In the mobile Internet era, banking industry faces an urgent need to restructure and to transform. In order to maintain its edge amid online finance, banks should focus on channels, product and service offerings, and clientele by creating powerful support systems and IT capabilities that promote digital transformation.

Online Overhaul:
Banking in the Digital Age

By / Lynda Wu, Floyd Qian, XiaoJie Hao

In the Internet era, the evolution and digitization of banks is inevitable. To implement digital strategies, banks should focus on the transformation of channels, product services, and clients by constructing powerful support systems and providing capable IT services.

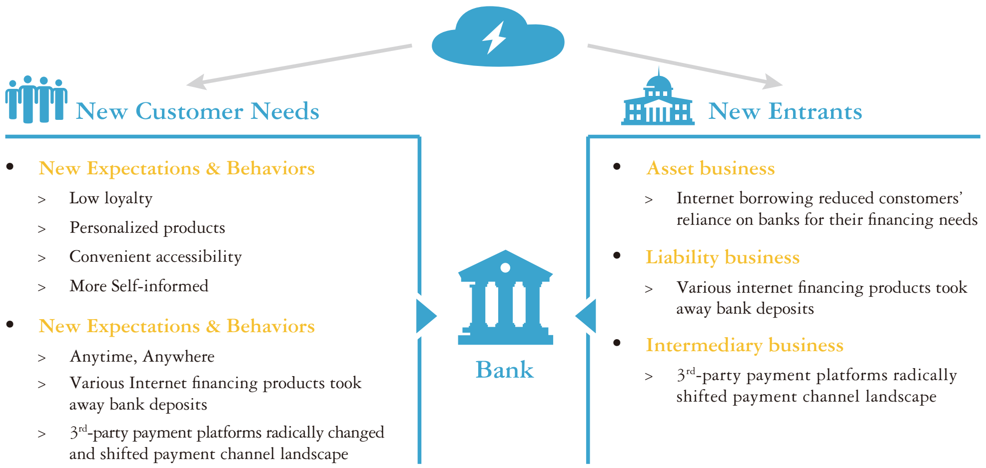
Ever-advancing information and communications technology means significant changes in client behavior, the rate of Internet expansion, and business operation models.

These changes challenge the banking industry in two major ways. First, the concept of banking "Anytime, Anywhere" presumes that customers know what they need, and banks thrive when offering services directly targeting customers' new behaviors and expectations. Second, new entrants to the finance industry are disaggregating the traditional banking value chain, impacting banks' assets, liabilities, and intermediary businesses.

Challenges in the Internet Era

Mobile internet access reshapes social behaviors and business models. Banks face challenges from both new customer expectations and new entrants.

Figure 1 Bank Challenges



Information Source: Tower Group, Deloitte Analysis.

New Expectations

Changing customer expectations have strongly impacted the banking industry. Customers seek electronic, intelligent, and personalized experiences, convenient and tailored service, omni-channel interaction, and transparent terms and pricing.

New demands for "Anytime, Anywhere" accessibility and personalized services threaten the traditional banking business model.

1."Anytime, Anywhere"

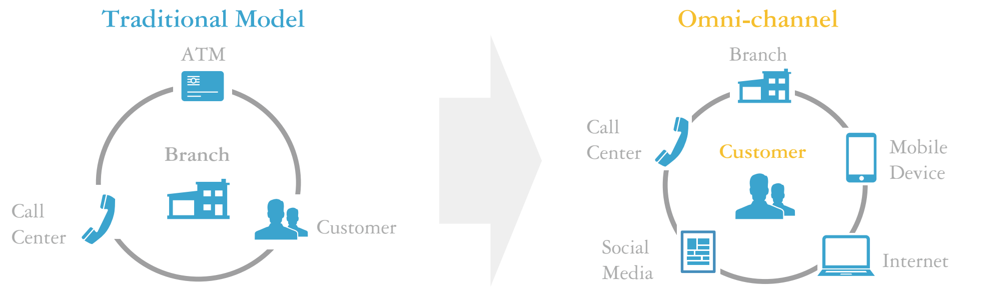
The digital lifestyle has changed customers' expectations towards financial products and services. More and more customers prefer mobile banking services (especially for transactions).

Therefore, the traditional branch-centric banking model with its call centers, ATMs, and online banking can no longer satisfy customers' desire for "Anytime, Anywhere" service. In order to improve customer experience, banks need to construct a customer-centric, omni-channel business model that gives customers control over channel selection and simplifies the once arguous process by avoiding repeated information requests.

2.Customer Needs

Deloitte's study shows that personalized services (customized products, personalized pricing, and targeted marketing) can improve deposit scale, product sales, and payment volume by 59%, 87%, and 34%, respectively.

Figure 2 Traditional Banking Channels vs. Omni-Channels



Information Source: Tower Group, Deloitte Analysis.

Personalization requires banks to dissect available data, analyze customer behaviors and identify different customer needs in order to offer customized products and services, tailor pricing terms, and give recommendations based on a customer's actual needs.

3.Personalized Services

Customers value both the consideration of their personal needs and their overall service experience; as such, they need banks to offer more targeted and predictive service and advice based on their individual situations.

An abudance of long-tail customers are underserved under the traditional banking model. However, the financial needs of the long-tail market have long been inhibited by low returns on savings, poor service quality, and limited product offerings.

In recent years, advancements in technology have lowered service costs and improved the operational efficiency of financial institutions, meaning that the long-tail market is gradually becoming the new battleground for banks. Internet companies, however, provide higher return, more variety, and more customer-centric products and services that meet the demands of underserved customers.

New Entrants Disaggregate the Banking Value Chain

Technology companies are eager to gain a foothold in the financial services market. Emerging FinTech start-ups such as Kickstarter, Square, Simple, and Prosper have disaggregated the traditional banking value chain, instead focusing on a niche segment of banking by providing specialized services.

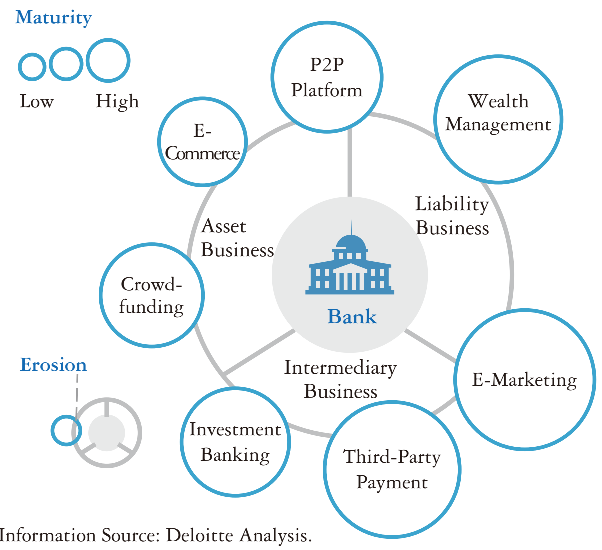
Meanwhile, Internet giants such as Amazon, Google, and Apple have extended and integrated their service value chain with financial platforms, enabling them to provide comprehensive and unique services to their customers.

With technological innovation come new entrants and intensified competition:

- Internet lending has taken over some market share from the banking asset business. For example, P2P and crowdfunding are rapidly claiming the long-tail market with their low transaction costs and high efficiency.

- Many e-commerce retailers are using their ample supplies of customer data to optimize lending services.
- Quasi-saving products offered by technology companies are causing banks to lose customer deposits.
- Third-party payment platforms have radically shifted the payment landscape and technology companies are using this as a gateway to acquire customers. This creates cross and up-selling opportunities for other financial products.
- The emergence of online financial product portals has lessened the banks' intermediary role by offering improved convinence and accessibility.

Figure 3 New Entrants Encroaching On the Banking Value Chain



Information Source: Deloitte Analysis.

1.Impact on the Liability Business

Various types of online payment services have gained substantial popularity by offering convenience and a top-notch customer expereince. As a result, these products have successfully attracted a huge amount of deposits. Many technology companies are good at bundling their core services with financial services by providing integrated solutions with a unique value proposition that has not been copied by banks. This has posed a significant threat to bank's liability services.

In China, the combination of money market funds and Internet channels have impacted banks' deposits and increased funding costs. Between 2010 and 2013, the CAGR of money market funds reached 79%, exceeding deposit growth rates by more than 13%. In 2013, the share of money market funds in the total deposits climbed to 0.82%, a four-fold increase compared with 2010. Meanwhile, as money market funds are mainly invested in deposit agreements, they directly increased banks' funding costs. In 2013, about 90% of money market portfolios were invested in deposit agreements. As of April 2015, "Yu'E Bao", the most popular money-market-fund-linked, quasi-saving product had grown by more than 700 billion yuan in less than 2 years.

2.Impact on Asset Business

P2P institutions have seen rapid growth over the past five years due to their low operation costs and high efficiency. In terms of loans and investments, P2P companies have encroached continuously on the traditional banking business.

In China, P2P businesses have developed due to the lack of investment channels for medium and small investors and SME dissatisfaction regarding responses to their financing needs. In

2007, the first Chinese P2P company, "Pai Pai Dai", was established, and in the next five years the entire P2P industry grew significantly. The P2P business has grown from 10 platforms in 2010 to 1,575 platforms in 2014. Meanwhile, P2P transactions and loan balances have reached 252.8 billion yuan and 103.6 billion yuan, respectively.

3.Impact on Intermediary Businesses

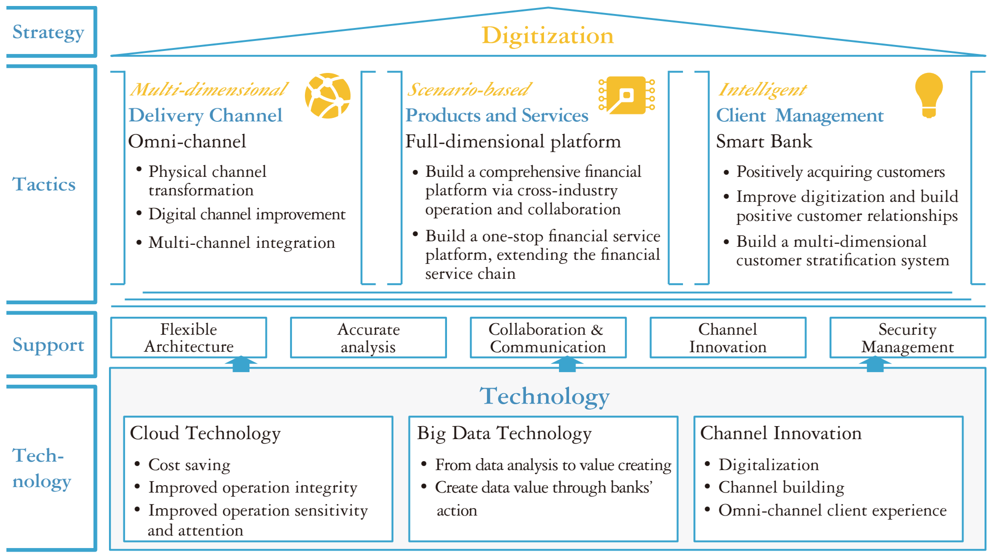
By expanding the scope of its services, the third-party payment market is also booming. In combination with other Internet financial services, it helps the market to actively build a gateway to broader financial product offerings. Between 2010 and 2014, the number of mobile transactions shot up by more than five times, helping non-banking transactions reap a CAGR of 88.7%, well above that of banks (55.6%).

In China, third-party Internet payments have exceeded that of banks. In 2014, third-party Internet transactions totalled 8 billion yuan, and since 2009 have seen an an average CAGR of 82.4%. Internet companies are the leaders of the third-party payment market; platforms such as Alipay and Tenpay take up to 70% of the market. By comparison, banking third-party payment platforms such as Union Pay claim only 11% of the market.

Digitization Strategies

In the face of challenges raised by new customer expectations and behaviors, banks should formulate comprehensive digitization strategies that address channels, products, and customers and are supported by an agile, efficient IT infrastructure.

Figure 4 Overview of Digitization Strategy



Information Source: Deloitte Analysis.

Omni-channel Strategy

An omni-channel strategy aims to build a multi-dimensional service delivery network

through the transformation of physical branches as well as the improvement of digital channels, ensuring seamless and consistent service, and thereby enhancing customer experience.

1.Physical channel transformation

Banks should recognize the importance of transforming the function of physical channels from transaction-centered to socially-centered. They should take note of strategies employed by leading retailers (such as Apple and Starbucks) and position the branch as the "third point" between home and office, encouraging customers to treat branches as a part of their daily social life. By building a long-term relationship with customers, banks will be able to better understand customer needs and improve customer loyalty. Banks also need to gradually shift low value-added transaction services to digital channels (e.g., mobile banking, online banking, and ATMs), and reinforce the significance of the physical branch as the point of sale and service for customers who prefer face-to-face communication with bank personnel. In the meantime, a well-planned physical network encompassing different types of branches is needed to lower operational costs.

Deloitte believes there will be three major trends in physical channel transformation:

- Tailored advice: traditional branch functions (teller services and limited financial advice) will significantly weaken, and more emphasis will be placed on providing tailored financial advice based on customers' personalized needs.
- Essential Networking: improve network service and functionality and use social media to connect with customers and build brand loyalty.
- Online-to-Offline (O2O) Collaboration: use branches' physical presence to improve Know-Your-Client (KYC) and client sign-up processes. Improve customer experience and comply with regulatory requirements.

2.Digital channel improvement

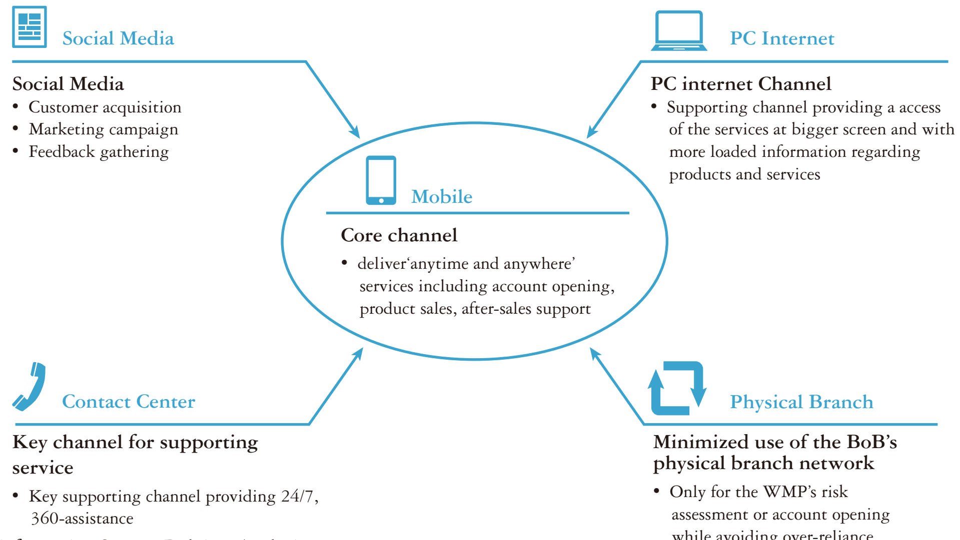
Banks should upgrade online banking systems by integrating online digital channels with social media and mobile technology. The interactive communication channels established by social media can bring customers and banks closer together. Meanwhile, mobile banking also can provide instantaneous customer service and improve overall customer experience.

Banks can improve their digital channels by upgrading online banking, exploring mobile banking, and utilizing social media platforms.

- Upgrade online banking
  – Simplify the process and improve convenience. Provide direct banking by experimenting with convenient, simple, and transparent financial products specifically designed for the digital generation
  – Build application-based gateways linking customers' daily lives to financial services in order to increase banks' ability to gain new customers
- Explore mobile banking
  – Upgrade mobile banking to include features such as branch locator, P2P remittance, transaction alert, purchasing wealth management products, and non-card cash withdrawal
  – Collaborate with technology companies to build a mobile financial ecosystem by developing mobile financial apps that incorporate both parties' products and services
  – Co-operate with mobile operators to develop mobile money and payment solutions
- Put Social Media to Use
  – Enrich and improve the efficacy of branding channels and launch marketing campaigns
  – Listen to customers through social media platforms, identify customer expectations, identify the potential for product/service improvement, and enhance overall customer experience
  – Multi-channel Integration

Banks should focus on integrated services, making sure that customers in different channels have a consistent experience. Future omni-channels should be focused on the mobile Internet with support from branches, ATMs, call centers, and computer-accessed Internet, giving customers control over channel selection.

Figure 5 Bank of Beijing Direct Banking Channel Project



Information Source: Deloitte Analysis.

Recently, leading Chinese commercial banks have started to explore the use of digital channels. About 95% of listed banks have created official Weibo social media accounts as public relations tools to promote their brands and receive customer feedback. Some 50% of listed banks have introduced direct banking in preparation for the overhaul to digital retail banking.

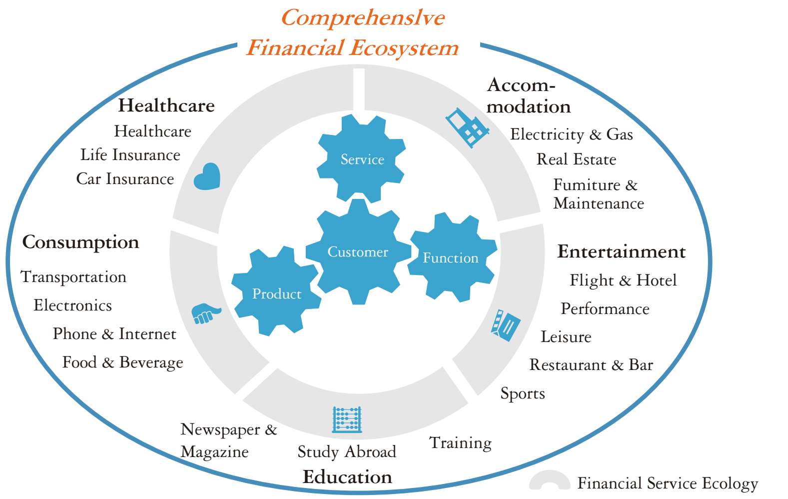
Bank of Beijing built an O2O channel network, allowing the bank to improve customer experience in opening accounts and also bettering its own risk assessment for regulatory compliance. From a global perspective, direct banking (e.g., ING, First Direct) emphasizes building a mobile-centric, omni-channel model. This model gives customers the choice to take their preferred channels.

Cross-Sector Platform

The cross-sector platform integrates products and services of banks and third parties to enrich product and service offerings. It is a comprehensive financial service platform with applications involving cross-industry cooperation and expansion of the financial service chain. Banks should develop cross-sector platforms that include customer-centric, service, product, and function platforms.

- The customer platform should effectively integrate all customer resources to increase customer acquisition.
- The service platform should open up different service channels, and form a distinct O2O service advantage over Internet companies.
- The product platform should focus on developing products tailored for Internet users, offering one-stop financial services.
- The function platform should be based on customer insights and integrate both up and downstream businesses in constructing a fully-developed platform that encompasses products, lifestyle, consumption, and investment.

Figure 6 Comprehensive Financial Ecosystem



Information Source: Deloitte Analysis.

Banks need to play to their strengths in order to improve customer experience and facilitate cross-industry collaboration. For example, banks should focus on their core financial services while expanding into e-commerce, supply chains, and corporate management. Furthermore, through collaboration with technology companies (e.g., for third-party payments), banks can provide professional cross-sector financing services with a superior customer experience. They can also co-ordinate and link travel agencies, property developers, shopping malls, and social media platforms to integrate banking products into customers' daily lives. This full-dimension platform is built upon four fundamentals — customers, services, products, and functions. The goal is to build an integrated financial service ecosystem covering healthcare, consumption, education, entertainment, and accommodation, among others.

Smart Banks

The smart bank strategy profiles customer needs in order to create value for them by applying Big Data technology and cloud computing. Following these advancements, banks are now able to conduct in-depth analysis of customer behavior patterns that helps banks proactively manage customer relationships and gain a multi-dimensional understanding of their customers. Ultimately, banks will be able to offer a superior customer experience due to comprehensive customer contact and insight.

1. Three Ways to Attract Customers

The smart bank strategy will proactively attract customers, build active customer relationship management systems, and identify customer needs with a better method. This can be done in three ways: by understanding customers' lifestyles, enhancing digitization, and building multi-dimensional customer classifications.

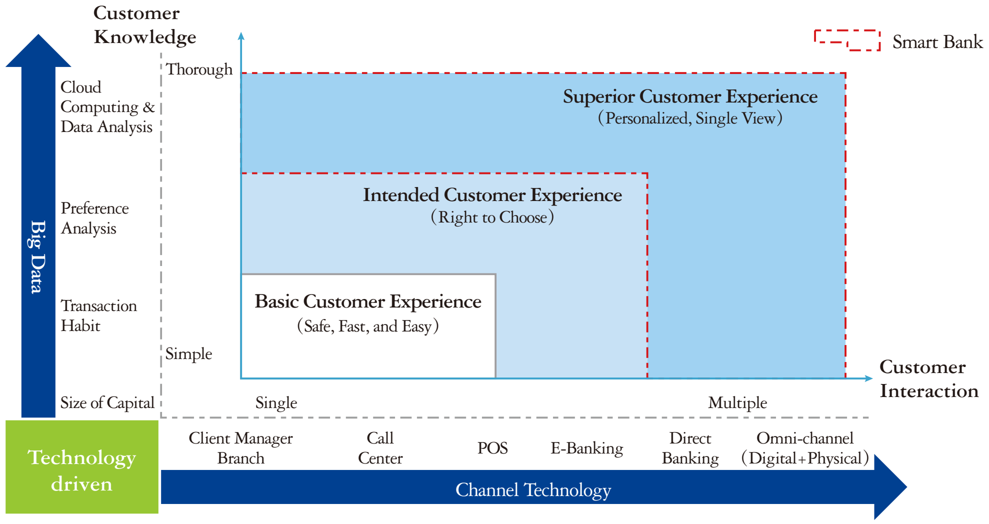
- Understanding customers' lifestyles
  - Focus on basic financial service needs: convenient payment, transaction management, savings finance, etc.
  - Analyze customers' consumption patterns to provide consumer loans, car loans, and foreign financing
  - Use social media to attract new customers, deepen customer connections, and enhance brand popularity
- Further digitization
  - Increase the use of digital technology
  - Establish a cohesive system for gathering and updating data
  - Ensure consistency by analyzing the "big picture" of customer data
  - Establish a digitalized, individualized approach
  - Proactively manage customer relationships
  - Identify customer needs based on an individual's phase in the life cycle of their banking relationship
  - Design products that suit customers' behavior patterns

- Develop multi-dimensional customer segmentation
  – Transition from a one-dimensional segment (e.g., the size of financial assets) to a multi-dimensional segmentation system
  – Make full use of data analytical tools, understand and classify customer segments based on results of analysis
  – Consider customers' demographic, behavioral, and risk preferences

2. Customer Experience

As technology advances, smart banks aim to provide a superior customer experience through multiple touch-points and a deep understanding of customer behaviors. In particular, with the transformation of the "brick + mortar" model (i.e., branch + relation manager) into the omni-channel model, banks' interaction with customers has been trending from single to multiple touch-points. By implementing Big Data technology, banks are also able to move from a superficial customer understanding to gaining multi-dimensional, deep insights.

Figure 7 Intelligent Bank Strategy



Information Source: Deloitte Analysis.

Critical IT Capabilities

In the digital era, banks are facing the challenge of business transformation and rebuilding. Agile IT capability will help digital banking succeed.

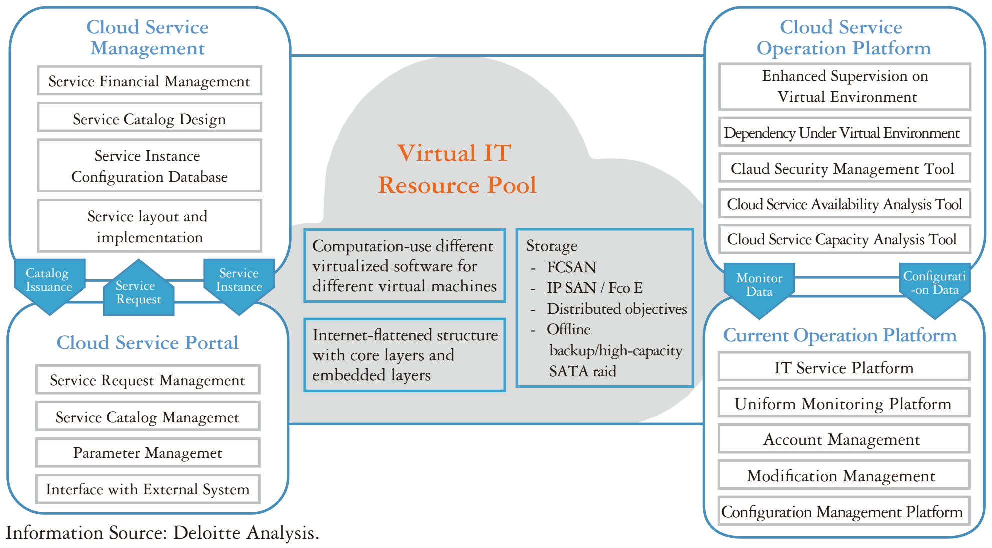
Based on the analysis of technology risk, implementation difficulty, and impact on potential business, we believe that cloud services, Big Data, and channel innovation are necessary short-term focuses for banks.

Cloud Computing and Open Platform Technology Supporting Cross-sector Platform

Senior bank managers, having to consider banking capital and costs, have recognized that despite the high availability of systems, the sustainable development of IT operations needs high resource utilization, improvement of business delivery efficiency, flexible service offerings, and cost optimization. Financial institutions and their software and hardware vendors have all noticed that an open platform IT system would support banks' real-time deals with secure, reliable, agile, and continuous operating ability. Thus, cloud computing, with its scalable and agile architecture, flexible resource pools, and enhanced customer service features, has become an optimal solution for commercial banks.

Deloitte believes that IaaS could be an entry point for banks to build private cloud platforms. Banks can structure an IT resource pool that serves the entire bank through virtualization and subsequent "migration to the cloud." The resource pool details the service units of the IT infrastructure and turns all departments into its "tenants," satisfying a broad range of IT needs.

Figure 8 Bank Private Cloud Framework



Information Source: Deloitte Analysis.

Big Data

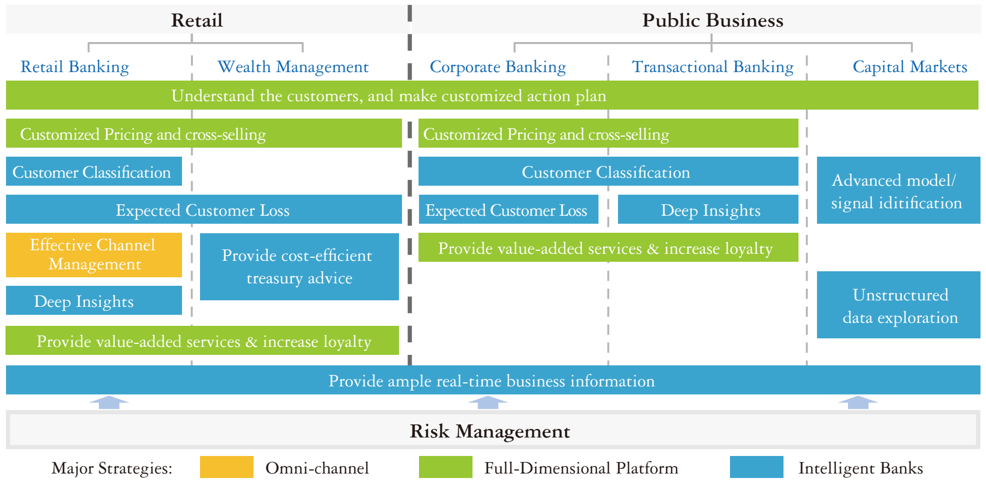
In order to fully support a digitization strategy and make the transition to "smart" functionality, banks need to make full use of Big Data technology to support cross-sector platforms and omni-channels.

Banks fall under one of two business models — retail or public.

Retail includes retail banking and wealth management. Big Data can help banks classify their customers and develop pricing plans to achieve accurate sales. Moreover, Big Data can also help banks regulate customer flow, give treasury suggestions, and improve channel management efficiency.

Public includes corporate banking, transactional banking, and capital markets. Big Data not only helps with customer classification, personalized pricing strategy, and customer loss flow, but also with advanced model/signal detection and exploration of unstructured data.

Figure 9 Potential Big Data Applications in Banking



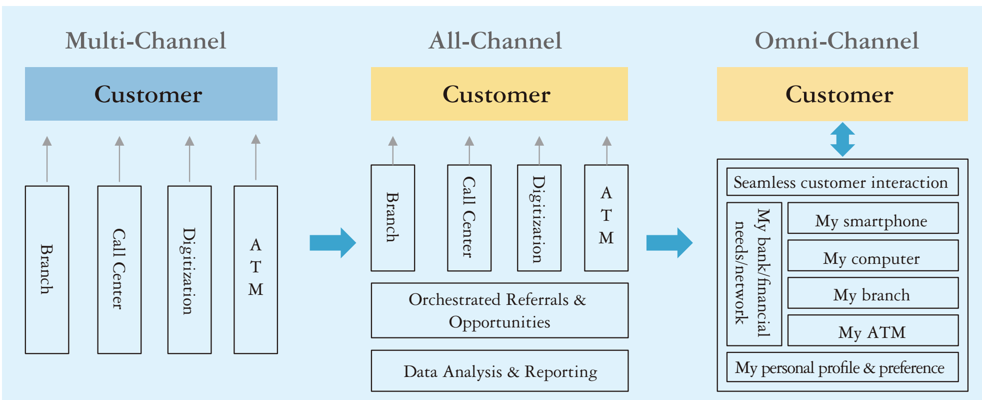
Information Source: Deloitte Analysis.

Upgrading User Experience through Channel Innovation

Banking channels are evolving from multi-channel to all-channel to omni-channel.

With developments in Internet, cloud and Big Data technology and a multi-media interface, banks should employ an omni-channel strategy, realizing a customer-centric, consistent, convenient, intelligent and seamless service channel means it's available anytime, anywhere. Supported by cloud and Big Data technology, the banking industry is building an intelligent omni-channel strategy Aided by cloud computing, banks can access a broader range of data for analysis; with the help of Big Data computing, banks can make accurate and fast judgments of potential customer needs. Therefore, an omni-channel strategy helps banks connect easily with multiple channels, and Big Data analysis allows banks to recommend the most suitable products. As expected, clients will get consistent service through omni-channels.

Figure 10 Multi-channel, All-channel, and Omni-channel



Information Source: Deloitte Analysis.

Finally, banks must realize the unique challenges to digitalization posed by specific socio-economic and geographic conditions.

Figure 11 Regional Divisions

Degree of Challenges	Low	Medium	High
Socio -economics & demographics	• Low income(barely above poverty line) • Inadequate financial infrastructure (e.g. low branch coverage and low bank accessibility) • Basic financial service needs (secure way of storing cash, convenient remittance and payment, microcredit)	• Medium income(emerging economies) • Basic/medium financial infrastructure (undergoing urbanization process, most urban residemts have proper access tobanks, rural areas are underserved) • Diversified financial needs (banking, investment and insurance)	• High income (developed countries) • Adequate financial infrastructure (very few unbanked, high literacy ratio. Sound regulation) • Personalized financial needs (millennium vs elderly, demand for customizable products and services, value excellent experience)
Major Competitors and challenges imposed	• inform/formal financier (microfinance providers, private lenders) • Customer acquisition,banks lose market share)	• Third party payment companies • Mobile financial services providers • Customer acquisition, data gathering for later comversion • Financial services delivered at lover margin • Positioned themselves to add-value	• Fin-Tech startups • Non-bank financial institutions • Unbundling/disaggregating banking value chain, core banking services are added to non-fis offerings
Examples	• South Africa、ASEAN	• China, Russia, India, Malaysia, Singapore	• USA
Strategy Focus	Omni-channel 'Big' Platform Intelligent Banks	Omni-channel 'Big' Platform Intelligent Banks	Omni-channel 'Big' Platform Intelligent Banks
IT Focus	• **Channel Technology,** especially mobile services	• **Big Data Computing**	• **Big Data & Cloud Computing**

Low → High

Information Source: Deloitte Analysis.

Digital development provides a major opportunity for banking in the future. To implement digital strategies, banks must focus on channels, product services, and clients by constructing powerful support systems and IT capabilities that promote digital transformation: payment methods to reinforce an all-channel strategy, product services to implement a big platform strategy, and managing an intelligent bank strategy.

This will pave the way for banks to implement digital strategies, construct a digital ecosystem, and promote digital transformation to become leaders in the online financial realm.

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