

Banking in the Connected World
CRAFTING THE BANK OF THE FUTURE

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Table of Contents

Introduction	2
The Changes in the World of Financial Market	5
Concept of Identity has Evolved	5
Shift towards Industrialized Services	7
Ubiquity through Partnership	9
Differentiation by Narrow Service Focus	11
Crafting the Bank of the Future	12
Connectivity	12
Componentization	13
Convenience	13
Future Banking Business Models	13
Intra-Bank	13
App Market	14
Distributor	14
Aggregator	14
Platform	14
Conclusion	15
References	15

Introduction

The banking industry is in its metamorphosis state and it has evolved gradually from the traditional brick and mortar banks to digital banks. The banking models and channels have gone a long way ever since the Internet saga started. The Internet opened the gates towards digital transformation and innovation and completely revolutionized the banking industry by empowering banks to serve their customers in a better way thereby reducing costs and improving banking experience. The Internet changed the entire spectrum of banking right from gaining product information to buying the product. The acceptance level of using the banking services digitally started growing and it has now become a norm for brick and mortar banks to invest in the digital model to serve their customers online. The digital banking model brought into existence yet another paradigm shift in the banking industry when digital-only banks (also known as Neo-banks) emerged and started gaining momentum in the market.

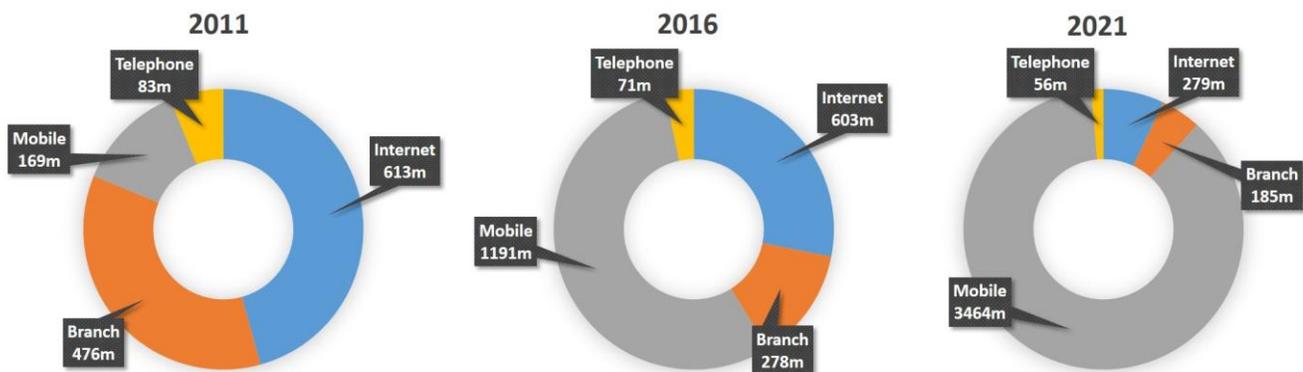


Figure 1: TOTAL CURRENT ACCOUNT INTERACTIONS (IN MILLIONS)

Source: CCIA CHANNEL IMPACT

The financial sector saw yet another shift when the Fintechs started emerging in the market and started leveraging the technology as their backbone to serve financial products to the consumers. According to the Global Fintech Report 2017¹ by PwC, 88% of financial institutions are increasingly concerned of losing revenue to financial technology firms starting with payments, fund transfer and personal finance sectors. Traditional banking institutions are at risk is due to the technological advancements and the pace of developments happening in the FinTech space.

The growing appetite of using mobile for financial transactions also fueled the digital banking transformation by introducing banking applications. In the figure 1, we can see that banks are riding high using the mobile channel and have delivered a stable, intuitive and innovative banking experience to their customers and have successfully captured a large chunk of customer base that was dominated

earlier by traditional banking institutions. The mobile banking channel has completely dominated the market with the introduction of financial mobile applications specialized towards banking services like person to person payments, mobile photo check deposit/bill payment, account opening, credit monitoring, branch/ATM locator, personal finance management, customer support, and much more. This mobile banking revolution has also opened doors for innovation by allowing FinTechs to collaborate with traditional banks and offer better products and services. The banking future lies in the convergence of technology and people. Today, there is an unprecedented level of interconnections between people, organizations and devices giving rise to a new hyper connected world. Traditional banks need to start adopting business models that empower them to serve the customers of the future. Banks have started investing in innovation labs, which helps them to stay focused on using the technology to meet the needs of their customers and to ride the current and upcoming technology waves.

In the figure 2, we can see that majority of the banks are willing to invest in technologies concerning data analytics, mobile and artificial intelligence. Banking business models that keep technology at the core will in turn help the banks in keeping the customer at the center of their business. Banks driven by technology will be empowered to harness new innovative approaches to provide highly relevant and personalized experiences which otherwise is a challenging task for banks.

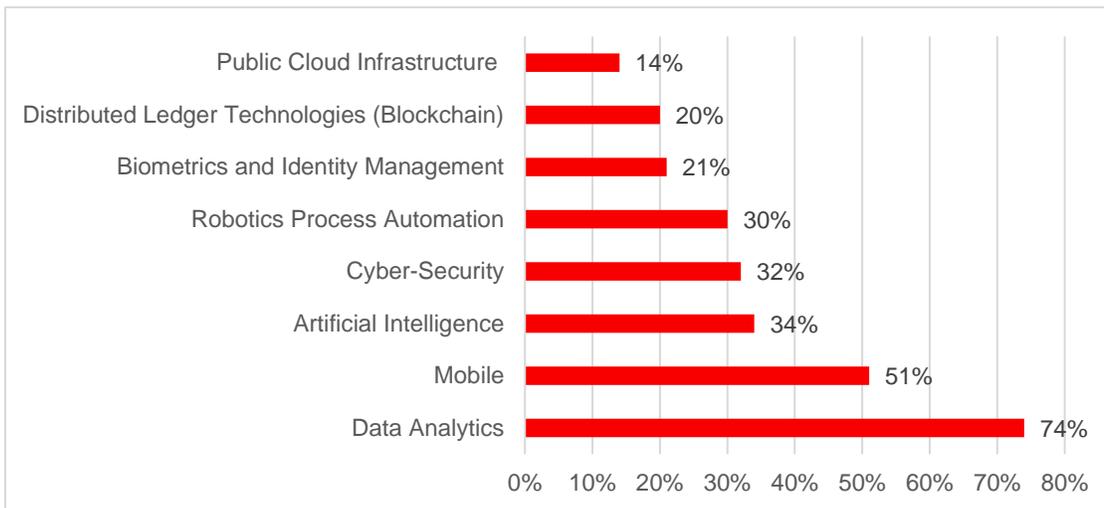


Figure 2: TECHNOLOGIES THAT BANKS ARE PLANNING TO INVEST

Source: PwC

The digital disruption have brought about a new dimension to the existing banking fraternity by utilizing the technological advances in areas such as APIs, data intelligence mobile, internet, AI, blockchain, telecommunications, machine learning, big data and IOT. Traditional banks that are not willing to



change are bound to face fierce competition in terms of product differentiation, customer experience and price. This digital revolution has forced the banking sector to enter a new realm where technology and innovation paves the path towards tremendous growth in terms of revenue and customer base.

This whitepaper examines how the financial market is changing and emphasizes on the how the future banks should craft themselves to stay relevant to their customers.

The Changes in the World of Financial Market

The financial market is going through rapid changes in terms of customer expectations, technology, customer experience, and delivery channels. Keeping the focus on the customer in the midst of all these changes has turned to be a challenging task for the financial institutions. These changes are pushing the financial market towards an 'Always-on, Hyper connected, Hyper-social' ecosystem.

The four fundamental changes that are taking place in the financial market at a global level are listed below:

1. Concept of Identity has Evolved
2. Shift towards Industrialized Services
3. Ubiquity through Partnership
4. Differentiation by Narrow Service Focus

Let us now discuss in detail on the four fundamental changes:

1. Concept of Identity has Evolved

The banks of the future will totally depend around the digital identity of its users and their interactions with the bank. Contextual, transactional and location based digital footprints are creating identity patterns not confined to physical attributes. Digital identities are taking the center stage towards the growth of the bank and forming a strong relationship between the customer and the bank. When was the last time you thought of visiting a branch for making a fund transfer or buy new products offered by the bank?

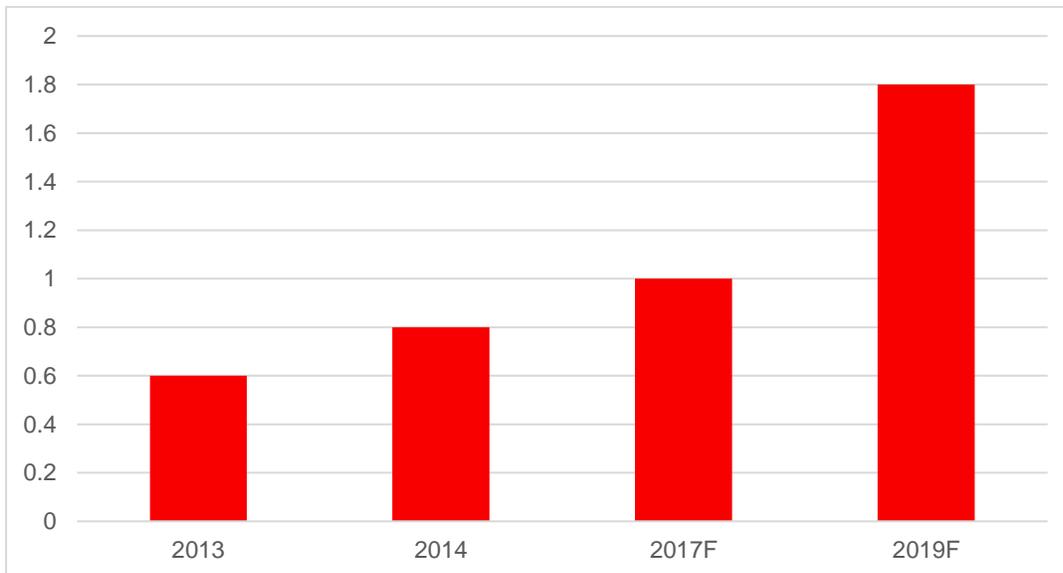


Figure 3: GLOBAL MOBILE BANKING USERS (IN BILLIONS)

Source: Juniper Research: KPMG Analysis

According to the Juniper research report as shown in figure 3, more than 1 billion mobile phone users will be using their mobile devices for banking purposes by the end of 2017 and set to rise to 1.8 billion by 2019. The banking tasks that used to take place in person at the bank branches are now happening virtually as per the convenience of the customer. The mobile channel is currently dominating the customer identity market and banks are continuously working on ways to simplify the ways in which a user can be given authentication for

banking services in a user-friendly manner. Customers have also started to embrace biometric authentication for the convenience and security of the customer. Innovation in the field of providing biometric authentication services to the customer using their mobile device could very well put an end to the password woes. In the figure 4 shown below, we can see that the adoption of mobile as a banking channel is well accepted across the globe and the penetration rate is growing steadily.

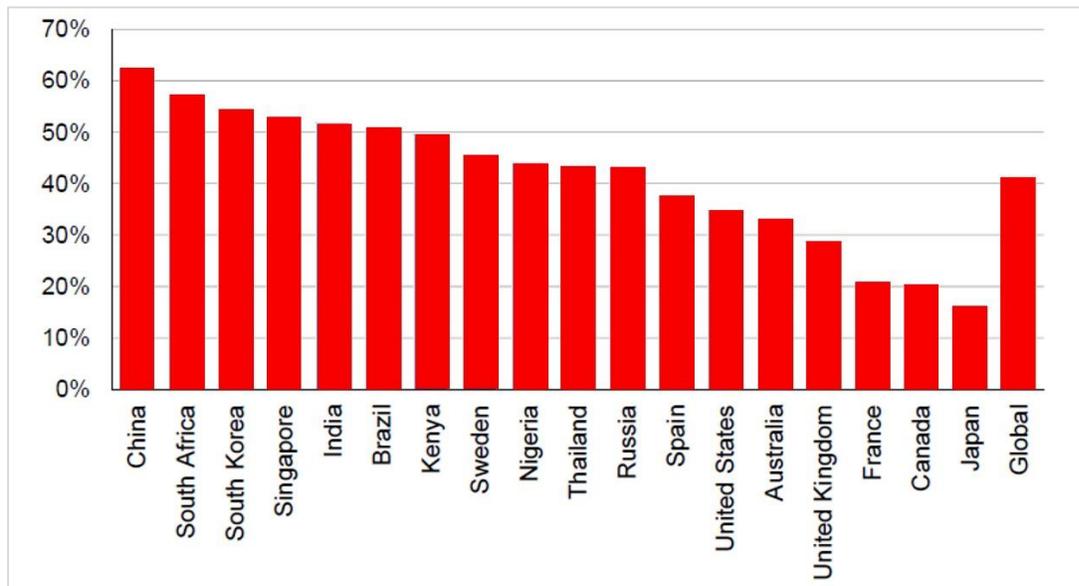


Figure 4: MOBILE BANKING PENETRATION BY COUNTRY

Source: UBS Evidence Lab

The mobile has a greater influence in creating the digital identity for consumers and helping both the bank and the consumer achieve success in a hyper connected world. Figure 5 below shows that there will be 4.78 billion mobile phone users in 2020. The mobile identity will become the core touchpoint for consumers to have a secure access to services such as banking, retail, transportation, payment and other digital services that can be accessed by a mobile phone in real-time and from any part of the globe.

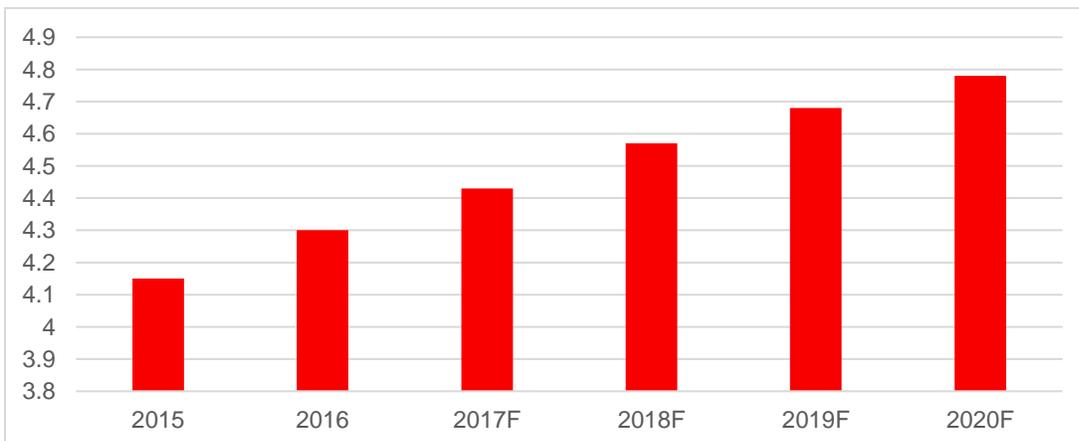


Figure 5: MOBILE PHONE USERS WORLDWIDE (IN BILLIONS)

Source: eMarketer, Sep 2016

Banks are now heading towards being proactive and investing a lot into digital transformation to understand their customers better and thereby giving them a better customer experience. Banks need to gear up and decipher the data from all customer activities such as social media, online buying and other transactions across the various channels such as the cell phone, tablets, ATMs, customer support conversations, the visits to the bank branches and use of credit and debit cards. Banks need to empower themselves to have a 360 degree view of their customers in order to serve them at the right time and at the time of need. How well do you know your customer? - The bank that answers this question will be the bank, which will reap the rewards.

2. Shift towards Industrialized Services

The financial sector is undergoing an industrialization transformation and this shift towards industrialized financial services has seen a positive response and is well accepted by market. Industrialization is all about standardizing, automating the processes, leveraging technology and adopting lean operating models in order to compete and thrive in the financial market.

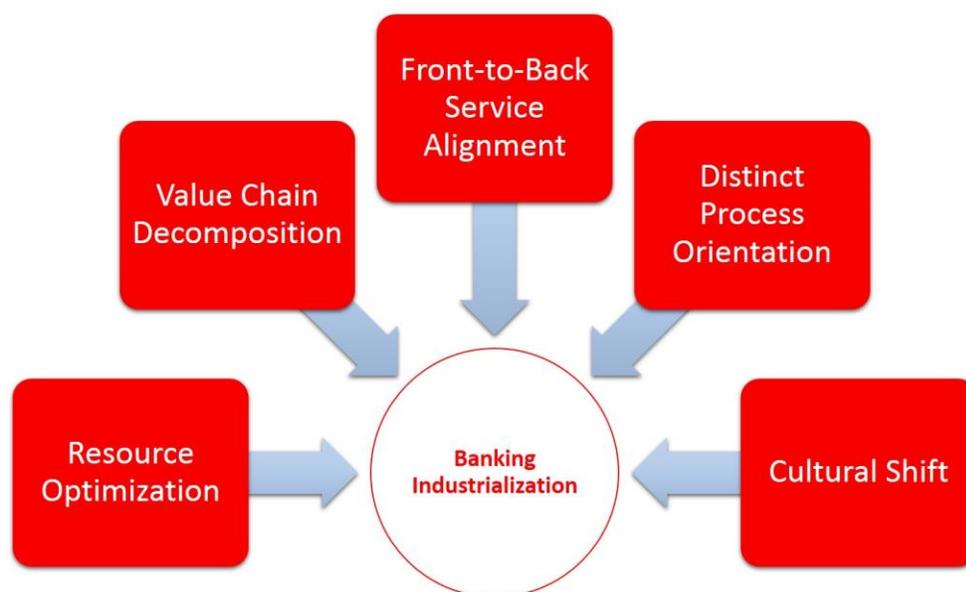


Figure 6: FIVE PRINCIPLES OF BANKING INDUSTRIALISATION

Source: Deloitte: Industrialization Report, August 2016

As shown in figure 6, the banking industrialisation can be aligned perfectly with the following five principles as stated in the Deloitte Banking Industrialization 2016 report³:

1. Front-to-back Service Alignment
2. Distinct Process Orientation
3. Cultural Shift
4. Resource Optimisation
5. Value Chain Decomposition

Let us now briefly discuss on how these 5 principles impact the momentum of changing the financial space into the industrialization realm.

1. Front-to-Back Service Alignment:

Financial institutions need to start operating by reviewing the complete front-to-back processes along the banking value chain thereby increasing the throughput of client and service operations. This also empowers financial institutions to improve the service quality, availability and process restructuring for optimum efficiency. For example: In order for financial institutions to have a strong customer-centric focus they need to provide their customers with an intuitive front-end such as paperless customer onboarding while delivering a best-of-breed back-office processing system which uses big data analytics and leveraging robots for repetitive processes for their financial services. Also digital methods should be used by the financial firm for all standard front-to-back office processes and data processing. The financial firms need to have continuous improvement audits and most importantly aim to standardise processes across the financial institution.

2. Distinct Process Orientation:

When building new bank models or revamping the existing models, the financial firm should structure it around strong processes. The productivity needs to be consistently regulated to improve the defined processes. Financial firms should offer standardized products and services, reduce duplicate offerings and leverage open architecture principles.

3. Cultural Shift:

The cultural shift gets really challenging when it comes to the point where the financial firm needs to set a particular mind-set among its staff to instill a distinct mind-set among staff to know the importance of productivity and change process. Employees should be motivated and their involvement is crucial in the early stage of the optimization process. Employees need to act as the change agents and the employees that suggest ideas towards improving the culture should be rewarded. Hierarchy levels must be reduced in order to optimize the control over the subordinates. Most of the common business tasks should be centralized for better efficiency and the organization flow should be structured in a manner that enables crossfunction communications, agility and rapid decision making.

4. Resource Optimization:

Resource optimization is achieved by having a performance management process in place. It becomes quite difficult to manage the resources if there is no measurement being carried out. For example, analytics can be introduced by the financial firm to measure everything such as the value of the customer, performance of the customer, the cost needed to serve the customer, allocation of resources for creating the products and serving to customers. Key performance indicators (KPIs) should be linked to employees and the rewards should be based on the review of the KPIs. Even the employee workspaces can be optimized to enhance innovation, team work and collaboration.

5. Value Chain Decomposition:

The banking value chain needs to be evaluated on a continuous basis wherein applications that have reached their end of life should be retired. Other areas of the financial institutions that need focus for the decomposition of the value chain is by leveraging systems that have features such as multi-product and multi-entity, by reducing software customisation, IT infrastructure optimization, implementing software as a service model, etc. Value chain decomposition should be done systematically by evaluating the core strengths of the financial institution thereby creating a competitive advantage.

Apart from standardizing the banking processes that we discussed earlier in the 5 principles of banking industrialization section, the banking sector is also seeing a positive trend towards standardization in regards to the standardizing of the information exchange protocols. This move of standardizing the information exchange protocols will help the banks and the third party service providers to work in unison to meet the growing needs of the customer. Figure 7 depicts the key benefits that a financial institution can achieve with industrialization. 88% of the banks stated that industrialization will reduce their costs and 69% stated that it would also speed up innovation.

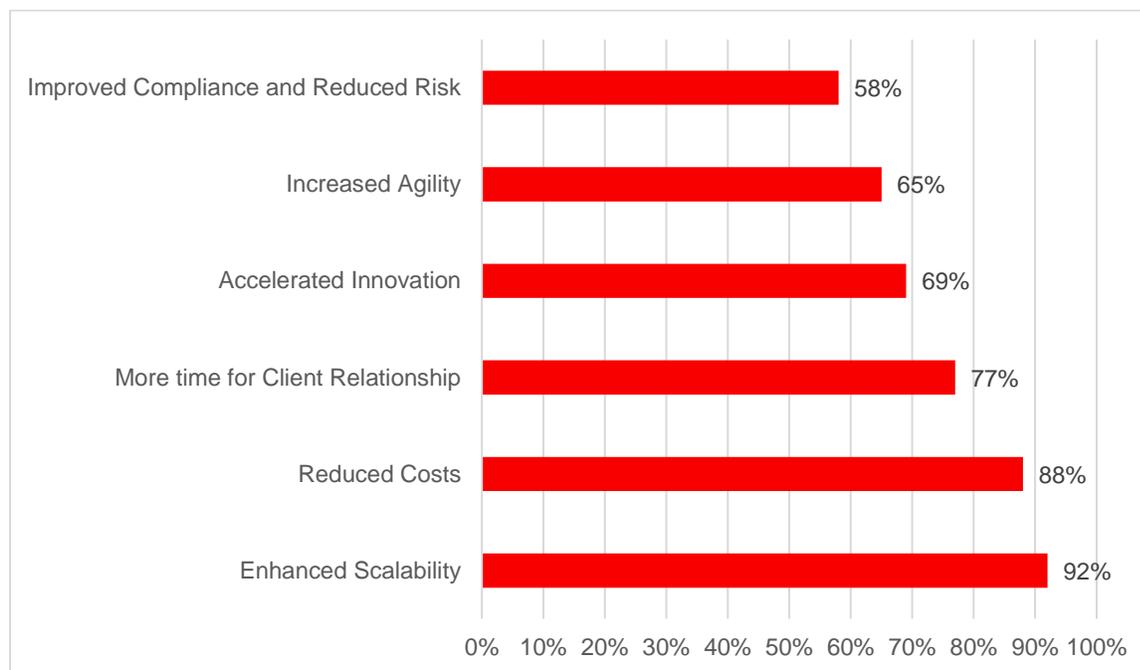


Figure 7: BENEFITS OF BANKING INDUSTRIALIZATION

Source: Deloitte Industrialization Report 2016

The standardization of the information exchange protocols have also driven the global regulations towards industrialization. Regulations and compliance at a global level have started catering to the entire hyper connected ecosystem comprising of Banks, FinTechs and Non-Banks. Such hyper connected ecosystems provide an opportunity for banks to have a partnership with third parties directly. Payment Service Directive (PSD2) in Europe, Financial Conduct Authority (FCA) in United Kingdom, Financial Services Commission in South Korea, Monetary Authority of Singapore and Economic Committee of Australia are some of the global regulations that are working towards industrialization of the banking sector.

Technology initiatives such as Open APIs, Open banking and ISO20022 have opened the doors for the entire banking sector to collaborate, leverage the strengths, use the customer data, innovate, create new products, and work towards a common goal, i.e. providing a frictionless banking experience to its customers.

3. Ubiquity through Partnership

Banks are no longer the sole players to deliver financial products and services. There is a FinTech alternative for almost every bank product and service. FinTechs are delivering better customer experience what the traditional banks could not with the help of technology. Banks have seen the potential and power of using technology when serving the present and future customers and according to the Hyper Finance 2017 report by

Simmons & Simmons², 48% of the banking firms stated that they have used the approach of collaborating with FinTech firms to help improve their digital innovation capabilities. According to the DeNovo's research from PwC, 82% of traditional financial organizations stated a plan to increase collaboration with fintech companies in the next three to five years. Moreover, the research further stated that almost 50% of financial services firms are planning to acquire fintech startups over the same period. The statistics provided by Simmons & Simmons and PwC clearly tells us that banks are in a dire need for collaborating with FinTech firms.

The World Retail Banking Report 2017 published by Capgemini in collaboration with Efma also stated that Fintech firms are more likely to provide consumers with better banking experiences than traditional banks. Even though traditional banks can create similar technology platforms, products and services that are being offered by FinTech companies, they are opting for the partnership model. The reasons for opting for this model can be many such as time that will be spend developing the digital capabilities, rival banks already serving the market by partnering with FinTech firms, or it could be to have a competitive advantage to gain the market share. The partnership between banks and FinTechs is happening at a rapid pace wherein both parties bring in their core strengths and ideas thereby creating customer centric banking services and products.

APIs play a pivotal role in the formation of the partnerships between banks and third parties. APIs in simple words is the medium of communication between software applications. However, they also hold the key, which needs to be harnessed for developing innovative banking solutions. Figure 8 below clearly depicts the collaboration between the banks and FinTechs using APIs and the benefits that come along when banks and FinTechs form a partnership.

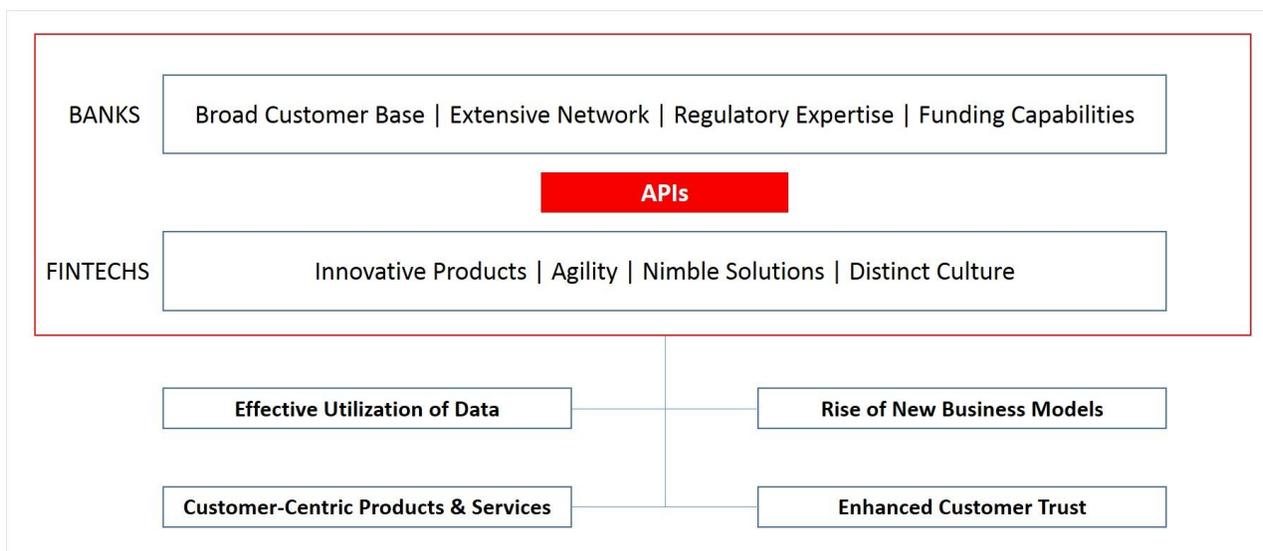


Figure 8: API COLLABORATION BETWEEN BANKS AND FINTECHS

Source: capgemini Financial Services Analysis, 2017

As stated in the World Retail Bank Report, there are three types of APIs which can help the hyper connected financial ecosystem to build partnerships:

Private APIs: Traditional banks have been using private APIs to facilitate data flow for their internal operations. They control the bank's operating systems, reduce friction between systems and enhance operations.

Partner APIs: They are highly customized APIs that enable banking processes between multiple banking entities. They are utilized when a tight integration with banks and third parties is established through partnership. They help financial institutions to expand their business by introducing new innovative products and services, improving customer experience by launching new channels.

Open APIs: Open APIs are functional and made available to third parties that have not signed any form of partnership with the bank. In this scenario, the flow of data happens in a controlled manner between the parties. Security is a major concern in this type of API structure.

4. Differentiation by Narrow Service Focus

This scenario can be defined in simple words as spotting a niche segment in the market and developing products and services that caters specifically to the niche market. Narrow focus is what made the FinTech companies to innovate, gain dominance and have a large pie of the market in the area of their offering. Many product and services in banks' value chain can now be substituted with Fintech's. There are FinTechs for every financial product and service offered by traditional banks and this narrow service focus is what has created the differentiation in the financial market. According to the PwC research, banks were asked the question as to which financial activities they believe their customers already conduct with FinTech companies. Figure 9 shows that FinTech is showing great dominance in the payments and fund transfer services.

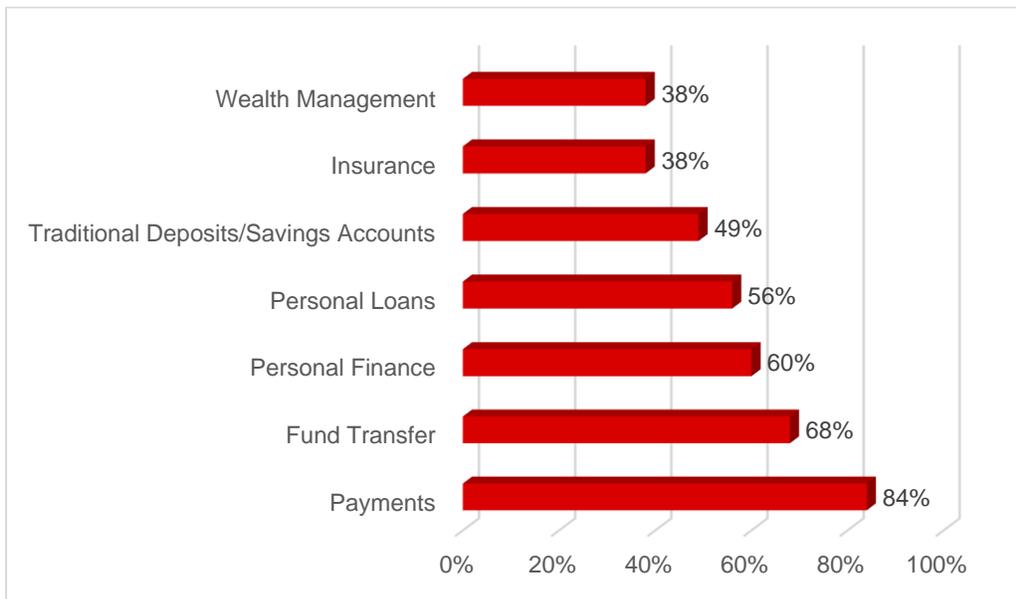


Figure 9: BANK'S CUSTOMERS DOING BUSINESS WITH FINTECHS (BANK BELIEFS)

Source: PwC

FinTechs have chosen the narrow service path thereby giving customers the choice to choose the best players that best suits their needs. FinTechs companies range from handling payments, P2P transfers, lending, wealth management, current and savings account, cryptocurrency and much more. Financial institutions that operate by focusing on a narrow segment tend to have a strong competitive advantage.

Crafting the Bank of the Future

Waves of digital disruption are fueling the convergence of technology and people. Growing sophistication of social connectivity and peer networks are reshaping the global marketplace, right from consumer behavior to new business models. This unprecedented level of interconnectedness between people, organizations and devices is defining the hyper connected world. Fintechs are indigenous to this hyper connected economy leading the way for socialization of financial services.

These accelerated digital transformations in the global economy have stimulated the resurgence of industrialized information sharing in financial services. If banks are to stay relevant in this hyper connected ecosystem they must embrace collaborations as a strategic response to Fintech disruption. Banks must own the hyper connected ecosystem and take advantage of the opportunities it offers, either as an active participant or as a platform enabler.

In the figure 10 below, we see the three core pivots needed to craft the bank of the future:

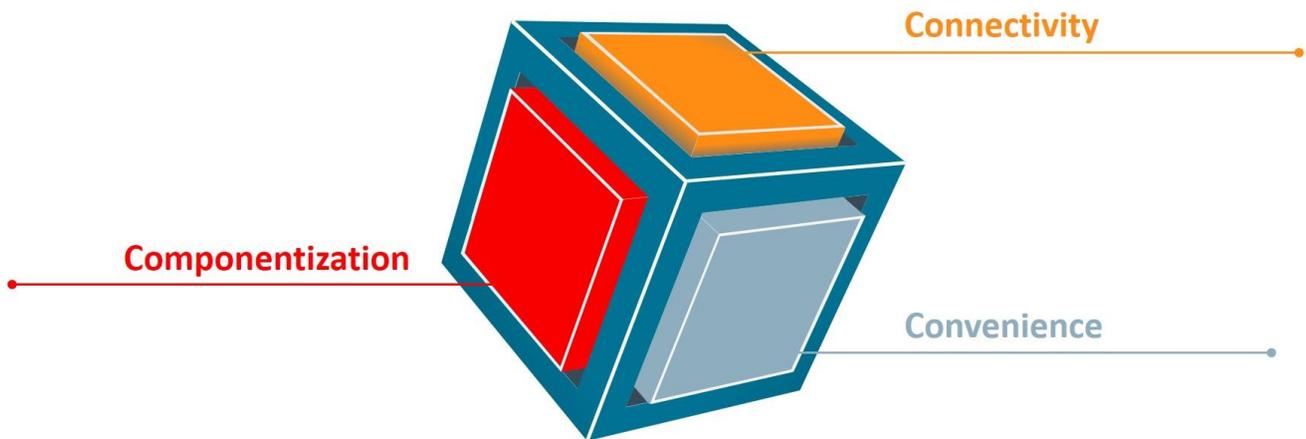


Figure 10: THREE CORE PIVOTS FOR CRAFTING THE BANK OF THE FUTURE

Let us now go in depth and understand the three pivots.

1. Componentization:

Banks need specialized building blocks for authoring their transformation story. The componentization strategy will enable the banks to start with a narrow service focus and be a specialist in that domain. This can be achieved by choosing a specific banking product portfolio available on the market to drive the progressive transformation conversation by orchestrating componentized solutions according to their strategic needs.

Banks can have a head start with rapid specialization with the 'co-deployment' plan by opting for a shrink wrapped solution pre-fabricated with best-of-breed capabilities and multiple options of co-deployment tailored for distinct transformational strategies. The other option is 'Bank in a box' where in the bank can opt for a pre-baked shrink wrapped solution with accelerator packs, designed to work as a single unified off-the-shelf plug-n-play solution for banks investing in a one-stop end-to-end engine. Lastly, banks can opt for the 'standalone' model where it can choose to start being a specialist in one area of banking such as payments and plan a progressive transformation by adding other banking components later such as lending, limits and collaterals, etc.

2. Connectivity:

Banks need a connected architecture with collaborative options across third-party service providers, technology and data thereby delivering rich and targeted experiences more securely, rapidly and cost effectively through Open APIs and Partner APIs. The connected architecture should enable banks to securely collaborate and innovate with third parties, while remaining in control and defining the ecosystem, it chooses to operate.

3. Convenience:

Banks need to offer differentiated experience based on evolving identities, while providing ubiquity of service and intelligent decision making to promote convenience. The financial hyper connected ecosystem should provide the customer with seamless customer experience from any contextual reference point and through any channel in near real-time. The bank needs to adapt quickly by choosing the right transformation strategy by leveraging its APIs, gaining insights from customer data, partnering with third parties thereby providing a high level of convenience to its customers. In simple words, banks should ensure on-demand accessibility, respond rapidly to market dynamics, and provide service to its customers 24/7.

Future Banking Business Models

As the banking sector is becoming totally absorbed with new advanced technologies and regulations, the possibilities are endless in terms of innovation. This adoption of technology and regulation has fostered the banking industry to carve a path for new banking business models. Banks need to decide the role they want to play in the future by making a decision on the banking business model that best suits their requirements. In the figure 11 below, we can see the five different types of business models, which the banks can opt for in the future.

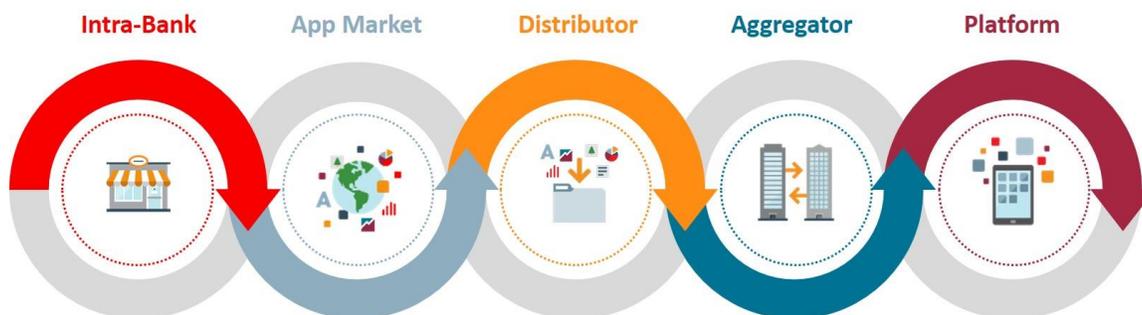


Figure 11: FUTURE BANKING BUSINESS MODELS

Intra-Bank

In this model, the banks continue their operations in the traditional manner wherein they manage their own products and services and delivery channels. The intra-bank business model is highly asset intensive and bound to incur low profit margins. The manufacturing and distributing of all of their products and services is solely handled by the bank itself, which can result in being an unsustainable proposition for the banks adopting this model. They also continue



to use APIs as a channel for their own bank products. Adopting this model would mean that the bank would require to remain competitive in the banking ecosystem and meet the demands of their customers when the competition in the open API market starts to rise.

App Market

In this model, the banks expose their data to third-party developers through Open APIs. This opens the doors for the entire banking ecosystem to step in and innovate. The bank can charge the third party developers as and when the API calls take place. Banks and the third party developers can also opt for the revenue share deal. In this model, a win-win situation is created between both the parties and the onus lies on the relationship between them.

Distributor

In this model, banks stop from product and service development and focus only on the distribution aspect. Banks can also plan to integrate external services with their own offerings. In simple words, banks collaborate with third parties, bundle products or directly use the third party's product and then distribute them through their own existing channels such as mobile and internet. The bank adopting this distributor model can also benefit by becoming a third party provider to other banks and other financial institutions for meeting their various business needs. The bank gains new customers adopting this model and a share of the revenue earned from the third party service providers.

Aggregator

In this model, the bank becomes the distributor for financial products and services. The bank starts functioning by aggregating multiple APIs from financial service providers into a single API. In simple words, the bank would not create financial products and services but source them from various partners and earns revenue by taking into account the service and transaction fees.

Banks adopting this model will not have to bear the costs of research and development in making products or comply with regulatory bodies making this model the most profitable among others. Even though this banking model positions itself towards high profits and being less asset intensive, it will be difficult for the bank to defend itself in the market.

Platform

In this model, the bank offers open banking platform by exposing their APIs to other institutions. In simple words, banks will now give permission to other companies to develop, collaborate and serve their customers. The banks and the third parties both benefit with this model because of the collaborative effort to bring out enhanced product offerings, better distribution, building the financial ecosystem and fostering innovation.

Regulations such as PSD2 will make banks become a platform for banking by providing APIs to access data. This model will allow consumers to remain the owner and control their accounts. The customers are in a position to give permission to different apps and organizations that are willing to help them manage and lead a better financial life, such as with personal finance management, bill payments, investments, expense reporting, etc. Thus, the platform banking model seems like the best path towards sustainable growth and high profits.



Conclusion

In a connected society where shared platforms for digital transactions are forged on momentum and mobility, conventional strategies for isolated growth are no longer viable. Banks need to scale up and lock step with the emerging levels of hyper connectivity. A hyper connected bank builds tightly integrated partnerships with FinTechs, non-banks, and correspondents and brings innovative solutions faster to market, enables ubiquitous services across touchpoints and creates differentiation with a strong focus on specialized services while offering complete banking solutions. Initiatives like PSD2 and Open bank project have come at the right time to foster the relationship between banks and FinTechs.

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