. Information about customers' channel usage indicates how they may be reached.



Feedback from customers, when mined, could yield rich insights into which services work and what causes them the greatest pain. Since the service desk is often the first to receive a signal that something may be wrong, it is critical to listen what is stated as well as unstated in those conversations, to have a chance of remedying the situation before customers start to leave.

A comprehensive framework is required to process the structured and unstructured data available across various touch points to derive intelligent and actionable insights, which can be leveraged to devise strategies for customer acquisition, retention and engagement. For example, they can use the attrition scores computed by the analytics solution to predict overall churn and identify customers who are likely to leave. Or, by means of customer profitability analysis, they can assess how different customers are contributing to profit at present, and whether they will continue to do so as they progress through various lifecycle stage.

The ultimate objective of customer intelligence is to be customer aware and offer products and services that perfectly suit their needs while ensuring their investments are safe. In turn, it will help banks create satisfied customers who will advocate the banks' products and services to those within their sphere of influence.

#### **The current state of customer analytics...**

Customer analytics has evolved to reach a state where it can process huge volume of both structured and unstructured data, slicing and dicing it to arrive at some analysis, such as behavior pattern by segment or level of customer satisfaction. Typically, the solutions leverage tools and statistical techniques to generate various reports. However, automation is restricted by the absence of intelligent business rules and banks have to depend on analytics specialists to draw inferences from the reports and convert them into actionable insight.

Also, analytics is mostly applied during

specific situations, such as when onboarding and servicing customers, or while attempting to cross-sell. Currently, usage is determined by the banks' strategies and priorities, rather than from a customer point of view. A comprehensive view of customer information along with customer's online and social behavior across all distribution channels is the need of the hour.

#### **...and that in the future**

Clearly, there is a need for a shift in priorities. Customer analytics solutions must be better aligned with customer's need and expectation, not just at discrete points, but rather, at every stage of the customer lifecycle. Analytics must progress beyond measurement and reporting to intelligent and accurate forecasting. Indeed, an emerging line of thought advocates that analytics must grow even beyond these roles to participate in planning and decision making. Customer Intelligence Solutions that analyze the history, behavior, preferences and needs and predict the future behavior and needs for the customers are gaining momentum in banking and financial services industry.

#### **The role of analytics in the customer lifecycle**

Going forward, banks need to raise the intensity of their usage of analytics by deploying it at every stage of the customer lifecycle, starting with the discovery stage, followed by acquisition and engagement, right through till empowerment.

How can analytics be deployed as well as mapped to customer needs at each stage?

In the discovery phase, when customers are still exploring, analysis of search behavior, pattern of queries and social media expression can give banks an indication of what customers may be looking for. By using this insight to segment prospects, banks can identify and target the prime ones among them. This would result in better demand generation and lead management.

Similarly, even customers who have been acquired must be monitored for unmet

demands, for it is quite possible that some of them may have chosen a product that closely approximates their need, because nothing more suitable was available. This information must be “filed away” for use at a later date when the banks are able to satisfy those needs. Also, knowledge of the general preferences and personalization needs of customers at the time of onboarding can be used to devise the appropriate marketing mix to target them with.

Once customers start using a few products and services, the goal of the bank should be to bind their customer loyalty with right-selling propositions, contextual offers and continuous improvement in service. Banks must close the loop by informing customers of the actions taken in response to the feedback received through surveys, polls or regular channel and social media interaction. Various techniques, such as Churn Modeling, Survival Analysis, and Customer Life Time Value and Profitability Analyses can help banks defend against customer attrition and devise loyalty strategies and reward programs to improve retention.

In the final, empowerment stage of the customer lifecycle, analytics can be deployed to enable and add value to customers by giving them information that they can use to influence others.

## **The hidden advantage**

In recent years, the scope of customer analytics has undergone considerable expansion, marking its progress towards becoming a predictive tool. In the past, customer analytics would mainly measure and analyze data to create an output that decision makers could use for future improvement; now, its role is to drive customer engagement.

An integrated approach combining the analyzed information of the customer from channel analytics, behavioral analytics, social analytics, fraud analytics and risk analytics, would provide banks with intelligent insights. This integrated approach, also known as

“layered analytics” is here and now of customer analytics.

A holistic view of the customer information, analyzed in multiple-dimensions, enhances the predictability of the customer. Contextual information of the customer captured during his/her interaction with branch or any self-service channel analyzed along with the historical information available with the bank, acts as a catalyst in deriving intelligent insights of the customer.

Layered analytics presents the 360 degree view of customer information along with analyzed data, which can be used to enhance predictive analytics. While right selling and proactive servicing are some of the benefits of customer analytics, the key is in keeping the customer information and their investments safe and empowering them to manage their finances better for higher returns. Financial advisors can use the analyzed information to project investment plans for the customer, while ensuring that the customer's account is safe and protected against financial fraud.

Customer analytics applied to social banking can prove beneficial to financial institutions. A group of customers discussing real estate may be targets for home loan. Additional KYC checks could be carried out for a prospect, belonging to a social group having many loan defaulters before approving a loan.

Predicting the customer segment base and their behavior, transaction volumes, attrition rates, and retention rates help in predicting the growth potential of banks while keeping control on credit and operational risks.

Gaining deeper understanding of the customer enables banks to constantly interact with them and offer advisory services, thereby gaining superior customer engagement. And more delighted customers means more influential customers, who would be able to influence and attract prospects that help banks cut down on marketing costs.



### What lies ahead?

Moving to a higher state of customer analytics requires banking institutions to take a number of actions, starting with the definition of key goals. Goals help banks identify their information and analytical needs, and the tools they must use to fulfill them.

Having set goals, banks need to convince stakeholders how the additional investment in enhanced analytics will yield a return by way of greater customer acquisition and engagement. Following this, an appropriate partner must be identified, who, apart from providing a solution, must be able to offer guidance on data requirements, sources and metrics and reporting.

The basic building block of any powerful analytics solution is “clean data”. Successful customer analytics solutions would need a unified customer information repository, from which unwanted data elements and duplicates are removed for analysis.

Currently, despite the progress that analytics has made, there is a scope for a common and unified solution that can do layered analytics and provide a holistic view. Banks also have to be prepared to enhance their models as they go along.

Several benefits await banks investing in customer analytics, of which customer acquisition, loyalty, advocacy and right selling have received a mention earlier in this article. Analytics also sharpen banks' ability to predict events, thereby limiting risk while improving preparedness and proactivity. But it can do little on its own. The key is to not only identify an intelligent analytics solution that is geared to the future, but also entrust the responsibility of exploiting its potential to the right set of people■

### References

- Forrester report : How analytics drives customer lifecycle management
- Retail Banks to Spend on Customer Analytics, Mobile Banking Technologies, Jan 14, 2011  
<http://www.networksasiasia.net/content/retail-banks-spend-customer-analytics-mobile-banking-technologies>

### Author

**Arunnima B S**

Principal Consultant  
Product Strategy - Finacle  
Infosys



## Predictions for 2012 and beyond

**Chris Skinner**  
Chairman  
Financial Services Club

### Précis

Banking in 2012 will continue some of the themes of 2011, as mobile continues to be a focal point as is Personal Financial Management (PFM). However, as 2012 kicks in, banks will also look to the wider horizons of what digitization means to their companies, and how connected devices and social networks

impact their customer relationships. There will be major changes in how banks deploy services as a result, with the use of APIs being a major transformational change in the whole structure of banking as everything becomes deconstituted to simple software plug-ins and apps.

During 2011, many things began to appear on the banking scene that were of not: Google Wallet, Banksimple, Movenbank, Bitcoin and more; but the key themes seemed to focus upon mobile as a platform combined with Personal Financial Management (PFM), and these themes will continue through 2012.

### Mobile as a platform

Mobile financial services matured nicely in 2011, with everything from Africa through to America being turned upside down by changes to banking through mobile.

In Kenya, just over three years after launch, Safaricom's mobile money transfer service M-PESA reported 56% revenue growth with 14 million subscribers across 24,000 outlets

generating \$130 million in revenue<sup>1</sup>. In America, almost 30 million people now access their financial accounts (bank, credit card or brokerage) via mobile devices according to comScore<sup>2</sup>, a 54% increase over 2009.

This is a revolution in banking and in life, as almost every person on the planet now has access to wireless infrastructures via mobile devices, and is the reason why banks will continue to focus upon these areas during 2012 as this market is not yet mature.

Deloitte America<sup>3</sup> surveyed senior executives from a wide range of companies with close ties to mobile payments in late 2011, and found that there's still a lot of dialogue around the business models to be used in this area.



According to survey respondents, the two most likely business models are partnerships between mobile carriers and financial institutions (43% of the vote); and an open federation model that brings together mobile carriers, financial institutions, merchants and others, to deliver multiple payment services on a common platform across different devices (26%).

Similarly, PayPal commissioned research from Forrester in late 2011 that predicts the UK market for mobile payments will grow 42% per annum to be worth £2.5 billion by 2016<sup>4</sup>. They commissioned this research as over one million PayPal UK customers have sent a payment on their mobile devices by 2011, with most customers making an average of five mobile transactions a month.

Meanwhile, to illustrate how immature this marketplace still is today, the European Financial Management & Marketing Association (EFMA) published a report in August 2011<sup>5</sup>, after surveying 150 European banks with McKinsey on mobile banking. Their findings are that banks believe mobile will fundamentally change retail banking within five years, and yet the majority have under ten employees working on mobile and have yet to make any change in their operations to exploit this capability.

Therefore, mobile will continue to be a big focus through 2012.

### **Personal financial management (PFM)**

Similarly PFM has been a hot topic of dialogue through 2011 and this will also continue in 2012 as banks implement PFM capabilities.

PFM is a functionally rich set of financial tools that help consumers – and businesses for that matter – aggregate their financial transactions services across multiple providers into an advisory engine that can help them get better returns from their money.

PFM will link with other users like you and show you how to improve your financial returns

based upon what people like you do; PFM might link to your mobile and social networks, allowing you to do a lot more intelligent financial structuring and operation; PFM can alert you to budgetary and balance issues, payments and billing notices, and interest saving or gaining opportunities.

In fact, dependent upon which PFM provider you go with, PFM can pretty much do anything with your banking service you want ... and the PFM providers are all popping up to show different capabilities in what is an increasingly crowded space.

Some want to focus on the social aspects of finance, whilst others on the financial management aspects; some want to provide offers and coupons, whilst others want to provide advice and analysis of your financial behaviours; some want to provide PFM online, on the mobile and on the tablet PC, whilst others only care about functionality rather than interface; and so on.

In other words, all of these PFM systems are slightly different with some easier to use than others, some more functionally rich than others, and some clearly in the lead over others.

And with Mint leading the way over the last few years as a PFM provider of choice through third party services, all banks are rolling out some form of PFM over the next few years to be competitive.

In particular, Iceland is leading the way.

We usually only ever hear of Iceland's woes and troubles but, after the crisis hit, the banks retrenched, refreshed and relaunched as new banks.

In particular, the new bank Íslandsbanki has been leading the way to show themselves to be at the very forefront of all technological developments in Europe and the rollout of PFM as a platform is a key for the Icelandic banks. This is because it provides excellent user engagement as these metrics from the bank demonstrate<sup>6</sup>. After 18 months of PFM usage



amongst Íslandsbanki's customer base:

- Over 25% of online users signed up for stand-alone PFM within six months
- Over 75% of new PFM users use PFM again within two weeks
- Over 25% of new PFM users use PFM five times or more in the first month, and spend more than double the time in PFM compared to online bank (the average time onsite is 12 minutes, with 35 page views per PFM session)
- More than half of all PFM users are still active a year after signing-up

## And their customers love it:

- Over 80% of users are “pleased” or “highly pleased” with PFM
- Nine out of Ten users say they’d recommend PFM to others
- 66% say PFM has helped them see how they can improve financially
- 41% say they have improved financial behaviour after starting to use PFM

## According to Íslandsbanki:

- Active PFM users have increased the total number of Íslandsbanki accounts (current, savings, credit card) by 19.4% on average after using PFM for one year. Other groups show no or slight increase only.
- Active PFM users have increased Íslandsbanki transaction volume by 4.5% on average after using PFM for one year. Other groups show no increase.
- Affluent customers are significantly more likely to use and be pleased with PFM than other groups.

There is also evidence of significantly improved retention of PFM users with 71% of users saying that Íslandsbanki's PFM offering increases their loyalty.

There are many other stats but the most telling comment is when the bank says that PFM is now replacing its online bank.

In other words, PFM is their online bank.

Nevertheless and regardless of the above, we should stop talking about Mobile and PFM and talk more about Connectivity and SFM, or Social Financial Management.

## Connectivity

Connectivity is the realization that it's not mobile we should be focused upon, but the chip in the mobile that enables it to connect to the network. That chip is going to be in so many other devices in five years, that the consumer's mobile wallet will no longer be relevant. What will be relevant is how the chip connects to other chips to transact.

We can see this already today as all banks focused on mobile, then mobile apps and now tablet PCs, which are just PCs with a SIM card in flat form.

This is why it is important to think of connectivity rather than mobile, as the consumer's chip may be in their mobile telephone or tablet PC, but may just as easily be in their wristwatch, earring or clothing. The consumers will choose how they wear their chip. It might even be embedded in a tooth.

The chip may enable telephone calls and communications, access to wireless electronic services and more, but will also be a fundamental transactor of commerce.

It will transact with chips in merchant stores; chips through QR and NFC; chips in walls, pavements and doors; chips in cars, caravans and casinos; chips in anything and everything in fact.

Conservative estimates believe there will be ten billion mobile connected devices in 2020 whilst others predict over one hundred billion wirelessly connected devices in 2020 if you include cars, fridges and televisions.



And with everything as a connected transaction engine, banks will be looking to leverage wireless connectivity at where the customers are, rather than thinking about mobile as a channel or device.

This leads to the second fundamental around SFM.

### **Social financial management (SFM)**

PFM is already out-of-date. PFM talks about personal, as though it's private, and yet everything has shifted to social, as in sharing. Sharing financial information is not what consumers want, but they do want banks to be part of their lives rather than the bane of their lives.

What this really means is that banks must proactively leverage far more about their customer's data to intimately understand their lifestyle preferences and shopping habits to become more relevant. It means taking the tsunami of data from social, commercial, governmental and global sources these days referred to as Big Data and mining it deeply to gain Big Ideas about customers needs, and then proactively reaching out to the customer to gain Big Relationships.

Examples are already out there, such as Google Wallet that demonstrates coupon offers and spending integrated with payments and transactions in a contextual form. What this demonstrates is that Google is moving onwards towards analyzing all of the data from the digital footprints of each individual to provide relevant offers at their point of living:

- using geolocation allows you to locate where the individual is physically present;
- using that location allows you to automate contextual offers proactively to the individual;
- using data allows you to make sure the offers are both relevant and not in breach of permissions and privacy; and

- using the combination of banking, retailing, searches and devices allows the operator to integrate spending and saving with shopping and living.

Forget the point of sale or point of purchase, the point-of-life is where the action will be. And the point-of-life, not the meaning of life is the point of where I'm living at that moment in time and being relevant to that point. That's what SFM will be about, and that's what banks will be focused upon in the next wave of technology change, with some already working in this space such as Citi in their Google partnership. A Google can mine that data to be relevant at the point-of-life, but not everyone can; which brings us to the challenge of data and data mining in the 21st century.

### **The challenge of data**

Google runs data as a business. Without their huge analytical engines to mine, search, relate, inform and filter data, their business would not exist. Amazon and Facebook are the same. These are the engines of the Big Data businesses of the 21st century. And banks are also Big Data businesses. As John Reed, former Chairman and CEO of Citibank said way back in the 1980s: "banking is just bits and bytes". And he's right.

As a Big Data business, all banking areas can be broken down into bits and bytes but, more than that, a bank can be broken down into three digital businesses in one. A bank is three digital businesses: a manufacturer of products; a processor of transactions; and a retailer of services. In this context, the digitization of banking becomes more important at a strategic level.

First, products can be deconstructed. Every bank product can be deconstituted into its lowest common denominator of components, and then reconstituted into new forms of use and structure. This component based bank demands that every bank capability is put into a basic form and offered to customers to assemble as they see fit. In other words, there are no



integrated product sets any more, but just banking as apps that customers put together to suit their needs. Bank products are just a collection of functional apps, manufactured in such a way that customers can put them together to suit their lifestyle.

Moving onto processing, we build upon the app - based product view and begin to consider processes as open source code. The open sourcing of digital processes has disrupted and changed everything from how operating systems operate, vis-à-vis Linux, to how Google develops its massive reach. Learning from such open source processing PayPal launched X, a developer based service where all PayPal processes are offered as APIs, Application Program Interfaces, that developers can plug and play into any other process.

These APIs allow anyone to plug and play PayPal into their systems quickly and easily and, like banking products as apps, allow PayPal to be reintegrated by third parties into any code and operation desired. The result is that PayPal's relevance increased significantly overnight and led to MasterCard, Visa, Citibank and others following a similar approach. In other words, all banks processing should be developed as open sourced coding, allowing anyone to plug and play these offerings through APIs into other systems.

Finally, the customer relationship has changed. The customer relationships used to be human, one-to-one. Then it became remote, one-to-many. Now it is digitized, one-to-one. This is where Big Data comes into its own, as we are now trying to manage remote relationships leveraged through mass personalization. Mass personalization can only be achieved by offering contextual servicing to each and every customer at their point of relevance. This means analyzing peta bytes of customer data to identify, on a privacy and permissions basis, what contextual service the customer may need

as they live their lives. If they are walking past a car showroom, do you promote cheap motor insurance or a car purchase scheme? If they are leaving the casino, do you offer a loan or a referral to an addiction clinic? If they are leaving the maternity clinic, do you offer child investment services or a referral to an abortion clinic?

Some of these may seem controversial, but we are already seeing contextual offers through finance coming into play in the form of Google Wallet. And the aim of such contextual offers is to track your digital footprint, using Big Data analysis, to gain intuitive service offers relevant to your point of living. For example, as Google track your searches for Plasma TVs, you get an offer for £200 off the TV you spent the longest time studying online as you walk past the electronics showroom today. But the offer is only good for an hour, and only as you are in proximity of that electronics showroom. This is the new augmented reality of customer intimacy through Big Data analysis, and bank retailing will be based upon the competitive differentiation of analyzing mass data to deliver mass personalization.

## Conclusion

In conclusion, the big themes of retail banking in 2012 will continue to be around mobile and PFM but, longer term, banks will be considering the wider implications of connectivity and social networks, combined with how to leverage Big Data as everything in banking becomes digitized.

The digitization of banking is now mainstream, and all bank capabilities will be packaged as digital structures where products will be apps, processes will be APIs and retailing will be contextual, delivered through mobile Internet at the point of relevance.

In the meantime, what happens to the physical structures of banking, as the digitization of everything takes over, will be the biggest challenge of all ■





## References

- <sup>1</sup><http://www.microfinancefocus.com/m-pesa-reaching-14-million-users-revenue-grew-56-fy11>
- <sup>2</sup><http://www.webpronews.com/mobile-banking-americans-30-million-americans-2011-03>
- <sup>3</sup><http://realanalyticsinsights.com/realviews/taking-shape/>
- <sup>4</sup><http://thefinanser.co.uk/files/paypal-uk-mobile-retail-forecast.pdf>
- <sup>5</sup>[http://www.mckinsey.com/client-service/Financial\\_Services/Knowledge\\_Highlights/Recent\\_Reports/~/\\_media/Reports/Financial\\_Services/McKMobileBanking2011.ashx](http://www.mckinsey.com/client-service/Financial_Services/Knowledge_Highlights/Recent_Reports/~/_media/Reports/Financial_Services/McKMobileBanking2011.ashx)
- <sup>6</sup><http://thefinanser.co.uk/fsclub/2011/09/iceland-where-all-banks-just-become-pfms.html>

## About Chris Skinner

Chris Skinner is best known as an independent commentator on the financial markets through his blog the Finanser ([www.thefinanser.com](http://www.thefinanser.com)).

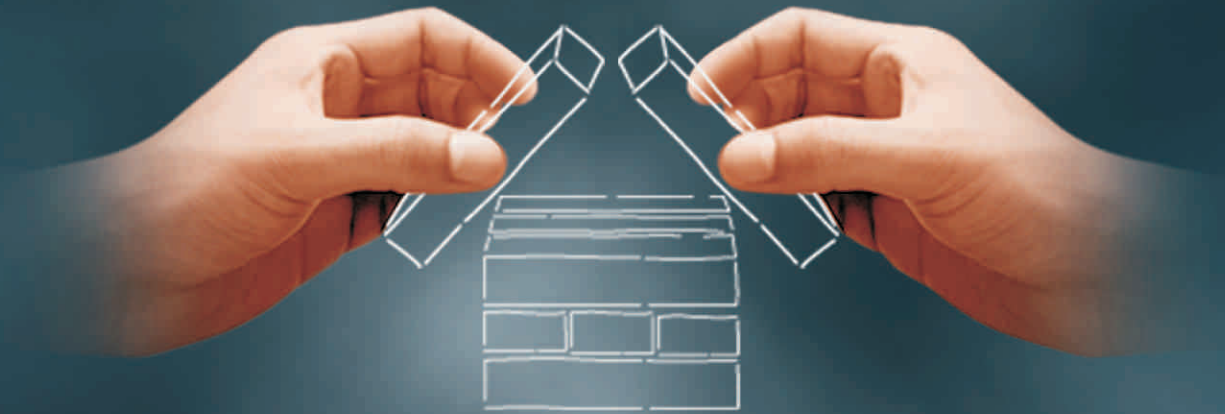
Here he regularly discusses key issues and opportunities in banking and financial services, summarizing research, white papers and other analysis that is topical for the day.

When he's not traveling and delivering keynote speeches, Chris chairs the Financial Services Club, which he founded in 2004. The Financial Services Club is a network for financial professionals, and focuses on the future of financial services through the delivery of high quality and in-depth research, analysis, commentary and debate. The Club has regular meetings in London, Edinburgh, Dublin and Vienna, providing a critically independent platform for practitioners, regulators and industry leaders to meet, network and discuss the future of our industry. Chris is also Chief Executive of Balatro Ltd, and a co-founder of the website Shaping Tomorrow.

Chris is the author of several books including "The Future of Banking", "The Future of Finance after SEPA" and "The Future of Investing after MiFID"; and regularly appears on news media including the BBC, Sky, Bloomberg and print media such as the Banker with his informed views.



## Building Tomorrow's Bank



### Précis

Managing costs effectively can only take your business so far. What your bank really needs is accelerated growth. Whether it's entering new markets, introducing innovative new products, or initiating transformational process changes, you need to aggressively unlock the key value levers of your business. Very powerful waves of change are creating new opportunities. The advent of the digital consumer, new commerce changing the rules of the game, and the emergence of the Cloud are some significant examples. We believe that accelerating innovation will enable banks like yours, to withstand further tremors, counter market forces, spark growth and create competitive advantage. However, one must be careful to invest energies in meaningful innovation,

which contributes to agility, efficiency, growth, and value creation for both the organization, customers and partners. Product, service or process innovation initiatives must be aligned with the new reality defined by higher customer expectations, tighter resources, fiercer competition and stricter regulation.

Although banks innovate from time to time, most do not have a cohesive innovation strategy in place. That needs to change, and quickly. While laying down the vision for innovation, senior management must ensure ground - level support by way of technology infrastructure, employee training and a collaborative partner network. This is the proven path to accelerate innovation and build tomorrow's bank.

### Tomorrow's world: changing dynamics

The challenge that banks will have to face is to thrive in a greatly transformed tomorrow propelled by powerful new changes - each posing threats as well as opportunities. Their

future depends upon how successfully they meet the following expectations:

- **Managing consumerism-driven sales:** Once more, the customer is king. Banking institutions are competing fiercely with one

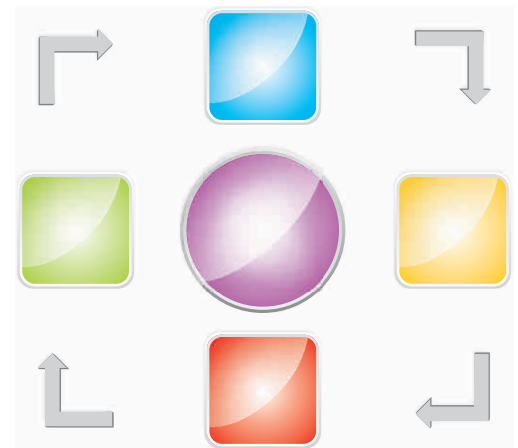
another to satisfy the expectations of consumers for better and more personalized products backed by excellent service. Customers are demanding a greater say in product acquisition, forcing banks to rethink their push-driven sales strategy and move towards right-selling, which means reaching the right product at the right time over the right channel to the right customer at the right price.

- **Complying with emerging regulations:** The regulatory environment is slated to get more stringent. Banks must comply not only with the changing mandates in their home country, but also with those in all the geographies that they are present in.
- **Tackling competition:** Tomorrow, competition will come in many forms. For instance, a bank may have to challenge the dominance of an established player in a mature market, protect its turf from disruptive upstarts – many a times not even a banking entity, or enter into a co-opetive arrangement to tap new opportunities.
- **Coping with organizational restructuring:** The wave of consolidation, today, will leave several banks grappling with amalgamation and restructuring challenges as they try to integrate systems, processes, services, resources and businesses across their new entities.
- **Regaining consumer confidence:** Restoring customers' confidence and winning back their trust won't be an easy task. Besides complying with regulations all the way, banks must demystify their operations in the eyes of their customers through simpler products, transparent policies and open interactions.
- **Managing green regulations:** Besides complying with KYC, AML and Basel norms, banking institutions must commit to going green by adopting environmentally responsible policies, systems and processes,

- **Staying abreast of changing technologies:** There will be several opportunities for first movers to wrest market position by deploying new technologies promising benefits to customers, ahead of their rivals.
- **Adopting cross-industry best practices:** Banking organizations must benefit from keeping an open outlook towards imbibing best practices from other industries such as telecom, automobile and retail.

## Propellers of tomorrow's world

But before they can fulfill the above expectations, banks must successfully deal with several forces of change by surmounting their challenges and exploiting their opportunities.



The following forces will propel changes in the banking world tomorrow:

1. **Tighter regulation and compliance:** Regulatory mandates are propelling change in the way banks manage risk, acquire customers, enter markets and deploy capital, throwing up new opportunities and challenges in their wake.

## Opportunities

**Enterprise-wide risk management:** Stronger regulatory supervision in every part of the world implies that all lines of business, divisions and units of banking institutions must comply with new mandates in all the countries

that they operate in. This builds a case for enterprise-wide risk management that can enable the organization to take a holistic view of its risk exposure and manage it accordingly. Needless to say, such an approach is superior to a silo-based one that takes no cognizance of the impact of a certain action on the risk exposure of the rest of the organization.

**Risk prudence resulting in efficient capital deployment:** In the spirit of the Basel norms, banks will continue to lend judiciously, thereby mitigating credit risk, putting capital to better use and improving margins all at the same time.

**Compliance with global standards creating greater credibility:** By complying with global and national regulations, banks create a stronger internal risk infrastructure that can bring them greater credibility in the external world.

## *Threats*

**Growing costs and time to comply:** No doubt, compliance comes at a cost, requiring time, effort and investment in new systems, human resources and physical infrastructure. At the same time, there is a risk that any changes made to processes or front/back-end systems to comply with a new mandate could disrupt existing operations. Although banks have no option but to toe the compliance line, they can mitigate this threat through proactive and holistic risk management.

**Market opening for new disruptive players:** They will continue to emerge from different industry backgrounds. For instance, telecom, retail and Web businesses have opened up entry opportunities for small, disruptive players leveraging innovative low cost business models to win quick market share.

**Greater exposure to global risks:** We have already seen how in a globalized banking world, developments erupting in one region can spread quickly to other parts. Similarly, regulatory changes in a certain market can

adversely impact foreign banks having direct or indirect exposure to that region.

**2. Growing consumerism:** The consumer's pre-eminence is propelling change in the way banking organizations relate to their customers, forcing them out of their complacency to take serious action towards building customer confidence and loyalty.

## *Opportunities*

**Higher market awareness and focus on advisory thought leadership:** The Internet gave people easy access to information and created a new breed of aware customers. This "need to know" gives banks the opportunity to establish thought leadership and earn trust by being the first to apprise customers of new market developments and their implications.

**Leading edge benefit from cross-vertical learning:** Adopting best practices and innovations from other industries can sharpen the competitive edge. For instance, banks can adopt the flexibility of the telecom model to make their products and services as accessible to a broader base of customers.

**Customer advocacy from building credibility and trust:** Improving customer confidence and stickiness through better compliance, thought leadership and other measures puts banks in a strong position to convert users into advocates and thereby enhance their organizations' reputation.

## *Threats*

**Migratory customer behavior – lower stickiness and loyalty:** With banks competing fiercely for market share, customers have a host of options to choose from. Tomorrow's well-informed customer will not think twice before discarding a banking relationship to enter into another that promises more. Thus, banks have to fight harder for their customers' loyalty.

**Need for individual identity rather than identical individuality:** Consumer demand

has evolved towards greater personalization. Banks can no longer group their customers according to a single criterion such as bank balance, for example, since this type of traditional segmentation fails to recognize that individuals with the same amount of money can have very different needs. Banks need to refine their segmentation strategy to take into account important factors which define the identity of a customer from a financial perspective, such as demography, ethnicity, usage behavior, channel preferences risk profile, likes, dislikes, hobbies, inputs, feedback, opinion, fan, family and other aspects. However, adopting a “segment of one” strategy is easier said than done as it may entail substantial investment besides the risk of an adverse impact on the organization and its stakeholders.

**3. Measurable productivity drivers:** The need for measurable productivity drivers is propelling change in the way banks orchestrate their processes, leverage technology and other resources.

## *Opportunities*

**Global unified process orientation; simplify, standardize and rationalize:** Processes are the lifeblood of banking and it is what differentiates a performing bank from a non-performing one. With the current level of operational integration, a single process could cut across business units, functions, products, channels and so on. Thus processes have to mesh with all the other banking elements so that they can work seamlessly. This is also important from the standpoint of measuring efficiency and profitability – unless processes are fully integrated, it is not possible to assess their results in totality. Extending this line of thought, when processes are continuously streamlined through a cycle of simplification, standardization and rationalization, they can simultaneously improve profitability, customer experience and employee productivity.

**Leveraging technology to save costs:** The industry is relying increasingly on technology to drive both efficiency and growth. Applications such as financial tools and remote audio visual advisors empower customers to take financial decisions with confidence, while reducing the banks’ cost of servicing. Technology has also given birth to new business models like direct banks which pass on a part of lower infrastructure and market entry costs to their customers in a win-win arrangement.

**Institutionalization of productivity into organization DNA:** When an organization takes productivity improvement to heart from the highest echelons down to the lowest levels, it could potentially achieve excellent results.

## *Threats*

**Mismatch in internal and external stakeholder expectations:** There is a risk that the banks’ thrust on productivity might conflict with the interests of their external stakeholders – for instance, a move to migrate more transactions to low cost electronic banking channels could inconvenience older generation branch customers.

**Process bottlenecks causing motivational and morale issues:** When productivity improvement is effected through resource cutbacks, it could create other system bottlenecks and consequently damage employee motivation and morale.

**Capital charge for operational failures and risks:** It is possible that in future banks may be charged a penalty for not achieving predetermined productivity targets, with the reasoning that the default could lead to a larger systemic failure. This puts added pressure on the industry to comply without incurring collateral damage in the form of conflicting stakeholder interests and process bottlenecks.

**4. Growing unexplored potential:** The potential of under served markets is propelling



change in market expansion strategy, uncorking both, the opportunity to improve profitability and the threat of compliance challenges.

## *Opportunities*

**Large untapped segments:** With the penetration of banking services reaching saturation in prime market segments, financial institutions are reaching out to large underserved pockets like Gen Y, rural and faith/ethnicity - based segments. The potential of these markets is all the more attractive because of relatively low competition. If banks can cater to the unique requirements of these groups, they can reap substantial gains.

**Unbanked and underbanked customers – greater convertibility and minimal defaults:** The ability to bank with a formal institution is highly attractive to rural or fringe customers who have historically been exploited by local moneylenders. Consequently, they have very little incentive to default on their loan repayments.

**Lower cost to convert; higher returns:** By leveraging a combination of local agent networks and technology, banking organizations can serve outreach markets at very low cost. Combined with low default rates, the margins on this business begin to look quite attractive.

## *Threats*

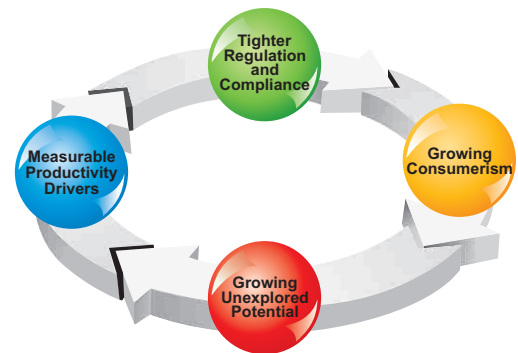
**Saturated markets driving competitors to eat into bank's share:** As more and more institutions explore untapped opportunities to compensate for the stagnation of saturated markets, the competition for a share in the unbanked business will intensify. Hence, first movers and incumbents need to guard against erosion of their market position.

**Emergence of disruptive players:** As new models of doing business emerge, banks face competition not only from peer organizations but also from non-financial players that have either the technology or the reach to serve

underbanked segments. Telecom operators offering mobile payment services and post offices promoting small savings through their vast branch network are examples of disruptive competitors.

**Compliance challenges:** Compliance with KYC norms is one of the biggest challenges of tapping into the unbanked opportunity. Members of rural and certain immigrant communities may not possess the identification documents required by KYC rules. Banks must see the big picture of long term security and resist the temptation to acquire customers who fall short of fulfilling the basic KYC compliance requirements.

## **Mastering change with an effective innovative strategy**



As mentioned at the outset, if banks are to meet the expectations of tomorrow's markets they have no choice but to master its forces of change. This calls for a combination of agility, efficiency, diversity management and growth, all of which can be acquired or improved through accelerating innovation.

## **Innovation imparts the agility edge to enable quicker response.**

- An agile bank can adapt to regulatory changes faster. In general, a shorter lead time for change implementation lowers the associated cost and risk of failure, besides giving the bank a head start over its rivals.
- An agile bank can respond quickly to market opportunities or threats caused by the



blurring of divides between various lines of business.

- An agile bank can move faster than others to launch new offerings and wrest competitive advantage.

## **Innovation improves efficiency and leveraging of productivity drivers.**

- An efficient bank is built on streamlined processes working seamlessly throughout its ecosystem.
- An efficient bank extends the performance of its partners.
- An efficient bank maximizes the utilization of its resources.

## **Innovation enables the management of diversity to maximize customer value.**

- A bank that is capable of managing diversity can grow its business as well as delight customers through right-selling.
- A bank that is capable of managing diversity can satisfy the individual needs of almost every type of customer.

## **Innovation enables growth and expansion into new territories.**

- Innovation helps a bank grow by becoming more inclusive.
- Innovation helps a bank grow faster in untapped markets and raise entry barriers for late entrants.
- Innovation helps a bank grow its business in new territories by leveraging technologies such as the multi-channel presence.

## **The Finacle promise**

Partnering banks in product, service and process innovation, Finacle from Infosys can help banks stay a step ahead of changing customer demands, the emerging competition and mounting global regulations.

## **Product innovation**

Although it seems counter-intuitive, product innovation needs to result in simpler products. There is an undercurrent of opinion that “too much innovation” led to the creation of complex, risk-laden products, and consequently, which led to the financial crisis. For banks to reassure both regulators and consumers about the security of their offerings, they must go back to the basics to come up with simple products that are compliant in all respects. Product-specificity will not be enough – customers will expect products to be tailored from their point of view, rather than the banks’. Leading from this argument is the fact that customer expectations are always in a state of flux – hence, product innovation must play by the new rules which state that they must always be prepared for change.

We believe that product innovation follows a “power cycle” that enables banks with varying market power to achieve different goals. Thus banking minnows must adopt product innovation to drive growth; challengers to achieve leadership; and leaders to extend dominance. Consequently, individual innovation strategies must target different priorities such as creating relevant, value-added, extensible products, incorporating greater transparency and customer feedback within the offerings or making products more inclusive and replicable. Needless to say, the success of these initiatives is predicated on the agility and efficiency with which they can be implemented.

## **Process innovation**

Although process innovation has been a transformational force for years, it continues to hold sway over banking. Processes are banks’ proprietary advantage and their biggest drivers of differentiation. The traditional model of process innovation focused on simplification, standardization and rationalization; the new one has made a subtle shift towards maximizing value for customers.



In our view, cost, service, time and transparency rank as the topmost priorities of customers. Therefore, as far as possible, process innovation must exert a positive impact in these areas; anything to the contrary will likely provoke a strong reaction of disapproval. The goal must be to create: cost advantage passed on as lower tariffs and optimized price structures; service advantage enabling both self and personalized service as per need; time advantage guaranteeing service fulfillment anytime, anywhere, and transparency advantage bringing predictability and credibility to the relationship.

### Service innovation

In tomorrow's market, service, and not sales pitch, will drive revenue growth. Setting a goal beyond fulfillment of customers' service expectations to provide a superior experience, banks must leverage their 360 degree view of each customer to create a "segment of one" and propose customized service offerings to each. While innovating on existing services, they must render them in self-service mode as far as possible,

in line with the preference of present-generation customers. As they take this new approach to service innovation, they must remember that in future, customer care, and not complaint resolution, will drive customer retention.

Clearly, the rules are changing, and so must the way the game is played. We, at Finacle, believe that banks need a creative and adaptable game-plan to enter tomorrow at a position of strength. Clearly, today's ways of doing business will no longer ensure success in what promises to be a vastly changed environment. Financial institutions must be willing to go back to the basics and rewrite the script where required. Now it is high time that banks bring new ideas and creativity to the table. We believe that accelerating innovation is the growth mantra for tomorrow's bank ■

### Author

**Haragopal. M.**  
Global Head – Finacle  
Infosys

# Anytime Anywhere Secure Digital Currency

**Donald Norman**

Co-founder

Bitcoin Consultancy Ltd.



Bitcoin is one of the first implementations of a concept called crypto-currency, a secure digital currency for exchange by anyone, anywhere globally. Bitcoin is designed around the idea of using cryptography to control the creation and transfer of money, rather than relying on central authorities, and is the first time that such a system has been launched. Although it is stumbling through its early evolution, many believe it could become the currency of the future. If it is, then what does it mean for banks? Make your own mind up by learning more about Bitcoin in this wide ranging interview between Donald Norman, who is a key deliverer of Bitcoin capabilities to businesses worldwide, and Chris Skinner, Chairman of the Financial Services Club.

**Q Let's start with something that confuses some people so, to begin, could you explain what Bitcoin is?**

**A** It's cash, digital cash. It can be used to buy and sell goods and services. What makes it unique? There is no central location or place that mints or prints the coins. It's just cryptographic data meaning you need no central bank or issuer as everyone on the system has their own ledger of

accounts. The network assesses the transaction history and monetary amounts in circulation democratically. No reliance on human honesty or worry of human error. This in turn means cheaper commerce, a lot cheaper.

**Q A lot of press calls this subversive. Is it a good or a bad thing?**

**A** When Phillip Zimmerman created PGP encryption, the concern was if such technology got into the hands of terrorists or others they would be able to encrypt their communication. But actually encryption in all formats has made society inarguably safer. So the press talking about Bitcoin being subversive, it's a bit like saying the Internet is only being used by drug runners and pornographers. Yes it may be used illegally but it has a much wider social benefit. Bitcoin is a neutral technology. Just like the internet, there will be a long progression before it becomes mainstream. The Internet started as just a bunch of protocols and was used by developers and tech heads, now it's mainstream. That's what we see happening with Bitcoin. Adoption is a by-product of infrastructure and end-user friendliness.

**Q How are governments reacting to Bitcoin as it's difficult to tax and control?**

**A** The head economist at Harvard, Ben Friedman, has focused on currencies for a long time. There was an article in the Economist in 2000 called e-money revisited. In it, he predicted a currency that would be uncontrollable by governments, a form of digital cash. The article lambasted him suggesting it was technically infeasible. He was right, they were wrong. Ten years later and it has now come true. Since then, he's written more about how governments will adapt to such a currency and how the world will change. What is his main point? Liberalizing the transfer of money need not be feared. It's simply a case of currency coming in a form that can be zipped around the world, rather than just being localized. Sadly, I think there will always be misinformed modern luddites. What they don't realize is that, short of shutting down the Internet, laws restricting the usage of this new technology are unenforceable and will only be followed by those who will use Bitcoin for legal purposes and social good. Hence, restrictions or even a social stigma will only slow positive progress.

**Q But money laundering is a concern here.**

**A** This system is not designed for money laundering as everyone has a ledger of all of the transactions that have ever taken place. It's like bittorrent, a file sharing program. The file it shares keeps track of every transaction through the economy's history. So anyone participating with the Bitcoin economy can see what money moves from which account to which, not who owns the accounts, but the fact that the transaction took place. It's not hard then to trace the flow of money and if people try to spend from a suspect wallet you can investigate the trail of funds. In other words, it's all traceable. Those who come out against Bitcoin pontificating that it's a tool for money laundering are highly misinformed or willfully ignorant. It was not designed for that purpose and while people may be

successfully laundering relatively tiny amounts of capital, their success is a result of law enforcement not conducting proper investigations because they do not understand the technology or, and more likely, because not enough money is traded currently to be taken seriously. Two million dollars a week can't compare with the money laundering estimations and history we see in the regulated sectors.

**Q And taxation issues, as a tax avoidance mechanism?**

**A** I'm not sure how that will develop. If a decentralized currency takes off we'll just see other forms of taxation arise. Everyone can become a legal tax avoider through their online wallets, which I think is great. Right now only the rich can afford to practice tax avoidance loopholing our ideals of democracy and equality into a game. This is a legal process of tax avoidance based upon a global, digital currency, just like the rich currently use offshore companies to do the same with traditional currency.

Surely it would be better for the governments to adapt a new system of taxation to be fairer to all, rather than focus upon this? Avoidance only for the rich is discriminatory. Perhaps sales tax will go up.

**Q One of the controversial things about Bitcoin is this limit of issuance, as only 21 million Bitcoins are being issued I believe. So there's a limitation there that's false and people don't like it.**

**A** Well any law is changeable in the Bitcoin system. If we see more than half of the network determining that the protocol needs to change, then they can democratically vote by altering the code or downloading a patch and, if enough of the network does this, it will change. But that's not easy. Already potentially hundreds of thousands of people are using Bitcoin and to get a majority to sponsor a change in the protocol there would have to be a good reason.

**Q What about the limit and its finite amount. Is that good or bad?**

**A** It's not a problem. Right now you talk about a Bitcoin and quote prices in Bitcoins as their valuation is a few dollars. But you can divide Bitcoins into such small amounts. If one Bitcoin is worth \$1,000 in the future, then people will start talking about millicoins. If it's worth \$1,000,000 you can send ananocoin. You see this in countries with hyperinflation. In Brazil (real / cruzeiro), Iran (rial / toman) and other countries, they just rename the currency officially or unofficially when it becomes less valuable. The same thing can be practiced for a currency that becomes more valuable.

**Q But finite currency levels undermine monetary control of days of old, as central banks won't be able to issue more currency to ease economic issues, such as the Quantitative Easing of Europe and America in recent times.**

**A** Well, if there's no central issuing authority to issue more or less money for monetary control, then that's the real issue. So you can't address the issues in economies with money, but I would argue ordinary fiat currencies are actually less of a benefit to societies and economies if those currencies can be manipulated. We know corruption in all forms at all levels in all countries is rife. If fiat currencies are corruptible, and by definition all are, then they can do more harm than good. Perhaps there needs to be an evolution of currencies, and there will be a natural selection by the people of the strongest. That might be the dollar or, in the future, Bitcoin. I can send a Bitcoin from anyone to anyone else in the world without impediment, without regulation, without fear that the transfer is going to be stopped or that my account is going to be frozen or that the person I am sending to is going to have problems with their account. I can send money to anyone in the world as long as they can connect to the Internet.

**Q This sounds radically new!**

**A** It is revolutionary. Now, we have had the technology for a long time to send money cheaply. The telegram a hundred years ago fulfilled the same function, but Western Union had a monopoly on it. Digital currencies themselves raged in the early 2000s, but the difference is that any centralized digital money is the same as money. This is what PayPal did, but a lot of merchants have no recourse in the arbitration of funds as there is a central agent. You need that agent to manage disputes, chargebacks, resolutions between buyers and sellers and act as an arbitrator. Even video games like Second Life have the government coming in regulating nuances of their economy. Bitcoin said, "No Thanks". The biggest strength of this currency is that you can send it for next to nothing and there is no control or added cost to the sending of a Bitcoin. There are no chargebacks. When the money is sent, the money is sent. Just like cash. The merchant knows they have the money when the money is received. So where this will first be taken up is for businesses that will depend on Bitcoin, like microtransaction businesses. These businesses can't use traditional currencies, but if you can send a penny around the world easily and cheaply, then these firms will thrive. The other business will be for firms that want to access international markets from one country and have issues with chargebacks and structures. They may be shipping under \$35 goods or services, or shipping a digital service rather than physical goods, and these firms may find that Bitcoin, relying solely on code and mathematics, is the only currency they could use.

**Q It's a bit technical however, isn't it?**

**A** That's the biggest barrier to Bitcoin. It's not end-user friendly. Every client is working off the first codebase. Satoshi Nakamoto solved the last logic problem to create a decentralized currency. He's an academic, incredibly smart, but not a computer engineer. The code was not written in the most efficient way therefore, but



every client today has built off this code. Now, for the first time, we are rewriting the code from the ground up to be more efficient and effective. The new code is being built from scratch in a modular fashion, so merchants can take it and change it and it will be much faster and end-user friendly. That's going to really spark the adoption of Bitcoin, a bit like the Web browser sparked the uptake of the Internet. It made the Internet intuitive and usable by non-specialists.

**Q You mentioned PayPal, and there were many e-money operators back then. What will make Bitcoin mainstream, as there are other services like Ven Currency and Flattr.**

**A** Well most others are more like Facebook Credits. It's just a digital parallel to Disney Dollars. The usage is restricted to merchants who accept the control of that currency by the issuer. That stifles commerce rather than liberating it. It also brings with it overhead, lots of overhead. As mentioned, Bitcoin has no central controller or issuer. It's decentralized and all the advantages that we talk about build off that decentralized nature. It's the first time we've been able to use a decentralized currency. That's a very young technology therefore, and because it is young it is not end-user friendly. It's hard to use, because you need to be tech savvy, but this will change. The outside infrastructure is still being built and much of this is therefore analogous to the early days of the Internet. In the longer term, an ecosystem will develop and the coinage will be at least as easy to exchange as making any other online payment.

**Q But one of things about Bitcoin is that its price fluctuates rapidly. For example, a Bitcoin was worth about \$2 in February, \$30 by June and is now worth \$2 again. That's not creating reliability or trust is it?**

**A** The price fluctuation has to do with the media attention, adoption, and speculation rather than the currency itself. Supply and demand, the market sets the price. In the past few months,

we've seen much less volatility than ever before with Bitcoin, whilst liquidity is increasing. The more it's adopted, the less volatile it'll be. About \$2 million a week are exchanged between traditional fiat currencies and Bitcoins, compared to trillions of dollars per day with FX in traditional markets. As Bitcoin gets more adoption therefore, the fluctuation and volatility will reduce.

**Q So we have to live with price volatility until Bitcoin becomes mainstream?**

**A** Yes and no. The price fluctuation is attributable to some very specific activities. For example, Bitcoin reached a value of about \$31 when one user's system was hacked and all their coins were stolen. The person who was hacked had \$500,000 of Bitcoins and admits to using a Windows machine with known viruses. The money was dumped on the markets and the value of Bitcoins halved overnight. Since then we have developed software to protect users from themselves without having to rely on us, a bank or any third party. Users can now generate a transaction file on their offline device, transfer the file to an online device and make a transfer even on insecure devices.

There are also a lot of speculators out there who are buying Bitcoins and holding them on exchanges. Others are arbitragers, playing the Bitcoin price markets. Whilst the coinage is in early adoption, these activities will make the price volatile, but that will change as adoption increases.

**Q And what will create adoption?**

**A** Intuitiveness, end-user friendliness and awareness. Bitcoin is a new technology and akin to the Internet in two ways. Remember the late 1990s, everyone was saying "Don't use credit cards online. You'll be compromised". That's what Bitcoin is going through. Luckily, every day, more legitimate merchants accept Bitcoins. The website <https://en.bitcoin.it/wiki/Trade> lists just some of those offering goods and services via



Bitcoin. The page has grown massively in just a few months. It started with small eBay style businesses. One man firms, offering tech stuff like servers and server space. Now, the merchants are more mainstream and unrelated to Bitcoin, offering music, shopping and even financial services. These firms have no relationship with Bitcoin, except that they now also accept payment in Bitcoins.

**Q Finally, what's the long-term view of Bitcoin?**

**A** Many have big ambitions for it. They say look at Zimbabwe. Look at the wars in ex-Yugoslavia where citizens had no choice but to fund a genocidal war through the hyper-inflation of their currency. I don't know if any of that will stop. I'll be happy though when people, especially those less well off, will be able to send money internationally without

having to pay outrageous and inexcusable transfer costs ■

**About Donald Norman**

Donald is the co-founder of the Bitcoin Consultancy. The group works on software development for core Bitcoin code. Bitcoin is the world's first decentralized digital currency. As such, its implications and uses are entirely unique. While Bitcoin now is already a thriving 70 million dollar marketplace, in many respects it is only a wildly successful proof of concept. Imagine the Internet before the Web browser, Bitcoin Consultancy is building the road map and bringing the advantages of Bitcoin to a scalable and enterprise level. Donald has appeared as an advocate of Bitcoin in Reuters, Newsweek, WSJ(SmartMoney), The Independent, CNBC and others.

## A SWIFT Innovation

### Kosta Peric

Leader  
SWIFT Innotribe Innovation Program



SWIFT is the Society for Worldwide Interbank Financial Telecommunication, a member-owned cooperative through which the financial world conducts its business operations with speed, certainty and confidence. More than 9,000 banking organizations, securities institutions and corporate customers in 209 countries trust SWIFT every day to exchange millions of standardized financial messages. In 2009, SWIFT launched Innotribe – an initiative to find new ideas and new projects, and then establish the infrastructure that will enable them to grow. Kosta Peric has been leading this program since its inception, and discusses their approach to innovation here with Chris Skinner, Chairman of the Financial Services Club.

#### Q What does innovation mean to SWIFT?

A First and foremost, innovation is about encouraging and promoting entrepreneurship at SWIFT and also encouraging and promoting entrepreneurship in the financial community surrounding SWIFT. So we have a double objective: internal to SWIFT and in the community around SWIFT. So Innotribe is

enabling collaborative innovation. We are big believers in the open innovation concept and want to engage with our staff, people in the banks, partners and all the people surrounding SWIFT to formulate ideas and get these ideas to us in the first stage and then, secondly, being able to do something about these ideas. So that in a nutshell is what we are all about.

#### Q So you are not trying to create innovation yourselves but trying to capture ideas, or are you trying to do both?

A No, we are a relatively small team of ten and our goal is not to do innovation. We could not do that in a ten person team. That is not our objective – to do innovation; our objective is to facilitate and enable innovation within the company and the community.

#### Q How has Innotribe changed over the past three years?

A There are two things. One on the content and one on the process. On the content side, we have been very successful at forecasting and bringing to the table the topics that are relevant to our community, such as cloud and mobile. These have been very progressive as part of

Innotribe and is now part of the mainstream, so we are focusing upon other areas like social data and media, digital identity and Big Data. This means there is a process of us spotting the trends and bringing them in for discussion and debate and, where appropriate, they then move into the mainstream.

The other interesting aspect is how Innotribe's process has changed. When we started at SIBOS Hong Kong in 2009, we were a totally new thing and more of a sideshow. Over the years we have since nurtured our image and are now something to be counted with, even though we still focus upon these things that are on the longer horizons. It is something that is now counted with both within SIBOS and outside SIBOS.

**Q Talking about SIBOS and SWIFT community, the main audience is operational – does innovation really figure on their radar?**

**A** Yes. The best metaphor to use to explain this is to think of our core business of transactions as like a castle. The castle is good, solid and with thick walls and is there to stay to generate the core business. In the castle, you can do innovation as well but it is more of an incremental nature. So what we do with Innotribe is to tell people how to think about what is outside of the castle, or out of the box if you like, and things that might be important in a couple of years down the road. So although we have lots of operational people in the community, this mental picture is important to them as well as they realise that just doing business as usual is not enough. Business as usual and cost reduction and other areas does not consider the future and securing your future. That is why they see this as important now.

In particular, at this year's SIBOS you saw people of a more senior and more strategic nature being attracted to Innotribe too, and that's important.

**Q But senior people aren't interested if innovations are not actionable, so are**

**actions being taken by these people afterwards?**

**A** I've seen a couple of things in this area. One is that the community itself has decided that they need actionable ideas which is why we have created the Innotribe Incubator, which is funded this year with €5 million of funds from the SWIFT community. There we have concrete and powerful ways to act and have run six Incubator projects this year. The second example is that we have seen several decision makers from banks join us at the start up competition at SIBOS. This is where people can pitch to the decision makers of the banks their new ideas and see many ideas they can action out of that.

**Q I'm aware of the Incubator and start up programs; do you have specific objectives against these?**

**A** The way we measure success is that we are not at the point where we can judge based upon revenues, even though two of the six Incubator projects invested in this year will bring revenues to SWIFT next year. Mostly we measure our success based upon our capability to process and act upon ideas. This is because many ideas look good on paper but, when we sit down and progress them through our process, we discover they are not such good ideas. The failure rate in the Incubator we expect to be high for example, so our success rate is measured more by the number of things we can set in motion than the things that come to fruition. As we continue the Incubator program through 2012 and 2013, I would expect some bottom-line hard benefits and revenues to come out of these projects both for SWIFT and our banking community. For example, the EBAM project should bring benefits and revenues down the line.

It is difficult to measure success when you have no business case or proof points for innovation, as innovation is meant to be new isn't it.

It is very difficult to come up with business cases for innovation, I've seen this throughout

my career, in that I was a product manager before and if you ask a product manager to come up with a business case, you are asking that person to lie. There is no way they can predict the future, especially for ideas that are new, so you just have to try them out. So I would say there is no way you can be innovative if you don't experiment, and experiments imply failure. When you fail, you should learn from them and other ideas may fail but will morph and become viable through trial and error. So what you really need is to try things and have a capacity internally for trying out things.

**Q Just out of interest, what justified introducing the innovator program Innotribe within SWIFT?**

**A** The global financial crisis was one reason, but not the only one. We have a business at SWIFT that is concentrated so, when the crisis hit, it was important to see how we could diversify our revenue stream. Another reason was more cultural as, when Lazaro Campos took over the CEO role in 2008, he is a big believer in innovation from a cultural change perspective. Our people and people around us, he believes, should see SWIFT as an innovative company that can take them into the future, not just as a banking cooperative processor of payments but as a leader. Innovation for the financial community is using SWIFT for other things than just messaging, and that is a key driver here.

The third driver is that we should always keep asking the banks if they are going to be doing all this again, where all the banks are running their own home banking systems, their own corporate banking systems and such like. Shouldn't there be more ways to pool resources and make use of the SIWFT cooperative for more than it is now? This is especially important as we move towards mobile payment services and more, and this is what drove the Innotribe program in terms of proving that SWIFT could be used for much more than just messaging.

**Q What do you see as the big things happening in the future from a financial innovation viewpoint?**

**A** I know for a fact that the new economies and new values that we discuss within Innotribe are driven by social media. Social media is creating new currencies and new economic models, and this will be very big and very important in the two to three years downstream from now. The question for the banks is how will they position in this new world of peer-to-peer currencies in social media. That is going to be a key question for banks in innovation for the next few years.

The other area is what I call strong AI. This is a modern way of looking at AI. The old way was mechanical and thought of this as expert systems. Today, we have this enormous computational power in our hands now, and we should make a big splash around this for the next four or five years.

So social data, social media, alternative currencies and peer-to-peer payments will dominate for the near term, and then big data and AI in four or five years from now.

**Q And for your Innotribe program, what's in the future?**

**A** For our own program, we will try in 2012 to have more Start-Up competitions that we started at SIBOS in 2011. We would like to have three or four of those.

Innotribe also talked about "Banks for a Better World" this year, and that's had a strong take-up in our community. It's a hotspot as it moves us away from purely talking about technology innovations, but instead talk more about the perceptions and sentiments about banking and how to improve the governance, operation and support for the industry. That's got a strong interest.

When you combine the future of money, the future of banking and banks for a better world as three topic areas, you see a strong interest in this. We will also run more around the Incubator, and then we have a few more ideas around ways to innovate Innotribe, but I'll keep that in my pocket for now ■

## About Kosta Peric

Konstantin (Kosta) Peric was appointed Head of Innovation in 2007. He leads the team whose main mission is to enable collaborative innovation within the financial industry. They are also the force behind Innotribe. Kosta was previously Head of Securities Market Infrastructures in the sales division, with responsibility for negotiating and acquiring key strategic programmes. He was also the chief architect for SWIFTNet. Kosta joined SWIFT in 1990.

## About Innotribe

Innotribe is SWIFT's initiative to leverage the collective intelligence of its community in

order to find new ideas and new projects, and then establish the infrastructure that will enable them to grow. The Incubator is a new mechanism created by Innotribe to facilitate exploration of innovative ideas in a collaborative way: it is a framework to enable collaborative innovation at a level up from the 'proofs of concept' already facilitated by Innotribe. The Innotribe Start-up Challenge was designed to introduce the most promising FinTech and Financial Services Start-Ups to SWIFT's community of more than 9,700 banking organizations, securities institutions and corporate customers in 209 countries.





## Social Media - A New Service Channel

**Pol Navarro**

Head of Direct Channels and Innovation  
Banco Sabadell

Although many of us hear about problems in Spain and issues with the capitalization of some of the banks there, few of us may realise that Spanish banking is a hotbed of innovation. Bank Inter created an iris recognition app for the smartphone as a secure device and BBVA were one of the first banks to implement a full Personal Financial Management system for the mobile Internet anywhere in the world. Banco Sabadell is the sixth Spanish Financial Institution by assets, and also demonstrates thought leadership through social media and smartphone innovations. Pol Navarro is their head of innovation and discusses some of the things they have achieved with Chris Skinner, Chairman of the Financial Services Club.

### **Q What does innovation mean to you?**

**A** We believe innovation is a need to adapt to an environment, which changes faster and faster. If companies do not change at least as fast as their environment, they will not survive. The digital revolution arising from the convergence of communications and media, along with social changes derived from the use of social media, have brought about a new model of

social relations. Thus, if consumers are changing, companies need to find a new model for servicing and establishing new relations.

Many banks are introducing new services and improving their channels to better interact and communicate with customers. However, in our opinion, we face a new paradigm. Customers have gained power and freedom in their relation with companies and with banks. Thus, a new way of doing banking should emerge; one that will allow customers to experience what they are already enjoying in other areas of their day to day activities. It is a banking relationship with a seamless multichannel approach, but with a human touch.

We think that banks need to focus innovation in three main areas:

1. Improving your operations: "Make things cheaper and more efficient", such as creating the paperless branch;
2. Improving your customer experience: "Make things easier and simple", an example being mobile banking; and
3. Developing new areas of business: "Make



things different and generate new areas of revenue”, for example with social media banking or P2P payments.

**Q How does the bank incorporate innovation into its operations?**

**A** At Banco Sabadell, management is highly conscious and supportive about innovation. We have built a pioneer image in the use of new channels to serve customers and are a reference point in innovation. We truly believe that this image brings value to our franchise.

We approach innovation through three levers: technology, processes and customer service model. For example, before incorporating social media tools to our client relations, we had already incorporated social media in our internal innovation and improvement process. We created BS Idea, a social network where employees can collaborate and present their ideas to be enriched, criticized and voted for by other colleagues. In 2010, more than 3,000 ideas were generated by employees.

Recently we launched a campaign whose claim was: “This isn't remote banking, it's taking the bank with you.”

With this campaign, we wanted to show all the servicing capabilities that the bank can offer customers from a very dynamic, versatile and modern perspective. Therefore, customers can enjoy the advantages of service - 24x7 access from home, immediacy, etc. - without losing the proximity and the service that are inherent to our values.

“Taking the bank with you” implies that we will be close to our customers when they need it, wherever they are.

Our aim is to have multichannel branches. We need to involve our employees in this multichannel approach and extract the potential of their implication in social media. This means we have to decide about the role that employees need to play, which is not a straight forward question.

**Q In the current climate, is innovation important or should banks just focus upon survival?**

**A** We think that survival is linked to innovation. If companies are not able to adapt to the new digital environment, they will not survive. And if they do not do it fast enough, they will not survive either, because other companies will do faster or better.

Another thing is that, in the current context, innovation should be more productive than ever. This means that we need to invest in the things that show off our capabilities and which fit with our project. We are not saying that we only need to invest in initiatives that will generate revenues in the very short term. If we thought that way, we would not be investing in social media, since that is not a huge source of revenues at present.

**Q What are the things that you see as being innovative out there?**

**A** What we think is more innovative is what banks are doing to change the customer service and relationship model. When in the 1990s, Internet banking emerged, we thought it would change the banking industry. It has added transactions and convenience for customers, as ATMs did earlier, but it did not change the essence of customer-bank relations. These relations did not change because trust is built in the branch, and trust requires the human touch.

So what we see as truly innovative is going from Internet banking to Facebook or Twitter banking.

Customers can interact with persons at the bank, but gain flexibility in time and space. There is still a long way to go to gain the full potential of this opportunity.

Some banks, including Banco Sabadell, are taking steps to incorporate social media as a service channel, and this not only for communications but for service and, in the future, we will incorporate it to the branch. For us, this is what we see as truly innovative, since

it is transformational. Of course, to be successful, this should come along with simpler and easier banking.

On the other side, we think that mobile banking will be at the heart of our service platform, from daily transactions to everywhere payments: person to person, retail chains, online payments, etc.

At the end of the day, it's about building an easy, simple and friendly bank.

**Q I know you've been active in launching early apps for the bank on the iPad and other devices. Have these been successful or just gimmicks?**

**A** In 2010, we were the first financial institution in Europe with an iPad application. It has been well accepted by our customers and we keep improving it. For example, we recently integrated social media in the application. Other institutions have followed suit.

We were also the first institution in Spain to have an application for all mobile devices – the iPhone, Windows Phone, Android, Blackberry. We were also the first to offer the remote deposit capture for cheques in Europe.

We do these things because innovation is one of our values and is very much related to service, with our figures showing that customers are taking advantage of this effort.

Currently, more than 17% of our on-line customers are active mobile banking users. This means that nearly one out of five individuals who access our on-line banking platform does it from a mobile phone. In companies, this ratio is one out of ten. Moreover, 80% of service transactions are now performed through remote channels. This is very significant in a country like Spain, which is not at the head of Europe in Internet penetration. The previous figures only refer to our mobile banking platform by the way. In addition, we have approximately 700,000 users of our SMS alert service, which is approximately 30% of our customer base.

**Q And your social media usage is something that you talk about a lot, does it cost a lot to do this?**

**A** Management at Banco Sabadell understood from the beginning that we needed to be present in Social Media. We think that the web is like main street and social media is like the pub where people go to chat. We saw quickly that people talked about us and that we could talk to our customers and potential customers, as well as provide service. At the end of the day, markets are conversations, and we want to be part of these conversations.

We started in 2010 by listening at what people were saying about us. Then we evolved from listening, to using social media as an integrated service channel, and later as a video content viralization platform. We saw that, in some sense, it was more powerful than traditional communication tools, since it allowed us to have conversations with our clients.

We see social media as a new service channel. From the moment we have conversations with our customers, many of these are about services and products that the bank offers. The issue is that these conversations are often taking place without being directed by us.

For example, we had a taxi driver praise Banco Sabadell's service and the point of sale terminal that was installed in his cab. After reading his comments, we had petitions about this service from other cabdrivers, who also wanted the product. The magic is that we didn't start the sales process directly for that offer. A satisfied customer did, and the virality of social media did the rest.

Our social media efforts are fully integrated with our organization, so all of our service interactions are managed by our multichannel service team, all viral content is generated by our communication and marketing team. From our experience, we learnt that the best approach is to engage every department that is already responsible from traditional media, to leverage daily operations, to social media.

**Q And what innovations do you foresee for the mid- and long- term future?**

**A** In the mid-term, we are watching different trends. On social media, we think the future will be about integrating Big Data on your CRM to increase the knowledge of your customers and provide a more personalized experience. This Big Data will come from different sources: conversations on social networks, credit card transactions, social reputations like Klout, etc. Another trend will be the evolution of loyalty programs based on mobile, location and gamification, like the foursquare of banking.

For the long term, the concept of smart cities and the internet of things will allow us to attach financial services everywhere, because everything will be connected in all metropolitan areas, making transactions easier for customers, merchants and city services ■

**About Pol Navarro**

Pol Navarro is Head of Direct Channels and Innovation at Banco Sabadell. He received a graduate degree in Computer Science at Universidad Aut3noma de Barcelona, an MBA at Universitat Oberta de Catalunya and Harvard School, and executive degree at IESE Business School. Actually is Head of Channels and Innovation at Banco Sabadell, one of Spain's biggest banking groups, where he leads all the activity related to new channel development, new customer services and

innovation. During the last years, he has been responsible of e-banking and direct channels at Banco Sabadell, where he lead the bank's on-line offering transformation and evolution.

Pol Navarro is a highly qualified digital business, customer service and ecommerce strategist, and recognized thought leader, speaking internationally on several Banking, Mobile and Internet conferences.

Twitter: @polnavarro

**About Banco Sabadell**

Banco Sabadell is the sixth Spanish Financial Institution by assets. Founded in 1881 by a group of local businesspeople from Sabadell, it was able to transform itself to a national banking group with international presence. Its main business is retail banking, where it is a reference in affluent banking, SME and international commercial banking. Banco Sabadell has also an important Private Banking Division.

Domestic and international acquisitions have marked recent years. It has integrated banks with NatWest, Herrero, Atl3ntico, Urquijo and, recently, Guipuzcoano in Spain; in the U.S.A., Transatlantic Bank, BBVA Miami, Mellon United Bank of Lydian Private Bank. Its capabilities to assimilate new institutions in an orderly and efficient manner and in record integration time, has made Sabadell a reference case in these operations.



## Social Media Strategy for Banking Next



### Précis

The debate about the reality of 'social' has been put to bed long ago. Social media strategy is a key component of the organizational agenda in many industries. However, banking is not among them.

Banks' resistance to social media stems from their concern about regulatory non-compliance and a lack of understanding of this channel's true potential. While these

issues are valid, banks need to find a way around them and get on with their social media strategy if they wish to stay relevant in 'bankingnext'.

Social media strategy can stand alone or work as part of the overall marketing/customer service strategies. What is important is to give it a clear focus and the support of the organization.

### Time banks woke up to the reality of social media.

Recently, Barack Obama's decision to allow his daughters a Facebook account only after another four years was received with much irony. For we haven't forgotten his social media heavy presidential campaign.

Social networking is without doubt the biggest development of our times. It has given a whole new dimension of influence to the power of consumers, which they are using liberally to force companies to develop products they would like, drop those that they don't or withdraw

advertisements that they find offensive. It has given service providers (including heads of Government!) an exciting medium of engagement. And in the past year, it has grown into a tool of political activism.

So far, banks have largely been at the receiving end of this phenomenon. Social media played a huge role in whipping up public discontent against errant financial institutions during the crisis. Recently, an online campaign exhorting customers of the largest U.S. banks to take their business elsewhere, received more than 75,000 commitments on Facebook. Let's not even speak of the Wall Street protests.

Even so, most financial institutions have not woken up to the reality of social networking. In an August 2011 survey of representatives of 35 global financial institutions, a mere 4% said that they were in control of social media conversations about their brands.

Banks' uneasy relationship with social media is best captured by the imaginative Facebook Social Engagement Index, on which a major international bank scored 0.17 against table topper Lady Gaga's 22! While other industries – retailing, telecom, hospitality and automotive among them – are stepping up their usage of social media to innovate, market, communicate and service, the banking sector has chosen to do little other than put up a token presence on the most popular sites. It's time for the industry to shake off its inertia.

#### **Banks and social engagement – why they don't and why they should.**

There are many reasons for the financial industry's limited social media engagement – most banks worry that they might fall foul of regulations; many don't understand social media or its relevance to their business and deem it less important than traditional media; others fear negative publicity; and the banks that are keen to participate don't know where to start. But they can't procrastinate much longer because social media will definitely play a major role in 'banking next'.

These are just some of the reasons why:

It's where the customers are. It is established that social networking is the world's top online activity. Consumers spend nearly 20% of their time online on social networks, where conversations frequently turn to brands and products, likes and dislikes. This is where reputations are made and unmade, almost instantly. In fact, a leading U.S. bank has firsthand experience of this, having been targeted by a large number of consumer activist blogs; the only way they and other organizations sharing their fate can undo this damage is by, to quote Domino's Ramon De Leon, "put out social media fire with social media water".

Social media is a powerful channel of marketing and promotion. Consumers are no longer interested in one way messaging from brands, products and companies delivered via traditional media. Research shows that at least 85% of them trust the product feedback from their social communities more than company sponsored advertising. That's not all. These consumers are also using social conversation to tell companies and brands what they would like from a product or service.

Hence, marketing (and banking) organizations hoping to connect with the customer community have no choice but to engage them directly in two-way dialog in social media. On the plus side, these organizations can leverage the unfiltered customer insight gleaned from these interactions to innovate, improve products and services, and devise future marketing strategies. Best of all, they can reach an unprecedented number of consumers – en masse or one on one – at really low cost.

New entrants are using it successfully. Other industries, such as retailing, telecom, Internet services, hospitality and automotive are proven social media successes. As retailing giants, mobile operators and Internet companies venture into the financial services space, they are using their 'social' savvy to strengthen their business models and evolve new ones. For instance, Tesco Bank, which offers a pet insurance product, has built a community for pet lovers called Tesco Pets. Zopa and Prosper are two among a number of new generation social lending platforms, which facilitate individuals to extend quick loans to each other.

By staying away from social media, traditional banks risk ceding the advantage to their new rivals and worse, becoming irrelevant to younger and future customers, who are accustomed to using it extensively to transact and interact with their other service providers, and would expect to do the same with their financial institution.

Social engagement improves stickiness. Data shows that members of enterprise communities





make better customers than non - members – they stay considerably longer, spend more, interact frequently with the companies’ websites and share their good experiences with fellow members.

### **Taking the first step: Building Strategy**

The good news is that at last a part of the financial sector seems willing to take the plunge. In the survey mentioned earlier, 3 of 4 respondents acknowledged that the industry lagged others in social media activity; and barring a slender minority of 13%, every one of them claimed that their bank either had a social media strategy or was in various stages of putting together one.

So is it essential for every banking institution to evolve a separate strategy for its social agenda? Not really.

Based on its objectives, ambition and resources, a bank can either choose to implement a standalone social media strategy, or simply incorporate it within its existing marketing and customer service strategies. However, before doing so, it must take a single holistic view – and not several isolated perspectives – of its social media goals to ensure consistency. Also, it goes without saying that the bank must align its social media strategy and objectives with the overall purpose of the organization.

Regardless of whether a social media strategy stands on its own or is merged into an existing one, it needs to define the following elements, which are interdependent to a greater or lesser extent:

**Goals:** Being very versatile, social media has a variety of applications. While organizations may be tempted to aim for all, they are well advised to focus on the ones that are most important instead of wasting their energy on peripheral pursuits. While building a social media strategy, their first step should be to identify their top priorities among several possibilities, such as customer engagement, service delivery, innovation and co-creation,

sales and promotion, outreach etc., and having done that, identify the target audience. For example, Wells Fargo – the acknowledged social media frontrunner of the banking world – has chosen to spread financial education through social gaming, while Bank of America has decided to support the small business community.

**Commitment:** Social media strategy must take into account the banks’ current level of commitment. Some banks may be keen to dive deep, whilst others may only want to test the waters. Most may choose to remain passive observers on social networks, but a few might harbor ambitions of originating transactions over them. The social media strategy of a bank that wants to be seen as the benchmark will obviously be richer and require more resources, than that of a bank which is content with being a “me too”. Again, taking the example of Wells Fargo, besides Stagecoach Island, its well-known virtual world, the bank’s social media initiatives include an innovation lab, contests based on user-generated videos, and a number of blogs.

**Media:** While general networking sites offer access to a huge consumer universe, specialized communities enable organizations to connect with a smaller group of people sharing a similar profile or interest, and for that reason make for a more effective forum of communication. They also provide better visibility to marketers. Similarly, different social tools serve different purposes: blogs are useful for establishing thought leadership; ratings for checking product acceptance; contests for co-creation and innovation; and Wikis for creating and sharing knowledge.

Obviously, a bank’s decision of where to be present and which tools to use must be in sync with its goals and the extent of its involvement with social media. The decision also depends on resource availability, because unlike a page on Facebook, which is quick and free, building a dedicated closed-loop community or blog site takes time, technology and manpower.

**Organization and resources:** A page on Facebook or occasional Twitter feed does not count as social media presence. In order to make a success of their social strategy, organizations need to support it with the right structure and resources. Since customer interactions on social media are two-way, dynamic, instantaneous, and public – quite unlike the top-down, controlled one-way communication of traditional media – they call for a different set of skills among the organizations’ participants. What this means is that the responsibility for social media cannot be assigned to just anyone, and only people with adequate training and ‘social’ savvy must be permitted to represent the organization in these conversations. Citibank provides a good example of this.

**Results:** The difficulty of relating social activity to business impact is a barrier to social media adoption. Certainly, a social media strategy that does not yield business results is pointless. As part of their social media strategy banks need to find a way to link social metrics such as the number of Facebook likes or Twitter followers to hard business parameters like sales or cost savings. At the same time, it would be a mistake to use social conversations only to promote sales – this actually indicates a lack of understanding of the medium. The ideal approach lies somewhere in between, and is one that puts the interest of customers (better service, innovative products) before that of the organization. Somewhat like the approach of Credit Unions and Cooperative Banks, which typically use social media to contribute to the local community.

### Face the challenges and move on

The journey into ‘social’ is inevitable, but is not without its hurdles. The absence of a clear regulatory position on social media, unfamiliarity with the medium, lack of success stories, unavailability of banking-specific solutions, and plain inertia rank among the top barriers to adoption. While banks need to acknowledge these challenges, they must not be overwhelmed by them. The social media opportunity is far too important to let go ■

### Reference

1. Social Media and the Banking Industry  
[http://socialmediatoday.com/ClientFiles/2b461d74-0b05-4149-a6fd-33257181a2c7/SMbanking\\_v1.pdf](http://socialmediatoday.com/ClientFiles/2b461d74-0b05-4149-a6fd-33257181a2c7/SMbanking_v1.pdf)
2. Social Media Strategy, Meritus Media Inc., 2011
3. How Banks Can Master Social Media, December 13, 2011,  
<http://www.onsearchinteractive.com/blog/social-media/blog/social-media/how-banks-can-master-social-media/>
4. Banks Lagging Behind in Social Media Strategy, November 10, 2011,  
<http://www.banktech.com/channels/231902740>

### Author

#### Balwant C Surti

Head – Solutions Architecture and Design  
Group, Finacle  
Infosys

### Also Read

#### Making Social Media a Part of Multi-channel Strategy

Today, the banking community is hotly debating the role and relevance of social media to its business. While it is true that banks, which are cautious by nature and need, have not plunged in, there are signs that social media has already changed the way they do certain things.

<http://www.infosys.com/finacle/solutions/thought-papers/Documents/Making-Social-Media-Part.pdf>



# Building Customer Engagement in the Bank of Tomorrow

**Juan Carlos Mora**  
Chief Operating Officer  
Bancolombia



## Précis

Bancolombia, Colombia's leading bank is in the midst of transforming itself into the bank of tomorrow. In this article, Juan Carlos Mora, Member of Executive Committee - Bancolombia, Colombia, talks about the bank's transformation programs and the need to establish an emotional connect with customers to build engagement. He cites a number of

research studies as well as Bancolombia's ongoing experience to substantiate this argument, especially their use of various technologies, such as CRM and Customer Analytics to improve engagement with customers at every stage of the relationship life cycle.

In the 15 years since Bancolombia listed on the New York Stock Exchange, the business has come a long way. Assets have grown 20 times; customers have multiplied 28 times; and employee strength has grown six-fold. The bank leads by market share in both Colombia and El Salvador. However, the events of recent years have taught us that past success is no guarantee for the future and that we must adapt to changing circumstances to become the bank of tomorrow that is still relevant to our customers.

Accordingly, our Bank has initiated two transformation programs, one to upgrade the IT infrastructure, and the other – more significant

one – to bring a more human approach to the way we interact with our customers and employees.

Accordingly, our Bank has initiated two transformation programs, one to upgrade the IT infrastructure, and the other – more significant one – to bring a more human approach to the way we interact with our customers and employees.

The latter program stems from our desire to address the public perception of the financial industry, which took a serious beating during and after the financial crisis, and also impacted the morale within banking organizations. We

believe that the only way to redress the issue is by rebuilding the emotional connect with customers, which has eroded over the last few years. And this is precisely what we have set out to achieve through transformation.

### **Emotionally satisfied customers are better engaged**

Studies show that emotions frame customer encounters and determine their outcomes to a significant degree. Certainly, emotional factors influence relationships much more than rational ones. This is the reason why an international research organization recommends that apart from evaluating rational parameters, businesses must measure the emotional aspects that go into creating customer satisfaction, namely, Competence, Integrity, Pride and Passion. Their studies show that emotionally satisfied customers outperform rationally satisfied ones by far; they spend more, are loyal, and are highly invested in the relationship with their service providers.

In addition to engaging with customers at a deeper level, banks must do the same with employees. Like emotionally satisfied customers, emotionally connected employees also contribute more to the business. For example, by producing work of higher quality they improve productivity and minimize waste, and by taking a long term career view, they maintain continuity and reduce the organization's recruitment spending. Moreover, productive, committed and motivated employees also create indirect positive outcomes, such as strong customer relationships, growth and profitability.

It is no surprise that businesses, which have emotionally connected customers and employees both, perform better than others.

### **Technology helps build engagement**

Technology, such as customer analytics and CRM, has a major role to play in facilitating emotional engagement with customers and employees alike. Banking institutions, which

possess huge quantities of data, must leverage this asset to improve their understanding of customers and eventually, their customer relationships. With the right CRM solution, banks can make customer information available to the entire organization, giving service executives across products, lines of business and channels the same, unified, 360-degree view of each customer.

Customer engagement needs to be managed at a local, individual level, after taking into account the all-important aspect of variability. The following example illustrates why going by organizational averages does not work in its case: Typically, a fully engaged customer is said to yield a 23% premium over the average one in terms of share of wallet, profitability, revenue and relationship growth. However, a study of customer engagement across 100 stores of a retail chain that did not factor the differences between the level of engagement between different customers in its strategy revealed a massive 350% difference between the performance of the best and worst stores. Not paying sufficient attention to variability could jeopardize a business' ability to sustain positive engagement.

Clearly, the best way to manage engagement is to take feedback and action at the point where engagement actually occurs, which is locally. This is where analytics can make a difference by analyzing data at a fine granular level and producing insights specific to local points of interaction, which the organization can leverage to further engagement.

### **Customer analytics supports engagement at every stage**

Analytics facilitates different goals at every stage of the engagement lifecycle, namely, Discovery, Acquisition, Servicing and Empowerment. In the discovery phase, it enables the bank or other organization to ascertain the stated and unstated needs of customers, profile and segment customers according to different parameters, and identify the right targets.

In the second phase of acquisition, analytics helps to analyze customer needs in detail and map the right marketing model and mix to each.

At the servicing stage, analytics delivers insights into new engagement models, right sell opportunities and the best products to be offered to customers to suit their preferences and needs.

Finally, analytics provides valuable insights required for customer empowerment.

**Engagement is imperative for the bank of tomorrow**

Essentially, CRM and analytics help organizations like ours understand and influence customer behavior, reduce customer-related risk and arrive at the right channels of

communication en route to better engagement. At Bancolombia we have improved service efficiency by using CRM to institutionalize both stated and tacit customer information, which is gathered across all touch points online, in real time. We are able to feed the back office with timely information to help sustain customer relationships. Besides enabling us to forge an emotional bond with our customers, our various analytics solutions have allowed us to create the right product bundles, enhance service and purchase efficiency and raise our defenses against fraud and security threats. Analytics - along with CRM - are a key component of the two transformation initiatives that will enable us to evolve our bank of the future■





## Building a Collaborative Enterprise

### Précis

At many leading edge enterprises, a new form of organization is emerging - one that is simultaneously innovative and efficient, agile and scalable. It is a way of working that focuses on knowledge production.

By marrying a sense of purpose to a robust operating structure, these collaborative communities are harnessing knowledge workers' creativity in a flexible, but also highly manageable fashion.

To build such communities, companies must master a new set of skills:

- define and build a shared purpose
- cultivate an ethic of contribution
- develop scalable processes for co-ordinating people's efforts
- create an infrastructure in which collaboration is valued and rewarded

A software engineer we'll call James vividly remembers his first day at Computer Sciences Corporation (CSC). The very first message he received: "Here are your Instructions" (yes, with a capital I)

"I thought I was bringing the know-how I'd need to do my job," James recalls. "But sure enough, you open up the Instructions, and it tells you how to do your job: how to lay the code out, where on the form to write a change request number, and so on. I was shocked."

In this division at CSC, code is no longer developed by individual, free wheeling programmers. They now follow the Capability Maturity Model (CMM), a highly organized process that James initially felt was too bureaucratic: "As a developer, I was pretty allergic to all this paperwork. It's so time consuming."

Not anymore. "I can see the need for it now," James says. "Now I'm just one of 30 or 40 people who may have to work on this code, so we need a change request number that everyone

can use to identify it. I can see that it makes things much easier.”

What James was joining at CSC was neither a code-writing assembly line nor a bunch of autonomous hackers but a new type of organization that excels at combining the knowledge of diverse specialists. We call this kind of enterprise a collaborative community.

Collaborative communities encourage people to continually apply their unique talents to group projects and to become motivated by a collective mission, not just personal gain or the intrinsic pleasures of autonomous creativity. By marrying a sense of common purpose to a supportive structure, these organizations are mobilizing knowledge workers’ talents and expertise in flexible, highly manageable group - work efforts. The approach fosters not only innovation and agility but also efficiency and scalability.

A growing number of organizations including IBM, Citibank, NASA, and Kaiser Permanente - are reaping the rewards of collaborative communities in the form of higher margins on knowledge intensive work. (The CSC divisions that applied the CMM most rigorously reduced error rates by 75% over six years and achieved a 10% annual increase in productivity, while making products more innovative and technologically sophisticated.) We have found that such clear success requires four new organizational efforts:

- defining and building a shared purpose
- cultivating an ethic of contribution
- developing processes that enable people to work together in flexible but disciplined projects
- creating an infrastructure in which collaboration is valued and rewarded.

Our findings are based on many years of studying institutions that have sustained

records of both efficiency and innovation. The writings of great thinkers in sociology—Karl Marx, Max Weber, Émile Durkheim, and Talcott Parsons—also inform our work. These classic figures were trying to make sense of broad economic and social changes during times when capitalism was mutating from small-scale manufacturing to large-scale industry. Our era represents just as momentous a shift, as we make the transition to an economy based on knowledge work and workers.

### A shared purpose

Sociologist Max Weber famously outlined four bases for social relations, which can be roughly summarized as tradition, self-interest, affection, and shared purpose. Self-interest underlies what all businesses do, of course. The great industrial corporations of the 20<sup>th</sup> century also invoked tradition to motivate people. And many of the all businesses do, of course. The great industrial corporations of the 20<sup>th</sup> century also invoked tradition to motivate people. And many of the most innovative companies of the past 30 years Hewlett Packard, Microsoft, Apple, Google, and Facebook have derived strength from strong, broadly felt affection for a charismatic leader.

**A shared purpose is not the verbiage on a poster or in a document, and it doesn’t come via charismatic leaders’ pronouncements.**

In focusing on the fourth alternative a shared purpose collaborative communities seek a basis for trust and organizational cohesion that is more robust than self-interest, more flexible than tradition, and less ephemeral than the emotional, charismatic appeal of a Steve Jobs, a Larry Page, or a Mark Zuckerberg.

Like a good strategy or vision statement, an effective shared purpose articulates how a group will position itself in relation to competitors and partners and what key contributions to customers and society will



define its success. Kaiser Permanente's Value Compass, for example, succinctly defines the organization's shared purpose this way: "Best quality, best service, most affordable, best place to work."

This shared purpose is not an expression of a company's enduring essence, it's a description of what everyone in the organization is trying to do. It guides efforts at all levels of Kaiser: from top management's business strategy, to joint planning by the company's unique labor management partnership, right down to unit based teams' work on process improvement. In that regard, Value Compass is less a vision than a recognition of the challenges that every member of the group has the responsibility to meet every day. (See the sidebar "A Collaborative Dance at Kaiser Permanente.")

Leaders often have trouble articulating such a purpose, falling back on either lofty truisms ("We will delight our customers") or simple financial targets ("We will grow revenues by 20% a year"). Indeed, the development of a common purpose can be a long, complex process.

For instance, IBM, which needed to reorient its employees from a focus on selling "big iron" in the 1990s, spent a decade building a shared understanding of integrated solutions and on demand customer focus that went beyond simplistic rhetoric. For many years middle managers and technical employees had found it difficult to frame these concepts in practical terms. They didn't understand at an operational level what it meant for the company to offer not just its own products but those of other vendors and to sell customers not simply what IBM offered but exactly what they needed when they needed it. Today these common purposes have become part of the language shared daily by people from different functions and at various levels of IBM as they face challenges together.

Properly understood, a shared purpose is a powerful organizing principle. Take, for example, e-Solutions, a unit of about 150

people formed in April 2000 within the cash management division of Citibank to address a competitive threat from AOL, whose customers were already banking, trading stocks, and buying mutual funds online. To meet this challenge, Citibank sought to boost the growth rate of its core cash-management and trade business from 4% to roughly 20%.

But that was just the business goal. The common purpose behind that number was the aspiration to be a leader in creating new and complex online banking products that could be tailored rapidly to customers' needs. To fully grasp this purpose required widespread discussion and a shared understanding of the company's competitive position within the industry, the evolution of customer needs, and the distinctive capabilities of the organization.

A shared purpose is not the verbiage on a poster or in a document, and it doesn't come via charismatic leaders' pronouncements. It is multidimensional, practical, and constantly enriched in debates about concrete problems. Therefore, when we asked managers at e-Solutions why they worked on a given project, they did not answer "Because that's my job" or "That's where the money is." They talked instead about how the project would advance the shared purpose.

### **An ethic of contribution**

Collaborative communities share a distinctive set of values, which we call an ethic of contribution. It accords the highest value to people who look beyond their specific roles and advance the common purpose.

The collaborative view rejects the notion of merely "doing a good job," unless that actually makes a contribution. We have learned from practically a century of experience with the traditional model that it is quite possible for everyone to work hard as an individual without producing a good collective result. An ethic of contribution means going beyond one's formal responsibilities to solve broader problems, not

just applying greater effort. It also rejects the strong individualism of the market model and instead emphasizes working within the group (rather than trying to gain individual control or responsibility) and eliciting the best contributions from each member for the common good.

Consider the way the software engineers at CSC view the aptly named Capability Maturity Model. “A more mature process means you go from freedom to do things your own way to being critiqued,” one engineer acknowledges. “It means going from chaos to structure.” That structure makes these knowledge workers more conscious of their interdependence, which has in turn encouraged the shift from an ethic of individual creativity to an ethic of contribution. Another engineer uses this analogy:

“It’s a bit like street ball versus NBA basketball. Street ball is roughhousing, showing off. You play for yourself rather than the team, and you do it for the love of the game. In professional basketball, you’re part of a team, and you practice a lot together, doing drills and playing practice games. You aren’t doing it just for yourself or even just for your team: Other people are involved—managers, lawyers, agents, advertisers. It’s a business, not just a game.”

The type of trust engendered by an ethic of contribution is less of a given than the trust at traditional organizations, which is firmly rooted in a shared set of rules expressed through tokens of the shared culture. (For many years at IBM, for example, all “good” employees wore the same kind of hat.) But it is also less mercurial than trust built upon faith in a charismatic leader and dazzling displays of individual brilliance. Trust in collaborative communities arises from the degree to which each member believes the other members of the group are able and willing to further the shared purpose. (See the sidebar “Three Models of Corporate Community.”)

Given this difference in values, people working on collaborative efforts within larger organizations can find themselves at odds with both the loyalists and the free agents in their midst. For instance, contributors at e-Solutions, working within the generally traditional Citibank organization, were suspicious of the tendency to discuss “who you know” rather than focusing on the task at hand.

“Everyone has their own signals that they look for,” said one contributor. “If someone comes into the first meeting and starts throwing around names, my hackles go up because that means, rather than focusing on capabilities and market proposition, they’re trying to establish credibility in terms of who they know and who they’ve talked to....that, at the end of the day, doesn’t move you an inch down the line.”

### Instituting interdependent processes

Of course, a shared purpose is meaningless if people with different skills and responsibilities can’t contribute to it and to one another. Although traditional bureaucracies excel at vertical coordination, they are not good at encouraging horizontal relations. Free-agent communities excel at ad hoc collaboration but are less successful at large-scale interdependent efforts.

### Interdependent processes are shaped More by people involved in the task than by those at the top.

The key coordinating mechanism of a collaborative community, which is often made up of overlapping teams, is a process for aligning the shared purpose within and across the projects. We call that type of coordination interdependent process management, a family of techniques including kaizen, process mapping, and formal protocols for brainstorming, participatory meeting management, and decision making with multiple stakeholders. CMM, with its well developed methods, for instance, enables



## A Collaborative Dance at Kaiser Permanente

A unit of Kaiser Permanente in California developed a new protocol dubbed the Total Joint Dance that illustrates how collaborative communities mobilize the knowledge of many diverse contributors to yield scalable business results.

In 2008 Irvine Medical Center wanted to streamline its costliest, most time intensive surgeries: total-hip and knee-joint replacements. The task was daunting, because the solution required collaboration among specialists who normally fight for resources.

The feat could not have been accomplished by either a traditional or a free-agent type of organization. As Dr. Tadashi Funahashi, the chief of orthopedics, explained, “You have multiple surgeons from multiple different practices, each wanting to do it their own way.” What’s more, most of Kaiser’s employees and insurance customers are unionized. Union cooperation was critical, so neither a top-down administrative mandate nor a surgeon driven approach was feasible. Kaiser’s collaborative community was formalized in the Labor Management Partnership, a joint governance structure involving management and most of Kaiser’s employee unions.

In May 2008 a team of OR nurses, surgeons, technicians, and others was assembled. Together this group of union staff, management, and physicians examined every point in the process.

“Usually when we’re in the room, we wish it would be done differently,” said an OR nurse who was part of the efficiency team. “But this time we actually got a voice in how it’s done differently.”

Efficiencies were gained by making three types of changes. The first identified parts of the sequential process that could be done simultaneously. Housekeeping staff, for instance, might start the clean-up process when a surgeon begins securing sutures instead of

waiting until the patient is out of the operating room.

The second type of change was triggers: cues to a staff member about when to begin a specific task, such as alerting the post-op and transporting departments that a surgery is ending and the patient will be ready for transport in 15 minutes. This matter might sound trivial, but it requires people to think beyond their own jobs to how their roles fit with others’.

The third change was investing in a “floater” nurse who could move between ORs to provide extra help or relieve staff on breaks. That added capacity is costly but pays off in cycle time reductions a trade off that managers miss if they’re focused purely on dollars.

The effect of combining better coordination with increased resources was “like night and day,” as Dr. Funahashi describes it. “It’s the difference between a well organized, choreographed team and things happening in a default chaotic state.”

With these three changes in place, the number of total hip and knee-joint replacement surgeries increased from one or two up to four a day, and the average turn around time between procedures dropped from 45 to 20 minutes. Better coordination freed up 188 hours of OR time a year, at an average annual saving of \$132,000 per OR.

Patients and employees are also happier with the outcomes. Surveys of OR staff at one Kaiser facility showed an 85% increase in job satisfaction after the new protocol was adopted. Perhaps most significant from an organizational perspective is that the gains were scalable. For example, the practices have been adopted by general surgery, along with head and neck, urology, vascular, and other surgery specialties at Irvine. And this approach has spread to other Kaiser hospitals.



CSC's software engineers to quickly tailor proven project management procedures to the needs of the project at hand. Interdependent process management is explicit, flexible, and interactive. Processes are carefully worked out and generally written into protocols, but they are revised continually as the demands of the work and of clients change. They are shaped more by people involved in the task than by those at the top. As one CSC project manager put it, "People support what they help create.... As a project manager, you're too far away from the technical work to define the [processes] yourself....It's only by involving your key people that you can be confident you have good [procedures] that have credibility in the eyes of their peers."

At e-Solutions, interdependence took shape in the "e-business road map," which was made available online to everyone in the organization, served as a template for emerging projects, and was continually updated and refined. Emerging teams developed their own maps to feed into it as they defined their roles and responsibilities.

In a collaborative community, anyone can initiate changes if his or her work demands it, but considerable discussion is required to figure out the consequences for other

participants and to make sure that everyone understands them. A Citibank e-Solutions manager described it this way:

"Who owns the process map? We all do. All of us have different perspectives, either on particular partners or on the products or on the overall relationship. When we make a change, it gets communicated to everybody. We've had team meetings to discuss it; everyone understands his role. Originally it was just me and a couple of other people; when we split responsibilities from delivery and execution, we had to redo the exercise."

This kind of process management is tough to maintain. It requires people who are accustomed to more traditional systems to develop radically new habits. In either bureaucratic or market oriented organizations, people are given objectives and procedures but are generally left alone to operate within those boundaries. Collaborative process management intrudes on that autonomy it requires people to continually adapt to others' needs. Accepting the value of this interdependence is often difficult, and the habits of documentation and discussion may require considerable time to take root. A manager at Johnson & Johnson described his group's struggles:

### Three Models of Corporate Community

Traditional enterprises inspire institutional loyalty; free-agent communities foster individualism. Neither type of organization creates the conditions for collaborative trust that business today requires.

#### Traditional Industrial Model

These densely interconnected communities are bound by strongly shared values and traditions: clear roles, consistent opportunity for advancement, job security, and benefits. The combination of loyalty and bureaucratic structure allows such organizations to reach unprecedented scale but makes them inflexible and slow to innovate.

#### Free-agent Model

These organizations are innovative and flexible.

They forgo rules, procedures, and deferential relations in favor of individual effort and reward. Loyalties are based on affection for charismatic leaders. This model is effective for modular projects, but weak organizational ties make it difficult to build the extensive team structure that is needed for knowledge-based work.

#### Collaborative community Model

These communities are organized around a sense of shared purpose and coordinated through collaboratively developed, carefully documented procedures. They believe that diversity of capability stimulates innovation. Such organizations excel at interdependent knowledge-based work.



“The team acknowledged problems of poor alignment. As a result, we sat down as a team and put things on a piece of paper. The idea was that I could just go back and refer to something we had decided and say, ‘On May 15th we decided x, y, and z.’ Within a day, that plan was obsolete. We were making agreements, changing dates, reprioritizing, and not updating the document. The main problem is the in-formal side conversations between two people. They make a decision without informing the rest of the team. The key is to review this periodically as things change. We need to update and maintain the document as we have conversations.”

### **Creating a collaborative infrastructure**

If work is organized in teams and workers increasingly serve on more than one team, the need for a new type of authority structure arises one that involves overlapping spheres of influence. We call it participative centralization. It’s participative because the collaborative enterprise seeks to mobilize everyone’s knowledge; it’s centralized because that knowledge must be coordinated so that it can be applied at scale.

### **Matrix structures offer a huge competitive advantage precisely because they are so hard to sustain. Creating a collaborative infrastructure**

An e-Solutions contributor described a typical example: “There are really three heads of the unit. One of them is responsible for my salary, but from a professional perspective they’re equally important. One of them tells me more what to do on a tactical level, another more on general direction and vision. The advantage is that there are multiple people who can play multiple roles, so we can get at resources from multiple perspectives. In the e-space it’s very useful to be nimble in that way. At the end of the day it is clear who gets to make the decision, but it rarely comes to that. I wouldn’t say that decisions are never bumped up; I would say that these flat structures invite more questioning and

more discussion, which I think is a good thing because when you have a stricter organizational hierarchy, people are more reluctant to bring things to their superiors.

”If what this contributor describes appears to be a matrix, it is. The matrix structure has been tried by many firms during recent decades, and its failure rate is high, so people often assume it’s a poor model. But matrix structures actually offer a huge competitive advantage precisely because they are so hard to sustain. They both support and are supported by the other features of the collaborative model: shared purpose, an ethic of collaboration, and interdependent process management. Without those buttresses, the matrix model collapses under the weight of political bickering.

Pay systems are not primary drivers of motivation in collaborative organizations. People will become dissatisfied over time if they feel their pay does not reflect their contributions, but their daily decision making is not guided by the goal of maximizing their compensation. Rather, the operative motivation is what Tracy Kidder, in *The Soul of a New Machine*, memorably labeled the “pinball” theory of management: If you win, you get to play again to take on a new challenge, to move to a new level. More broadly, people talk about one another’s contributions a lot, so collaborative communities foster a relatively accurate reputational system, which becomes the basis for selecting people to participate in new and interesting projects.

That said, pay systems need to be equitable. Given that formal supervisors can’t monitor everything that subordinates in different departments are doing on various projects, collaborative organizations rely heavily on some form of multisource, 360 degree feedback.

### **The collaborative revolution**

We do not wish to downplay the undeniable challenges of building collaborative

communities. Setting and aligning processes that interconnect people on many teams requires constant attention. Not every star player you may wish to attract will want to relinquish autonomy to reap the rewards of a team's effort. Allocating pay fairly according to contribution is tricky.

Indeed, we have found that the patience and skill required to create and maintain a sense of common purpose are rare in corporate hierarchies, particularly given that it is not a set it and forget it process. The purpose must be continually redefined as markets and clients evolve, and members of the community need to be constantly engaged in shaping and understanding complex collective missions. That kind of participation is costly and time consuming. And charismatic leaders who believe that they should simply go with their gut often don't relish this way of doing business.

What's more, developing a collaborative community, as IBM's experience attests, is a long-term investment, in tension with many short-term competitive and financial pressures that companies must navigate. So we do not envision a day anytime soon when all companies will be organized entirely into collaborative communities.

Still, few would argue that today's market imperative to innovate fast enough to keep up with the competition and with customer needs while simultaneously improving cost and efficiency can be met without the active engagement of employees in different functions and at multiple levels of responsibility.

To undertake that endeavor, businesses need a lot more than minimal cooperation and mere compliance. They need everyone's ideas on how to do things better and more cheaply. They need true collaboration.

A century ago a few companies struggled to build organizations reliable enough to take advantage of the emerging mass consumer economy. Those that succeeded became household names: General Motors, DuPont, Standard Oil. Today reliability is no longer a key competitive advantage, and we are at a new turning point. The organizations that will become the household names of this century will be renowned for sustained, Large-scale, efficient innovation. The key to that capability is neither company loyalty nor free-agent autonomy but, rather, a strong collaborative community ■

### Authors

#### Paul Adler

Professor of Management and Organization - Marshall School of Business of the University of Southern California.

#### Charles Heckscher

Professor - Rutgers University's School Management and Labor Relations Director - Center for Organizational Learning and Transformation.

#### Laurence Prusak

Independent Consultant Teaches in the Information and Knowledge Strategy program - Columbia University.

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## Building the Risk Intelligent Bank



### Précis

Is risk the same thing as uncertainty? Can the same risk management tools be applied to both? What are some of the new techniques, practices and wildcards in risk management which banks must look out for?

In this insightful article, Gerald Ashley, Managing Director - St. Mawgan & Co, UK

discusses the above issues and talks about what it takes to build the risk intelligent bank. Going back almost a century to the origins of “Knightian Uncertainty”, the author talks about the pitfalls of equating uncertainty to risk and the need for holistically trained risk professionals.

Most discussions on the deployment of IT for the purpose of managing risk within banks tend to focus on the “T”. But let’s not forget that business – especially the act of managing risk and its siblings, uncertainty and complexity – is really about managing Information. In this article, I’ll share some insights about risk versus uncertainty as well as discuss the tools of risk management and the emerging science of Complex Adaptive Systems, which can be deployed to manage risk and complexity respectively to build the Risk Intelligent Bank.

### Risk is not the same as uncertainty

Let’s start with a definition of risk, even if it seems obvious, and hasn’t changed since

Frank Knight, a brilliant but relatively unknown economist, evolved a concept called “Knightian Uncertainty” around 90 years ago. This will also enable us to distinguish risk from uncertainty.

According to this theory, risk has two dimensions, namely information and (un)certainly, and increases when one or both become less than perfect (or 100%). As you can see in Figure 1, below a certain threshold, risk becomes immeasurable and degrades into intractable “Knightian Uncertainty”. Also, as we drift down the slope where the amount of information decreases and uncertainty goes up, we arrive at the state of “unknown unknowns”, where we don’t know that we don’t know.

Typically, businesses make profit when they operate close to the top of the triangle.

Risk professionals need to realize that the risk models which they've been using over the past two decades have been operating lower down that slope, with less and less information. This is a problem because risk management techniques produce good results when fed with a continuous and stable stream of information, like say, in the management of credit card debt.

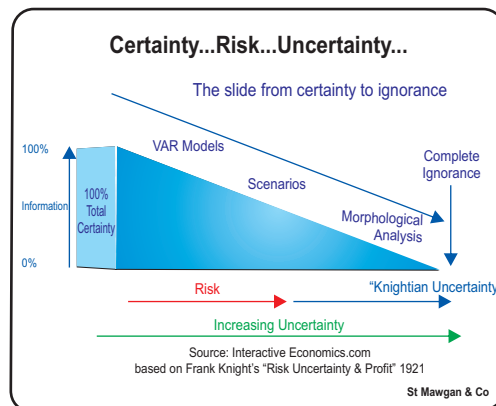


Figure 1

Lower down the slope, there is higher operational risk and not nearly enough data for risk models based on assumptions of normal distribution to work efficiently.

Businesses, such as life insurance, which don't have adequate data (or only have individual specific data) for performing intelligent risk analysis, circumvent the problem by aggregating their bundles of uncertainties – in this case the individual – to arrive at risk, and a risk managed portfolio of products. Unfortunately, the credit derivatives market did exactly the opposite, slicing and dicing risk into uncertainty to create structured products. The results are plain to see.

Since there's no such thing as 100% certainty in the world of finance, banking risk professionals have to do the next best thing, which is to manage different degrees of risk and uncertainty. At the same time, they must be careful not to succumb to the temptation of applying risk management ideas to what is

essentially uncertainty. Unfortunately, most risk professionals don't have the skills to make this distinction. 50 years after academician C.P. Snow captured public imagination with his presentation about "The Two Cultures (humanities and science) and the Scientific Revolution", the theory still holds true. Even today, a number of risk managers don't have the scientific grounding to be able to understand the intricacies of risk management and consequently, take risk models at face value or blind faith, failing to realize that all of them are approximations built on assumptions of data distribution. To make things worse, the mathematicians behind the creation of risk management models are unaware of this crucial aspect of their target users. It is extremely important – especially in countries like the United Kingdom, which don't produce enough engineers and mathematicians – to resolve this dichotomy by creating an environment of exchange between people }with an arts and science background who are involved in risk management.

### There are limits to how much risk can be managed

There is scope for improvement in other areas as well.

Current risk management solutions are limited in the number and types of risk they can manage. As mentioned earlier, banking organizations must beware of testing the limits of risk models by applying them to what is basically uncertainty. Risk intelligent banks must also consider emergent risks that are slowly creeping up the slope of uncertainty. The speed at which the financial crisis traveled across the globe highlighted that we live in a world of cascading failures, where markets from the developed world are not isolated from those in the emerging one.

The flip side of this inter connectivity is that banks can learn from the experience of other industries. Events of the past few years have



cast doubts on the banking industry's claim to the leading edge of risk management and proved that other sectors, such as aeronautics, pharmaceuticals and oil, can do an equal if not better job of mitigating risk.

### Old techniques and new ones

It's also worth taking a fresh look at prevalent

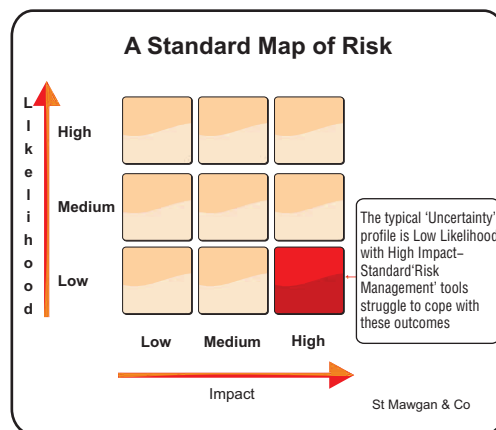
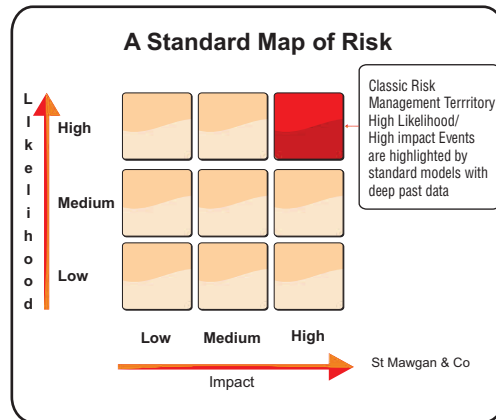


Figure 2

risk management practices. Risk managers will be familiar with the standard map of risk depicted in Figure 2, and its top right hand corner located in "classic risk management territory". Standard risk management models pronounce this zone of high impact and high likelihood of risk as the danger area. However, the saga of the 2008 financial crisis says that the bottom right hand corner which contains risks of high impact but

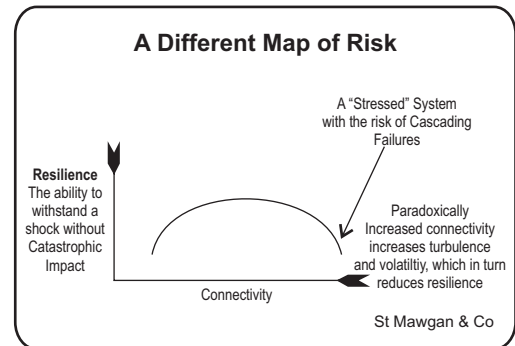


Figure 3

low likelihood and is home to the black swan may be worse. Between the two scenarios, risks belonging to the top right hand section cause less damage simply because banks and standard risk management tools are geared to their outcomes.

A new kind of risk map, depicted in Figure 3, provides an interesting evaluation of the resilience of systems, linked to connectivity. The curve shows that systems, which are random, disorganized or poorly connected, lack resilience or the ability to withstand shock. Resilience increases with connectivity, but only up to a point, after which it tapers off sharply as the environment becomes more rigid and brittle. The risk intelligent bank is the one that finds the sweet spot of maximum resilience and minimum risk exposure.

### The role of the wildcards

In addition to standard and new risk management tools, banks have a number of wildcard options to choose from. Scenario Planning, by way of Stress Testing or Morphological Analysis, can come in handy while managing high uncertainty. Options Technology may be used to compare the cost benefit analysis of different scenarios. Complex Adaptive Systems will be a commonplace in the coming years in the study of the relationships between turbulence, resilience and connectivity. And Cumulative Prospect Theory will help risk professionals



better appreciate the nature of human response to risk and the triggers of bias and behavior.

### **Conclusion**

Improvement in risk intelligence calls for several measures including but not limited to, resolving the data challenge, making valuations more transparent, analyzing the business cycle (which has a habit of repeating itself) and

bringing about a cultural change so that the custodians of risk are not divided along the lines of “science” versus “arts” but instead bring a holistic view to the risk management table. Finally, risk intelligence is about the ability to adapt to change and accept that we may not always have the answer. Philosopher Eric Fromm said, “Creativity requires the courage to let go of certainties”. In risk management, certainty is another name for incomplete



# Tech Watch

## IT Strategy for Tomorrow's Bank

### Précis

In a fast-changing environment, the only way for banks to succeed is through transformation, both internal and external. As an Innovation Partner for banks, we at Infosys, took it upon ourselves to conduct research for detecting opportunity-creating trends in the banking sector, including demographic shifts, emerging market growth, technology advancement and increasing regulation. We found that in the future, banks would have to serve a new generation of digitally savvy, demanding, socially networked and “context aware”

customers, most of whom would be located in emerging markets. Consequently, they would need to incorporate the following dimensions into IT strategy: customer specificity through customized products, empowerment and engagement; innovation to create simple standardized products and processes, and also differentiated experience; a new enterprise IT infrastructure paradigm for efficiency; business driven technology and architecture; and a collaborative approach while devising IT policy.

The world in which banks operate is changing – primarily driven by the banking consumer. As a result of the evolution of this emerging consumer, even the models of business and the face of competition are undergoing paradigm shifts. In response to these shifts, the banking organization has a need to change, not only from the outside but also from the inside.

As the Innovation Partner of banks, we started researching the following question: “What are the larger trends that would create new opportunities for banks in the future?”

We commissioned several studies to look at various key aspects, such as:

- Global demographic trends, such as the ageing of the workforce in the developed economies of the United States and Europe, and the burgeoning of an increasingly young workforce in emerging markets.
- The economics of emerging markets based on the broader understanding that most of the incremental growth would come from there.
- Technology evolutions, such as the surge in

the usage of social media and the advent of the cloud and

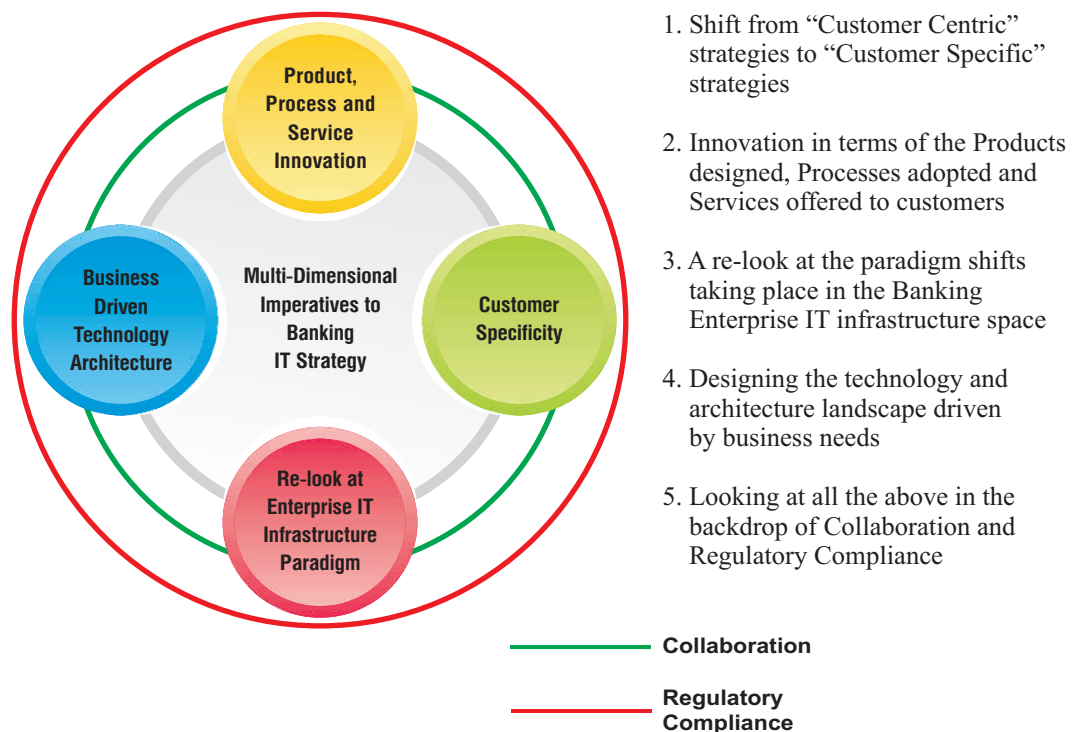
- Accountability measures including increasing compliance and regulatory control, and greater awareness and commitment around social and environmental issues.

Our research highlighted that banks would have to deal with and offer their products and services to a new generation of active consumers and customers, many of them in the emerging markets. These consumers, whether belonging to Gen X, Y or Z, would be digitally active and socially networked. They would demand unprecedented flexibility in commercial transactions and products and services. They would be intensely context aware, and would seek and share new knowledge through their peer networks.

On the other hand, as banks prepare for tomorrow, their strategic agendas would be driven : by the need

- To identify new and high growth engines, both in developed and emerging economies.
- To develop and implement new business models that create new revenue streams across the traditional boundaries of industries, to sometimes create unlikely cross-vertical marriages.
- To regain eroded customer loyalty and focus on innovation through co-creation with customers.
- To significantly reduce the complexity of their organization which has become a hindrance to their growth and agility.
- To leverage the new paradigms of computing, including cloud, social media and the growing pervasiveness of the mobile.

Further, as preparation for the coming tomorrow, we tried to identify those aspects that a bank should look at from an IT strategy point



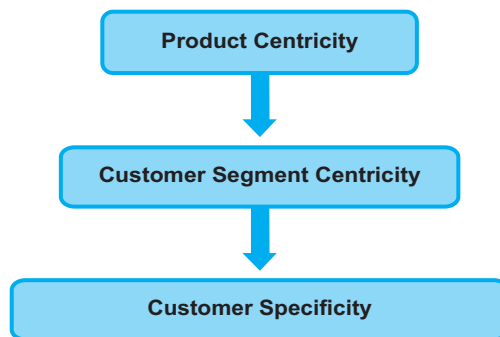
**Fig-1: Multi-dimensional imperatives to banking it strategy**



of view. We also examined the key business drivers that are forcing today's banks to respond to changing needs. We could see that they fell into the five key dimensions highlighted in **Fig-1** and that the IT Strategy of tomorrow's bank would largely be driven by these multi-dimensional imperatives.

### Customer Specificity

Not only in banking, but also in all service industries, a significant shift is taking place from Product Centricity To Customer Segment Centricity TO Customer Specificity, as indicated in **Fig-2**.



**Fig-2: Emerging shift towards Customer Specificity**

Customers have moved from being external to a bank's business strategy, to being central, and further to increasingly being considered a part of the business strategy itself. This calls for identifying and choosing a set of application portfolios that support customer specificity, from the perspectives of:

- The ability to offer products and services that can be tailor made to suit the individualized and specific needs of individual customers. This also includes the ability to bundle a set of products and services to suit the needs of an individual customer, and be able to price it based on the overall set of relationships that the customer holds with the bank.
- Empowering customers by allowing them to choose their products and services and providing the necessary tools to do so; giving them the option to interact with an

advisor from the bank who can help them choose; and allowing them to personalize an application to their taste (especially over direct delivery channels such as Internet, Mobile and Kiosk etc.)

- The ability to manage the customer relationship by driving it with a differentiated customer experience, based on a holistic understanding of the customer's needs, wants, preferences, constraints, likes and dislikes in real time, and through intelligent analytics.
- And finally, the ability to not just up-sell or cross-sell to a customer, but to right-sell, which means
  - ✓ selling the right product
  - ✓ at the right time
  - ✓ through the right channel
  - ✓ at the right price
  - ✓ to the right customer

### Product, Service and Process Innovation

The innovations brought forth by a bank in terms of the products and business services it offers to its customers, the mechanisms to ensure better customer experience and delight and also the innovations in the internal business processes to facilitate the two are increasingly relevant and important in the changing world of today and tomorrow.

Product Innovation includes the below perspectives:

- Simplicity of product creation, and making it available to all channels and customer segments based on configuration
- Cataloguing the multitude of products and business services from across multiple domain systems, and making them available to all customer interaction mediums (which could be people, systems, channels, rule engines) in a simplified and standardized manner
- The ability to bundle products and offer business services on top of these bundles,





and price either the individual products and services, or the bundle, to be availed of by customers

- Enable customer driven product design, development, delivery and distribution mechanisms.

Service Innovation includes the below perspectives:

- Active engagement of the customer all through his/her relationship lifecycle could bring the bank higher profitability per customer, and higher customer satisfaction. Hence, offering a differentiated experience to the customer is of utmost importance.
- Enable a global unified single view of customer relationships which is extremely important to be able to offer better customer service, in addition to other aspects of better cross-sales.
- Institutionalizing the customer relationship management processes and approaches to create a differentiated customer experience.

Process Innovation includes the below perspectives:

- Business Process design to go hand in hand with design and innovation mechanisms for products and services.
- Business Process simplification keeping the customer in mind. Also, including the customer segment and customer interaction context into the business process to ensure better product sales and customer service.
- Multi-country process standardization of global products, global processes, global limits and payments capabilities through either multiple country-wise deployments or a single instance, multi-entity deployment.

All of the above are to be achieved against the backdrop of a holistic risk management approach, and the need to fulfill increasing regulatory and compliance expectations, both

globally and locally.

The research commissioned by Infosys in this regard has provided certain insights.

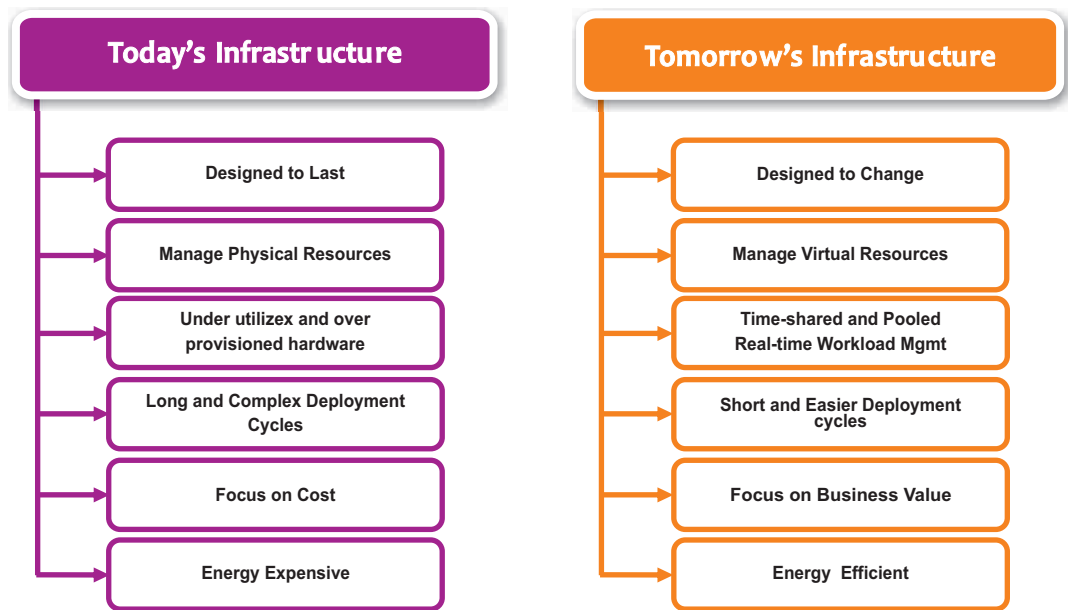
- In the EMEA region, we found that over 61% of banks have increased their investment in innovation over the last three years. Also, we found that while developed markets are focusing more on channel innovation, the developing markets are focusing on products, channels and processes.
- Over 90% of Asian bank respondents indicated that their banks have become more innovative in the last two years. The largest innovation investments have been in the areas of core banking products and processes, data analytics and customer relationship management, and channels.
- U.S. banks seemed to be conservative in their self-assessment of innovativeness, (indicated on an 'Innovation Index') as compared to the rest of the world; however, the key difference in terms of innovation strategies lay in the focus on Customer Experience.

Whether in the developed markets or in the developing ones, Innovation is a must have strategy for banks, although their investment priorities could vary.

### **Re-look at the enterprise IT infrastructure paradigm**

As organizations (including global banks) emerge from a relatively difficult financial and business phase, globally CIOs are under tremendous pressure to find new and innovative ways to reduce costs and improve productivity. In this context, optimization and re-design of IT infrastructure, reduction of TCO through infrastructure consolidation, strategic sourcing and vendor consolidation have been some of the definitive initiatives on the drawing board.

The paradigms that govern the design of tomorrow's Enterprise IT Infrastructure are significantly different from those of today. The points highlighted in **Fig-3** give a perspective of



Source : Infosys' research paper

**Fig-3: Paradigm shift in the design of today's and tomorrow's enterprise it infrastructure**

how the aspects that govern decision making in this regard have been changing in recent times.

The technologies related to virtualization and cloud computing enable the bank to prepare for tomorrow's infrastructure paradigms, which business applications should inevitably be able to work with.

This is one of the key business drivers, and a bank's IT strategy for tomorrow is incomplete without giving this initiative a significant share of thought.

#### **Business driven technology and architecture landscape**

Increasingly, the bank's enterprise architecture landscape is either becoming more complicated or more simple, driven by business needs. Some of its key dimensions include – Integration and Automation, Scalability and Regulatory Compliance.

1. Businesses today are asking for seamless and end-to-end process automation, reduced complexity of integration, and

capability for as much Straight Through Processing as possible or as business would permit. This calls for enabling process driven applications and systems, enabling plug-and-play interoperability with other applications through pre-integration, and the ability to work with Enterprise Infrastructure.

2. As banks emerge from the financial crisis, they are trying to either grow organically by acquiring new customers, or inorganically by acquiring other banks. At the same time, they want to standardize and consolidate their IT and application infrastructure across their entities or operations. These call for the deployment of robust, modular and highly scalable application platforms.
3. The aftermath of the financial crisis has seen an increase in the regulatory and compliance needs of banks, and a decrease in the time available to meet them. Consequently, banks are looking for application platforms that are not only compliant with the required regulations,



but are also nimble enough to quickly adapt to any changes in them.

### Backdrop of Collaboration and Regulatory Compliance

Collaboration and regulatory compliance are much more relevant and important to banks now than ever before. In an era plagued by the global financial crisis, it is of paramount importance for banks to identify initiatives to not only leverage the investments made by the industry as a whole, but also contribute to the same. With ever increasing risk and a resulting need for greater regulation, it is imperative that all players in the industry collaborate with each other to derive collective benefit from a variety of perspectives.

The possibilities of collaboration with participants in the banking supply-chain are innumerable. Some of these include.

- Collaboration with customers in product

and service planning initiatives.

- Collaboration with identified business and technology partners in business planning and execution initiatives
- Collaboration with other banks, financial service institutions and other enterprises/industries that offer complementary business services -
  - ✓ to share infrastructure (possibly in the form of cloud),
  - ✓ to define standards for interoperability,
  - ✓ to create bundles/packages of cross-enterprise products and services to offer to customers.
- Collaboration with regulators to identify better metrics to manage risk and provide better access to compliance information on a timely and regular basis.

These would streamline the banking service

**Fig-4: A plethora of new technologies creating innumerable possibilities in the banking space**





supply-chain from end to end, and optimize processes, costs, time-taken-for-ROI and value realization for all its participants.

### Finally...

...all around us, a plethora of new technologies are emerging every day, creating innumerable possibilities for banks and their customers.

As depicted in **Fig-4**, whether it is SOA (Service Oriented Architecture), Web 2.0 Technologies, Rich User Interaction Technologies, Cloud Computing, Social Banking, IP Convergence, advances in Application Management and Quality of Service, advanced techniques for Customer Profitability Analysis, and so on, the one significant point that banks cannot afford to miss is that :

“Technology is changing, and changing at an unfathomable pace.”

The question that banks have to ask themselves and also find answers to is:

“Is our technology architecture agile enough to react, embrace and also drive this change?”

### Conclusion

As we have seen, there are many imperatives that a bank needs to consider while coming up with the IT strategy for tomorrow.

The key ones would revolve around:

1. Customer Specificity
2. Innovation
3. Understanding the changes happening in the IT Infrastructure Paradigm
4. Business Driven Technology and Architecture Landscape
5. Collaboration and Regulatory Compliance

While the ways and means to be adopted could differ depending on bank specific approaches, one thing is certain, and that is that IT strategy must pay considerable attention to these aspects to plan and succeed in tomorrow's world■

### Authors

#### Ravi Venkataratna

Lead Product Manager, Finacle  
Infosys

#### Rajashekara V. Maiya

AVP and Head - Product Strategy, Finacle  
Infosys

### References

1. “Innovation in Retail Banking”, Survey conducted by Infosys - EFMA with banks in the EMEA region, Sep 2010 2nd Edition.
2. “Innovation in Retail Banking”, Survey conducted by Infosys - The Asian Banker with banks in the Asia region, Sep 2010.
3. “Innovation Imperative”, Survey conducted by Infosys-BAI with banks in the US, Feb 2011.

### Also Read

#### Using Technology to Focus on the Banking Customer

We are in an age where customer focus is a key objective of banks. Until the advent of the technology era, the customer was given a little personal touch, but the customer service efforts were disjointed.

<http://www.infosys.com/finacle/solutions/thought-papers/Documents/Technology-Focus.pdf>



## An Update on China's Banking Sector

### Précis

China is not only home to some of the world's biggest banks, but also to a large number of lower tier institutions. Although the large commercial banks dominate the market, joint stock banks and foreign banks play an important role in ushering in new technologies and practices. Because the sector is so strongly regulated, innovation remains a challenge and is mostly restricted to channels and a few services, such as wealth management.

Thus far, Chinese banks have relied on internal or local strengths in IT, especially the big banks, which have enormous in-house development and service teams. The technology vendor

landscape is fragmented and dominated by local vendors, except for certain areas like credit cards where foreign players rule. Banks are slowly warming up to foreign technology companies, but will only engage with them if their solutions deliver visible value, improve efficiency or bring in global best practices. Foreign vendors can probably find opportunities in cash, risk and wealth management, because of the shortage of local expertise in these areas. In future – regulations permitting – these vendors might also find a play in social media technologies, a space that is on the radar of many Chinese banking institutions.

2010 was a very good year for Chinese banks, which grew profits, net interest margin and non-interest income despite a tight credit environment. A study of nearly 180 banks showed a 19.5% growth in loans and an 18.7% increase in deposits over the previous year. The 2010 Annual Report of the China Regulatory Banking Commission (CBRC) states that the total assets of Chinese banking institutions

exceeded RMB 95 trillion at the end of that year.

The downside to this story is that the banking industry is currently exposed to systemic risk because of the Government's guarantee of an enormous number of loans in an attempt to counter the ill effects of the financial crisis. Hopefully, the sector's strong risk control



mechanism will continue to provide the necessary protection.

### Industry structure

The scale of the country's banking industry is best described by mentioning that of the world's 10 largest banks by market capitalization, four are Chinese.

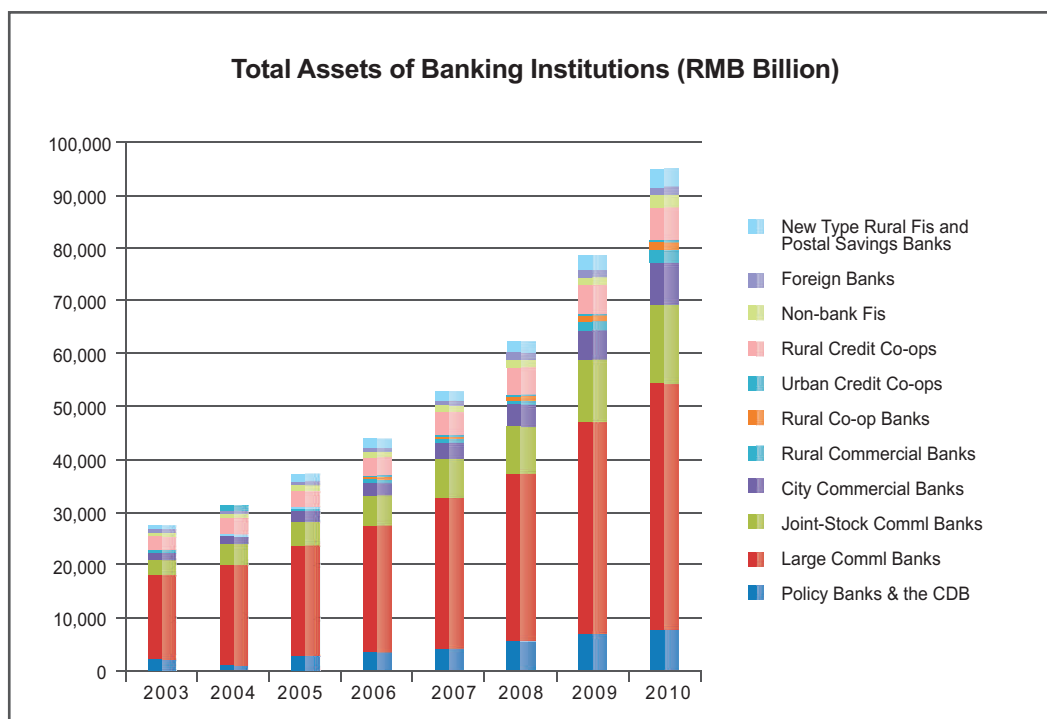
China's huge and diversified banking industry is categorized into four tiers of domestic institutions, namely, State Owned Large Commercial Banks; Joint Stock Commercial Banks; City and Rural Commercial Banks; and Rural Cooperatives / Credit Cooperatives and Urban Credit Cooperatives. Foreign Banks are treated separately, and play a small but significant role in the economy.

The four **Tier 1 banks** – Agricultural Bank of China (ABC), Bank of China (BOC), China Construction Bank (CCB) and Industrial and Commercial Bank of China (ICBC) dominate the market in terms of assets (~ 50% share), customer base, profit, branch network and of course, market capitalization. Although state-

owned, they have had foreign banks as minority shareholders on and off, who have subsequently strategically sold their stakes to rescue their financial position. For example, Bank of America, which owned 19% of China Construction Bank in 2005, has progressively diluted its share, and is in the midst of liquidating most of its remaining holdings to strengthen its capital base. Goldman Sachs has made similar moves, selling US\$ 1.1 billion worth of shares in ICBC in the second week of November 2011 to compensate for huge losses on mortgage-related lawsuits.

Three policy banks, namely the Agricultural Development Bank of China (ADBC), China Development Bank (CDB), and the Export-Import Bank of China (Chexim), oversee the government-directed spending functions of the above banks. Policy banks are also responsible for funding development projects to boost agriculture, infrastructure and trade.

12 joint stock commercial banks, which are owned partly by the government and partly by private entities, constitute the **2nd Tier** of the



Source: Mainland China Banking Survey 2011, KPMG

Chinese banking industry. Joint stock banks are the most innovative and have many firsts to their credit including listing on the stock market and bringing in strategic foreign investors. While some entities have undergone difficult times, overall, joint stock banks have become more international in outlook, competitive, risk intelligent and compliant. They have also become healthier by cutting non-performing assets from almost 5% in 2005 to below 1% as at September 2010.

City and Rural Commercial Banks, which make up **Tier 3**, are mandated to operate with a restricted territory. However, some commercial banks, which are based in populous or industrially advanced regions (even in rural areas), have thousand of branches and are even larger than some joint stock commercial banks by assets. In recent years, rural commercial banks have responded to the government's call to develop the rural financial services sector by posting strong growth in total assets and doubling their strength from 43 in 2009 to 85 in 2010.

**Tier 4** comprises cooperatives and credit cooperatives licensed to work at a village, province or county level. This segment has witnessed significant consolidation in recent years; even as total assets increased by 16% in 2010, the number of rural credit cooperatives dropped sharply to 2,646 from 3,056 the year before.

In recent years, China has also opened its doors to a number of multinational banks. As per the CBRC, 185 **foreign banks** from 45 countries had a presence in China at the end of 2010. These banks have varied structures, ranging from representative offices to branches to locally incorporated institutions.

Foreign banks have to work within severe restrictions and a playing field that is far from level. They need to invariably start with wholesale or corporate banking, and establish both track record and commitment, before being permitted to conduct consumer/local

currency banking. As a result, most foreign banks focus on serving multinational companies and expatriates from their home countries and many of them do not harbor greater ambitions.

In 2010, foreign banks improved their market share to 1.83% from 1.7% in 2009. Standard Chartered, HSBC, Citibank and Bank of East Asia – which hold retail banking licenses – are the leaders in this set; a couple of them have also gone so far as entering rural banking.

### The regulatory framework and innovation

The Chinese financial sector is highly regulated. The People's Bank of China (PBOC) is the Central Bank. The CBRC is responsible for creating rules and regulations, authorizing the set up, scope of activity and closure of banking institutions and supervising their activity. SAFE – the State Administration of Foreign Exchange – oversees foreign exchange policy and tightly controls all movement of currencies, and various tax bureaus work closely with banks to ensure compliance by their corporate customers.

The impact of regulatory restrictions is felt strongly even during the course of day-to-day business. For instance, all retail banks must offer a set of specific savings, loan and asset creation products, which typically account for 70-75% of the product suite. Since these products must conform to various clearly defined parameters, all banks end up with virtually the same offerings.

That being said, banks can innovate with the rest of their portfolio. At present, the bulk of innovation is on the channel side, with banks trying hard to encourage customers to use Internet and mobile for routine transactions. They are also customizing the channel aspect of products targeted at different segments, for example, making sophisticated investment products Smart phone compatible while offering SMS mobile banking over basic devices.

Another area that is undergoing some innovation – especially at the hands of joint stock and city commercial banks, is wealth management. Again, these innovation attempts have to stay within the strict boundaries of regulation. Some of the biggest banks, such as ICBC, are also innovating in the corporate banking space, and using their considerable clout to persuade regulators to consider amending certain rules in the larger interest of the business.

Concern regarding the security of transactions and fraud is one of the biggest barriers to innovation on the consumer banking side. This is the primary reason why financial inclusion initiatives are yet to take off in China. Security regulations are so onerous as to make financial inclusion programs unviable; the problem is compounded by the absence of adequate physical security infrastructure.

Therefore, the biggest challenge that banks face while innovating is to create offerings that are compliant and highly secure, yet differentiated enough to attract customers.

### **The IT landscape**

While Chinese banks (barring the lead players, which have mature systems) may not have the latest technology, they have built highly scalable homegrown solutions capable of supporting huge business volumes and local requirements. The large banks have huge Information Technology (IT) departments, several thousand strong, which take care of systems development and service the huge infrastructure of networks, servers and branch operations. Traditionally, these banks have preferred to create and retain their own IT intellectual property.

However, the other banks work in a different scenario. Tier 2 and 3 institutions have small IT teams, and are therefore quite dependent on local vendors. Typically, each bank has several small vendors, each taking care of a particular aspect.

Rural banks and cooperatives have very weak IT infrastructure, which is ripe for refurbishment.

In 2010, the sector spent US\$ 11 billion on IT, using domestic solutions in all areas except credit cards and wealth management, which are dominated by foreign technology. The landscape is very fragmented with the top 10 vendors accounting for only half of the market. Outsourcing is still new to Chinese banks, which awarded contracts worth about US\$ 33 billion in 2010, split 3:1 between IT and BPO.

### **Opportunities for foreign technology vendors**

A few foreign core system vendors have made their presence felt in a market that mostly belongs to local suppliers. It's the same with payments, which is dominated by China Union Pay; Visa and Master Card have been allowed to participate, but in limited fashion.

Foreign technology firms can find opportunities in niches such as cash, risk and wealth management, which are the weak spots of local vendors. From a banking tier perspective, joint stock and city banks are foreign vendors' most likely prospects. That being said, the road is not easy for these vendors, who must adhere to stringent performance expectations as well as all the mandates laid down by PBOC, CBRC et al. They must also achieve sufficient localization by providing Chinese language front-end screens and documentation, as well as setting up a central support cell within the country.

But what really compounds the challenge is that local competitors offer very flexible contractual terms, and are even known to occasionally part with their intellectual property rights. Some vendors co-create with client banks and are ready to support the systems as soon as they go live. On the flip side, many local vendors have lost money while fulfilling such expectations and finally succumbed to bankruptcy or acquisition.

With the market becoming very competitive, banks are turning their attention to retaining customers and improving cross sales by deploying better Customer Relationship Management (CRM) techniques, dedicating trained relationship managers to serve different segments and sweetening product offers with incentives. They are also exploring Chinese social media – which is devoid of Facebook and YouTube and is dominated by local giants instead (sina.com, weibo, etc.) – as a possible channel of communication and customer engagement. Once again, the still evolving regulatory framework will guide the banks' progress in this direction, but this has not dampened their enthusiasm for social media.

This is good news for foreign vendors with cutting edge channel solutions that can provide Chinese customers a superior, socially enabled banking experience in the future when regulations permit. Technology companies, which are seriously eyeing the massive Chinese market, must use this time to prepare themselves for when the floodgates open■

#### Reference

- Mainland China Banking Survey 2011, KPMG
- Foreign Banks in China, June 2011, PWC
- IT Spending in the Chinese Banking Industry: Large Banks Still Important, Huge

Potential of Small Banks to Be Unleashed, December 2009, Celent

- Bank of America to Sell China Construction Bank Stake, November 15, 2011, <http://www.bbc.co.uk/news/business-15731608>
- Goldman Again Reduces Stake in ICB C, November 10, 2011 <http://online.wsj.com/article/Sb10001424052970204224604577029191888626360.html>
- Transforming Opportunities in Joint-Stock Banks, Jan 26, 2011 <http://english.caijing.com.cn/2011-01-26/110628810.html>
- Chinese Banking Technology Vendor Landscape: The Domestic Players, September 22, 2011 <http://www.celent.com/reports/chinese-banking-technology-vendor-landscape-domestic-players>
- Webinar: Outsourcing Trends in the Chinese Banking Industry, October 26, 2011 <http://www.celent.com/reports/webinar-outsourcing-trends-chinese-banking-industry>

#### Author

**Rangarajan Vellamore**

Chief Executive Officer  
Infosys China

# Taming the Beast: The Role of Technology in Sanctions Compliance

## Rob Green

Chief Risk Officer  
Global Transactional Services  
Corporate and Investment Banking – First National Bank



### Précis

Regulation has been the dominant theme of financial services activity worldwide, in recent years. One aspect of regulation that has attracted much attention is sanctions compliance. Rob Green, Chief Risk Officer of First National Bank opines about the role of

technology in sanctions compliance in South African markets. The article talks about the compliance challenge before South African financial institutions and how they are trying to meet them.

### The cost and complexity of sanctions compliance

With regulators intent on interrogating every financial transaction, sanctions screening has become increasingly onerous, almost intrusive even, to place a huge compliance burden on the industry. A study of around 400 financial service executives, conducted by a global consulting firm at the end of 2008, highlighted their concern about the growing stringency and complexity of sanctions regulation. Over 60% of respondents said that having to cross check information against lengthier or multiple sanctions lists, was costing their firm a lot more time, money and human resources. The same study cited that in 2006, banks in the United Kingdom (U.K.) had to go through 34 sanctions lists, of which the largest three, namely those

issued by OFAC (Office of Foreign Assets Control of the United States Department of Treasury), The U.K. Department of Treasury and the European Union, contained 6,000 names. In a matter of two years, the OFAC list alone has swelled to over 9,000!

What makes it worse is that there are several jurisdictions around the world – 17 at last count – formulating their own set of sanctions regulations that are often inconsistent, or legally difficult to comply with.

### The compliance challenge before South African financial institutions...

In South Africa, the Prevention of Constitutional Democracy Against Terrorist and Related Activities Act (POCDATARA)



prohibits financial institutions (FIs) from dealing with people or entities committing or attempting to commit terrorist activity as per United Nations Resolution 1267. Most institutions follow the OFAC list while screening customers. The authorities' increasing emphasis on sanctions and protection against money laundering, often without considering what the impact of minutely interrogating individual transactions on an enormous scale might be, has intensified the regulatory pressure on South African banks and inflated their cost of compliance. Even as the banking industry engages with the regulators to convince them of the need to soften their approach, it is launching the following measures to enable it shoulder the burden of compliance:

- Relooking at financial processing, and remodeling workflows and payment flows in order to improve efficiencies.
- Training and empowering operational and frontline staff in regulatory matters.
- Investing in appropriate technology.

#### ...and how they are trying to meet them

Let's look at each of these in turn.

A number of South African financial institutions are looking at the current conditions as an opportunity to set right their processes. Re-engineering workflows is a major part of that endeavor, because often, the workflows pertaining to sanctions screening are riddled with inefficiencies as a result of manual operations and duplicated effort, or because the regulatory reporting checks are being conducted at an inappropriate juncture, leading to bottlenecks. So now, these FIs are trying to find the ideal workflow as per which, they need perform a particular check only once, at a point that is most efficient and least obstructive, without compromising either customer interest or transaction speed.

It's clear that only specialist, knowledgeable staff can cope with the demands of sanctions

screening, which calls for the ability to maintain concentration under tedious conditions, as well as sound judgment while dealing with a huge number of "false positives". Frontline staff need to be trained so that they can understand the nature of every transaction, and co-relate that with what is considered "normal activity" for the profile of the transacting customer. This is complicated enough with a single regulatory regime; with multiple, it is near impossible.

Not surprisingly, globally, financial institutions are facing a stiff challenge on this front. In the survey, almost a third of those working in the compliance function reported shortage of skilled staff.

All of the measures described above, involve large-scale effort that can neither be completed overnight, nor achieved without the use of information technology, even though the available solutions are far from perfect. Realizing the impossibility of complying with current sanctions screening requirements using slow and inflexible legacy systems, South African banks are making a switch to platforms built on modern Service Oriented Architecture that can improve scalability and time to compliance. They are also deploying technology to help frontline staff screen transactions, detect possible violations, and take better decisions.

But they could do much more.

#### The role of information technology in sanctions screening

For one, they must consider leveraging economies of scale in sanctions screening, by "outsourcing" it to a central section that specializes in scrutinizing applications and transactions. The natural conservatism of banks – fuelled by the high accountability to regulators and consequent desire to retain control over sensitive operations – has made them wary of such suggestions. However, given that tighter compliance norms are mounting pressure on their resources, they must

explore such technology-led innovations that improve cost efficiency. It remains to be seen whether technology vendors will take the initiative to partner with financial institutions in such projects, or leave it to the regulators and institutions themselves to do so. Most likely, it will need the support of all three parties to succeed.

Next, banks must re-examine their system silos – which, over the last 10 to 15 years have changed them from centrally controlled institutions to conglomerates of independent business units. Since the same compliance checks are being performed in each of these silos, sometimes in different ways, adding to effort and inefficiency, they must first address these issues as best possible, before exploring local or regional partnerships with external service bureaus and shared service providers in the area of sanctions compliance.

#### **Many benefits**

By leveraging technology in this manner, banks stand to improve not only efficiency and time to

compliance, but also customer confidence and experience. This is because technology speeds up sanctions screening and shields its cumbersome processes from customers to a great extent. In general, sanctions and AML compliance, along with compliance with other prudential capital, risk management, and consumer protection regulations improve a bank's standing in the eyes of their retail customers, and helps to restore some of their confidence, which has taken such a beating in recent years. That being said, financial institutions cannot possibly screen their millions of transactions individually, against the multiple lists prescribed by different regimes. They need to find a middle ground, where they prohibit certain acts but allow others to go through. Hopefully, technology will make it easier for them to make this distinction, in the years to come■

#### **Reference**

Facing the Sanctions Challenge in Financial Services: A Global Sanctions Compliance Study, Deloitte Financial Advisory Services LLP, 2009



## Customers Next: Their Context, Choices and Conflicts



### Précis

This article talks about how the current economic, social and technological context is shaping the customers of the future and their interactions with financial institutions and governments. As things come to a head, all three – customers, governments and financial institutions – must make some tough choices that will determine their progress in a “new normal” environment.

What are we if not a product of our times?

In this article, a sequel to my pieces on Banking Next and Product Next, I’d like to take the “next” theme further by exploring the ways in which events surrounding us are not only shaping banks’ future customers, but also their own choices and those of the economies that they are part of.

Paul Valery, a late nineteenth century French poet once said that, “The trouble with our times is that the future is not what it used to be.” This is so true of today, when demographic shifts, economic upheaval, lightning communication, social connectivity and technological advancement cum obsolescence are driving fast, unprecedented change in every aspect of life.

### **The milieu of customer next (and also of governments and financial institutions)**

Let us examine some of these occurrences and their interactions with and in between

customers, governments and financial institutions in more detail to set the context for this discussion.

Current estimates say that globally there are five billion and one billion users of mobile phones and Internet respectively. As these people communicate and collaborate with each other, they generate approximately two billion hexabytes of data each year. That’s the equivalent of 20 million paperbacks!

What’s driving this excessive connectivity? In my mind, this is a result of Too Much Information (TMI syndrome) and Too Much

Choice (TMC syndrome) given to consumers by enterprises competing for their business. While this has put customers in command for the moment, will those who are binging on information and choice today, soon tire of it? Will today's hyper-online customer switch to diet Internet and mobile telephony tomorrow?

Another factor, which has a bearing on "customer next" is demography. The core of mobile, Internet and social network-using customers is comprised of the younger generations and those belonging to the middle class. A leading consulting firm estimates that by the next decade, customers of the future generation will represent spending potential of US\$ 9.7 trillion, of which the lion's share of nearly US\$ 7 trillion will be associated with a two billion-strong middle class. But what makes these people powerful beyond their wealth potential is their influence over public opinion and social uprising. They belong to the most educated, networked and socially influenced generation in the history of mankind. This is what makes them the harbinger of the Arab Spring and the epicenter of the Wall Street Occupation.

Instant communication and social connectivity have merely fanned the fires of activism, whose real cause is the continuing hardship of economic upheaval which people around the world are experiencing as unemployment, inflation, job cuts and scarce credit.

The impact of these and other economic and demographic occurrences is compounded at the national level. The problem of unemployment, which has touched almost 20% in Europe, 10% in South Asia and 25% in the Middle East and North African region, is getting worse as more people crowd the cities. It is anticipated that global urbanization, which stood at about 49% in the year 2000 (around 3.2 billion), will reach 60% by 2030 (around 4.9 billion). Imagine the pressure that these urban customers of the future will exert on urban physical and financial infrastructure.

Besides dealing with unemployment, inflation and over-urbanization, Governments are fighting a macroeconomic battle against volatile currency movements, enormous public debt and almost unmanageable deficits. These will in turn increase consumers' pain by increasing prices and creating shortages.

## **Actions of governments and financial institutions and their impact on Customer next**

Unfortunately, various sliding trends indicate that policymakers and financial institutions of the Western world are not paying sufficient attention to ameliorating the context of the future customer.

Recently, when the World Economic Forum ranked the most innovative countries, the United States came in a modest 5th after, Sweden, Singapore, Finland and Switzerland. What's more, the report rated the U.S. 51<sup>st</sup> in science and math education. Another study of the speed of various innovation hubs concluded that the U.S. was among the slowest.

This worrisome fall of the U.S. from its pedestal as the world's leading innovator can be traced to a lightening emphasis on scientific education. Between 1980 and 2000, the state of California spent 10% of its revenue to promote education and 3% on its correction centers. By 2007, that scenario had alarmingly reversed.

This is a Catch 22 situation. For the first time in over 50 years, the proportion of the U.S. population living below the poverty line – defined by annual income of US\$ 22,000 or less for a family of four – has climbed to 15% (46.2 million). Hard economic conditions are forcing the young to drop out of college and into the depths of crime. With revenues and government funding drying up, universities are finding it hard to maintain academic standards and their traditional support for innovation. Cutback in innovation is reducing the number of opportunities for the young, and consequently, fuelling social unrest.



At the same time, immigrant students – mainly from Asia – are taking the knowledge gained at Western universities back to their home countries, and contributing to the progress of innovation hubs in Gurgaon, Shanghai and Singapore.

Another example of indifference is the U.S. banks' imposition of an interchange fee on credit card transactions, under the assumption that customers would continue to swipe their cards. Little did they realize that their "customers next" would switch to using their debit cards. Faced with declining revenues, banks in Western markets are resorting to large scale cost cutting, or more specifically, retrenchment. Financial job cuts in the U.S. grew from 3,000 in July 2011 to 8,000 the next month. In September, Bank of America announced slashing 30,000 jobs, lending credence to analysts' prediction that between 2 and 3% of Wall Street financial jobs would go by 2012. European banks are going down the same route as their U.S. brethren. In contrast Chinese and Indian banks are expected to add on average, 40,000 jobs each year.

The last straw is that the U.S. today spends four times more on a person aged 65 than on a youngster of 18. All these trends indicate that the "customer next" is not the top priority in that part of the world.

#### **New dilemmas for all**

As customers, banks and governments intersect with each other they face certain conflicts that they must resolve.

**Values versus valuation:** In the last week of November 2011, a clutch of Wall Street Occupants completed their 230-mile walk from New York to the U.S. capital. The movement – which has progressed from Wall Street to all streets – is an expression of the resentment of 99% of the population, which is paying the price of misdemeanor by the other 1%, who put valuations above all values. Banks need to determine whether they will pursue the same

valuation-friendly policies going forward or respect the demands of "customers next" by putting the latter's interests ahead.

Governments also face the same dilemma. Should they bail out smaller banks, which are rooted within the community or support local enterprise, or infuse more capital to clean up the balance sheets of big banks, so that they can revert to their old profitable but questionable practices?

Even people need to make a choice between the bank that gives them values and that which promises valuation. This might be easier said than done, because the decision changes with whether they approach it as a customer or as an investor.

**Growth versus sustainability:** The question before the customers of tomorrow is whether to aim for increasing their wealth even if it means buying products and services they don't understand, or being content with sustaining what they have. It is likely that these customers will seek the advice of their social communities while making a decision.

Similarly, banks must decide between growing their business beyond traditional boundaries or focusing for the time being on managing existing customers better in an environment full of new complexity and regulatory challenges. They must also learn to balance the growth and sustainability of different customer segments.

Governments and Central Banks face the biggest dilemma of all. They need to show growth in order to maintain credit ratings, but cannot sustain the required spending without sinking further into a debt and deficit spiral. Today the European Union faces a different kind of sustainability challenge, as it debates whether to retain its existing structure or rejig it to create a "core EU" within the EU.

**U 'n' I (Uni) versus Universal:** It is time for nations to choose between the single and the universal; between going it alone or





remaining part of a group; between isolation and unison. Nowhere is this more in evidence than in the current Euro imbroglio starring countries like Greece.

Banks too have to make a selection between standardizing products and processes across the globe to cut costs, and persisting with finer segmentation, customization and localization. For customers it's a choice between remaining independent and individualistic when the rest of the world has gone social.

These are choices that earlier generations of customers, financial institutions and

governments didn't have to make. But choose they must, because as Dwight D Eisenhower said, "The history of free men is never really written by chance but by choice; their choice!". It is time to forsake the desperate optimism that the world will return to old times and embrace the obvious realism of the new normal. And these choices are part of that ■

#### Author

**Rajashekara V. Maiya**

AVP and Head - Product Strategy, Finacle  
Infosys

#### Also Read

##### **The Mandate for Banking Product Next: Be Relevant or Perish**

Although the concept of economic exchange has remained the same, its practices have evolved from the industrial to the information age to keep pace with changing requirements.

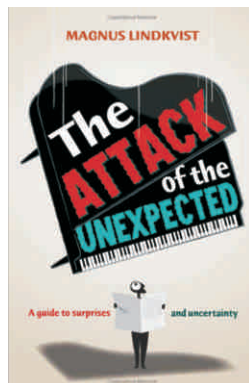
While banking differs from the real sector in several ways, both are inextricably linked. Therefore, the challenges, expectations, processes and structures surrounding real manufacturing activity apply equally to banks and the way they design their products.

<http://www.infosys.com/finacle/finacleconnect/Documents/issue-23/big.html>



# The Attack of the Unexpected

Magnus Lindkvist



Trendspotter Magnus Lindkvist lives up to the title of “The attack of the unexpected” by giving us a rather unexpected book in this genre. Written in bestseller fashion, the book goes easy on “left brain arguments focusing on statistics and finance” and steers clear of doomsday prophecies to dwell instead on the positive associations of uncertainty.

Lindkvist assumes the mantle of uncertainty evangelist, on a mission to “take things out of darkness and bring them into the light” as he delves into uncertainty — what it means and how it impacts those who are touched by it. His goal is to foster better understanding of the unexpected among readers and make them more receptive to uncertainty en route to discovering its beneficial side.

The book, which is liberally laced with entertaining references to Vladimir Putin to James Bond is built into five main chapters. The first one deals with definition; the second discusses the interplay between uncertainty and

the individual; and the third chapter talks about unexpected business successes and failures and how the unpredicted could spark more innovation than planned initiatives.

The fourth chapter (expectedly) revisits the global interconnectedness and communications theme to debate a topic, which is so relevant in the post-crisis world, namely, the effect of unpredictable occurrences on society as a whole.

In the fifth chapter, Lindkvist cautions against falling prey to charlatans and scare mongers, who have historically fed and fed off the public’s fear of events that they don’t understand. He ends the book on a sunny note by reminding us that good things can unexpectedly come out of the unexpected and could actually make life enjoyable!

This is an engaging little book that pushes you to reassess your perspective of uncertainty and might even get you to warm up to it. Makes for the perfect in-flight read■

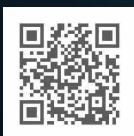
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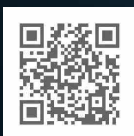
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