

Industry 4.0 Fueling Digital Transformation

Point of View



Introduction

We are living in exciting times of Industry 4.0 which is revolutionizing the world. Banking and financial services (BFS) industry is no exception. The disruptive change has presented both opportunities and existential threats. The change is fueled primarily through three interlinked events:

- 1. Advancements in technology, especially digital technologies
- 2. Changes in customer behavior and expectations
- 3. Changing nature of regulatory and compliance environment

These events need no further introduction.

As these events unfold in the present, BFS industry is witnessing various drivers that are pushing a disruptive change. Organizations need to recognize these drivers and transform themselves to find relevance in the new environment. The key drivers are depicted below:



1. Disintermediation:

It is a process of cutting out financial intermediary in a financial transaction. Traditional customers of banks (borrowers and investors) can connect directly with each other, limiting the role of BFS organization. For example, marketplace-driven peer-to-peer lending has limited the role of traditional banks in the lending business. It is a strategic threat to the business model of banks and financial sector.

2. Unbundling of value chain:

The end-to-end value chains are broken down into seamlessly interconnected, atomic processes. Organizations can retain the core processes that create value while hiving out the noncore processes by partnering agents, brokers, FinTechs, RegTechs, and so on. This both, threat and an opportunity. a) The smarter BFS firms can cover solutions including nonfinancial needs. For example, bank can provide not only mortgage finance; but also help the customer to search a home, support the legal transaction and help in renovation and moving in. All the non-finance needs can be provided through collaborative partnerships. Thus, a bank can get connected to the customer in much more intimate and emotional way. b) On the other hand, FinTechs, and Big Techs can take away some of the core services from the banks. For example, payment services are already disrupted by new-age organizations like Apple, Google, Paytm.

3. Human Capital:

Attributes of new-age successful employee have changed. For effective functioning, employees are expected to be tech-savvy, collaborative and adaptable. Organizations need to create a right culture, supported through soft and hard infrastructure in order to create right-skilled, engaged workforce.

4. Cost Disruption:

Industry 4.0 has changed the traditional cost paradigm. The cost of doing business has gone down significantly. In many situations, capital costs are converted into operating costs. Organizations need to remodel their cost structures to keep their business competent and viable. For example, cloud can radically alter the costs, converting CAPEX into OPEX.

5. Brand invisibility:

FinTech and Big Tech have taken over the customer interactions and relations in many situations. The incumbent BFS firms operate in the background losing direct brand visibility. This trend poses serious risks as their brand becomes invisible to the end customer. For example, wealth management Services are chipped away by new-age firms like Robinhood.

BFS industry is trying to cope up with above mentioned events and drivers. Incumbents with baggage of legacy especially are in dire need to transform. While each organization will adopt specific strategy as per their own context, the broad approach for transformation is termed as 'Digital Transformation'. Thus, digital transformation is mandatory now.

A 360 degree View of Digital Transformation

The term 'Digital Transformation' is mostly overused and sometimes abused. There is no single definition or description.

Digital transformation brings profound and radical change to business and operating models, putting customer at the heart of everything. Rapid advances in the technology play the role of catalyst for the transformation. It impacts all the dimensions of organization such as culture, structures, products/services, processes, workforce, and communication.

Every dimension is important for successful transformation. Successful organizations have ensured symbiotic and synergetic efforts across all the dimensions through clear vision, well-crafted strategy, careful planning and disciplined execution.

To further understand the most important dimension - technology, the key determinant in digital transformation, let's deep dive into how it is propelling the process.



Digital Technology Fuelling Transformation – Themes and Patterns

The dimension of digital technology has assumed unprecedented importance. For example, many banks now describe themselves as 'technology companies with banking license'. This is true for other financial services such as credit cards and asset management business too. A digital organization can be described through multiple key attributes that are closely linked to underlying technology infrastructure.

- 1. **Resilient** sustaining the business through abrupt disruptions
- 2. Secure eliminating financial frauds, cybercrime and protecting privacy of data
- 3. Agile implementing changes quickly in a nimble way
- 4. Adaptable remodeling the organization to the change
- 5. **Collaborative** working together with partners and even competitors to enrich customer value

- 6. Innovative developing a culture of rapid innovation
- 7. Elastic scaling up and down based on demands
- 8. **Cost Efficient** optimizing cost structures continuously without dilution of customer value
- **9. Intelligent** using technology to make right decisions, fuel automation and ease of doing business



We are in the midst of a digital technology revolution that has capability to achieve all of the above attributes. The last decade has seen unprecedented changes in the way technology is put to use by the organizations. Technical products, solutions and associated services evolve rapidly. However, the core technology themes and digitalization patterns behind these technological advances are steadily established now. Hence, it is important to appreciate the core technology themes and digitalization patterns that are fueling the transformation.

Digital Technology Fuelling Transformation – Themes and Patterns cont.



- Experience Digitalization: The highest priority of digital transformation is to achieve customer centricity. Hence 'customer experience' is a key aspect. Experience needs to be simple, secure, consistent and quick. Experience Digitalization helps organizations create 'shockingly' superior experience for customers. Predominantly, it includes user interface design, responsive and progressive web experience, omnichannel experience and hyper-personalization
- 2. Data Analytics and Applied AI: Hyper-personalization is possible only when organization is able to harness the data effectively. Data warehousing and data lakes are primary stores of large data structured and unstructured. Data analytics and AI technologies are employed to analyze customer needs and behavior to suggest personalized solutions. For example, what should be the next product to be suggested for an existing customer? Well-developed AI models on the modern data-lake can provide the right answer. Data processing and governance is equally important dimension to ensure high data quality, consistency and near real-time availability. Given the large volume, velocity and variety of data, cloud platforms are increasingly used for storing, processing and consuming data.
- 3. Composable Platforms: Organizations need agility and elasticity. Modern API/micro-services based cloud-native technology is basic building block to create 'composable' platforms. A composable platform offers packaged business components, which can used in flexible fashion to suit specific product/service requirements. The decoupled nature of such components allow quick changes and hence improved agility. The containerized deployment on Cloud ensures elasticity to rapidly scale up or down, based on business demand. For example, a lending origination platform can be assembled with the specific packages related to customer application, KYC, credit check/approval and disbursement processes. Depending on how the platforms are designed, they can be highly configurable and easily customizable.

Digital Technology Fuelling Transformation – Themes and Patterns cont.

- 4. Cloud Adoption: Heritage firms have most of their IT on-premise. Moving workloads to cloud (private or public) through carefully crafted hybrid cloud strategy is one of the biggest trends. The cloud adoption gives immediate benefits of costs efficiency. Also, cloud provides the right foundation for innovation and flexibility. Cloud adoption is complex, multi-year journey. It is important to set out right strategy and priorities and keep checking the business value realized at smaller intervals.
- 5. Legacy Modernization: Incumbent organizations are saddled with old technology and associated debt. E.g. Mainframes are used for core back-office processes in almost every bank. Such legacy systems slow-down the transformation. Multiple strategies are adopted to modernize the legacy. One 'invasive' strategy is to engineer the systems into cloud-native platforms by combination of reverse and forward engineering. A 'less invasive' strategy is to create standardized APIs to expose the services, and reduce the friction to integration. Yet another strategy is to modernize without changing underlying technology. E.g. introducing CI/CD/CT tools and processes for mainframe applications to increase agility.
- 6. Engineering Digitalization: Transformative themes mentioned above need a strong foundation of engineering capabilities that use combine traditional automation with AI/ML based 'conscious' technologies. The engineering capabilities improve time-to-market, cost efficiency and resilience. Engineering capabilities consist of set of practices and tools/technologies for planning, development, deployment and operations. Matured agile and DevSecOps practices are well established now. SRE, AIOps and FinOps concepts are gathering momentum. RPA has already achieved maturity to automate business processes.

While there are many other themes and patterns, these six are most prominent in BFS industry. Organizations not only need to have a sound knowledge of these themes and patterns but also need to possess the capability to leverage them to implement business transformation. This is one of the key success criterion for successful transformation.

Accelerating Digital Transformation and the Way Forward

Industry 4.0 is disrupting the industries and organizations. Banking and financial services industry is no exception. Digital transformation has assumed unprecedented significance as organizations try to cope up with changing market forces and make themselves relevant to customers. While digital transformation has many dimensions, the dimension of digital technology plays the role of catalyst to bring the transformation. Organizations, across the business and operations leadership, must understand and appreciate the established and emerging digital technologies and how they can be leveraged for transformation. Businesses must develop a clear vision and strategy to plan and implement transformation. In order to achieve this, they must collaborate closely with internal and external technology organizations.





Author

Gopal Parasnis (Vice President, Tech Mahindra) is a leader in technology and digital transformation.

He heads Digital Transformation for BFSI vertical at Tech Mahindra. He has a keen interest in understanding how financial services industry is getting transformed through the adoption of digital technology. He has 25+ years of practitioner's experience in IT Services and technology-driven transformation. He has done graduation in chemical engineering from Institute of Chemical Technology (formerly known as UDCT under Mumbai University). He has also done Executive Education Program from Yale School of Management.

Tech Mahindra 🕑 😯 🐑 in

www.youtube.com/user/techmahindra09 www.facebook.com/techmahindra www.twitter.com/tech_mahindra www.linkedin.com/company/tech-mahindra www.techmahindra.com

Copyright © Tech Mahindra 2022. All Rights Reserved. Disclaimer. Brand names, logos and trademarks used herein remain the property of their respective owners.