Confederation of Indian Industry

BANKing TECH Summit 2012

CII's 7th International Conference

28 June 2012 • The Taj Mahal Palace • Mumbai

CII BANKing TECH Summit report / 2012 edition / Mumbai, 28 June 2012

Carving a new path through innovation

pwc

www.pwc.com/india

Chairman's message

Technology has taken the centre-stage and is transforming every industry.

In the Banking industry, it is fast changing the way products are conceived, designed and delivered across channels and market segments. Today, technology enabled business models are disrupting the entire supply chain be it retail, Corporate or government business. The emergence of third party aggregators for loans, personal finance management, rural banking products/services, payments, etc are making significant impact to our traditional business processes or models. With increasing adoption of technologies like mobility, cloud, social media, BIG DATA, etc technology will continue to be critical in responding to customer expectations across identified market segments and creating the agility needed to respond to opportunities.

In order to derive a competitive advantage, banks must effectively leverage technology to deliver on fast-changing customer expectations, align with regulatory controls and compliances, and attract the tech-savvy Generation Y. It is therefore critical for banks to increase their IT investments to align with new innovations in technology to meet their objectives. In this context, technology initiatives in the banking industry coupled with continued innovations by technology vendors will define a new growth path for the industry.

The CII BANKing TECH Summit has evolved with each year, bringing to the forefront the various technologies that are being used by the banking fraternity, as well as touching upon some of the emerging technologies that are gaining ground in the industry. The Summit offers an integrated platform to industry stakeholders to deliberate upon the ways in which technology can be leveraged to take banking to the next level.

I thank PwC for being our knowledge partner and in presenting the paper ***Carving a new path through innovation,*** which provides an insight into how innovation has become a key necessity for banks to adapt to the dynamic industry landscape.

I hope you find the report insightful. As always, we look forward to your feedback and comments.

N Chandrasekaran
Chairman, CII BANKing TECH Summit 2012 and
Chief Executive Officer and Managing Director
Tata Consultancy Services Ltd.

Foreword

As we progress into the 7th edition of CII's BANKing TECH Summit 2012, PwC is pleased to present the paper ***Carving a new path through innovation***. This paper contains the views of leading banks on how technology is leading the growth in the sector.

We conducted a survey and met key stakeholders from the banking industry, across various categories of banks.

The report takes a look at the key innovations across the industry, their benefits and the way forward. Our survey revealed that managing customer experience, new technologies and emerging products and services are the key drivers for these innovations. Thus, the three key themes that emerge from our report are customer-centricity, innovation in service delivery models and the usage of emerging technologies.

We hope this report will help give our readers an overview of the crucial role played by technology in the banking industry. Innovations aligned to the above three themes will create a competitive advantage for banks, reduce cost and drive growth.

As knowledge partner for this prestigious event, we thank CII for their support in our endeavours.

Manoj Kashyap
Leader
Financial Services

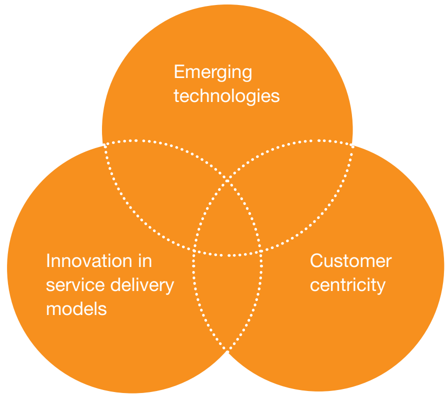
Harsh Bisht
Leader
Financial services - Advisory

Executive summary

Increasing product complications, diverse customer sets with distinctive needs and changing regulations have altered the ways in which banks function. For instance, banks now deal with two distinct sets of customers—the traditional and the electronic generations. Both these sets have different needs and models of services. Traditional customers, who still form a large section, require a personalised approach to service and products. However, new-age customers are keener on alternate approaches, the primary drivers being agility and convenience.

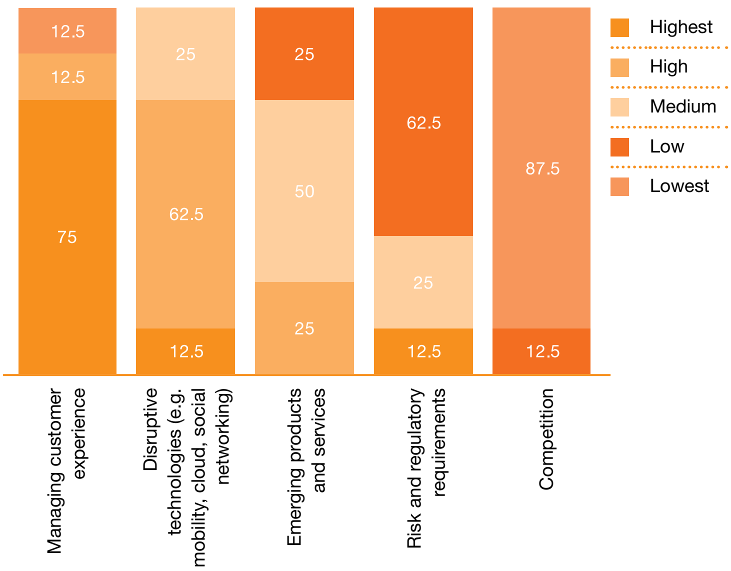
As innovation becomes key, so has the dependence on technology. PwC's survey this year aims to highlight the key innovation being made across the changing paradigms of services, products and experiences for banking customers. A large percentage of respondents feel that managing customer experience and the emergence of new technologies and products will be the key drivers for innovation.

Broad themes of the report



Leading innovation factor

Percentage of surveyed organisations providing a particular response



The above graph and our analysis of the survey results reveal that most of the respondents feel that developments are positioned across three main themes—customer centricity, innovation in service delivery models and emerging technologies.

Section 1: Adopting a customer-centric approach to build profitable relationships

- ***Banks are acknowledging the significance of seamless delivery across multiple channels for enhanced customer experience and reduction in costs:*** In our survey, it is evident that respondent banks acknowledge the role of alternate delivery channels in reducing costs. They are using technology to provide enriched and seamless delivery across service channels. Banks that build seamless multi-channel capabilities will enjoy rich economic rewards over the next decade.
- ***Customers are constrained for time and are looking for flexibility and 24/7 cross-channel capability:*** Today, customers expect to move across different channels anytime from any place. Penetration of alternate channels has deepened significantly, especially on internet banking and ATMs.
- ***Technology is being used to engage customers throughout their lifecycle:*** Banks are now focussing on their service offerings to suit customer preferences. Technology is playing a strategic role in driving the growth of the organisation and is no longer viewed as a support function. Apart from channels such as ATMs, kiosks and mobile banking, innovative channels such as mobile wallets, blogs, social media platforms, etc. are being used for marketing campaigns and customer support. Social media is becoming one of the most important tools to reach out to the newer generation of customers.

Section 2: Aligning service delivery models to new product market segments

- ***Banks consider having a single view of the customer to be the most important requirement for successful cross-selling:*** The ability to have a single, consolidated view of the entire customer relationship is priority for most of the surveyed banks. This helps them understand and cross-sell products better. However, currently, only 50% of the surveyed banks have implemented 'single view' solutions. Our survey revealed that most respondents (~90%) are investing heavily in advanced analytics (data mining, forecasting and segmentation, etc.).
These investments include hiring specialised customer relationship management (CRM) executives as well as acquiring and developing in-house analytics solutions like SAS, Revelus, etc.
- ***Customising the service delivery model for differently-abled customers and customers with special needs is important, though it is far from being a reality:*** There have been regulatory measures to ensure accessibility of banking services to customers with special needs. The Indian Banks' Association has also released procedural guidelines to provide banking facilities to the visually impaired. However, effective implementation of these measures and recommendations is yet to happen.
- ***Banks are looking at a shift towards 'branchless banking' to increase penetration:*** It has been the concern of most banks to achieve total financial inclusion along with profitable growth. However, the traditional brick-and-mortar structure is costly and has physical limitations. The emergence of various technology solutions and the business correspondent model has helped banks consider shifting towards 'branchless banking' as a viable business alternative.

Section 3: Emerging technologies in the banking arena

- ***Mobile banking is emerging as a strong delivery channel:*** The mobile phone has become an important delivery channel over the last few years. All the respondents of our survey have already adopted a mobile banking platform and consider it key to attracting and retaining customers.
- ***Most of the surveyed banks have adopted or are considering adopting cloud computing, though security remains a major concern:*** Cloud computing is expected to have a significant impact on the way business will be conducted, going forward. Forty-three per cent of our survey respondents have already deployed cloud computing, while another 43% are planning to do so. However, data security concerns and lack of clarity on regulatory stance are the two major roadblocks in the adoption of cloud computing in Indian banks.
- ***Marketing campaigns using social media are gaining momentum:*** Social media has proved to be an effective and open communication platform, particularly to reach out to the newer generation of customers. Around 50% of the surveyed banks have initiated marketing campaigns using social media channels like Facebook and Twitter.
- ***Cost optimisation has been the primary driver for green banking:*** Key green banking initiatives have all centred on cost savings, including paperless customer communication, electronic payments, etc. These have resulted in a lower branch footfall through increased adoption of alternate delivery channels.

01

Adopting a customer-centric approach to build profitable relationships

Over the years, from being a credit-constrained economy with poor awareness about financial services, India has migrated to a new reality where multiple players are striving to acquire and retain customers, who have also become more proactive and demanding. According to the PwC publication *The new digital tipping point*, there are five key aspects of changing customer behaviour:

Customers...

...expect more

Expectations are being shaped by experiences outside of the banking industry where content, interactions and features are richer, delivering a more engaging and rewarding experience for the consumer.

...trust their peers

The role of banks as the financial expert has been replaced by 'word of mouth' peer conversations, or independent influencers. The rapid emergence of social media in parallel with the rise of mobility has seen customers increasingly turn to their peers for information and advice, rather than to financial experts in banks.

...are informed

Financial consumers are more savvy today, due to the easy access to research, data and 'expert' views. This has also exposed the lack of differentiation between different providers' banking products. As more financial services customers become 'self-directed', they are coming to rely less upon traditional sources of financial advice.

...have choices

Comparison and purchase of alternative financial products and services online is now straightforward and widespread. It has opened up a wide range of choices for consumers, some outside the boundaries of traditional banking services, such as peer-to-peer lending.

...have a voice

The rise of social media platforms has allowed a single consumer voice to be amplified to a tremendous degree, and consumers have not been shy about raising it. Stories of bad customer experiences rapidly spread through these media and often cause irreparable damage to associated brands.

In line with changing customer behaviour, following are among the key areas that need focus to provide an enhanced experience to customers:

- Transforming customer experience through seamless delivery across channels
- Providing flexibility through 24/7 cross-channel capability
- Deepening customer engagement by building additional applications around the customer lifecycle

Most successful organisations balance the need to please the customer with overall profitability objectives. As per the PwC publication *If they're happy, do you know it?* (March 2012), many companies that appear to be adopting a customer-centric approach are doing so at great expense by compensating for technology shortfalls with manual processes. This, in the long term, may not be a cost-effective business model. Organisations that claim to 'please the customer at any cost' have often failed because they cannot meet the needs of every customer while maintaining an appropriate level of profitability. Thus, customer satisfaction needs to be weighed against the profitability of individual customers, or at the very least, customer segments. Technology investments help organisations achieve greater customer-centric capabilities at a competitive cost.

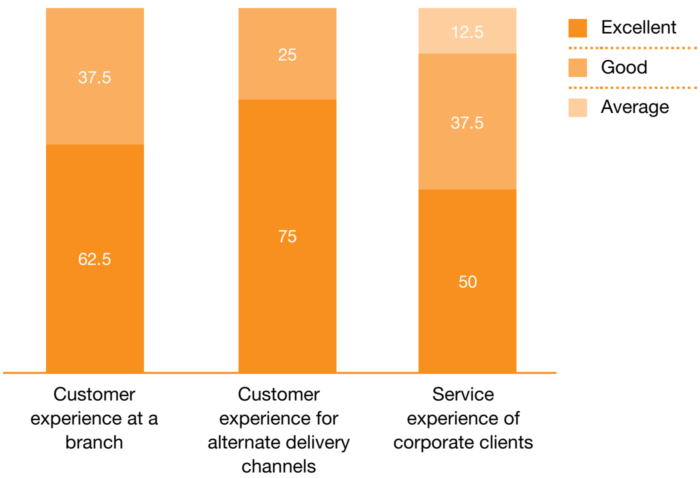
#01

Seamless delivery across multiple channels enhances customer experience and reduces costs

Seamless delivery across all channels (branch, internet, mobile, phone, etc.) means that customers can shift easily between different channels, and complete an activity in a channel different from where it was initiated. Successful multi-channel banks extend full-time support (e.g. 24/7 support on phone or the internet) to enable customers to access their channel of choice anytime anywhere. By building multichannel capabilities, banks can enhance customer experience and also achieve cost savings in the medium- to long-term. The survey results revealed that banks realise the role of alternate delivery channels to reduce costs. They are increasingly using technology to provide enriched and seamless delivery across various service channels.

Customer experience using technology

Percentage of surveyed organisations providing a particular response



Benefits

- Multi-channel banking can help banks attract customers currently with banks with limited channel integration. It also helps build customer loyalty through enhanced customer experience.
- Integrated cross-selling across multiple channels enhances the effectiveness of cross-selling.
- Multi-channel banking helps reduce the rate of transaction failures. Some of the online transaction failures due to technical issues may be avoided by providing support to customers over phone or online chats.
- Multi-channel banking is more favourable for the overall changing demographics. As more and more Generation Y representatives start using banking services, a wider variety of banking channels will be used.
- Providing a consistent and efficient multichannel experience often leads to significant benefits, both in terms of incremental revenues as well as cost savings. Activities like bank statements, balance inquiries, account information updation, etc. can easily be pushed to low-cost channels.

Way forward

Seamless delivery across multiple channels is a win-win for both, the banks as well as the customers. Banks need to integrate their systems and share information across various channels to ensure that all channels have a unified view of the customer. All channels should be able to access customer information and present the data to end-users in a consistent format. Further, customers should have access to online help with rich functionality (e.g. online chat with customer support executives).

#02

Customers constrained for time are looking for flexibility and 24/7 cross channel capability

Customers are looking for 24/7 cross-channel capability. For example, customers want flexibility that will allow them to begin filling out an online application at home and pick up where they left off, at the local branch the next morning. Customers now demand consistent interactions across channels and expect that all their information be at the fingertips of the servicing representative. As per the PwC publication *If they're happy, do you know it?* (March 2012), customers resent, and will not tolerate being transferred multiple times on a single service call and having to restate the same information time and again. This erodes customer sentiment and ultimately causes them to look elsewhere for better service.

According to the CII–PwC survey commissioned as a part of this study, we found out that the penetration of alternate channels has deepened significantly, especially on internet banking and ATMs. A leading private bank survey participant has seen an increase of 36% in customer-initiated transactions on internet banking and a decline of 25% in transactions at branches over the last decade.

Some of the leading practices of the industry are as below:

- A bank portal provides wholesale customers access to more than 60 services. These include cash management, foreign exchange, trade, the ability to control who has access to company accounts and services and setting limits for users who perform wire transfers. All the services can be done through advanced self-administration tools.
- Multi-channel integration efforts are ongoing in order to provide a consistent customer experience across channels.

Way forward

Certain key technology elements are required to support lifecycle-specific capabilities across channels and regions. Systems need to be integrated and must be able to share information, while supporting transfer of business processes across channels at all points in the customer and sales lifecycle. All channels must be able to access the information contained in the single view of the customer. Service providers need to understand what channels the customer has been engaged with and the activities that took place. Updates across channels must automatically update the master customer record and be architected so that inconsistencies cannot be created in the record by utilising master data management.

#03

Technology is being used to engage customers throughout their lifecycle

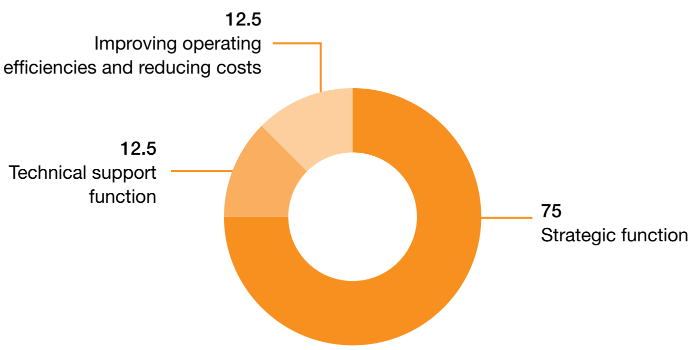
Before the financial crisis, banks relied heavily on financial leverage to create shareholder value. Today, economic uncertainty, increased regulatory intervention and competitive challenges are forcing banks to look for other sources of value.

Banks are now increasingly focussing on their service offerings to suit customer preferences. Technological innovation has enabled banks to increase their service offerings through multiple channels, including ATMs, internet banking, kiosks and mobile banking.

With continuous improvement in technology for banking, banks are now recognising the role of technology as a strategic driver and not just as a mere support function. According to our survey, more than 75% of the respondent banks agreed that technology plays a strategic role in their organisations.

Role of IT

Percentage of surveyed organisations providing a particular response



There are various innovative ways in which technology is currently being used to engage customers throughout their lifecycle.

Digital wallets: The digital wallet is an alternative to paying merchants with cash (bills and coins), debit cards or credit cards. With the digital wallet, the user pays a merchant electronically by passing his/her smart phone by a sensor at the cash register or checkout terminal. Current concepts for the digital wallet rely on the application of a technology called near field communications (NFC). This technology uses data encryption and user authentication because of which the digital wallet offers superior data security vis-a-vis the traditional debit or credit card.

Wikis: Wikis give customer the right to edit web pages. Banks can use wikis in order to increase customer interaction and participation, especially in the process of product development.

Podcasts: Communication with customers will be revolutionised by the use of podcasts. Often, customers find it time consuming to learn about new products through phone calls, reading articles, etc. Banks have started developing podcasts with selective but relevant information for customers. Podcasts are a low-cost medium, making them an attractive choice for banks.

Blogs and social networks: The wide reach of social networks and blogs makes them effective internal as well as external communication platforms. Social media platforms like Twitter can be used as an effective tool in addressing customer queries.

Way forward

Podcasts, wikis, Facebook and blogs will soon be used prominently by banks. Digital wallets are eventually expected to replace physical wallets.

02

Aligning service delivery models to new product market segments

To be successful, banks need to focus on developing deeper relationships with their customers. They need to work on gaining trust, building engagement and creating value for the consumer through innovations in service delivery. Innovations in service delivery include the following:

- Adopting the right strategy for cross-selling by using the appropriate tools
- Customising the service delivery model for differently-abled customers and customers with special needs
- Leveraging branchless banking to increase reach and penetration

#01

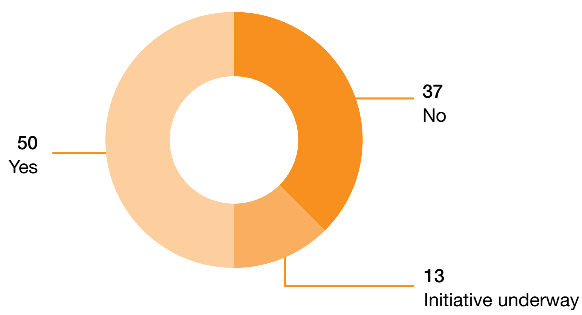
Having a 'single view of customer' is key to successful cross-selling

Improved cross-selling has been an aspiration for most banks. However, very few banks have been able to achieve significant success in cross-selling, with improved profits (and not just a higher cross-sell). For banks to cross-sell the right products, their front-desks need to be enabled with the right tools and systems. These include CRM, profitability analytics, referral and sales call tracking. Some of the large sophisticated banks have a single view of the customer which enables them to identify the next best product. For a few other banks, while a centralised data store for customer information exists, individual applications still use multiple sources for customer information. For the remaining banks, customer information exists in disparate systems across the organisation.

Apart from having the right systems and tools for cross-selling, it is essential to train the customer service and sales representatives to better serve customer needs. However, PwC survey results indicate that more than 60% of the respondents do not train their customer touch-points (including tellers) to cross-sell. They do not even encourage them to cross-sell in their buffer time.

Single view of customer

Percentage of surveyed organisations providing a particular response



The survey results revealed that the most important requirement for most respondents is to have a single view of the customer. However, only about half of the banks surveyed have implemented this. This indicates that the industry, as a whole, still has a long way to go to realise this goal.

Our survey also revealed that almost all the surveyed banks have either implemented CRM or are in the process of doing so in the next six months. All respondents that have implemented CRM have the operational component in place. However, only 43% of the surveyed banks have the analytical and collaborative components of CRM.

Benefits

- Having a unified view of the customer helps in readily identifying the next best product for him/her leading to a higher chance of sale.
- Increased cross-selling helps reduce customer acquisition cost.
- Customer stickiness increases with increase in the number of products held by the customer.

Way forward

Having a 'single view of customer' will redefine the way branch banking is carried out. In a future scenario, whenever a customer walks into a bank, a radio frequency identification (RFID) chip embedded in his/her debit card will alert the relationship manager (RM) or the customer service representative (CSR), enabling him/her to identify the customer. Based on the customer identification, the RM or CSR desktop screen will automatically fetch the customer dashboard where crisp customer analytics based information will be displayed in a single view. The CSR will pro-actively service the customer and also cross-sell bank products based on 'tips' provided on the customer dashboard.

#02

Customising the service delivery model for differently-abled customers is important

With 7.8 million visually challenged people in India, the country accounts for a staggering 20% of the 39 million blind population across the globe (as per *Delhi Ophthalmological Study* results published in 2012). The banking system in India caters to vast geographic and demographic segments. It aims for financial inclusion and penetration while offering seamless service across multiple channels and segments. However, to cater to such disparate segments and geographies, the bank needs to map its customer population to satisfy unique needs.

Also, there have been regulatory measures in the same context to ensure accessibility of banking services to customers with special needs. The Reserve Bank of India (RBI), in its circulars in 2008 and 2009, states that '*banks should ensure that at least one-third of the new ATMs installed are talking ATMs with Braille keypads. These should be placed strategically in consultation with other banks to ensure that at least one talking ATM with a Braille keypad is available in each locality*'.

The Indian Banks' Association, post the RBI circular and discussions with a sub-committee on customer service and customer rights, released a revised procedural guideline to provide banking facilities to the visually impaired. Also, there have been circulars and committee discussions for changes in the ATM fee structure, ATM usage procedures and door-step banking for senior citizens.

However, effective implementation of these measures and recommendations is far from reality yet. Banks need to become more inclusive in terms of servicing. They need to customise their delivery channels for differently-abled customers.

Benefits

Investing in accessible hardware and software can help banks gain business advantage. By acknowledging and addressing the banking needs of these customers, banks can reach new markets by attracting and retaining customers from a broader base of the population (e.g. ageing customers). Accessible services will enhance the banking experience for current customers too.

Way forward

Driven by a need to increase the customer base and also to reinforce the public image of being an organisation with a strong sense of social responsibility, banks will use innovative technologies like talking ATMs, ATMs with Braille keyboards, interpreting services at select outlets, provision of statements in Braille, dedicated service for customers with hearing or speech impairment, telephone typewriter services, customisable website settings (e.g. adjustable font size), etc.

#03

Shift towards branchless banking to increase penetration

For most banks, achieving total financial inclusion along with profitable growth is a concern. This is because growth and penetration is largely constrained by the geographies, policies and regulations within the country.

The traditional brick-and-mortar structure is costly (in terms of both initial investment and recurring expenditure) and has physical limitations. The model depends on walk-in business. Moreover, international banks are dependent on the constraints put by the national regulators for opening up new branches in the country.

The emergence of various technology solutions, including payment and settlement systems (which has revolutionised the remittance space) and the emergence of the business correspondent model, has made banks look at branchless banking as a viable business alternative.

Channels for branchless banking

Channels for branchless banking

- Business correspondent model
- Mobile banking
- Internet banking
- ATMs

Business correspondent (BC) model

The introduction of BCs has led to experimentation with new branchless banking channels. Banks have previously used BCs to open no-frills accounts and process various government payment or disbursement services.

The UID project and existing technology-based BC players like A Little World (ALW), Financial Inclusion Network and Operations (FINO), Eko, ItzCash cards and Integra have built up significant infrastructure in India. This infrastructure offers a wide range of products like no-frills savings accounts, remittance, micro-insurance and government-to-person payments and disbursals across several states and banks.

According to the RBI circular in 2006 (amended in 2010), banks can outsource services such as account opening, identification of borrowers, KYC, processing and submitting loan applications and collection of small-value deposits and remittances.

The BC model is cost effective and has a wider reach. The model is, however, constrained by the definition of BC as per the regulator and by the limitation of BCs for accepting deposits and allowing withdrawals. This can be mitigated by considering a hybrid model along with internet, mobile and ATM-based banking.

Mobile banking

As per the PwC publication *Mobile financial services – A compelling solution for financial inclusion in India*, wireless subscriber base in India is expected to reach 1.1 billion by 2015. With the relaxation of RBI regulations allowing multinational network operators to enter into the BC channel by owning transactional mobile networks, the National Payment Corporation of India's (NPCI) Interbank Mobile Payment System (IMPS) has opened many new doors for the banking industry.

Internet banking

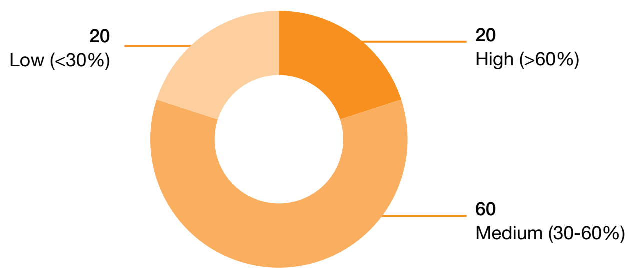
Owing to the rapid growth of the internet subscriber base, internet banking has transformed cashless banking in India. It has given banks a wider reach at a marginally higher cost and has helped improve customer experience by providing banking services at their fingertips. Customers can now handle transactions like payments, remittances, trading, wealth management and portfolio management online. This has significantly reduced customer footprint at the branches. Our survey participants have unanimously responded that internet banking has reduced actual branch visits. Over 50% of the participants responded that branch visits had reduced by over 30%.

ATMs

Between 2008 and 2011, there was a 30% growth in the number of ATMs, and there were about 87,000 ATMs in India at the beginning of 2012. Several banks have adopted an aggressive growth and expansion strategy with ATMs and as per our survey, over 50% of the respondents stated that the ATM is a major alternate delivery channel contributing to over 40% of usage. As shown in the following chart, ATM penetration for most of the surveyed banks is moderate to high, indicating that the ATM technology has reached a satisfactory level of adoption.

ATM penetration

Percentage of surveyed organisations providing a particular response



ATMs have undergone several upgrades that have turned them into mini-branches. They now offer a vast range of services from voice-over aids to money transfer facilities. ATMs with cash deposit and cheque acceptance facilities will become more prevalent in the near future, further enhancing branchless banking and increasing the penetration and reach of banks.

Way forward

Electronic and mobile commerce are poised for tremendous growth in the coming years. According to the report on e-commerce released by the Internet and Mobile Association of India (IAMAI), the internet-commerce industry in India was expected to reach 465 billion INR (10.4 billion USD) by the end of 2011. As per IAMAI, the growth rate of financial services through e-commerce has increased from 28% between 2008 and 2009 to 30% between 2009 and 2010. It is estimated to have further increased to 34% in 2011.

The UID project is expected to significantly bring down account-opening costs. The RBI has recently declared that the letter issued by UIDAI is valid for KYC documentation, which will help in fulfilling KYC norms. This should enable seamless acceptance of customers based on a one-stop, technology-enabled identification and KYC process.

International banks can also leverage the BC and other branchless banking models in combination or as a specifically designed hybrid model to increase penetration and reach by offering door-step and cashless banking services.

The trend of cashless transactions is gaining momentum due to strong impetus from several factors including the introduction of free credit and debit cards by banks, new cashless instruments, incentives on use of credit and debit cards and reduction in commission charged by credit card issuers to merchants.

03

Emerging technologies in the banking arena

Banks need to evolve by increasing adoption of emerging technologies to attract as well as retain customers. The critical areas that will play a significant role in ensuring future survival and growth of banks include leveraging the following:

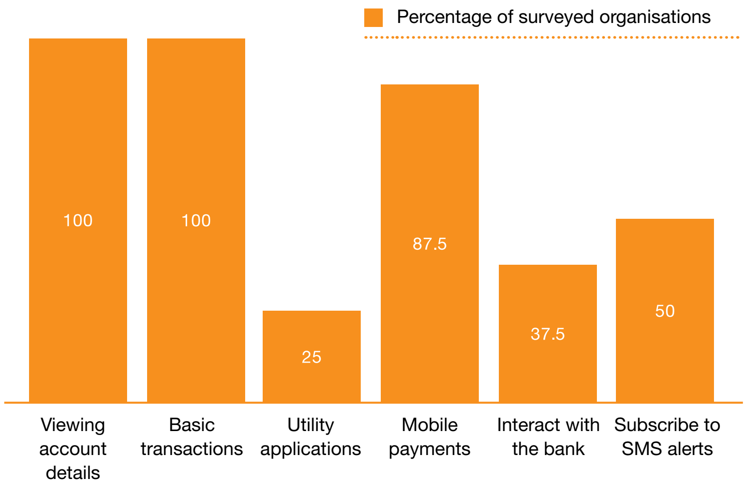
- Mobile platforms for enhanced reach
- Cloud computing for optimising internal processes
- Social media for building brand identity amongst Generation Y
- Green banking for cost optimisation

#01

Mobile banking is growing as a strong delivery channel

All the respondents of our survey consider mobile banking solution a key to attract and retain customers and have already adopted a mobile-banking platform. All the surveyed banks provide mobile-banking platform for viewing account details.

Mobile-banking facilities



The banks provide basic functionalities via mobile-banking platforms in order to enhance the customer experience while reducing the costs. Most of the surveyed banks allow customers to view account details, perform basic transactions, make mobile payments, etc. Some banks have even provided their customers facilities like SMS alerts for all transactions and marketing campaigns. A few banks have sought to differentiate their service offering by enabling their customers to interact with the bank through the mobile platform.

Inter Bank Mobile Payment Service (IMPS) launched by NPCI has enrolled 43 banks and issued over 34 million mobile money identifiers (MMIDs). Over the period June 2011 – May 2012, there were more than 200,000 transactions with a value of over 71 crore INR.

Mobile money across the globe

Mobile money platforms allow purchases, money transfers (P2P transfers), bills payments, etc. on a mobile device. A mobile payment account is linked to a mobile phone number and an existing debit or credit card account after verification. This is typically a service offered by banks or mobile network operators (MNOs). This can take the forms of direct mobile billing platforms like PayPal, WAP mobile payment platforms, mobile wallets, mobile as point of sale and closed-loop mobile payments, among other variants. While mobile money is still in its nascent stage in developing countries, its potential is highlighted by the sheer number of unbanked individuals in the developing countries who own mobile phones but do not own bank accounts. Some of the notable success stories include M-Pesa in Kenya, Airtel Money in India, True in Thailand and Smart Money in the Philippines.

Benefits

The banks provide mobile-banking facilities in order to provide a differentiated service offering, enhance the customer experience and reduce the costs.

Way forward

Security concerns seem to be the primary reason for the slow adoption of mobile banking for mobile payments. Like internet commerce, some of these concerns are well founded and regulatory bodies like the RBI and TRAI need to incorporate security guidelines for the Indian banks. Strong security frameworks are essential to the widespread adoption of mobile banking. In India, similar concerns had been a barrier for adoption of cards (and later for internet banking). A strong security framework has ensured that it has no longer remained a barrier. Other crucial success factors for the success of mobile banking initiatives include the following:

- Compliance with the existing regulatory environment while striving for legislative support
- Clear demarcation of goals, responsibilities, customer and brand ownerships in the case of partnerships
- Adoption of a technology platform that is based on future needs, rather than current needs
- Significant investment in the initial stages to generate awareness

Thus, for mobile banking to progress from infancy to a significant force, telecommunication companies, banks and regulators need to devise a clear roadmap, keeping in mind the crucial success factors listed above.

As per the PwC publication *If they're happy, do you know it* (March 2012), in today's world of 'here and now', customers expect to research, purchase, service and advocate (or criticise) products via their mobile devices, whether they are travelling or relaxing at home. Institutions should implement technology solutions that allow customers to research and safely purchase products not only from their computers, but also from their smart phones or tablets. A robust, service-enabled mobile platform should be established to support these capabilities and enable customers to share their experience.

A major driver for mobile banking in developed countries has been the increased adoption of smart phones, coupled with 3G and 4G data services. This has enabled feature-rich applications to be used for mobile banking, both in terms of handsets that support them as well as a data plan that is fast enough for these applications to function smoothly. These two infrastructural enablers are important for widespread adoption of mobile banking. Given the lower percentage of smart phone users in India compared to developed countries (growing, but still low in number), mobile-banking in India needs to adopt mobile technology standards like unstructured supplementary service data (USSD) and SMS for widespread adoption of mobile payments in the short term. IMPS is an example of this, as is Airtel Money, which uses USSD.

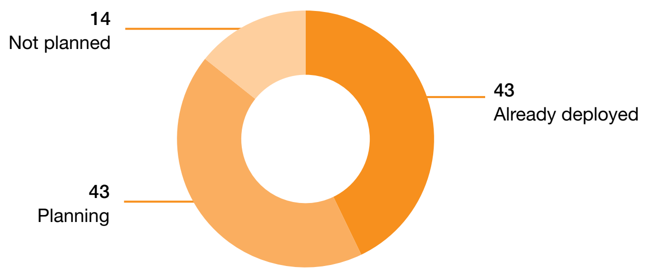
#02

Cloud computing is gaining acceptance, though security remains a concern

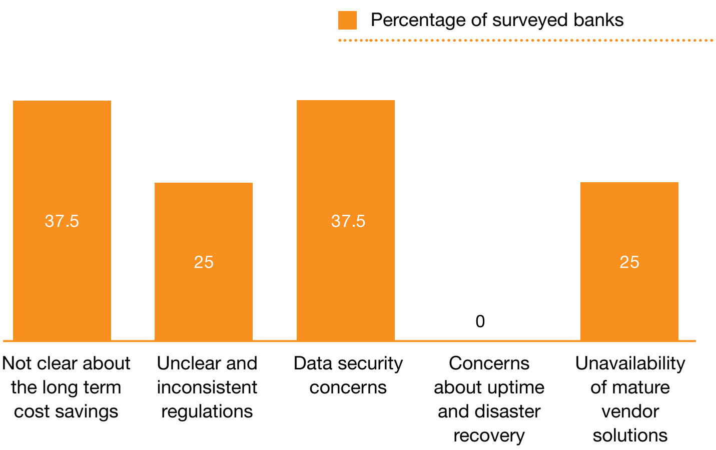
Cloud computing is a dynamic business trend—one that is expected to have a significant impact on the way that business will be conducted in the future. In our experience, cloud computing is increasing its penetration into the business realm. About 43% of our survey respondents have already deployed cloud computing, while another 43% are planning to do so.

Cloud computing: State of deployment

Percentage of surveyed organisations providing a particular response



Reasons for low adoption of cloud computing



As highlighted in PwC's earlier publication *Exploring the potential of the Cloud: The new sourcing alternative*, along with the potential rewards, cloud computing introduces new risks—particularly related to data security and governance. Significant care must be taken when sourcing business services, infrastructure and applications from the cloud—a process that PwC refers to as cloud sourcing. This is supported by our survey as well. Respondent banks have cited data-security concerns **(37%)** and lack of clarity on regulatory stance **(25%)** as the two major factors hindering the adoption of cloud computing (see adjacent chart). Lack of clarity about returns on investment (RoI) and unavailability of mature vendors in the Indian marketplace are the other reasons for low cloud adoption. Given the fast pace of development of cloud technology, these issues are expected to be resolved in the near term, paving a way for wide adoption of cloud computing in banks.

Preferred cloud deployment and infrastructure - delivery models

The following are the two major cloud deployment models:

- **Public cloud** deployments pass the responsibility and associated risk of the IT infrastructure from the business to a third party. Avoiding the constraints of traditional IT is a prerequisite for a company seeking to benefit from cloud services.
- **Private cloud** is a popular choice for large enterprises and governments. The infrastructure is provided virtually through the internet, but from designated facilities, whether owned by the client or the vendor. This model mitigates the data-security concerns of such clients.

There are three primary types of infrastructure-delivery models for the cloud and they are as follows:

- **Software as a Service (SaaS):** The cloud provider controls the hardware, network, operating system and applications. Consumers access the application remotely.
- **Platform as a Service (PaaS):** The cloud provider controls the hardware, network and operating system. Customers provide the applications, which are accessed remotely.
- **Infrastructure as a Service (IaaS):** The cloud provider controls the hardware and network. Business units manage their own applications and operating systems.

Benefits

Cloud computing accelerates business innovation, facilitates delivery of more personalised and context-aware services, improves employee productivity and optimises the total cost of technology.

Way forward

Globally, PwC has observed leading companies turning to cloud computing, recognising that it is far better IT solution. They, in fact, see it as a better business solution. Indeed, cloud computing addresses several critical challenges that are top-of-mind for today's CEOs, CFOs and CIOs, particularly in light of the current economic scenario.

However, there is a need for a clear regulatory roadmap to enable the gradual adoption of cloud computing among Indian banks. Additionally, bank CIOs, in collaboration with other CXOs, need to categorise business services as core or commodity, to determine which should be first in line to move to the cloud (e.g. those that bring the biggest reward with the least risk). Then they must align the right cloud-sourcing model to the right business services. Ideally, a detailed three-to-five year cloud-computing roadmap for the enterprise should emerge from this process.

We believe that in the Indian, as well as in the global banking context, large banks will embark on their cloud-computing journey by outsourcing the infrastructure. This will be followed by platform and software outsourcing in the long term, subject to adequate economies of scale and a favourable regulatory environment.

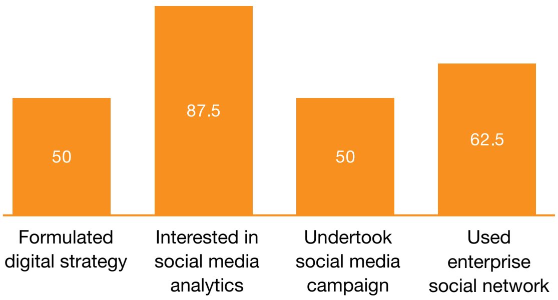
#03

Marketing campaigns using social media are gaining momentum

Banks are leveraging social media to reach out to the next generation. Around 50% of the surveyed banks have initiated marketing campaigns using social media channels like Facebook and Twitter (see adjacent chart). Majority of the leading Indian banks as well as foreign banks have Facebook pages and actively managed twitter handles. The interface on Facebook is leveraged to run campaigns, spread awareness on products and services, post trivia for customer engagement as well as answer queries posted on the page.

Digital media strategy

Percentage of surveyed organisations providing a particular response



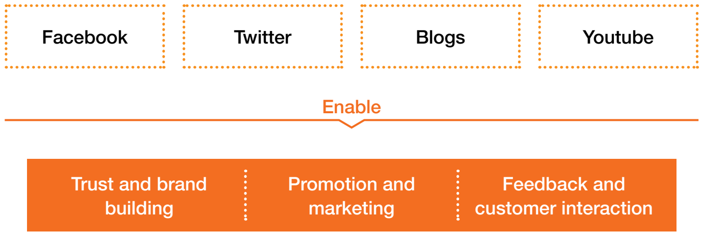
Some of the banks have gone one step ahead and developed applications specifically for Facebook, through which customers can directly access their bank account.

The proliferation of social media has taken word-of-mouth marketing to exponential levels. Customers are using this platform to actively spread the word about their customer-service experiences. The average Facebook user has 150 friends, who can find out about a bad banking experience within seconds. Similarly, customers who are treated well are becoming unofficial ambassadors for certain brands. Banks must respect the power of social media (they can build or tarnish reputations) and focus on delivering quality services. It is better to invest in processes that anticipate issues and address them immediately than to learn about a problem after it is featured in a blog (please refer to PwC publication titled *Searching for new frontiers of growth - Indian banks*).

Benefits

Social media has proved to be an effective and open communication platform that enables the building of relationships with individuals and communities. Besides fostering brand image and goodwill via online forums, banks can also effectively use social media to establish two-way interactions with their customers as well as employees, gain real-time insights on customer and employee needs, and use this information to encourage and co-create relevant products and services. Social media-based applications can also be used for conducting banking transactions.

Channels and benefits of social media penetration



Way forward

Social media can help banks engage with customers in a more informal way and provide the perfect platform for brand differentiation. The primary objective is to listen to the needs and grievances of consumers. This may seem a little premature in a country like India, where 50% of the people are unbanked and a majority of them do not have access to the internet. However, the growth of online and mobile customers in the country is one of the fastest in the world. Thus, an investment in this medium provides a perfect platform to reap its benefits in the future.

Also, given the high percentage of time Generation Y spends on social media, these applications might well be the future channel for conducting banking transactions for this generation.

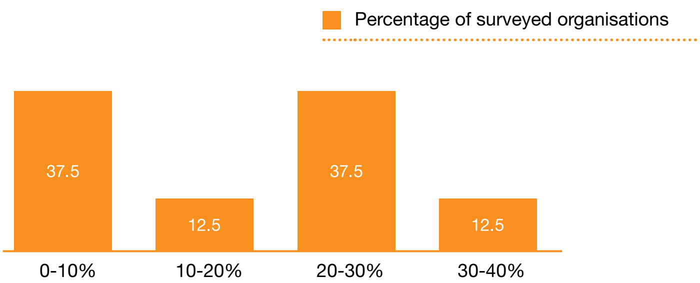
Social media is still a largely unknown beast for the banking industry. The power of Twitter and Facebook to spread negative publicity is now well known. This is the reason banks (like other players in the service industry, like telecommunication players) ensure a social media presence to handle customer grievances. But it is still not clear whether social media has the potential to become the branch of the future, where a customer opens a banking account, carries out transactions and purchases financial products. While this will require regulatory approvals, it is important for banks to have a clear digital strategy in place, in order to use future trends in the social media space to tailor their delivery model. Lack of a clear digital strategy is evidenced in our survey as well, with only 50% of the surveyed banks stating that they have a digital strategy.

#04

Cost optimisation has been the primary driver for green banking

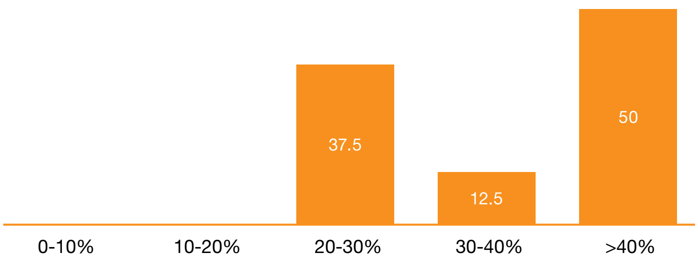
The key green-banking initiatives in India include increased adoption of alternate delivery channels (such as ATMs, internet and mobile banking), paperless statements and electronic payments resulting in a decrease in branch visits (refer to chart below). Half of the surveyed organisations observed that more than 40% of their online customer base had opted for e-statements, saving several tonnes of paper every year.

Reduction in customer branch visits



Green benefits: Percentage of online customers opting for e-statements

Percentage of surveyed organisations providing a particular response



This is in line with global green-banking initiatives (as described below). One major difference is the lack of tie-ups between banks and charities for 'green payments'. In economies like the US, banks (especially card acquirers and issuers) have tie-ups with charities, whereby money gets donated to specific charities with each swipe of a customer's card.

In India, the RBI's efforts have ensured that a majority of the large-value payments get executed through real time gross settlement (RTGS). Also, the increasing adoption of national electronic funds transfer (NEFT) and national electronic clearing service (NECS) for executing low-value retail payments have helped in the migration towards electronic payments. As per PwC's 'payments survey', electronic payments today account for twice the value of paper-based payments. However, in terms of volume, it is the reverse. Paper-based payments account for 2.7 times the electronic payments. However, the sheer decrease in the number of cheque payments establishes the 'green' impact of the electronification of the payments infrastructure in India.

Benefits

The table below illustrates the resources saved by converting 10% of the paper cheques to electronic ones in the US. This establishes the potential 'green' impact of migrating from paper to electronic payments.

Resource and units	Savings
Pounds of paper saved	More than 2.3 million
Tonnes of greenhouse gases avoided	283,815
Gallons of gasoline saved	More than 29.2 million
Gallons of waste water prevented from being discharged into rivers and lakes	More than 22.5 million

Source: NACHA's PayItGreen Alliance

Global initiatives in green banking: Most of the green-banking initiatives were earlier directed towards retail customers, through initiatives such as credit cards with green rewards, green lending, promotions for receiving e-statements and paying bills online, etc. However, with the gradual reduction of fee income from corporate customers, banks globally are in the early stages of expanding green banking initiatives to their corporate customers, the primary aim being cost savings. Key green-banking initiatives have all centred on cost savings, including paperless customer communication, branchless banking, electronic payments and automated invoice processing. However, true green-banking initiatives like 'green loans' (where resources conservation is considered as one of the underlying principles in a green bank while assessing capital or operating loans to businesses) have seen little off-take around the world.

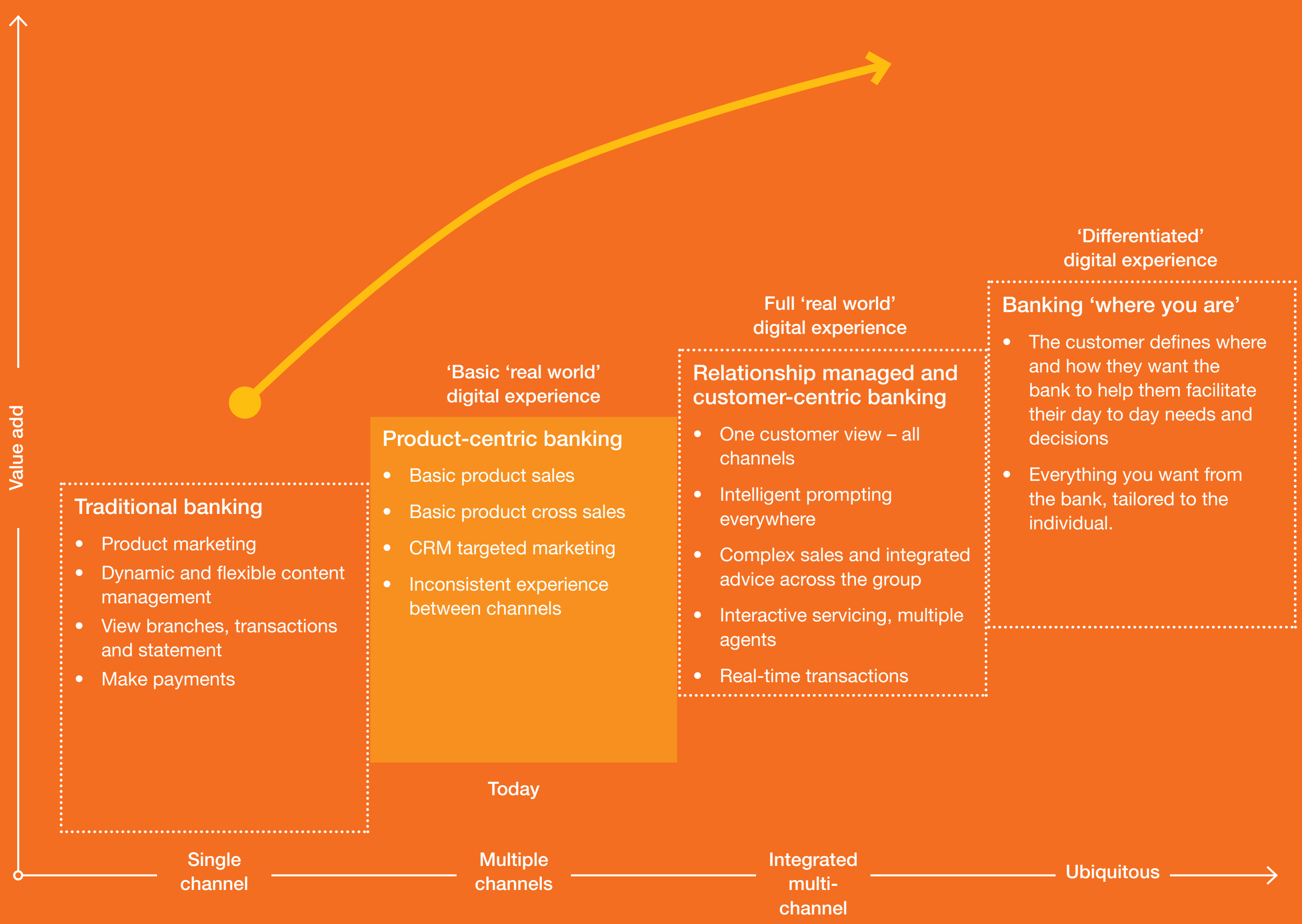
Conclusion

For the banking business models to be transformed, a customer needs to feel special and that the bank is going out of its way to engage him/her across multiple channels and products. Most of the banks are already offering multiple channels for product delivery and customer service. However, to move towards the ultimate objective of 'creating a segment of one', banks need to leverage innovations in technology to achieve the following:Listen to their customers and have advanced analytics in place to listen to and at times, pre-empt client needs.

- *Integrate multiple channels for servicing customer requests, with a single customer view across channels.*
- *Implement advanced analytics to pre-empt client needs.*
- *Let customers define the service they need and also their preferred channel and time.*

Banks need to move from the traditional banking approach of creating a mass market to creating a segment of one. In this manner, they will be focusing their strategies on a customer relationship primacy model, by regaining trust and building customer engagement. In the new reality of banking, financial engineering is no longer sufficient to create value. Banks need to look at demonstrating customer value to remain relevant in the market.

Creating a segment of one and selling tailored products



About CII

The Confederation of Indian Industry (CII) works to create and sustain an environment conducive to the growth of industry in India, partnering industry and government alike through advisory and consultative processes.

CII is a non-government, not-for-profit, industry led and industry managed organisation, playing a proactive role in India's development process. Founded over 117 years ago, it is India's premier business association, with a direct membership of over 7100 organisations from the private as well as public sectors, including SMEs and MNCs, and an indirect membership of over 90,000 companies from around 250 national and regional sectoral associations.

CII catalyses change by working closely with government on policy issues, enhancing efficiency, competitiveness and expanding business opportunities for industry through a range of specialised services and global linkages. It also provides a platform for sectoral consensus building and networking. Major emphasis is laid on projecting a positive image of business, assisting industry to identify and execute corporate citizenship programmes. Partnerships with over 120 NGOs across the country carry forward our initiatives in integrated and inclusive development, which include health, education, livelihood, diversity management, skill development and water, to name a few.

The CII Theme for 2012-13, 'Reviving Economic Growth: Reforms and Governance,' accords top priority to restoring the growth trajectory of the nation, while building Global Competitiveness, Inclusivity and Sustainability. Towards this, CII advocacy will focus on structural reforms, both at the Centre and in the States, and effective governance, while taking efforts and initiatives in Affirmative Action, Skill Development, and International Engagement to the next level.

With 63 offices including 10 Centres of Excellence in India, and 7 overseas offices in Australia, China, France, Singapore, South Africa, UK, and USA, as well as institutional partnerships with 223 counterpart organisations in 90 countries, CII serves as a reference point for Indian industry and the international business community.

Contacts

Confederation of Indian Industry (CII)
Western Region
105, Kakad Chambers
132 Dr Annie Besant Road, Worli
Mumbai 400 018, Maharashtra, India
Phone: +91 22 2493 1790
Fax : +91 22 2493 9463/2494 5831
Email: ciiwr@cii.in
Website: www.cii.in

About PwC India

PricewaterhouseCoopers Pvt Ltd is a leading professional services organisation in India. We offer a comprehensive portfolio of Advisory and Tax & Regulatory services; each, in turn, presents a basket of finely defined deliverables, helping organisations and individuals create the value they're looking for. We're a member of the global PwC Network.

Providing organisations with the advice they need, wherever they may be located, PwC India's highly qualified and experienced professionals, who have sound knowledge of the Indian business environment, listen to different points of view to help organisations solve their business issues and identify and maximise the opportunities they seek. Their industry specialisation allows them to help create customised solutions for their clients.

We are located in Ahmedabad, Bangalore, Bhubaneshwar, Chennai, Delhi NCR, Hyderabad, Kolkata, Mumbai and Pune.

Tell us what matters to you and find out more by visiting us at www.pwc.com/in

Contacts

Manoj K Kashyap
Leader
Financial Services
Tel: +91 22 66691401
E-mail: *manoj.k.kashyap@in.pwc.com*

Harsh Bisht
Leader
Financial services - Advisory
Tel: +91 22 66691282
E-mail: *harsh.bisht@in.pwc.com*

Acknowledgements

We would like to take this opportunity to thank all the team members for their contributions to the creation and finalization of this report.

Anuradha Sanghavi
Harsh Bisht
Himanshu Mitra
Mahesh Kumar Nair
Nidhi Jain
Pramod Khanna
Ranadurjay Talukdar
Sameer Shukla
Saurabh Banerjee
Shovan Barik
Subhojit Das
Sumit Srivastav

pwc.com/india

NJ 343 - June 2012 BANKingSummit.indd
Designed by: PwC Brand and Communications, India