

# INTEGRATED DIGITIZATION FOR CONSUMER BANKING DRIVING BUSINESS TRANSFORMATION

## Abstract

Faced with competition from agile and technology-driven players, banks are scrambling to deploy customer-facing digital solutions with the vision of improving customer experience to drive growth. However, digital can deliver true value only when the transformation extends right from the front to the back-end creating a seamless, intuitive and flexible service journey across all processes and systems. This paper considers the challenges of implementing integrated digital transformation in the consumer banking industry. It also provides a five-step framework to integrate digitization across front and back office functions along with a best practices-driven implementation roadmap.



## Introduction

In 1703, when the German mathematician Gottfried von Leibnitz developed the concept of binary digitalization<sup>1</sup>, he could not have envisaged that three centuries later, 'digital' would become a keyword that transcends mathematical research to be used across industries with many different interpretations. Today, the technology industry views 'digital' as a business opportunity that is projected to be valued at over US \$430 billion by 2021<sup>2</sup>. Moreover, one rarely finds the word digital without its popular suffix, 'transformation'.

One of the industries at the forefront of 'digital transformation' is consumer banking. This is mainly due to increasingly demanding and fickle consumers, stringent regulatory requirements, and disruption from FinTech companies. For many banks, digital transformation is the solution to these challenges.

However, 'transformation' in general, and 'digital transformation' in particular, are commonly used terms that do not have a universal definition. Experience dictates that digital transformation is more than just the fusion of technology, process and human

capability. It is the convergence of all these aspects around customer-centricity. Digital transformation in consumer banking can be viewed as an exercise composed of three essential elements:

- Using technology and processes to **amplify human capabilities** and develop an emotional connect with end users
- Creating **nimble technology architecture** that can rapidly change and evolve to meet client, market and regulatory needs
- Creating an **agile process model** that leverages technology to allow rapid and effective responses in a dynamic business environment

## Complexity in consumer banking and lending

Digital transformation in the consumer banking industry is a mixed bag. A survey conducted by Jerry Silva and Karen Massey of IDC found that among US banks, only 20% of the expenditure on digitization is focused on 'change the bank' transformation while 80% of the expenditure is spent on 'keeping the lights on' and other mandatory or regulatory work<sup>3</sup>. Thus, a number of digitization projects are not actually transformational in the

sense that banks upgrade their services and products to ensure customer-centricity.

The cause for this gap in ideal goals versus actual outcomes can be traced to complex middle and back-office processes. In large banks, most of these activities are either carried out in low-cost locations or outsourced to third parties. The main reason for this is that back-office digitization is generally considered separate from front-office digitization. Some of these complex back-end activities include:

- *Identity management* to maintain KYC data, 360-degree customer view and ensure that updates are accurately made within SLAs
- *Anti-money laundering* to ensure that suspicious transactions are logged, investigated and appropriately resolved
- *Lending eligibility* check or credit check where data is used to arrive at a 'go/no go' decision aided by system recommendations as well as human expertise
- *Applying fees and charges* to customers, resolving customer queries and addressing issues

- *Digitizing paper-based documents* through imaging and documentation for archiving or to extract data elements from handwritten forms
- *Customer communication* to ensure that ad-hoc and regular communications are sent out in a timely and accurate manner via multiple modes (paper/email/text messages, etc.)
- *Reconciliation* of domestic and international payments across multiple legacy systems, handling increased volumes and data complexity and mitigating operational and regulatory risks
- *Regulatory and compliance work* to ensure optimal strategy, structure, approach, and automation when dealing with ever-growing regulatory reporting and compliance needs

## Need for integrated transformation

Typically, many consumer banking companies associate digital transformation solely with customer experience changes. Very few projects focus on front-to-back process transformation. Banks find it easier to treat digital transformation as a front-end rebuild simply because back-office processes are often rooted in complex legacy structures, processes and technologies that have been built over many years. As the scope of transformation increases, so does the number of internal stakeholders and the complexity of changes

needed within disparate technical systems and processes. Thus, banks are mainly concerned that including back-office transformation will impede the pace of execution. Conversely, focusing on the front-end requires the involvement of fewer stakeholders leading to faster throughput. Even where there is an end-to-end focus, banks tend to continue using legacy technology such as the book of records or writing wrappers/APIs to access the relevant system instead of overhauling the back-end system and related processes.

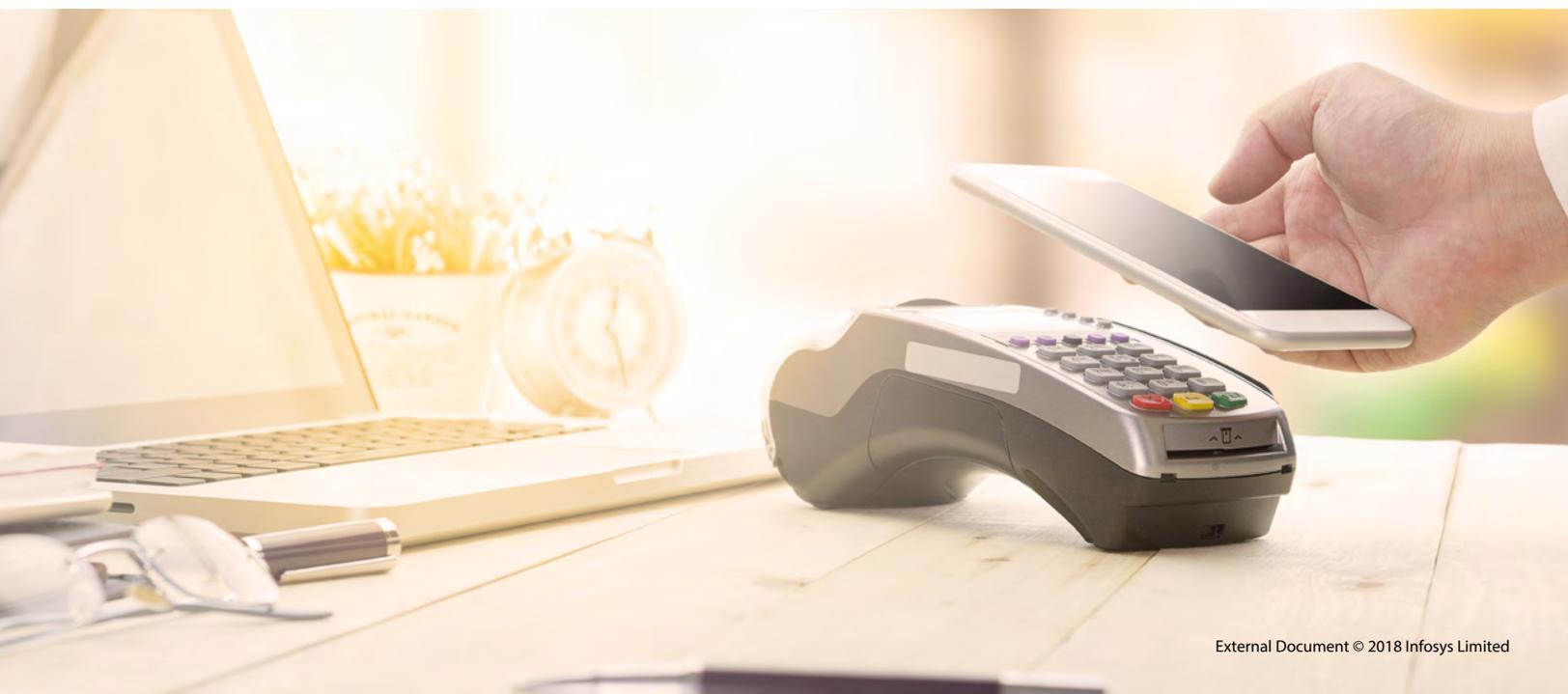
This trend impacts the effectiveness of digital transformation initiatives. In fact, IDC predicts that by 2018 nearly 70% of non-integrated digital transformation projects will fail<sup>4</sup>. Full-scale digitization must be as transformative for the back office as it is to the customer. Adhering to this basic axiom will enhance overall business transformation. For example, Indian retail lending is being transformed through e-KYC – a paperless identification and verification system that links to the government Aadhaar system. When this back-end system is combined with a multi-channel front-end one, the entire flow from loan application to approval can be completed within a few minutes.

## An analogy – The consumer bank as an airport

Every decade, the volume of travelers handled by airports soars to new levels. Many airport managements have taken

steps to better manage client-facing front-end processes through solutions like mobile apps that track departure time as well as malls, lounges, and duty-free shopping to provide new services to passengers and new revenue sources for their airports. However, passengers will not see much value in improved decor and mobile apps if the end-to-end travel services are not taken care of. In March 2018, the state-of-the-art Delhi International Airport received a lot of negative publicity for extensive baggage delays. Thousands of passengers were inconvenienced and the airport came in for scathing criticism on social media<sup>5</sup>. Thus, despite being a world-class airport, poor back-end systems and operational processes caused significant reputational damage for the airport.

Banks must be wary of such problems. For instance, while a new front-end mortgage software package may slash the time taken to apply for a mortgage, lengthy back-end fulfillment processes nullify the opportunity for greater business. Additionally, if customers have to repeatedly call customer care to sort out an issue, even the best user experience design becomes ineffective at increasing customer satisfaction scores. Multi-channel capabilities are critical as well: A bank should be capable of redressing and solving a client query either in the branch or through a call center even if it was initially raised on the mobile app. Without such integration, pseudo multi-channel capabilities will only increase customer frustration.



## Value of integrated digitization for banks and consumers

Most banking transformation exercises focus on either saving money by optimizing back-end activities or making money through front-end initiatives. But, an effective digitization exercise for consumer banking is one that integrates across front as well as back-office functions. When executed in a fast and flexible manner, such exercises will help banks save money through operational effectiveness and make money through enhanced revenues.

Let us examine some potential integrated digitization use cases in consumer banking:

1. A bank can offer customized loans to customers based on specialized risk assessment while making provisions for quick approvals, documentation and loan disbursement.
2. Banks can predict defaults based on recent customer behavior using an AI-based prediction algorithm followed by proactive action to manage the case through restructuring, counselling, etc.

3. Banks can enable quick interpretation of regulatory changes followed by rapid implementation of changes to technology systems and bank processes. This will ensure full compliance with minimal disruption for consumers.

These are end-to-end use cases where a new customer journey is supported by improved internal systems and processes. While the customer may see little or nothing of the back-end changes, she is conscious of a fast, flexible and comfortable experience when interacting with the bank

## Framework for effective digital transformation

Successful integrated digitization programs require a framework that encompasses the following five key parameters:

- Digital vision and strategy
- Customer-centric organizational culture
- Process assets
- Data assets
- Technology assets



Let us consider a digitally transformed bank as a building. The two foundational elements are the digital strategy and vision, and the customer-centric organizational culture. Without these two, digital transformation of any magnitude is impossible to achieve. The other three parameters – process assets, data assets and technology assets – are the supporting pillars of the building. For effective transformation, the bank must have a strong score on each of these pillars. Ineffective programs across these three asset classes can result in weak or limited efficacy for any transformation initiative.

## Best practices for successful digital transformation

Banks can assess the strength of each of the above five parameters using a list of best practices as described below:

- Digital vision and strategy** – A well-articulated and sound vision and strategy is critical for successful digital transformation. While the digital vision should be constant, the digital strategy can be dynamic and updated to align with fast-changing market realities. The best practices for this parameter are:
  - **Embed the digital vision within the bank's overall vision** – The digital vision should be rooted in the high-level ethos and purpose of the bank. Since digital disruption has enterprise-wide impact, it may be necessary to alter the overall vision statement to incorporate the digital vision

- **Reframe the digital strategy as an enterprise strategy** – Digital is no longer just one strategic lever. Banks need digital strategies because digital has become the core lever for organizational success. As Citi CEO Michael Corbat remarked, "We see ourselves as technology company with a banking license."<sup>6</sup>
- **Maintain the digital strategy as a living document** – The bank strategy should be a living document that is reviewed and amended frequently to align with the latest market forces and trends. In the digital age, grassroots innovation comes from employees, partners and customers. Thus, the bank's digital strategy must be communicated to and aligned with all these stakeholder groups
- **Be pragmatic** – The digital strategy should consider the state of the competition, technology advances and market trends along with the current state of the

bank. It must have clear and concrete directions for defining and executing various transformation programs

- **Calculate return on investment** – When calculating ROI and planning for digital transformation, digital leaders should:
  - » Clearly understand business critical areas and target these for digital improvements
  - » Use new approaches to unlock new opportunities such as using digital to upgrade existing legacy processes and products
  - » Examine intangible benefits and potential negative impact through innovative techniques like A/B testing and dark launches that test changes before widespread release and agile delivery that enables faster remediation



» Start small, prepare to scale fast and capitalize on success through low-cost and low-risk pilot projects that, when successful, should be built upon to derive maximum benefit

#### b) **Customer-centric organizational culture**

– Digital transformation must put the customer, not products or services, at the center. Empathizing with the customer and understanding their end goals beyond financial needs are important to deliver higher value and gain their loyalty and advocacy. Peter Drucker said, “Culture eats strategy for breakfast.” Thus, building a customer-centric culture across the enterprise is fundamental for digital transformation. However, this too is a significant challenge. The best practices for this parameter are:

- **Reduce organizational hierarchy** – Banks must shift from authoritarian and multi-level hierarchical organizational structures to a flat structure where each layer and role is directly responsible for creating value for customers. Roles that are ‘aggregators’ must be eliminated

- **Drive autonomy and alignment among project teams** – Contrary to popular opinion, autonomy and alignment are not opposing forces. With re-imagined organizational structures of smaller teams/squads/pods, it is possible to create highly autonomous and self-governing teams that align well with the customer-centric vision using modern techniques like scaled agile framework (SAFe)

- **Achieve speed-to-value through agile delivery processes** – Agile frameworks coupled with technology solutions such as DevOps enhance the speed-to-value for new offerings. These shorten release cycles for new features from months to days, thereby increasing value delivered to customers

- **Enable grassroot innovations** – Autonomous teams must be persuaded, encouraged and empowered to innovate continuously. Banks should run programs to promote the culture of experimentation and encourage teams to fail fast so as to learn quickly

- **Facilitate collaboration between technology, business and operations** – Banks should create self-governing and cross-functional teams across business/technology/operations including service providers and partner organizations. This promotes openness, sharing and collaboration across teams

- **Train staff for customer orientation** – With automation and AI taking on lower order tasks, staff must be trained in managing customer relations and consulting. Organizational change management initiatives are crucial to empower staff to become advisors, consultants and problem solvers who view customers as holistic relationships, not just as sets of transactions

- **Leverage the API economy and partner ecosystem** – Banks should tap into the new and emerging ecosystem of FinTech, RegTech and non-financial service companies whose capabilities provide new opportunities. Strong partnerships with these providers can

- upgrade existing offerings to enhance value to customers. A few examples include providing a location-based personalized promotion for a product that the customer may be interested in or extending home mortgage solutions to home buying, furnishing and moving/packing
- c) **Process assets** – Integrated digital transformation is not merely about creating a multi-channel customer experience. It is also about simplifying, optimizing, automating, and accelerating process assets across the customer journeys. Enabling this mandates seamless collaboration with partner ecosystems. The best practices for this parameter are:
- **Define customer journeys** – Banks must rethink how they connect with end users rather than just modify existing mechanisms. Each interaction step must be analyzed to determine how it adds value to the customer. This not only improves customer engagement but enhances customer journeys beyond financial solutions to touch the customer's life in a meaningful way
  - **Be flexible in customizing offerings** – An inflexible 'one size fits all' approach towards customers results in sub-optimal relationships. Instead, banks should adopt fast, dynamic and flexible unbundling and bundling of products/ services to meet customer expectations
  - **Simplify processes** – All banks have complex and cumbersome processes owing to years of patchwork systems, regulatory changes, M&As, etc. Simplifying processes by removing redundancy, duplication and unnecessary complexity is important to improve agility
  - **Modularize and reuse processes** – The process architecture should be defined to create specific, independent and modular processes that can be reused across multiple customer journeys
  - **Implement automation** – Process automation is important to eliminate human error and increase speed-to-value for customers and internal stakeholders
  - **Enable external integration** – It is important to create an API layer around key processes to leverage the external ecosystem of innovators and non-financial solution/service providers. This integration improves value delivered to customers beyond the banking experience
- d) **Data assets** – While traditional banks possess large quantities of data, they face challenges in getting actionable insights from the data owing to poor capabilities in consolidating, curating and analyzing data to achieve specific outcomes. Today, many banks are trying to solve the problem by modernizing their data-related capabilities. Adopting mature technologies helps; but equal focus must also be placed on creating a strong data practice to generate value from these technologies. The best practices for this parameter are:
- **Invest in skilled staff** – A strong team of data scientists, data engineers and data analysts is important to solve problems using data. Such a team will be effective only if it plugs seamlessly into the organization's business and technology ecosystem and has support from various business heads



- **Define the data charter** – Banks must create and implement a clear data management strategy that explains how to collect, curate, analyze, and present data. The strategy should be aligned to draw deeper insights from the data by using rapidly evolving technologies
  - **Map the customer genome** – Most banks lack a single, consolidated and authentic view of customers because they are often focused on products/ services instead of customers. Modern data science and analytics solutions should be used to provide a holistic customer view
  - **Leverage external data** – Customer data from external sources such as social media and the partner ecosystem can provide valuable insights. It is however important to follow legal and ethical practices while leveraging such data
  - **Keep an eye on the future** – Technical advances in big data, analytics, AI/ ML, predictive/cognitive technologies, etc., are making it possible to derive increasingly rich and powerful insights, and automate/simplify processes. Thus, banks should dedicate investments to implement the latest algorithmic advances that solve mainstream business problems
- e) **Technology assets** – Most banks have technology assets that were developed decades ago and are now unmaintainable, resource-intensive and monolithic legacy structures. Today, these are liabilities rather than assets because, irrespective of how well customer touchpoints are configured, legacy back-end systems hinder effective service delivery. While most banks embark on legacy modernization programs to re-engineer these systems, such programs are often time-consuming and costly. Nevertheless, it is critical to upgrade technology assets to ensure successful digital transformation. The best practices for this parameter are:
- **Integrate digital and legacy for robust architecture** – Banks should establish a strong architecture practice that integrates legacy and digital assets so as to overcome the complexity of modernizing legacy and mitigate execution risk
  - **Modernize, simplify and rationalize legacy enterprise architecture** – Raising funds for legacy modernization and risk-for-change are common challenges for banks. They should evaluate the validity of using self-funding models for legacy modernization powered by the latest technologies to ensure that modernization programs are sustainable
  - **Create modular, configurable, easily-integrated, and flexible IT components** – Many banks are adopting radical approaches to rebuild their core IT assets across middle and back office functions through state-of-the-art, modular and flexible software products that integrate with BPM/services/APIs. However, less radical approaches such as building a layer of API services can also be used for easy integration
  - **Foster a culture of learning and re-skilling** – As digital technology evolves rapidly, it is important for bank employees to keep upgrading their skills. Banks need to invest money and time to roll out programs for re-skilling and continuous learning

## Conclusion

Digital transformation is effective only when envisaged and implemented as an integrated exercise. Thus, banks must shift from piecemeal 'front-end only' digital change approaches to an enterprise-wide transformation that drives revenue and reduces costs. To do this, they need a comprehensive digitization enablement framework that considers five key parameters: a clear digital vision and strategy, a supportive culture, process assets, data assets, and technology assets. While the first two lay the foundation of the framework, the other three parameters are key enablers for digital transformation. The framework places equal importance on strengthening each parameter with a roadmap of well-defined best practices. Such integrated transformation will empower banks to thrive in the digital age, delight customers and drive growth in the future.

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