Reimagine business strategy to seize FinTech growth opportunities.

Redrawing the lines: FinTech’s growing influence on Financial Services

2017 CJEB’s Annual Tokyo Conference

Masaaki Tanaka
May 25, 2017
1. **Redrawing the lines:** FinTech’s growing influence on Financial Services

2. **PwC Global FinTech Survey 2017**

3. **PwC Global FinTech Survey 2017 – Japan results**

4. **Notable Trends**

5. **Conclusion:** Innovation aligned with objectives
Redrawing the lines: FinTech’s growing influence on Financial Services
What is FinTech?

A. FS Institutions
- Goldman
- Barclays
- Santander
- BBVA
- JP Morgan

B. Tech Companies
- Apple
- Alibaba
- Google
- Facebook
- Airbnb

C. Infrastructure Players
- FIS
- Fiserv
- SWIFT
- Sungard

D. Start Ups
- FS and tech related to FS e.g. payments, big data

- FIS
- Fiserv
- SWIFT
- Sungard

Emerging Technologies and Tools

Regulators & Government

Investors, Incubators, and Accelerators

Consumers and Users

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Example: Overseas money transfer – Incumbents vs. FinTech

New business model uses technology for fast international money transfer with a low commission rate

**Traditional banking model in Japan**

Remitting 100,000 yen in USD

- Transfer-related fee: 9,000 yen
- Foreign-exchange fee

Bank sets individually

**New FinTech model**

- TransferWise connects deposit accounts held in countries around the world with its own network

Remitting 100,000 yen in USD

- Transfer-related fee: 1,000 yen (1% of principal)
- Foreign exchange fee (middle rate only)

Open rate
Disruptive collision of FinTech with traditional Financial Services

Percentage of respondents to PwC’s 2017 FinTech Survey who believe certain entities are likely to the most disruptive in next 5 years

- Startups: 75%
- Traditional Financial Institutions: 28%
- ICT and large tech companies: 50%
- Social media / Internet platforms: 55%
- E-retailers: 43%
- Financial infrastructure companies: 41%

Source: PwC Global FinTech Survey 2017
The global FinTech market has grown exponentially

Three key technology developments have lowered capital and knowledge based barriers to entry into the FinTech space

Open-source frameworks
- All-time available resources
- Proliferation of knowledge
- Full-spectrum development support

Scaled cloud computing
- Scalable strong security strategy
- Agile expansion of computing capability
- Dynamic marketplace for applications

Developers on-demand
- Short idea-product conversion
- Quickly capture new customer needs
- Agile and Iterative Development Cycles

Source: CB Insights, Oct 2015
FinTech is a driver of disruption in the market.

88% of incumbents are increasingly concerned they are losing revenue to innovators.

Financial Institutions are embracing the disruptive nature of FinTech.

56% have put disruption at the heart of their strategy.

Financial Institutions are learning to partner and integrate.

82% expect to increase FinTech partnerships in the next three to five years.

Source: PwC Global FinTech Survey 2017
Global FinTech Survey 2017
Respondents profile

More than 1,300 respondents, from 71 different countries around the world

Type of companies
- Venture Capital / Private... 24%
- FinTech company 24%
- Securities broker / Investment... 6%
- Fund Transfer and Payments institution 3%
- Mobile... 32%
- Bank 32%
- Asset Management company 6%
- Insurance / Reinsurance company 14%
- Other 12%

Origin of respondents
- North America 9%
- Latin America 13%
- Europe 39%
- Asia 33%
- Oceania 3%

Type of respondents
- CEO 21%
- Director / Head of Department 15%
- Head of CRO/Risk manager 3%
- Head of COO 4%
- Head of Innovation... 5%
- CDO/Business Development 4%
- Head of Strategy 4%
- CFO 6%
- Other 26%

Source: PwC Global FinTech Survey 2017
More than 80% of respondents believe their business is at risk

Q: Do you believe that part of your business is at risk of being lost to standalone FinTech companies within next 5 years?

- 2017 survey
- 2016

<table>
<thead>
<tr>
<th>Region</th>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global</td>
<td>88%</td>
<td>93%</td>
</tr>
<tr>
<td>Latin America</td>
<td>89%</td>
<td>91%</td>
</tr>
<tr>
<td>Europe</td>
<td>88%</td>
<td>83%</td>
</tr>
<tr>
<td>Asia</td>
<td>88%</td>
<td>80%</td>
</tr>
<tr>
<td>Africa</td>
<td>88%</td>
<td>95%</td>
</tr>
<tr>
<td>North America</td>
<td>82%</td>
<td>69%</td>
</tr>
</tbody>
</table>

Q: What financial activities do you believe your customers already conduct with FinTech companies?

- Payments: 84%
- Fund transfer: 68%
- Personal finance: 60%
- Personal loans: 56%
- Traditional deposits / savings accts: 49%
- Insurance: 38%
- Wealth management: 38%

Source: PwC Global FinTech Survey 2017
Financial institutions are addressing customer retention in the face of the disruptive nature of FinTech

Q: What do you think are the most important areas to address customer retention in the context of new FinTech competition?

<table>
<thead>
<tr>
<th>Payments</th>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ease of use, intuitive product design</td>
<td>Faster service</td>
<td>24/7 accessibility</td>
<td>24/7 accessibility</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Banking</th>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ease of use, intuitive product design</td>
<td>24/7 accessibility</td>
<td>Faster service</td>
<td>24/7 accessibility</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Insurance</th>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ease of use, intuitive product design</td>
<td>Superior customer service</td>
<td>24/7 accessibility</td>
<td>24/7 accessibility</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Asset &amp; Wealth mgmt</th>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ease of use, intuitive product design</td>
<td>Cost</td>
<td>24/7 accessibility</td>
<td>24/7 accessibility</td>
</tr>
</tbody>
</table>

Source: PwC Global FinTech Survey 2017
Financial Institutions are learning to partner...

82% of companies expect to increase partnerships w/ FinTech in next 3-5 years

- Currently engaging in partnerships w/ FinTech
- Expecting to increase partnerships over next 3-5 years

### Global
- Germany: 70% (78%)
- AU & New Zealand: 64% (83%)
- Singapore: 59% (82%)
- US: 53% (88%)
- Brazil: 40% (95%)
- China: 42% (68%)
- India: 44% (95%)
- UK: 44% (81%)
- Japan: 30% (91%)
- S. Korea: 14% (76%)

Source: PwC Global FinTech Survey 2017
And integrate... but facing challenges around security, regulatory uncertainty, differences in management, culture, business models

Q: When working with Financial Institutions (or FinTech companies), what challenges do you face?

<table>
<thead>
<tr>
<th>Challenges</th>
<th>FinTech (%)</th>
<th>Incumbents (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT security</td>
<td>28%</td>
<td>58%</td>
</tr>
<tr>
<td>Regulatory uncertainty</td>
<td>48%</td>
<td>54%</td>
</tr>
<tr>
<td>Differences in mgmt and culture</td>
<td>55%</td>
<td>40%</td>
</tr>
<tr>
<td>Differences in business models</td>
<td>40%</td>
<td>35%</td>
</tr>
<tr>
<td>IT compatibility</td>
<td>34%</td>
<td>34%</td>
</tr>
<tr>
<td>Differences in operational processes</td>
<td>36%</td>
<td>24%</td>
</tr>
<tr>
<td>Differences in knowledge / skills</td>
<td>33%</td>
<td>24%</td>
</tr>
<tr>
<td>Required financial investments</td>
<td>16%</td>
<td>17%</td>
</tr>
</tbody>
</table>

Source: PwC Global FinTech Survey 2017
**Investment in enabling technologies will help narrow the gap**

Q: What are the most relevant technologies for your business that you plan to invest in within the next 12 months?

% of large Financial Institutions that identified these emerging technologies as the most relevant to invest in within the next 12 months (vs. Large FinTech companies)

<table>
<thead>
<tr>
<th>Technology</th>
<th>Large Financial Institutions</th>
<th>Large FinTech</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data analytics</td>
<td>74%</td>
<td></td>
</tr>
<tr>
<td>Mobile</td>
<td>51%</td>
<td></td>
</tr>
<tr>
<td>Artificial intelligence</td>
<td>34%</td>
<td></td>
</tr>
<tr>
<td>Cyber-security</td>
<td>32%</td>
<td></td>
</tr>
<tr>
<td>Robotics process automation</td>
<td>30%</td>
<td></td>
</tr>
<tr>
<td>Biometrics and identity mgmt</td>
<td>21%</td>
<td></td>
</tr>
<tr>
<td>Distributed ledger technology (e.g. blockchain)</td>
<td>20%</td>
<td></td>
</tr>
<tr>
<td>Public cloud infrastructure</td>
<td>14%</td>
<td></td>
</tr>
</tbody>
</table>

$\text{Blockchain}$

$\text{Artificial intelligence}$

$\text{Biometrics and identity management}$

Source: PwC Global FinTech Survey 2017

Note: We include only responses of companies with more than 500 employees
**Blockchain is moving out of the lab**

Q: Please describe the extent to which you are familiar with blockchain technology

<table>
<thead>
<tr>
<th>Region</th>
<th>Extremely familiar</th>
<th>Very familiar</th>
<th>20%</th>
<th>34%</th>
<th>41%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global</td>
<td>4%</td>
<td>20%</td>
<td>24%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>North America</td>
<td>7%</td>
<td>34%</td>
<td>41%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Japan</td>
<td>6%</td>
<td>25%</td>
<td>31%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Europe</td>
<td>4%</td>
<td>25%</td>
<td>29%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Africa</td>
<td>2%</td>
<td>21%</td>
<td>23%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oceania</td>
<td>5%</td>
<td>18%</td>
<td>23%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latin America</td>
<td>6%</td>
<td>14%</td>
<td>20%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asia</td>
<td>4%</td>
<td>12%</td>
<td>16%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: PwC Global FinTech Survey 2017
Regulations trigger both disruption and innovation

Q: In which areas do you see regulatory barriers to innovation in FinTech?

- **54%** Data storage, privacy and protection
- **50%** Digital identity authentication
- **48%** AML / Know Your Client
- **40%** New business models (crowdfunding, P2P lending)
- **30%** E-money / cryptocurrency
Managing expectations will be key...

Q: In your opinion, what are the opportunities related to the rise of FinTech within your industry?

- Expand products and services: 60%
- Leverage existing data and analytics: 46%
- Increase customer base: 44%
- Respond to competition faster: 38%
- Reduce cost headcount: 30%
- Differentiate: 29%
- Improve retention of customers: 28%
- Decrease IT infrastructure costs: 19%

Source: PwC Global FinTech Survey 2017
PwC FinTech Survey 2017 ~Japan results

3
FinTech moving at a slower pace for Japan’s Financial Institutions

The only way to get returns is to invest to learn.

Q: What percentage of your annual revenue do you allocate to FinTech matters (investments into FinTech, IT projects, dedicated resources)?

- **Global**: 15%
- **Japan**: 6%

Q: What is your expected annual Return on Investment (ROI) on your projects related to FinTech?

- **Global**: 20%
- **Asia**: 25%
- **North America**: 23%
- **Latin America**: 22%
- **Europe**: 14%
- **Japan**: 6%

Source: PwC Global FinTech Survey 2017
Different expectations on potential impacts of FinTech

Q: In your opinion, what are the opportunities related to the rise of FinTech within your industry?

- **Global**
  - Expand products & services: 60%
  - Leverage existing data and analytics: 46%
  - Increase customer base: 44%
  - Differentiate: 29%
  - Respond to competition faster: 38%
  - Reduce headcount costs: 30%

- **Japan**
  - Expand products & services: 45%
  - Leverage existing data and analytics: 36%
  - Increase customer base: 36%
  - Differentiate: 24%
  - Respond to competition faster: 24%
  - Reduce headcount costs: 58%

Source: PwC Global FinTech Survey 2017
**Threats imposed by FinTech**

Information security is a larger concern for Japanese financial institutions compared to their counterparts who worried more about market competitiveness.

*Q: In your opinion, what are the threats related to the rise of FinTech within your industry?*

- **Information security / privacy threat**: 72% (Global), 69% (Japan)
- **Increased price competition**: 63% (Global), 69% (Japan)
- **Loss of market share**: 57% (Global), 41% (Japan)
- **Increase of IT investments**: 33% (Global), 38% (Japan)
- **Increase of customer churn**: 45% (Global), 31% (Japan)
- **Legal / Compliance risk**: 39% (Global), 31% (Japan)

Source: PwC Global FinTech Survey 2017
**Renewed digital customer experience driven by customer centricity**

Japanese financial institutions are slower in adopting digital channels to interact with customers

*Q: What percentage of your clients do you interact with through the following channels?*

<table>
<thead>
<tr>
<th>Channel</th>
<th>Japan</th>
<th>Global</th>
</tr>
</thead>
<tbody>
<tr>
<td>Website, web-based platform</td>
<td>22%</td>
<td>41%</td>
</tr>
<tr>
<td>Email</td>
<td>35%</td>
<td>40%</td>
</tr>
<tr>
<td>Branch</td>
<td>35%</td>
<td>32%</td>
</tr>
<tr>
<td>Mobile application</td>
<td>11%</td>
<td>28%</td>
</tr>
<tr>
<td>Call center</td>
<td>16%</td>
<td>28%</td>
</tr>
<tr>
<td>Social media</td>
<td>9%</td>
<td>19%</td>
</tr>
<tr>
<td>Post mail</td>
<td>10%</td>
<td>18%</td>
</tr>
<tr>
<td>Other</td>
<td>18%</td>
<td>16%</td>
</tr>
</tbody>
</table>

*Source: PwC Global FinTech Survey 2017*
Regulatory barriers to innovation

Complexities of managing privacy, digital identity, and detailed customer data can be expensive hurdles

Q: In which areas do you see regulatory barriers to innovation in FinTech?

**Global**

- Data storage, privacy and protection: 54% (1st)
- Digital identity authentication: 50% (2nd)
- AML/KYC: 48% (3rd)

**Japan**

- Data storage, privacy and protection: 59% (1st)
- E-money / Cryptocurrency: 47% (2nd)
- New business model: 38% (3rd)

Source: PwC Global FinTech Survey 2017
4 Notable Trends
Number of Financial Institutions
US declined 12% whereas Japan remained almost flat

Source: FDIC (Federal Deposit Insurance Corporation)
Source: Ministry of Finance
Number of Branches
US declined 2% while Japan increased 0.5%

Source: FDIC (Federal Deposit Insurance Corporation)
Source: Ministry of Finance
**Number of Employees**

US declined 3% while Japan increased 1%

Source: FDIC (Federal Deposit Insurance Corporation)

Source: Ministry of Finance
Innovation aligned with objectives
**Innovation aligned with objectives**
The Financial Services industry will be unrecognizable in five years.

A focus on the following six factors will help you solidify your approach to innovation:

1. Evaluate emerging technologies
2. Take a partnership perspective
3. Integrate to innovate
4. Create an IT culture that will support innovation
5. Concentrate on the customer’s voice and shift thinking to outside-in
6. Foster a company culture that supports talent and innovation
To catch up with the Global pace, Japan needs...
Transformers need to emerge and grow
Thank you

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