CROWDFUNDING AS A FINANCIAL INNOVATION & CROWDFUNDING SCIENCE: AGENDA & OUTLOOK

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FINANCIAL INNOVATION

Definition

“Financial Innovation embraces changes in the offerings of banks, insurance companies, investment funds and other financial service firms, as well as modifications to internal structures and processes, managerial practices, new ways of interacting with customers and distribution channels” (Mention and Torkkeli, 2012, p.11).

Characteristics

- Making and promotion of financial products and services
- Development of new processes
- Interaction with customers
- Development of new structures for the financial institutions
- “Financial innovation is associated with different development processes in terms of activities, formality and cross-functional involvement as well as performance outcomes” (Avlonitis et al., 2001 p.334)
- “Users often develop and self-provide important financial services before banks or other types of financial service producers begin to offer them” (Oliveira and von Hippel, 2011, p.806)
- Societal impact, effect on “real” economy
• An oxymoron?

• Responsible for the financial crisis?

• Societal impact?

• Sustainable human development?

• Role of Trust?
A super short history of modern crowdfunding

**1990s - EARLY 2000s**
Internet enables the first online crowdfunding campaign

Enabled by the internet, communities started to form online to exchange content via email, instant messaging, and fan pages. British rock group Marillion are recognised by many as the first to prove how a loyal and engaged crowd can be used as a powerful source of finance online. In 1997, the band tapped fans through their website to fund a $60,000 US tour and subsequent albums.

**The first platform arrives**
2000 saw the birth of ArtistShare, the first reward-based crowdfunding website for music, then referred to as "fan funding" for musicians.

**2000s - EARLY 2000s**
A new market for giving
Internet-enabled giving goes mainstream with the emergence of sites such as JustGiving in 2000.

The mid-2000s saw the emergence of online microlending sites such as Kiva which enabled individuals to lend small amounts in support of projects in the developing world.
Microlending and P2P lending take off
In parallel peer-to-peer (P2P) lending between individuals in the developed world took off with the launch of Zopa in the UK and Prosper in the US.

2006–2010
Reward based crowdfunding goes big
The end of the decade saw the reward model of crowdfunding continue to grow. Sites such as Indiegogo and Kickstarter drove the expansion of crowdfunding into the arts and creative industries more generally.

LATE 2000s–EARLY 2010s
Expansion of the model into new areas
The turn of the decade has seen the application of the model to other areas previously dominated by large funders. These included investing for equity in start-ups and lending to businesses.

Another new area has been funding of public and social projects with platforms such as Peoplefund.it, Buzzbnk and SolarSchools.
GLOBAL CHALLENGES

What are the greatest challenges facing the world in 2015?

North America
Key challenges:
1. Increasing inequality
2. Geopolitical shifts
3. Adapting to climate change

Europe
Key challenges:
1. Fostering economic growth and innovation
2. Youth unemployment
3. EU-Russia relations

Middle East & North Africa
Key challenges:
1. Persistent youth unemployment
2. Managing political transitions
3. Societal tensions

Asia
Key challenges:
1. Geopolitical tensions
2. Structural economic reform
3. Managing urbanization

Latin America
Key challenges:
1. Corruption
2. Education and skills development
3. Increasing inequality

Sub-Saharan Africa
Key challenges:
1. Education and skills development
2. Building sustainable governance systems
3. Delivering hard infrastructure

Source: Survey on the Global Agenda 2014

Read the report #Outlook2015
# CROWDFUNDING PLATFORMS

## Some facts & figures

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of crowdfunding platforms in the US</td>
<td>191</td>
</tr>
<tr>
<td>Percentage growth of CP worldwide</td>
<td>60%</td>
</tr>
<tr>
<td>Worldwide crowdfunding volume</td>
<td>2.8 bn$ (2012)</td>
</tr>
<tr>
<td>Social causes are most active categories</td>
<td>30%</td>
</tr>
<tr>
<td>Projects launched on Kickstarter</td>
<td>222,533</td>
</tr>
<tr>
<td>Total funds raised of Pebble: e-paper watch</td>
<td>10,266.85K$</td>
</tr>
<tr>
<td>Number of visitors to Crowdcube site in UK</td>
<td>130,184</td>
</tr>
</tbody>
</table>

Source: Statistica, accessed May 8th, 2015
CROWDFUNDING: FIGURES

Global Crowdfunding Volume Reaches $2.7 Billion in 2012
Total funds raised through crowdfunding during 2012 (in million U.S. dollars)

- North America: $1,606m
- Europe: $945m
- Asia: $33m
- Oceania: $76m
- Africa: $0.1m
- South America: $0.8m

Worldwide:
- 2010: $0.90 billion
- 2011: $1.48 billion
- 2012: $2.67 billion

Source: massolution
<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Value (in €m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peer-to-Peer Consumer Lending</td>
<td>Debt-based transactions between individuals; most are unsecured personal loans.</td>
<td>274.62</td>
</tr>
<tr>
<td>Reward-based Crowdfunding</td>
<td>Backers have an expectation that recipients will provide a tangible (but non-financial) reward or product in exchange for their contribution.</td>
<td>120.33</td>
</tr>
<tr>
<td>Peer-to-Peer Business Lending</td>
<td>Debt-based transactions between individual/institutional investors and existing businesses who are mostly SMEs.</td>
<td>93.41</td>
</tr>
<tr>
<td>Equity-based Crowdfunding</td>
<td>Sale of registered security by mostly early-stage firms to investors.</td>
<td>82.56</td>
</tr>
<tr>
<td>Community Shares/Microfinance</td>
<td>Microfinance refers to the lending of small sums to entrepreneurs who are often economically disadvantaged and financially marginalised. There is a debt obligation incurred, but the amounts lent are very small. Community shares refer to the sale of withdrawable share capital in cooperative and community benefit societies.</td>
<td>19.91</td>
</tr>
<tr>
<td>Donation-based Crowdfunding</td>
<td>No legally binding financial obligation incurred by recipient to donor; no financial or material returns are expected by the donor.</td>
<td>16.34</td>
</tr>
<tr>
<td>Invoice Trading</td>
<td>Firms sell their invoices or receivables to a pool of individual or institutional investors.</td>
<td>6.63</td>
</tr>
<tr>
<td>Debt-based Securities</td>
<td>Lenders receive a non-collateralised debt obligation, typically paid back over an extended period of time. Similar in structure to purchasing a bond, but with different rights and obligations.</td>
<td>3.61</td>
</tr>
<tr>
<td>Pension-led Funding</td>
<td>Mainly allows SME owners/directors to use their accumulated pension funds in order to invest in their own businesses. Intellectual properties are often used as collateral.</td>
<td>N/A</td>
</tr>
</tbody>
</table>

UNDERLYING AIM: GREED OR RECOGNITION?

EXAMPLES IN HEALTH/TECH

• KITE Patch
  • This innovative and nontoxic patch keeps mosquitoes at bay for up to 48 hours, by affixing to clothing and deterring insects that track humans by smelling for carbon dioxide. The idea was the brainchild of a University of California team, and the initiative was jumpstarted by generous support from the Bill and Melinda Gates Foundation and National Institutes of Health. Since exceeding their funding goal seven times over, Kite - in partnership with Pilgrim Africa – is now working to distribute the magical patch to Uganda, which is heavily affected by mosquito-borne illnesses.

• Source: Indiegogo.com (https://www.indiegogo.com/projects/kite-patch)
EXAMPLES IN HEALTH/TECH

• FORM1

With 3D printable clothing being a prediction for the future, the need for affordable home printer options needs attention now. Well, researchers from the MIT Media Lab have taken on the challenge creating the FORM1, a project to create an affordable, professional 3D printer for the public. The FORM1 blew through its original $100,000 goal, getting over 2,000 backers and $3 million dollars in funding.

EXAMPLES IN HEALTH/TECH

• Scientific crowdfunding

Using Nanoparticles to Activate Immune Cells to Fight Tumors
Gail A. Bishop | Brett Hanson
University of Iowa

$1,931
Pledged

128% $3,500
Funded Next Goal 0
Days

Success!
This project was funded on:
19 December 2014

• Pilot experiment for developing a new cancer treatment which utilizes the patients own immune system to fight and kill their tumor. Early results are very promising but we want to continue improving our system. By using nanoparticles to stimulate immune cells against tumor targets, we can avoid the potential dangers of directly injecting nanoparticles into patients while harnessing their versatility in antigen and adjuvant delivery.

(Source: experiment.com, other platforms are www.petridisch.org and walacea.com)
HUMAN AGENDA
Financial Innovation

Source: Salampasis and Mention, 2013
HUMAN DEVELOPMENT PARADIGM

HIV/AIDS Vaccine & Care, and Microinsurance

A mechanism specifically tailored to the needs of low-income people to protect them against risk in exchange for affordable premiums proportional to the likelihood and cost of the relevant risk.

Can play a vital role in providing ART (anti-retroviral therapy) for those with limited access, financial resources and addressing hospitalisation needs.
HUMAN DEVELOPMENT PARADIGM

Financial Inclusion

The Unbanked

The Underbanked
HUMAN DEVELOPMENT PARADIGM

Financial Inclusion

Percentage of total adult population who do not use formal or semiformal financial services

- 0-25%
- 26-50%
- 51-75%
- 76-100%

Estimates used to calculate regional averages

High-income OECD countries
60 million adults
(Members of Organisation for Economic Co-operation and Development)
8%

Latin America
250 million adults
65%

Central Asia & Eastern Europe
193 million adults
49%

East Asia, Southeast Asia
876 million adults
59%

South Asia
612 million adults
58%

Middle East
136 million adults
67%

Sub-Saharan Africa
326 million adults
80%

Total
2,455 million adults
53%

LIST.lu
FinTech
1,078 Companies

Contact info@venturescanner.com to see all companies
OPEN QUESTIONS

For debate …

• Ethical issues of crowdfunding for science purposes
• Regulation needs
• Another form of the FinTech revolution
• Trust and the role of the customer
• Greediness, recognition or social commitment
• Complement or substitute to Venture Capital?
• Threat to the business model of incumbents?
• “Too big to fail”: again, a wrong assumption?
MORE ON FINANCIAL INNOVATION

Thank you very much for your kind attention

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