Industry Perspectives: Financial Services

TIBCO NOW San Diego

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The Digital Transformation Imperative

81% of banking CEOs are concerned about the speed of technological change, more than any other industry sector.

-- PwC 19th Annual Global CEO Study
While there is consensus on the need for Digital Transformation in Financial Services, there is little consistency on the best way forward.
Ultimately, Transformation Will Define the Winners

“The urgency of acting is acute. Banks have three to five years at most to become digitally proficient. If they fail to take action, they risk entering a spiral of decline similar to laggards in other industries.”

- Increased interconnectivity
- Big data and advanced analytics led decision making
- Automation of lower-value tasks
- Fostering innovation

Digitization of People, Processes & Products
Digitization of People, Processes & Products

Emerging Trends:

- Increase in FinTech companies
- Micro-payments
- Mobile payments
- Customer experience
- Cloud as a strategic asset
Patterns to Realize Digitization

Digitization

Different requirements, different needs

- Speed up development
- Event-driven by design
- Foundation for next-gen APIs and apps
- Extreme flexibility in deployments
Technology to Realize Digitization

Modern, open source tech foundation

API Management
- APIs
- Events
- Microservices / Flows
- Connectivity
- Messaging

Deploy anywhere
- Cloud
- PaaS
- Hybrid
- On-Premise
- Edge Devices

Connect to anything 100’s of connectors, build your own

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Customer-Driven Channel Disruption
Exhibit 1: Markets are at different stages of digital development; human touch is still important in most markets

Differentiated client segments

Clients’ behaviors
- Prefer doing everything remotely, both transactions and advice/purchases
- Like to do almost all banking through digital channels
- Prefer Internet above mobile
- Purchase only basic products digitally
- Favor visits to branches or ATMs for all needs
- Prefer branches or ATMs for all needs due to low trust in banks and the financial system
- Require face-to-face for advice and complex products

Different stages of digital development by country (%)

Italy: 46
Spain: 43
US: 38
France/Germany: 35
UK: 31
Poland/Sweden/Netherlands: 25


Exhibit 2: In 2015 digital servicing overtook branch servicing in most European countries

Customers transacting in the 90 days prior to June 30th of that year / total active customers % customers transacting at branch counter

Spain 2016: 70%
Italy: 65%
Canada: 60%
Australia/New Zealand: 55%
Portugal: 50%
UK and Ireland: 45%
Greater China
Emerging Asia
Developed Asia
Norics

Customers logged onto a digital channel in the 90 days prior to June 30th of that year / total active customers % customers logging onto a digital channel

1 Includes Hong Kong, Taiwan, and International banks in China
2 Includes India, Malaysia, and Thailand
3 Includes Singapore, Japan, Hong Kong, and Taiwan

SOURCE: Finalea 2016 Digital and Multichannel Benchmark

Drivers of Customer Loyalty Provide Clarity in FSI

Source: TIBCO Analysis, Customer Loyalty in Retail Banking: Global Edition 2016, Bain & Co
Cloud as a Strategic Asset
Cloud as a Strategic Asset – Customer Architecture
T-Mobile USA

T-Mobile USA, Inc. is the U.S. wireless operation of Deutsche Telekom AG, one of the largest telecommunications companies in the world, with nearly 130 million customers worldwide.

Consumers are constantly demanding changes like new rate plans, value-add services, better connectivity, and popular mobile applications. At the same time, the volume of traffic that smartphones and mobile apps are generating is rising exponentially.

Join the T-Mobile US sessions:

• Containerizing Middleware
  Sapphire H (2pm)

• Hybrid Integration Platform
  Sapphire D (4.15pm)
Augmented (and) Artificial Intelligence
Insights to Actions

• Spectrum of Customer Segmentation
  • Behavioral personae (channel, service)
  • Wallet share and primary relationships

• Value Insights
  • Historic (difficult)
  • Short-term product-focus
  • Longer-term total relationship

• Product disaggregation and margin engineering

• Next Best Action / Offer / Communication
  • Propensity modeling
  • Real-time + historic

• Preference, Pain and Pleasure
Emergence of Algorithmic Business Design

"Algorithmic business is the industrialized use of complex mathematical algorithms pivotal to driving improved business decisions or process automation for competitive differentiation"

TIBCO Success Stories

• Dynamic Pricing
• Real-time Fraud Surveillance
• Claims Handling and Processing
• Holistic Customer Engagement and Experience
Envisioning Blockchain and Distributed Ledger
Envisioning Blockchain and Distributed Ledger

Projected to Grow at 61.5% CAGR to 2021
USD 210.2 million (2016) to USD 2,312.5 million (2021)

Envisioning Blockchain and Distributed Ledger

Source: The FinTech 2.0 paper: rebooting financial services
## Not Just for Cryptocurrencies

### Product Provenance
Perishables, valuables (art, jewelry), packages, containers, equipment, pharmaceuticals.

### IoT
Machine to machine micropayments, identity, automated resource sharing.

### Government
Voting, licenses, vendor interactions, identity, information sharing, compliance.

### Consumer Contracts
Apartment rentals, energy transactions, airline compensation, real estate, licenses, car leases.

### Health Care
Supply management, electronic health records, claims processing, registries.

### And Many Others...
Financial instruments, insurance premiums, music rights, ownership rights, payments, ...

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# How Does TIBCO Fit in?

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<tr>
<th>Off-Chain Storage</th>
<th>Off-Chain Execution</th>
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<td>TIBCO GraphDB</td>
<td>TIBCO (Various)</td>
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## API Management
- TIBCO Mashery

## Analytics
- TIBCO Spotfire, Live Datamart

## Microservices & Process Automation
- TIBCO Hybrid Integration, AMX BPM

## Event Handlers
- TIBCO BusinessEvents, StreamBase

## Data Distribution & Transport
- TIBCO FTL / eFTL

## Blockchain Proxy Layer
- TIBCO Hybrid Integration

## Smart Contracts
- ChainCode, Solidity, ...
- TIBCO BusinessEvents

### Blockchain APIs
- HFC SDK
- REST HTTP
- JSON RPC
- Web3

## On-Chain Execution & Storage

## Distributed Ledger
- Blockchain Security

## TIBCO NOW 2017
Analytically-Shaped Customer Journeys
Prioritized Journey Mapping: 15 = 60%
Visualizing Customer Journey KPIs