Fintech and the New Financial Landscapes

Integrating the Troublemakers: A Taxonomy for the Cooperation between Banks and Fintechs

Fintech - Impact on Consumers, Banking, and Regulatory Policy
September 29, Philadelphia
Benedict Drasch, André Schweizer, Nils Urbach
In our presentation, we will explain the applied methodology, the resulting artifact, and our contribution.

1. Introduction
2. Research Method
3. Artifact Description
4. Cluster Analysis
5. Contribution
6. Limitations and Further Research
The banking sector is undergoing fundamental changes
Challenges of Banks and Fintechs can be addressed by joining forces

Banks need to rethink their current business models
- Digital transformation raises new customer demands
- Technologies enables novel banking applications

Fintechs work on alternatives to established banks
- Fintechs pick up technology-enabled opportunities
- Fintechs are quick and agile

Innovation enables differentiation against competitors and is a critical factor for long-term success
- Paradigm shift towards inclusion of external innovativeness and cross-organizational cooperation
- Innovation is not a single-player activity but rather an inter-firm collaboration
- Organizations bring in expertise and benefit from other organizations’ knowledge and technology

Cooperations between banks and fintechs need to combine innovative fintech characteristics, embodying the mindset towards new ideas and change, with banking controls, know-how, processes and assets

Sources: [1], [2], [3], [4] and [5]
Addressing the challenge, a fundamental analysis is required to lay the foundation for future research

<table>
<thead>
<tr>
<th>The cooperation challenges banks and fintechs</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Banks and fintechs face <strong>challenges</strong> that can be <strong>addressed by joining forces</strong></td>
</tr>
<tr>
<td>▪ The majority of <strong>banks struggle</strong> to meet the challenges and complexity of cooperations</td>
</tr>
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<table>
<thead>
<tr>
<th>Research has not developed solutions</th>
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<tbody>
<tr>
<td>▪ <strong>Research started</strong> in the realm of cooperation, innovation, and their coherences</td>
</tr>
<tr>
<td>▪ However, theory does <strong>not fully account</strong> for the idiosyncratic character of cooperation</td>
</tr>
<tr>
<td>▪ To date, <strong>neither conceptual, analytical nor evaluating work serves as support</strong></td>
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<table>
<thead>
<tr>
<th>A base for future work is necessary</th>
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<tbody>
<tr>
<td>▪ To foster the knowledge of bank and fintech cooperations, <strong>“theory to analyze”</strong> is required</td>
</tr>
<tr>
<td>▪ Our <strong>taxonomy allows to structure</strong> the field of interest and to derive predominant patterns</td>
</tr>
<tr>
<td>▪ We lay the foundation for <strong>further research and help banks/fintechs</strong> to improve cooperations</td>
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<table>
<thead>
<tr>
<th>Research question</th>
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<tbody>
<tr>
<td><strong>Which design parameters of cooperation between banks and fintechs can be distinguished?</strong></td>
</tr>
</tbody>
</table>

*Sources: [5] and [6]*
The applied method follows Nickerson et al. (2013) and draws on expert interviews, data and existing theory.
The resulting taxonomy encompasses 13 dimensions and 43 categories

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Characteristics</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cooperation Type</strong></td>
<td>Acquisition</td>
<td>Which type of cooperation is chosen?</td>
</tr>
<tr>
<td></td>
<td>Alliance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Incubation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Joint Venture</td>
<td></td>
</tr>
<tr>
<td><strong>Innovation Type</strong></td>
<td>Bank-2-Customer Process</td>
<td>What kind of innovation is involved?</td>
</tr>
<tr>
<td></td>
<td>Customer-2-Customer Process</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Product</td>
<td></td>
</tr>
<tr>
<td><strong>Maturity of Innovation</strong></td>
<td>Introduction / Uncoordinated</td>
<td>Which lifecycle stage is the product in?</td>
</tr>
<tr>
<td></td>
<td>Growth / Segmental</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Maturity / Systemic</td>
<td></td>
</tr>
<tr>
<td><strong>Value-chain Location</strong></td>
<td>Customer Common Interface</td>
<td>Where in the value-chain is the innovation located?</td>
</tr>
<tr>
<td></td>
<td>Channel Solutions &amp; Interaction Platforms</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Financial market infrastructure</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Core Banking Systems</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Financial Market Infrastructure</td>
<td></td>
</tr>
<tr>
<td><strong>Business Ecosystem</strong></td>
<td>Restricted by Bank</td>
<td>Who is restricting the business ecosystem?</td>
</tr>
<tr>
<td></td>
<td>Restricted by Fintech</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Restricted by Both</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not Restricted</td>
<td></td>
</tr>
<tr>
<td><strong>Holder of Innovation</strong></td>
<td>Fintech</td>
<td>Where the innovation is located in the cooperation?</td>
</tr>
<tr>
<td></td>
<td>Bank</td>
<td></td>
</tr>
<tr>
<td><strong>Type of Bank</strong></td>
<td>Commercial Bank</td>
<td>What type of bank is involved?</td>
</tr>
<tr>
<td></td>
<td>Cooperative Bank</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Saving Bank</td>
<td></td>
</tr>
<tr>
<td><strong>Bank having Branches</strong></td>
<td>Yes</td>
<td>What is the bank’s main distribution channel?</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td></td>
</tr>
<tr>
<td><strong>Role of Bank</strong></td>
<td>Service Provider</td>
<td>What asset contributes the bank to the cooperation?</td>
</tr>
<tr>
<td></td>
<td>Service Consumer</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Investor</td>
<td></td>
</tr>
<tr>
<td><strong>Bank’s Strategic Aim</strong></td>
<td>Market Access</td>
<td>What strategy does the bank follow?</td>
</tr>
<tr>
<td></td>
<td>Technology Access</td>
<td></td>
</tr>
<tr>
<td><strong>Category of Fintech</strong></td>
<td>API &amp; Infrastructure</td>
<td>What kind of Fintech is involved?</td>
</tr>
<tr>
<td></td>
<td>Cross Product Service</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Current Account</td>
<td></td>
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<tr>
<td></td>
<td>Lending</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Payment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Investing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Insurance</td>
<td></td>
</tr>
<tr>
<td><strong>Maturity of Fintech</strong></td>
<td>Start-up</td>
<td>Which lifecycle stage is the Fintech in?</td>
</tr>
<tr>
<td></td>
<td>Emerging Growth</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mature Stage</td>
<td></td>
</tr>
<tr>
<td><strong>Fintech with bank license</strong></td>
<td>Yes</td>
<td>Does the Fintech hold a bank license?</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>
Within the database, we are able to distinguish 6 unique cooperation clusters - “Prevailing Pattern”

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Focus on Alliance</th>
<th>Ecosystem Restricted by fintech</th>
<th>Innovation stays with Fintech</th>
<th>Bank aims at Technology</th>
<th>Cooperate with fintechs to form an alliance and access the ecosystem</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 The Ecosystem Bank (38%)</td>
<td>(90%)</td>
<td>(80%)</td>
<td>(96%)</td>
<td>(86%)</td>
<td>Access investment markets by providing banking services to fintechs</td>
</tr>
<tr>
<td>2 The Buyer (6%)</td>
<td>(75%)</td>
<td></td>
<td>(100%)</td>
<td>(75%)</td>
<td>Cross product services to innovate bank-to-customer processes in bank ecosystems</td>
</tr>
<tr>
<td>3 The Lending Bank (3%)</td>
<td>(100%)</td>
<td></td>
<td>(100%)</td>
<td>(75%)</td>
<td>Early-stage cooperation to access technology</td>
</tr>
<tr>
<td>4 The Investment Bank (33%)</td>
<td>(95%)</td>
<td></td>
<td>(86%)</td>
<td>(93%)</td>
<td>Access investment markets by providing banking services to fintechs</td>
</tr>
<tr>
<td>5 Cross Product Integration (10%)</td>
<td></td>
<td></td>
<td>(100%)</td>
<td>(100%)</td>
<td>Cross product services to innovate bank-to-customer processes in bank ecosystems</td>
</tr>
<tr>
<td>6 The Early Bird (10%)</td>
<td>(100%)</td>
<td></td>
<td>(100%)</td>
<td>(92%)</td>
<td>Early-stage cooperation to access technology</td>
</tr>
</tbody>
</table>

- Focus on Acquisition (75%)
- Aiming at Product (100%) innovation
- Bank (100%) integrates innovation
- Bank aims at Technology (75%)
- Ecosystem Restricted by bank (50%)

- Focus on Alliance (100%)
- Innovate Bank-to-customer process (100%)
- Value-chain Core banking systems (75%)
- Ecosystem Restricted by bank (50%)

- Focus on Alliance (90%)
- Ecosystem Restricted by fintech (80%)
- Innovation stays with Fintech (96%)
- Bank aims at Technology (86%)
- Cooperate with fintechs to form an alliance and access the ecosystem

- Focus on Acquisition (75%)
- Aiming at Product (100%) innovation
- Bank (100%) integrates innovation
- Bank aims at Technology (75%)
- Acquire fintechs to integrate technology innovation

- Focus on Alliance (100%)
- Innovate Bank-to-customer process (100%)
- Value-chain Core banking systems (75%)
- Ecosystem Restricted by bank (50%)
- Integrate lending innovation into core banking systems to optimize bank-to-customer processes

- Focus on Alliance (95%)
- Aiming at Product (86%) innovation
- Bank functions as Service provider (93%)
- Bank aims at Market (91%) access
- Access investment markets by providing banking services to fintechs

- Innovate Bank-to-customer process (100%)
- Innovation stays at Fintech (100%)
- Bank aims at Technology (100%)
- Fintech offers Cross product service (100%)
- Cross product services to innovate bank-to-customer processes in bank ecosystems

- Focus on Alliance (100%)
- Innovation stays at Fintech (100%)
- Invest in innovation Introduction (92%)
- Ecosystem Restricted by fintech (85%)
- Early-stage cooperation to access technology
Our final taxonomy and the taxonomy development process contribute to theory and practice

- First relevant, valid, useful and effective dimensions and characteristics to structure the field
- Descriptive theory depicting an important step towards a deeper understanding of the field
- Basis for the development of a higher-order theory (e.g., predictive theory)
- Guideline for other industries, where similar phenomena are likely to have similar impacts

Research process
- Which design parameters of cooperation between banks and fintechs can be distinguished?
  - Development of a taxonomy for the cooperation between banks and fintechs
  - Application of a cluster analysis and identification of prevailing cooperation patterns

Theoretical contribution
- The identified cases indicate that cooperation is an eligible strategy to foster innovation
- Our taxonomy allows practitioners to categorize and analyze their cooperation endeavors
- Our cluster analysis enables practitioners to gain insights on common cooperation practices
- Our findings indicate, fintechs are far from being weak partners within the cooperations

Practical implications
Our taxonomy development process has limitations and serves as foundation for future research

**Limitations**

1. The applied dataset and the sequence of iterations in the taxonomy development process influences the resulting taxonomy.

2. Our taxonomy focuses on categorizing the phenomenon of bank-fintech cooperations but has no specific focus on the dependencies of categories.

3. We integrated twelve interviews with industry experts, however the majority of cases were examined based on publicly available information.

4. We developed an artifact, which is attributed to the “theory to analyze” and represents a first step in theory development.

5. Our taxonomy has a specific focus on the banking industry, thus cannot simply applied to other industries that indicate analogous developments.

**Future research**

1. Applying a divergent sequence of iterations and different cooperation cases in the taxonomy development process allows to further verify and establish the artifact in the domain.

2. The classification of objects requires further in-depth analysis for the identification of determining factors and category interdependencies.

3. A detailed case study research, focusing on particular cooperation patterns, would reveal more insights about the intentions, contributions and strategic objectives of the involved parties.

4. It seems promising to develop a predictive theory that allows to better evaluate and manage bank-fintech cooperation approaches.

5. Further research might built upon our findings to examine similar phenomena in other industries, such as the digital transformation in the automotive sector.
Thank you very much for your attention.
I look forward to your questions and comments.
Literature


12 Interviewees across with different levels of experience, varying firm positions and sectors dedicated there time toward the study

<table>
<thead>
<tr>
<th>ID#</th>
<th>Respondent’s Position</th>
<th>Relatedness to Bank-Fintech interaction</th>
<th>Firm size*</th>
<th>Firm Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Middle management</td>
<td>Currently involved in bank-Fintech cooperation</td>
<td>Medium</td>
<td>Fintech</td>
</tr>
<tr>
<td>2</td>
<td>Executive- / C-Level</td>
<td>Currently involved in strategic alignment to bank-Fintech cooperation</td>
<td>Large</td>
<td>Banking</td>
</tr>
<tr>
<td>3</td>
<td>Senior Project Manager</td>
<td>Formerly involved in structuring of bank-Fintech cooperation project (Bank perspective)</td>
<td>Large</td>
<td>Consultancy</td>
</tr>
<tr>
<td>4</td>
<td>Referent</td>
<td>Currently involved in regulatory requirements and matters of bank-Fintech cooperation</td>
<td>Large</td>
<td>Regulatory authority</td>
</tr>
<tr>
<td>5</td>
<td>Executive- / C-Level</td>
<td>Formerly M&amp;A in the banking sector; formerly C-Level central bank</td>
<td>Large</td>
<td>Banking</td>
</tr>
<tr>
<td>6</td>
<td>Executive- / C-Level</td>
<td>Currently involved in bank-Fintech cooperation and incubation</td>
<td>Large</td>
<td>Banking</td>
</tr>
<tr>
<td>7</td>
<td>Middle management</td>
<td>Currently involved in bank-Fintech cooperation and incubation</td>
<td>Large</td>
<td>Banking</td>
</tr>
<tr>
<td>8</td>
<td>Middle management</td>
<td>Currently involved in bank-Fintech cooperation and incubation</td>
<td>Large</td>
<td>Banking</td>
</tr>
<tr>
<td>9</td>
<td>Middle management</td>
<td>Currently involved in bank-Fintech cooperation and incubation</td>
<td>Large</td>
<td>Banking</td>
</tr>
<tr>
<td>10</td>
<td>Middle management</td>
<td>Currently involved in bank-Fintech cooperation and incubation</td>
<td>Large</td>
<td>Banking</td>
</tr>
<tr>
<td>11</td>
<td>Middle management</td>
<td>Currently involved in bank-Fintech cooperation and incubation</td>
<td>Small</td>
<td>Fintech</td>
</tr>
<tr>
<td>12</td>
<td>Middle management</td>
<td>Currently involved in bank-Fintech cooperation and incubation</td>
<td>Medium</td>
<td>Fintech</td>
</tr>
</tbody>
</table>

*) Firm size from the EU recommendation 2003/361
Description of the dimension

**Cooperation type**

Dimension: *Cooperation type*
Which type of cooperation is chosen?

**Characteristic: Acquisition**
The bank undertakes a corporate action and buys the majority of the Fintech and integrates it into the existing structures.

**Characteristic: Alliance**
Bank and Fintech enter into a contractual arrangement to share resources and knowledge to achieve common goals.

**Characteristic: Incubation**
The Bank fosters the Fintech through financial, managerial, or other assistance without deciding or owning the Fintech.

**Characteristic: Joint Venture**
Bank and Fintech pool resources in a specifically independent but common entity, whereas risks and responsibilities are carried by both participants.
Description of the dimension

**Innovation type**

Dimension: *Innovation type*
What kind of innovation is involved?

**Characteristic: Product**
The core of the cooperation is a product innovation, that is the introduction of a good or service which is new or significantly improved regarding its characteristics or intended uses.

**Characteristic: Process**
The core of the cooperation is a process innovation, that is the implementation of a new or significantly improved production or delivery method.
Description of the dimension

Maturity of Innovation

Dimension: Maturity of Innovation
In which lifecycle stage is the product / process?

Characteristic: Introduction / Uncoordinated
The product is introduced into a potential market / The process is follow an uncoordinated approach and are easily able to respond to environmental changes.

Characteristic: Growth / Segmental
The product’s sales, market shares and profitability is growing / The process is characterized through a higher degree of integration and automation.

Characteristic: Maturity / Systemic
The product’s sales and market shares stabilize or decline / The process is described as highly developed and integrated with resistance to change.
Description of the dimension

Holder of innovation

Dimension: Holder of innovation
Where the innovation is located in the cooperation?

Characteristic: Fintech
In the cooperation, the innovation (knowledge about the innovation) remains with the Fintech.

Characteristic: Bank
In the cooperation, the innovation is fully integrated into the bank.
Description of the dimension

Type of bank

Dimension: Type of bank
What type of bank is involved?

Characteristic: Commercial bank
The commercial banks are privately owned and act more profit oriented than cooperative and saving banks.

Characteristic: Cooperative bank
The cooperative banks indicate characteristics of commercial banks, however the internal structure differs significantly, as the bank is owned by its members.

Characteristic: Saving bank
The saving banks are characterized through a specific business focus on savings and savings mobilization as well as a focus on local markets.
Description of the dimension

**Bank’s main distribution channel**

Dimension: *Bank’s main distribution channel*

What is the bank’s main distribution channel?

**Characteristic: Branches**
The bank’s access to customers is mainly facilitated through a branch system.

**Characteristic: Online**
The bank’s access to customers is mainly facilitated through online channels.
Description of the dimension

*Strategic objective of bank*

**Dimension: Strategic objective of bank**
What strategy does the bank follow?

**Characteristic: Market access**
The bank mainly pursues access to new markets and opportunities (Environmental changes, internationalization and globalization, new products, markets, branding)

**Characteristic: Technology access**
The bank mainly pursues access to technology via the cooperation (Tacit knowledge of technology, technology transfer, technology application, technological leapfrogging)
Description of the dimension

**Role of bank**

**Dimension: Role of bank**
What asset contributes the bank to the cooperation

**Characteristic: Service provider**
The bank acts as a service provider for the Fintech (Account management, holding of Bank license)

**Characteristic: Service consumer**
The bank acts as a service consumer and demands services from the Fintech
Description of the dimension
Category of Fintech (1/2)

Dimension: Category of Fintech
What kind of Fintech is involved?

Characteristic: API / Infrastructure
Fintechs providing APIs or infrastructure to companies and customers that use the Fintech’s solution as basis for their products and services.

Characteristic: Cross product service
Fintechs providing innovative solutions that improve processes alongside several products and services.

Characteristic: Current account
Fintechs providing innovative account management solutions.
Description of the dimension
Category of Fintech (2/2)

Dimension: Category of Fintech
What kind of Fintech is involved?

Characteristic: Lending
Fintechs providing innovative lending solutions.

Characteristic: Payment
Fintechs providing innovative payment solutions.

Characteristic: Investing
Fintechs providing innovative investment solutions.

Characteristic: Insurance
Fintechs providing innovative insurance solutions.
Description of the dimension

*Maturity of Fintech*

Dimension: *Maturity of Fintech*
In which lifecycle stage is the Fintech?

**Characteristic: Start-up**
The Fintech is focusing on the development of a business plan and the entrance into the market.

**Characteristic: Emerging growth**
The Fintech is focusing on expansion efforts.

**Characteristic: Mature stage**
The Fintech is in a stage of slow growth rates.
Description of the dimension
Fintech holding full banking license

Dimension: Fintech holding full banking license
Does the Fintech hold a bank license

Characteristic: Yes
The Fintech holds a banking license and is liable to financial and banking regulation

Characteristic: No
The Fintech does not hold a banking license and cannot supply banking products