

Reimagining Banking

Roadmap to building a digital-first, customer-centric banking ecosystem

INSIGHTS FOR SUCCESS | IDEAS TO EXECUTE

April 2020

Minakshi Ghosh
Twimbit

Mathew Varghese
CTO - Financial Services Industry
Cisco Systems

Table of contents

3

Preface

5

Overview

6

Banking as a catalyst for growth in the emerging economies

8

Digital-first approach to a new banking ecosystem

12

Four pillars of transformation

18

Accelerated innovation

21

IT modernization

29

Cultivated by people and teams

31

Conclusion

32

About Twimbit



Preface

- ● Banks play a crucial role in supporting the financial and economic stability of emerging nations. Accounting for 5-10% of the total gross value added to the economy, banks contribute significantly to fueling entrepreneurship and providing financial security for every citizen. ● ●

The financial system of most emerging nations continue to be tested by mounting micro- and macro-economic challenges, prompting their respective central to manage risks prudently by fostering a vibrant and resilient financial sector through optimizing resource allocation and promoting stability among financial institutions.

Against this backdrop, it is necessary for the financial sector, in particular, the banking industry, to reflect upon several critical questions about their strategy and readiness moving forward:

Does the system contribute to economic prosperity?

Technology deployment and better business models are becoming pivotal to sustaining growth and tackling challenges in climate-dependent sectors such as agriculture

Does it offer innovative solutions that promote financial inclusiveness?

With a high percentage of the population residing in rural areas and an increase in the number of SMEs in emerging nations, banks are increasingly on the lookout for an integrated model that leverages new technology to enhance participation and promote banking as an ingrained habit

Are there adequate security controls to ensure a secured and trustworthy banking environment?

Banks are a frequent target for cyberattacks and threats to information security. Necessitating maintenance of a safe and secure platform for participants is essential to sustain and inculcate higher consumer trust in the banking system

What are the measures necessary to strengthen the resilience and sustainability of the banking sector?

As consumer banks are central to growth, the health of the financial system relies largely on the soundness of the LCBs, primarily the performance and strength of banks

So how can banks realize these goals without having to radically reinvent or disrupt the existing sovereignty of the system? The answer lies in digital transformation. In conducting a detailed analysis of the financial sector in emerging nations, our core finding is the importance of IT modernization in transforming their banking system into a pragmatic, technology-driven business model focused on growth.



Overview

- ● **The emerging nations' banking system is currently in a period of transition. Apart from the tightening compliance regulations, competition from technology giants gradually wading into consumer finance and the emergence of financial technologies (fintech) are placing tremendous pressure on the profitability and sustainability of traditional banks. ● ●**

These disruptors are emerging in response to growing consumer demand for innovative and convenient digital banking solutions, forcing banks to focus investments on technology to cope with the tighter requirements on capital, improve operational efficiency, enhance customer experience, and minimize risks in coming years. Banks that fail to keep pace with the increasingly digital environment, risk being left behind. To accelerate innovation and investment in digitalizing consumer offerings, we expect further consolidation within the financial sector, creating larger, stronger banks.

However, inherent challenges within the banking industry could inhibit its expansion, with industry pundits predicting a minor increase in revenue from the banking sector for 2019 and beyond. These include:



High level of non-performing assets (NPAs) at 3.4% in Sri Lanka, 9.3% in India and 11.4% in Bangladesh.



Emerging markets are widely viewed as underbanked and unbanked, increasing challenges in terms of customer acquisition and revenue generation opportunities.



The looming challenge from big tech players (e.g., Amazon, Google, Facebook, Alibaba, Apple) that could disrupt the existing banking model



The requirement of substantial additional capital to meet Basel III and other regional compliances.



Declining profitability due to increasing cost of operations in emerging markets.



Low adoption and awareness of financial and digital financial services by consumers.

Banking as a catalyst for growth in the emerging economies

Despite these challenges, the robust banking sector, combined with the Government's strategic national agenda for sustainable growth, is poised to maximize the vast opportunities digital transformation offers.

Significant developments in technology and regulatory frameworks could have a transformative effect on the current and future landscape of the banking sector in emerging nations, ultimately contributing to the economic prosperity of the countries.

Drivers for Digital Transformation

	Digital Priority		Initiative
1	Enhance digital service adoption	>	Build technology-driven solutions to: <ul style="list-style-type: none"> - Promote digital banking as an alternative - Bank the unbanked and enhance financial inclusiveness - Improve agility - Drive operations efficiency
2	Embracing open innovation	>	Enable the creation of next-gen financial services through: <ul style="list-style-type: none"> - Frictionless services that enhance consumer experience for payments, insurance, micro loans - Industry-specific solutions, e.g., agriculture sector financing enabled by IoT services - Digital marketplaces to support SME growth
3	Lowering operating costs	>	Adopt a lean banking approach through: <ul style="list-style-type: none"> - Branchless banking and tech-driven "light branches" to lower the cost of operations, expand reach, and improve profitability
4	Building a safe and trustworthy financial ecosystem	>	Develop a framework for the use of customer data across consent, privacy, transparency, and liability that utilizes: <ul style="list-style-type: none"> - Biometrics and facial recognition technologies to reinforce security, eliminate money laundering, and strengthen trust
5	Increasing the attach rate of financial products and services	>	Improve the adoption of services such as insurance, loans, and investments
6	Reducing NPAs (Non Performing Assets)	>	Leverage big data, artificial intelligence, Internet of Things to simplify processes and become proactive on identifying potential NPAs

Digital-first approach to a new banking ecosystem

Digitalization and optimized customer experience signal the next wave of growth in Emerging Asia's financial sector. A technology-enabled ecosystem is essential to creating a new industry structure and nurturing continued investment in the banking industry. Incumbent institutions need to rethink their traditional roles and branch-based delivery models to ensure better utilization of infrastructure resources and drive innovation in underserved segments of the market, bringing the necessary agility and value to the country's economy.

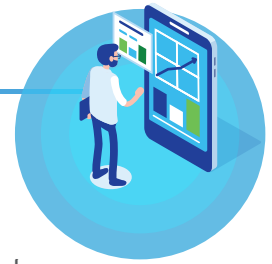
This involves a higher degree of specialization, in terms of function or client base, greater flexibility, and a broader variety of choice to suit customers' unique requirements. The entry of disruptive players in the market providing more innovative services and better customer experience are set to reshape the future of banking.

We predict the rapid evolution of three distinct competence-based banking models powered by cutting-edge technologies, customer expectations, and industry trends. The financial sector stands to benefit tremendously from stimulating the growth of these banking engagement models. The real value in developing differentiation in industry structure lies in the ability to target innovation and competition in the right areas to overcome the pressing challenges a developing economy faces.

To drive overall strategic intent and positioning, banks could adopt a single domain focus or hybrid model that involves a culmination of focused domains. Growth of these adaptive operating models is already evident in several leading global banks that have successfully incorporated a digital-first strategy.



Bank as a Utility



In this model, the bank concentrates on serving customers with the essential functions of banking in a cost-optimized, resource-efficient manner. These banks prioritise daily banking functions with a focus on OPEX reduction and efficiency maximization by outsourcing specialized tasks or collaborating with external partners to boost customer-centric service innovation. The trend is stimulating the rise of a new breed of technology-enabled industry players offering new digital offerings that operate on top of the core banking infrastructure.

The State Bank of India (SBI) exemplifies the utilitarian approach through its focus in fulfilling basic banking needs effectively while outsourcing modernization of its operations to strategic partners like IAG that handles the insurance arm of the bank. Innovation is pivotal to the success of this model, which is driven inorganically and more from a pushed mode. The innovation in setting up the 60 sbiINTOUCH, SBI's digital branch across the country, was handed to Dimension Data to help SBI expand its reach with increasing profitability.

Deep expertise bank



Deep expertise banks adopt a strategic approach to combating competition by specializing in specific segments. By optimizing deep customer relationships and tapping into new technologies to solve industry challenges, this model presents a compelling value proposition to customers aiming to leverage the best expertise and connections. Positioning themselves as an expert in understanding the needs and opportunities within a particular segment, these banks focus their priorities on customer-centric experiences to pioneer new services. Deep expertise banks can either choose to concentrate on a product segment (i.e., wholesale banking, wealth credit) or customer base (i.e., HNI, agriculture).

Innovation is paramount to sustaining this model given its unparalleled focus on customer or product enhancements. Building a deep digital relationship by harnessing disruptive technologies such as AI, big data, and machine learning to deliver excellent customer experience and meet unique industry or segment requirements lies at the core of this approach. Banks can either implement these initiatives organically or forge innovation-focused alliances with external partners to create new value-based services.

Bank of Baroda (BoB), a public bank in India, is an excellent example of a deep expertise initiative through its collaboration with IBM to develop an agriculture digital platform, Baroda Kisan, to provide solutions targeting the needs of the agriculture sector. By leveraging the digital-first retail or corporate advisory model, both large and small banks have the opportunity to broaden their reach over specific segments across larger geographies, building scale in niche areas.



Financial supermarket

Banks in this category assume the role of an aggregator providing a wide variety of financial products and services, frictionless banking, and customer experience for sustainable competitive differentiation. Financial supermarkets continue to evolve rapidly, transitioning toward Internet-based models and expanding the choice of products beyond just financial services. Some forms of financial supermarkets are as follows:

1

Offers one-stop shopping for financial services, either generated in-house or sourced externally through brand collaboration. For example, fintech firm, SoFi, started off as a consumer loans provider, but has since expanded into wealth management and recently announced plans to apply for an industrial bank charter.

2

Acts more like a real supermarket offering its services as well as those by other firms. BBVA's One View is a real-time platform-agnostic service that allows businesses to control their domestic accounts, credit accounts, and cards from a single dashboard. Utilizing big data technologies, the platform collects and organizes information on bank accounts and other financial products, allowing companies to optimize their treasury activity and make decisions more efficiently. Today, over 80 financial institutions are available through BBVA One View. Customers can choose which accounts and cards to link to the BBVA One View at each point in time.

3

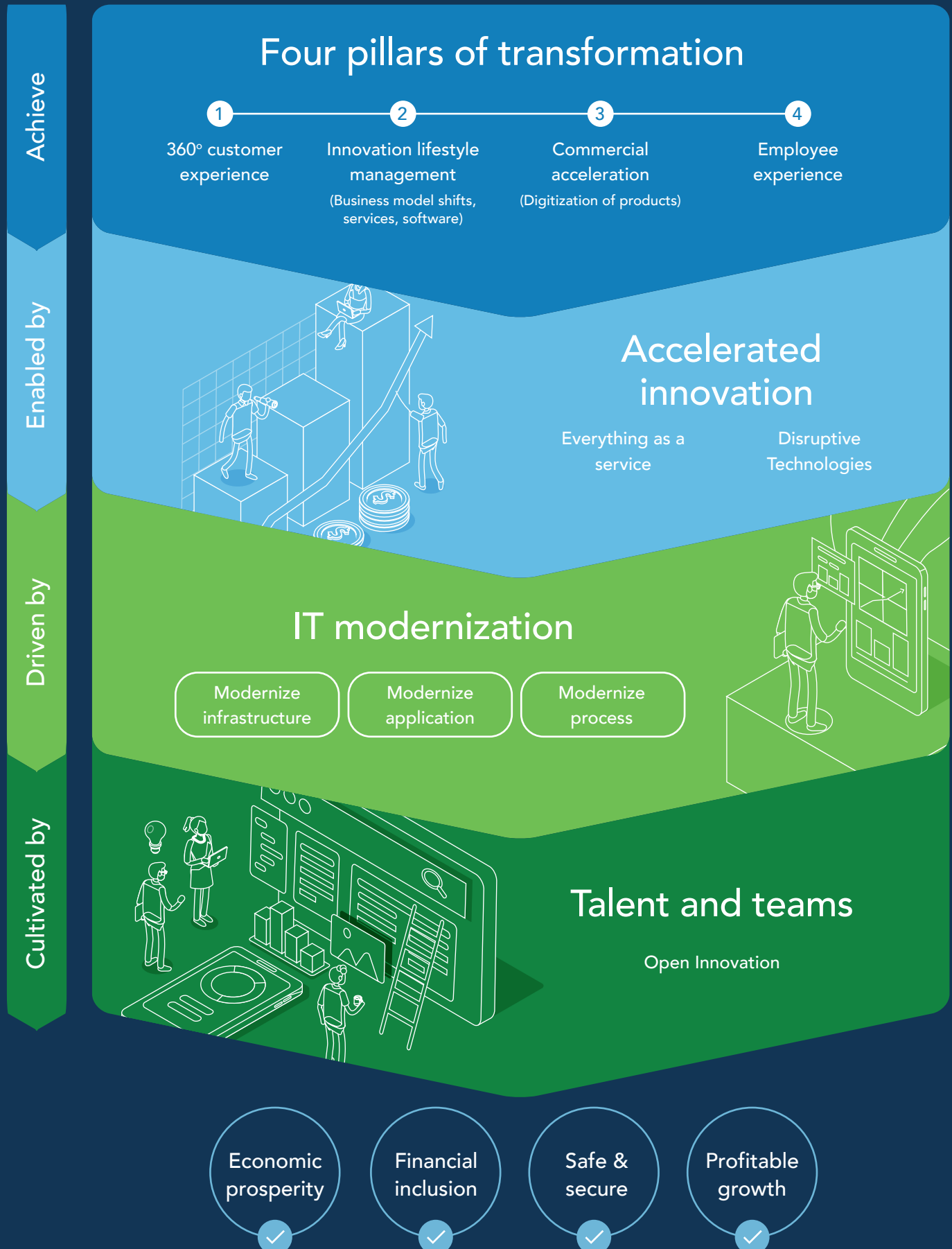
Serves as a marketplace aggregator providing not only financial services, but also solutions that cater to the associated needs of customers. India's Paytm provides general banking facilities as well as services from multiple non-banking participants including movie ticket booking and utility payment facilities. The second largest private sector lender of India, HDFC Bank, has also launched a mobile phone application that aggregates merchants' applications and allows users to transfer funds, shop, pay utility bills, book tickets, and recharge phones.

- ● **The challenge ahead for the banking industry incumbents is no longer how to compete with existing competitors; instead, it is how to stay relevant amid changing customer expectations, digital disruptors, compliance requirements, and operational risks. ● ●**

Digitalization can fundamentally transform the competitive landscape in emerging nations' banking system, improving economic prosperity, increasing financial inclusion, making banking safe and secure, and driving revenue opportunities. In transitioning toward digital channels and processes, banks can optimize their reach to unbanked populations and improve the speed of service delivery, which are essential prerequisites to building sustainable competitive advantage.

Embracing the four pillars of digital transformation across people, processes, and infrastructure is pivotal to charting a sustainable future for the banking ecosystem.





Four pillars of transformation

1 360° Customer experience



- ● ~80% of customers would opt to switch banks because of diminished digital experience*¹ ● ●

Fast-changing demands and buying behaviours of customers in the digital era are prompting businesses to look for new ways to better align their products, services, and engagements to cater to these new needs. Customers today expect banks to provide higher returns on deposits, Amazon-like frictionless customer experience, as well as innovative product and service portfolios that maximize the use of technology.

Banks need to adapt their business models, internal processes, and interactions to the new realities of the on-demand experience customers desire. This requires a shift in focus from cost optimization to designing a consistent multichannel banking ecosystem that integrates physical and digital offerings, allowing customers to access financial services at anytime, anywhere, via a channel of their choice.

¹ <https://thefinancialbrand.com/82983/banking-customer-satisfaction-cx-trends/>

Global banks succeeding in this endeavour are positioning themselves as customer first, executing seamless interactions across the entire customer lifecycle from shopping, account opening to onboarding, relationship expansion, and service delivery (e.g., claims processing for insurers).

For incumbent banks, these trends broadly present three opportunities – the ability to reduce costs in service delivery by shifting routine tasks to digital channels, harness customer data to personalize user experience, and generate new revenue streams through the provision of customer-centric products and services.

Successful AI implementations are automating repetitive, mundane tasks, freeing up employees to focus on personalizing the customer experience. By leveraging the vast amounts of data banks have on their customers, AI algorithms allow for faster, accurate, and highly-relevant assessment of the customer. Using technology also eliminates human bias and risk of error, reducing the risks for banks and customers. This is especially significant in dramatically reducing the risk of credit card fraud. Real-time self-service capabilities are now also possible with the utilization of AI-driven web and mobile chatbots that provide fast and reliable answers so that customers can make more informed financial decisions.

DBS' growth from a legacy bank to a digital-centric organization exemplifies the power of digital transformation. From having one of the worst service ratings to being voted as the World's Best Bank by Euromoney in 2019, DBS is aiming to make "banking joyful" and invisible for customers. DBS approached all its banking processes and operational models with a customer-centric mindset enabled by technology to make better use of customer data to deliver targeted solutions.

JP Morgan is using AI to boost engagement with retail banking customers. Analysis leveraging AI provides 360° visibility over the customer, allowing the bank to frame and customize products, responses, and interactions with the customer. The insights also enable the bank to identify potential revenue generation opportunities and engagements that resonate with its customers.



● ● Banking is essential, banks are not. ● ●

Bill Gates famously predicted more than 25 years ago, perfectly summing up the evolution guiding the banking industry for the past two decades. With growing technology and mobile accessibility, banking is at the highest risk of disruption.

Banks are gradually making way for seamless banking experience with services that integrate into the lifestyles of customers. This involves easing the overreliance on physical touchpoints (e.g., debit cards, ATM) with a digitally-driven focus on cashless, contact-less channels.

Banks today need to be pervasive and invisible, embedding themselves in the minds of customers and connecting the customer journey in innovative ways. Today, you can access your bank, retailer, restaurant or even pay your bills in a single place, online or using your smartphone. Banks are becoming part of this convergence of customer demands across industries given the importance of offering personalized user experiences.

Invisible banking enables new distribution models, e.g., payments, statements or investment portfolios, to be embedded into actual consumer experiences.

¹ <https://thefinancialbrand.com/82983/banking-customer-satisfaction-cx-trends/>

3 Commercial acceleration



- ● ~80% of customers would opt to switch banks because of diminished digital experience*² ● ●

Growing customer willingness to take greater control of their product or service experience in terms of customization and tools to resolve issues are motivating banks to migrate more solutions to digital platforms. With digital banking applications accounting for a growing share of customer transactions and interactions, the need for banks to develop products and services primarily on online and mobile platforms has never been greater. Banks increasingly recognize the promise of open platform banking and the use of Application Programming Interfaces (APIs) in mitigating costs, monetizing opportunities, and providing more contextual services.

In this environment, banks serve as a platform, on which third-party providers can develop applications using the bank's data. Open banking enables banks to expand their product lines and channels while enhancing operational efficiency through the provision of diverse third-party solutions to personalize products and services. Banks in emerging nations should take advantage of establishing a role in open banking to make banking more inclusive, smart, and accessible.

BBVA anticipates 50% of its customers converting to mobile banking by this year. Open banking is a key part of its strategy enabling third parties to take advantage of its core capabilities in delivering Banking as a Service solution. BBVA's hugely popular Valora tool uses big data technology to analyse information from a variety of sources allowing users to calculate the best price at which to rent, sell or buy a property, and determine their affordability. The tool enables customers to gain better visibility over their financial health and ways to improve it.

² Bain & Company



Employee experience

4

Creating a digital bank means enabling employees to embrace the use of data and streamlined digital tools. Technology is altering the relationship between companies and consumers, prompting a rethink of structural models, staff skills, hiring practices, training, and incentives. **Effectively employees are increasing their capabilities and acquiring new skills which re-positions them from a service provider to becoming customer interface agents and counsellors.**

Employees are training for roles as skilled community bankers and relationship managers, who, equipped with tablets and smartphones, guide customers as they navigate through digital channel options and services and, at the same time, perform processing and security checking.

Building digital workplace requires:

- 1 Automating.** Digitizing repetitive, mundane back-office processes and equipping employees with specialized skills and resources to handle higher-value tasks
- 2 Putting information closer to the customer.** With mobile banking, channel consistency is critical. Customers will visit their banks less frequently, but when they do, bank staff can leverage analytics tools to gain a single customer view and real-time contextual insights to provide streamlined digital experiences for customers.
- 3 Improving connectivity.** This aids business growth and opens doors to information sharing.

DBS Bank (India) TechFluence digital adoption program helps employees build knowledge about the various digital initiatives delivered by the bank. DBS also promotes employee digital adoption, improving existing HR systems relating to recruitment and employer brand; development; engagement; performance and recognition; leadership and succession.



Accelerated innovation

Innovation and change are happening at a pace that has never been experienced before.

There are two catalytic trends that are colliding with each other and accelerating the pace of innovation around us. One is a business model trend and the other is the growth of emerging technologies. Their intersection is throwing open new possibilities to reimagine how we will address some of the biggest challenges facing the world today.

Everything as a service:

The origins of this business model innovation dates back to 1961, when Xerox Corporation leased its iconic 914 copier to customers for a small fee and charged a copy fee based on consumption. This was a pivotal moment for the company which saw exponential growth in its business for the next two decades. The new business model reduced the entry barrier cost for every customer and enabled them to take benefit of the innovative new product. Over the last decade, the IT industry has seen a massive transformation as it transitions from selling the ownership of assets to charging for the consumption of the assets, viz., the delivery of outcomes. Cloud computing, Software as a Service are all manifestations of the business model trend started by Xerox Corporation more than 4 decades ago. Every IT product is ready and awaiting the click of a button to be consumed, to be monetized.

There are few sub-trends as a result of this megatrend of business model innovation.

This ability to not require the ownership of the asset to consume it, significantly expands the addressable market. Start-ups now have the same access to every technology that large companies have access to. It has democratized access to technology. You can consume it in bits and bytes.

The innovation rate is accelerated as you now have the ability to consume all the underlying infrastructure as well as the disruptive technology on a need basis, without the need to build it. A small business or a line of business can quickly experiment an initiative without a reliance on IT.

You have high degree of elasticity to scale. Any business can scale from serving a few hundred users to billions of users in minutes by the swipe of a credit card.

Today, we are rapidly transitioning from an ownership economy to “pay for consumption economy” in every sphere of our personal lives, even beyond IT. Future generations may never own a car, a house or even their mobile phones.

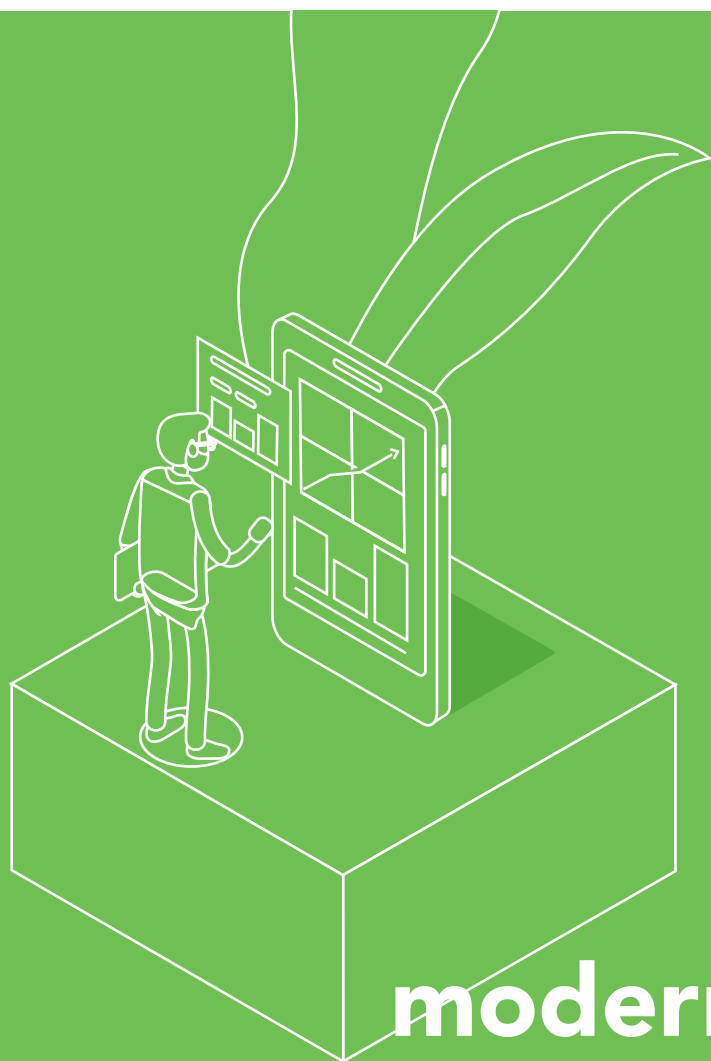
Disruptive Technologies:

●● Great ideas are born through collaboration. ●●

One of the biggest benefits of the growth of the internet is the ability for people around the world to collaborate. It has fueled the innovation departments of the world and we are seeing rapid advancements in thousands of disruptive technologies. Over 3.2 million patents were filed in 2018 and this is growing annually between 7 to 8 percent. The innovations span diverse fields such as energy generation, energy storage, new kinds of materials, 3D printing, robotics and also the field of IT. The ones in the field of IT tends to be more pervasive in filing of patents as well as in application. The following six disruptive technologies are expected to have the biggest impact in the next decade.



The faster you integrate these technologies into your business the better your chance at differentiation and growth. The world's best companies are leading the race by taking an AI first or Cloud first (and so on) approach to building their technology platforms. The true innovation happens when the leverage of these technologies happens across every line of business and functional group in the company.



IT modernization

Digital transformation is no longer an option in the financial sector, but an essential business mandate to navigate the rapidly evolving competitive and regulatory landscape.

The ability to boost commercial agility and accelerate the go-to-market are necessary prerequisites to thrive in today's highly-competitive banking industry. Banks with legacy business models and processes are at risk of disruption by more agile, digitally-driven industry participants. Banks need to modernize IT at scale to stay relevant.

However, modernization does not simply mean swapping an older system for a newer one. Instead, the best approach to IT modernization should start with the problem you're trying to solve. This involves a thorough assessment and prioritization of systems, processes, and workload deployment strategies that are optimized for scalability, security, performance, and accessibility to better serve the future needs of the organization and its customers. Senior leadership buy-in is extremely crucial in driving these priorities.

Application, Infrastructure, and Process modernization are the three core areas in which banks can approach customer-centered digital transformation.

Application Modernization

Application development has witnessed a growing turn driven by

- LoBs demanding increasing number, personalized and customized applications
- Development of new age cutting technologies like AI and ML which help in making a business intelligent sense of customer data and
- Data driven digitization signaling the tremendous potential for transformation

This growth has resulted into banks focusing on Application modernization without having to rebuild a totally new foundation. Enterprises are seeking out ways to modernize traditional applications to become more agile, performance-driven, and secure. Application modernization in the present age effectively entails the following:

Application modernization imperatives

	Simplification	Rationalization	Standardization	Security
Capabilities	Cloud native architecture <ul style="list-style-type: none"> • Microservices • Containers 	Application performance & analytics <ul style="list-style-type: none"> • Code level visibility • Mainframe visibility <ul style="list-style-type: none"> ► (for traditional applications) 	Interfaces (Open APIs)	Application security <ul style="list-style-type: none"> • Zero-trust security • Visibility Segmentation
Use cases /Benefits	<ul style="list-style-type: none"> • Improve efficiency • Improve agility • Cost optimization 	<ul style="list-style-type: none"> • Decreases complexity • Improve performance • Lower IT spends 	<ul style="list-style-type: none"> • Flow driven development • Easier integration • Faster innovation 	<ul style="list-style-type: none"> • End to end security view • Faster problem resolution • Reduced attacks
	<p>Simplification is primarily cantered around killing application monoliths, and not creating any newer applications which complicate the existing structure. The way to do that is by using Microservices architecture, a technique that breaks large applications into lightweight apps that can be scaled horizontally.</p> <p>BMW, employed Red Hat's OpenShift in its ConnectedDrive software. The company realized that the volume of service requests it received fluctuated with external, pattern-less factors. Using OpenShift allowed BMW to cater to these fluctuating needs more efficiently, without any lag or interruptions.</p>	<p>To achieve the benefits of rationalization process to its utmost effective degree, a code level and mainframe level view of applications is of utmost necessity.</p> <p>Nasdaq's Corporate Solutions Technology group managed a sizeable portfolio of applications which were used by both companies on and off its exchange among other participants. Nasdaq managed and monitored these applications by using a disparate and inefficient system of monitoring, alerting and log aggregation tools. The analysis was also time-consuming and often sidetracked important projects and members. Nasdaq used AppDynamic's Application Intelligence Platform that enabled visibility across its highly complex and extended application environment, both locally in its data centers and the cloud, predominantly for Java and .NET applications. The tool was able to bridge both the APM and Business product usage effectively.*¹</p>	<p>Through front-end modernization, organizations can leverage cloud computing concepts like reusable components and simplified, standardized functionality to the underlying packaged applications to create rich, intuitive user interfaces.</p> <p>Standardization of code frameworks and development processes aids with ensuring application consistency and ease of future serviceability. Through a standardized framework, IT organizations can structure code in a referenceable, modular fashion.</p>	<p>The ability to see which applications are running and what they are doing, regardless of where they are is critical as it helps to baseline behaviours and uncover any software vulnerabilities or suspicious processes.</p> <p>The ability to enable automated micro-segmentation and application whitelisting which helps to minimize the spread of attacks laterally throughout the data centre and network is a must.</p> <p>The ability to Monitor and Enforce security policies at scale, for thousands of applications, and across hybrid, multi-cloud data centres in real-time – without impacting reliability and performance is a critical need.</p>

¹ <https://www.appdynamics.com/case-study/nasdaq>

Infrastructure modernization

Rising use of mobile devices and application-based consumer activities, data regulations focused on curbing ever-increasing data breaches, has increasingly laid focus on the need to modernize legacy infrastructures. The modernized applications and processes now demand speed, scalability, and reliability. It is achievable through modern and agile infrastructures based on flexible, hybrid and automated environments. Banking executives are addressing the following critical imperatives as they embrace this challenge of Infrastructure modernization.

Imperatives

Navigate to Cloud (private cloud, public cloud and the edge for infrastructures of the future)

Business outcomes

Financial services are now shifting their storage and compute to cloud. The end goal is a seamless hybrid infrastructure aided by processes and teams that leverage DevOps to forge a single, transparent unit further. With infrastructure modernized, IT teams are also using infrastructure as code. They are automating everything from provisioning to monitoring and self-healing.

BFSIs spend on cloud is expected to grow 5 to 6 times traditional IT spend.

Over 90% of BFSI's in emerging markets plans to adopt a hybrid strategy by 2020, using both public and private cloud resources.

The other trend has been the adoption of Edge computing. The enormous amount of data generated through sensors and IoT endpoints has nudged the CIOs also to deploy edge computing to process data closer to the source of data generation, "things" and users.

The key benefits of this approach are:

Support mission-critical applications with highly scalable performance and capacity

Improve infrastructure efficiencies, reduce data center footprint

Centralize management and orchestration with familiar virtualization tools and resources

Speed deployment of IT services and gain agility without giving up control

Imperatives

Software-defined infrastructure

Business outcomes

Infrastructure is now driven and administered by software with the prime objective of gaining an agile and efficient operational model. This model is made possible by implementing software-defined infrastructure for not only networks but also storage. Financial service companies are looking at achieving and ensuring business continuity through tighter control and governance over systems, drive automation through orchestration, and, last but not the least ensure efficient management of the infrastructure. They plan to achieve this through:

Software-Defined Networking (SDN): A network architecture approach that enables the network to intelligently control and direct the use of network bandwidth through software applications. SDN significantly increases operational efficiencies and agility by giving IT the ability to shape and control data traffic and create policy-driven networks based on automation. In terms of security as well, SDN features Micro-segmentation, which enables more focused and granular network security inside the perimeter of the data centers. Micro-segmentation is very useful in handling growing and advanced persistent threats and coordinated attacks.

Network Function Virtualization (NFV) - Helps to reduce costs and accelerates services deployment for network operators by decoupling associated functions like a firewall or encryption from dedicated hardware and moving them to virtual servers. NFV succeeds in delivering greater scalability, elasticity, and adaptability at reduced costs compared to networks built from traditional networking equipment.

Business outcomes

Intent-based networking (IBN): For the many immediate benefits and “future-proofing capabilities” that it offers, Financial Service organizations must deploy “Intent-based Networking (IBN) Platforms” as a part of their infrastructure modernization policies. IBN automates the core functioning of the network. It takes the high-level business intent as input, translates it into network policies, configures network devices to execute on the strategies, and monitor these devices. This set of functionality makes IBN ideal for realizing the benefits FS organizations envision from their digital transformation initiatives. “While only 4% of IT leaders and network strategists classify their network as an intent-based network today, 35% plan for their network to be intent-based within two years.” (Cisco 2020 Global Networking Trends Report - <https://engage2demand.cisco.com/LP=18306>.)

SD-WAN - With the growing adoption of the cloud model (both private and public) by organizations, smart and optimized WAN (Wide area network) performance is becoming critical for application delivery. IT needs dynamic visibility into the applications (including cloud applications) across the WAN to set policies at the application level.

Software-Defined Storage – This enables multi-cloud flexibility, increased operational efficiency and lowers the capex costs.

Process Modernization



As companies rapidly transition to digitization, they are grappling with the daunting challenge of managing and processing massive volumes of data that live in siloed, disparate systems. IT teams that manually oversee and monitor these complex data sets are drowning in a sea of often inexplicable data and, as a result, end up expending a great deal of time and money troubleshooting issues and completing routine operational tasks.



1. As data volumes rise and IT environments become increasingly complex, teams are struggling to monitor and manage the performance and reliability of applications and systems.

2. AIOps, which uses artificial intelligence and analytics to extract predictive insights from company data, can identify problems before they start, helping IT avert expensive outages.

3. Because AIOps is designed to uncover insights more efficiently than legacy tools, it can ultimately lower total cost of ownership, accelerate return on investment, and help organizations stay competitive.

While IT leaders have expressed a desire for a more proactive approach to monitoring, this research indicates that there's still plenty of work to be done on numerous fronts. But the first step is clear: IT leaders must prioritize the development of an AIOps strategy and related technology. In doing so, they'll simplify the demands of an increasingly complex application environment and build a stronger connection from IT to the business as a whole.



Cultivated by people and teams

Making the transition to digital requires a transformation in how companies are organized. Three distinct trends companies need to consider to compete effectively include:



01

**Importance of
partnerships and
cross-functional teams**



02

Gig Economy



03

**Line of Business
Owning IT**

**Importance of Partnerships and cross-functional teams**

- To capture the full potential of innovation, organizations need to develop a platform approach. They need to work with partners and extended teams who can fuel innovation.



Gig Economy - Temporary jobs are becoming common, with businesses increasingly contracting independent workers for short-term assignments. This provides organizations with considerable flexibility and agility to scale. Some temporary workers end up working over long-term stints while others contribute only for weeks. The workforce requirements of this model differ significantly from traditional full-time employees in terms of benefits, learning, and career development.



Line of Business Owns IT - Breakthrough innovations happen when technology is embedded in customer or process journeys within the organization. One way to accomplish this is for business unit leaders/lines of business/ functional leaders to take charge of digitalization working alongside IT teams to deliver end to end transformation. DBS Bank in Singapore exemplified this approach when its CEO tasked 300 of its top leaders, as part of their KPIs, to each own a customer journey or employee journey by running experiments to enhance these areas.

Employee engagement and talent management are critical to digital transformation success. Currently, there lies a significant talent gap in IT departments which is preventing businesses from transforming fast enough. While all skill categories are essential for digital transformation, studies reveal that the lack of business acumen, in particular, deep industry or functional area knowledge is the largest skill gap in IT today.

Reimagining a talent strategy today should involve a focus on building non-tech capabilities (e.g., soft skills, strategic thinking) in areas with the highest business impact. The intensifying race for talent in the industry requires forward thinking IT leaders to create a culture of continuous learning, offering employees state-of-the-art infrastructures and opportunities to build their skills in emerging technology areas.



Conclusion

In his book *An Empire of Wealth: The Epic History of American Economic Power*, business historian John Steele Gordon describes the banking industry as "...the circulatory system of the economy. It's analogous to the heart. If your heart fails, you're in trouble." The digital economy offers organizations an incredible opportunity to build a vibrant circulatory system. By leveraging disruptive technologies and new business models, the banking industry can drive innovation, open up more revenue opportunities, and attract new customers.

- ● **The digital business model is a catalyst in enabling emerging nations across Asia-Pacific to realize their growth targets. Sustainable growth is only possible if it promotes financial inclusion supported by safe and secure banking that is accessible to all cross-sections of society. Embracing the new digital economic model could ensure a robust competitive environment and facilitate greater transparency, allowing every individual an equal chance at prosperity. ● ●**

About Twimbit

Our aim is to produce exponential impact for every business and individual through the power of research. We understand the industry to know that the way research is produced, personalized and consumed needs to change. We are the change agents to bring a fresh and new perspective to your business.



Our research is:



Easy to consume with our unique mobile-first approach



Affordable and accessible



Actionable for your business processes

How we can help:



Keynotes

Delivered by analysts at your leadership meetings or client events.



Workshops

Custom workshops to unlock growth opportunities and develop a common understanding of the future.



Consulting

Customized solutions to help realize your business aspirations.



The World Is Moved By Ideas and Technology

Copyright 2020.
All rights reserved.

www.twimbit.com